

SUSTAINABLE DESTINATION PLAN FOR THE ANCIENT CITIES OF UPPER MYANMAR

Mandalay, Amarapura, Innwa, Sagaing, Mingun
(2016-2021)

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(၂၀၁၆-၂၀၂၁)



EDIZIONI POLISTAMPA

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MAECI Ministero Italiano degli Affari Esteri e Cooperazione Internazionale



UNIVERSITÀ DEGLI STUDI DI FIRENZE

SAGAS Dipartimento di Storia, Archeologia, Geografia, Arte e Spettacolo



UNIVERSITÀ DEGLI STUDI DI FIRENZE

Dipartimento di Architettura



LaGeS Laboratorio di Geografia Sociale



Studio Azzurro Produzioni



Ministry of Construction



Ministry of Hotels and Tourism



Ministry of Culture



University of Mandalay

The Florence University team:

Mirella Loda – *Social geography / Project coordinator*

Gaetano Di Benedetto – *Urban planning*

Manfred Hinz – *Intercultural studies*

Cristina Lo Presti – *Geography*

Ester Macrì – *Statistics and empirical research*

Massimo Preite – *Urban Planning*

Matteo Puttilli – *Geography*

Mario Tartaglia – *Economics and Transport planning*

With the technical expertise of:

Stefano Bartolini – *GIS specialist*

And with the contribution of Mandalay University:

Aung Mon, Aung Myo Tun, Ei Mon Ko, Hlaing Myo Myo Htay, Hnin Htet Htet Aung, Kan Tun, Khin Su Hlaing, Ko Ko Naing, Kyu Kyu Than, Lei Shwe Zin Myint, Mai Gun Suikim, Nwe Ni Hlaing, Nyo Nyo, Pearl Khin, Sai Hlaing Kham, Than Than Htay, The The Htwe, Thet Khaing, Thidar Htwe Win, Thin Yu Naing, Tin Moe Lwin, Tin Naing Win, Tin Tin Nwe, Yee Yee Win, Zin Mar Latt

Participants in the training course of Florence University:

Hla Shwe, Khin Thida Moe, Kyaw Kyaw Shein, Kyaw Win, Myint Maung, Naung Naung Lin Aung, Phyo Wai Linn, Than Htike, Win Thein, Zun Ayar Myo Myint

Participants in the Master in Urban Analysis

and Management of Florence University:

Htet Htet Aung, Tin Myo Aung, Arkar Aye, Nyo Aye, Kyaw Thu Hein, Su Mon Htay, Cho Mi Maung Maung, Zun Ayar Myo Myint, Khin Myo Naing, Kyaw Swar

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Acronyms

ACUM	Ancient Cities of Upper Myanmar (Innwa, Amarapura, Sagaing, Mingun, Mandalay)	MOHT	Ministry of Hotel and Tourism, the Republic of the Union of Myanmar
ADB	Asian Development Bank	MOLFRD	Ministry of Livestock, Fisheries and Rural Development, the Republic of the Union of Myanmar
ASEAN	Association of Southeast Asian Nations	MONPED	Ministry of National Planning and Economic Development, the Republic of the Union of Myanmar
CSO	Central Statistical Organisation (Ministry of National Planning and Economic Development, the Republic of the Union of Myanmar)	MORT	Ministry of Rail Transportation, the Republic of the Union of Myanmar
DIDA	Dipartimento di Architettura	MOT	Ministry of Transport, the Republic of the Union of Myanmar
DIHR	Danish Institute for Human Rights	MPT	Myanmar Post and Telecommunications
FAO	Food and Agriculture Organization of the United Nations	MRA	Myanmar Restaurant Association
FDA	Food and Drug Administration Supervisory Committee	MRTI	Myanmar Responsible Tourism Institute
GHF	Global Heritage Fund	MTGA	Myanmar Tourist Guides Association
GMS	Greater Mekong Subregion	MTGS	Mandalay Tourist Guide Society
IATA	International Air Transport Association	MTF	Myanmar Tourism Federation
ICAO	International Civil Aviation Organization	MTMP	Myanmar Tourism Master Plan
ICH	Intangible Cultural Heritage	OPEC	Organization of the Petroleum Exporting Countries
IDP	Integrated Destination Plan	PATA	Pacific Asia Travel Association
IHRB	Institute for Human Rights and Business	SAGAS	Dipartimento di Storia Archeologia Geografia Arte e Spettacolo
INGOs	international non-governmental organizations	SDP	Sustainable Destination Plan
IWT	Inland Water Transport	SEATGA	South East Asia Tourist Guide Association
LaGeS	Laboratorio di Geografia Sociale del Dipartimento di SAGAS	SPDC	State Peace and Development Council
MCDC	Mandalay City Development Committee	SWIA	Sector-Wide Impact Assessment
MCRB	Myanmar Centre for Responsible Business	TCH	Tangible Cultural Heritage
MHA	Myanmar Hotelier Association	TEU	Twenty-foot Equivalent Unit
MIMU	Myanmar Information Management Unit	UNSD	United Nations Statistical Division
MOBA	Ministry of Border Affairs, the Republic of the Union of Myanmar	UNWTO	United Nations World Tourism Organization
MOC	Ministry of Construction, the Republic of the Union of Myanmar	UMTA	Union of Myanmar Travel Association
MOCDANM	Ministry of Culture Department of Archaeology and National Museum	UNEP	United Nations Environment Programme
MOD	Ministry of Defense, the Republic of the Union of Myanmar	UNICEF	United Nations Children's Fund
MOE	Ministry of Education, the Republic of the Union of Myanmar	WHO	World Health Organization
MOHA	Ministry of Home Affairs, the Republic of the Union of Myanmar	WSD/MCDC	Water and Sanitation Department of the Mandalay City Development Committee
		WTO	World Tourism Organization
		WTTC	World Travel and Tourism Council

1. Introduction

■ 1.1 THE AIMS OF THE PLAN

The recent opening up of Myanmar to the global economic system, and the transition process that has been initiated in the country, opens up new development scenarios and important opportunities for economic growth. Thanks to this opening, Myanmar is destined to rapidly become a very attractive tourist destination, in view of the extraordinary natural, historical, and artistic heritage it can offer international tourists. However, the country does not appear to be well-equipped from a material point of view, as regards infrastructure and organization, for the management of this development process. Therefore, there is the risk of a rapid deterioration of resources, with possible destabilizing effects at the economic, social and cultural levels – as has been the case in some areas of neighbouring countries such as Thailand and Indonesia (Adams, 1990; Hitchcock et al., 2010).

Faced with this scenario, it is urgently necessary to manage the phenomenon with adequate tools, so as to avoid the rapid deterioration of the cultural and landscape heritage, to meet the population's legitimate expectations for economic growth, and to extend the economic benefits of development in a sustainable, equitable and responsible way. This plan is therefore in line with the Myanmar Responsible Tourism Policy (MOHT, 2012)¹.

These tools include the destination plans envisaged by the *Myanmar Tourism Master Plan 2013-2020* (MTMP) for the country's main tourist destinations. These are aimed at promoting the development of the tourist sector, in the framework of a general regional development strategy, paying attention to the social and cultural impact of tourism.

The authors of the MTMP were well aware that there is a gap between the current (and above all future) pressure of tourism and the organizational weakness of locations, and that this gap may have negative repercussions. For this reason, they identified the drafting of integrated destination plans, for the six main tourist destinations, as one of the country's top priorities, to be completed by 2015. The six main destinations listed in the MTMP are Yangon, Bagan, Mandalay, Inle Lake, Kyaikhto and Ngapali Beach.

We have focused on the city of Mandalay and the area within a radius of 20 km from it, including Innwa, Amarapura, Sagaing, and Mingun. Owing to their proximity to each other, they may be regarded as a single tourism district, the *Ancient Cities of Upper Myanmar* (ACUM) district.

In accordance with the MTMP, and in particular with Strategic Programme 3: *Strengthen Safeguards and Procedures for Destination Planning and Management* and with sub-programmes 3.1: *Support for local planners... to prepare integrated destination management plans* and 3.3: *Improve zoning in tourism destinations*, we have therefore developed the *Sustainable Destination Plan (SDP) for the Ancient Cities of Upper Myanmar: Mandalay, Innwa, Amarapura, Sagaing, and Mingun*.

¹ The work of the recently-formed Myanmar Responsible Tourism Institute-MRTI is also a move in this direction.

The plan is the result of a cooperation project between the University of Florence and the MOHT – Ministry of Hotels and Tourism, the authority in charge of tourist development financially supported by the Italian Directorate for Development Cooperation (DGCS). Partners of this project were the MONPED – Ministry of National Planning and Economic Development, and the MOCDANM – Ministry of Culture, Department of Archaeology and National Museum (Fig. 1.1.1).



Fig. 1.1.1 Meeting at MOHT (March 2015).

Photo: C. Lo Presti.

The University of Florence has taken on responsibility for the scientific coordination of the project, which has been conducted by an interdisciplinary Team working out of the Social Geography Laboratory (LaGeS). Also participating in the preparation of the plan was Studio Azzurro Produzioni, a Milan-based company, and an NGO, Progetto Continenti (Yangon office). Finally, a significant contribution to the development of the project came from dialogue with the Myanmar Centre for Responsible Business, and from the documentation produced by the Centre.

In line with the philosophy of cooperation adopted by the LaGeS², we came up with an approach in which cooperation becomes a means towards general social development, through the strengthening of institutions and grassroots democracy. In this paradigm, importance is given to participative practices to facilitate a deeper understanding of the place, its internal dynamics and workings, and finally, a process of virtuous change.

In putting together the plan, great importance was therefore attached to the way in which participative processes were formulated. Dependent upon this point are the opportunities for our interlocutors to take ownership of the technical content of the plan, and, above all, of the knowhow behind it. This in turn affects the sustainability of the cooperation project, i.e. the ability of the local parties to be able to independently reproduce content and knowhow in the future.

This involvement included both the institutions directly or indirectly involved in tourism planning (technical staff of the relevant departments, university lecturers) and the wider public of stakeholders and society at large (Fig. 1.1.2).

² For a detailed description of the approach to cooperation developed by LaGeS, see LaGeS (2015a) and LaGeS (2015b).

Fig. 1.1.2 Meeting with
Mandalay City Committee
(March 2016).

Photo: Ms. Sint Sint.



This involvement took various forms. As regards institutional personnel, there were three main ways, each with a different duration and degree of complexity. The most demanding was actual training, which was achieved by facilitating the participation of 10 students (5 men and 5 women) in the 2016 edition of the *Master's course in Urban Analysis and Management* at the University of Florence (Fig.1.1.3)³.

Fig. 1.1.3 Participants in the
Master in Urban Analysis and
Management (May 2016)

Photo: E. Macri .



A second form of involvement is represented by the fast-track training courses open to technical personnel from the departments involved in tourism development. One such course was offered to 10 technical staff (7 men and 3 women) at the University of Florence from 1 to 19 February 2016 (Fig. 1.1.4).

³ For information, see: <http://www.lages.eu/eng/pages/MasterUrbanAnalysisEngLuglio2014.pdf>.



Fig. 1.1.4 Participants in the training course (February 2016).

Photo: S. Bartolini.

The Master's course and the training course allowed us to form a group of supervisors with sufficient skills to tackle the roles assigned to them. Above all, however, it established a close and ongoing dialogue between participants and academic staff, and between the participants themselves with regard to sustainable tourism development in the ACUM area. This contributes indirectly, on a trickle-down basis, to raised awareness of these themes among wider sections of the population.

The involvement of university personnel is achieved through meetings at Mandalay University during which the data emerging from the surveys are interpreted, possible developments discussed, and project proposals evaluated. For the preparation of this plan, three workshops were organized⁴, involving a total of about 60 people comprising university personnel and students⁵. Moreover academic staff from the Departments of Geography, History, Oriental Studies, Anthropology and Archeology of the University of Mandalay took a direct part in building the preliminary framework of facts (cf. List of authors in this volume).



Fig. 1.1.5 Workshop on sustainable tourism development at Mandalay University (March 2016).

Photo: M. Hinz.

⁴ The meetings took place on these dates: 5.3.2015, 21.9.2015, and 15.3.2016.

⁵ Especially with students on the Degree Course in Tourism Studies at the University of Mandalay; for this we thank Dr. Tin Tin Nwe.

Fig. 1.1.6 Meeting with the
Tourist Guide Association
(April 2016).

Photo: E. Macri.



Finally, a larger group of people actively participated in meetings and focus groups organized to discuss the issue of tourism development. Meetings were held with the following categories:

- Mandalay Hotel Association
- Union of Myanmar Travel Association (UMTA), Mandalay Branch
- Myanmar Tourist Guide Association
- Myanmar Restaurant Association
- Consumer Protection Association

In addition to these meetings, there were also meetings organized directly by Progetto Continenti to discuss the issue of street food, in spring 2016.

Fig. 1.1.7a e Fig. 1.1.7b
e Fig. 1.1.7c Meeting with
Mandalay Tourism Students.

Photo: M. Loda (September 2015).



■ 1.2 SUSTAINABLE TOURISM, RESPONSIBLE TOURISM, CULTURAL HERITAGE

On 4 October 1996 Mandalay, Innwa, Amarapura, Sagaing and Mingun were included in the Tentative List of UNESCO World Heritage Sites, under the name *Ancient Cities of Upper Myanmar* (see <http://whc.unesco.org/en/tentativelists/823>).

Inclusion in the UNESCO list is often seen as a “passport to development”, especially in the tourism sector. Indeed the inclusion of ACUM in the Tentative List of UNESCO World Heritage Sites has helped this area to climb up in the hierarchy of Burmese tourist destinations. However, it is yet to be seen if the inclusion in the list can actually be a driver for a local development based on “sustainable tourism” (see below). This definition is used to indicate not only a quantitative increase in numbers of incoming tourists, but also a process of positive interaction with the community, of social participation and of joint exploitation of resources.

The experience of other countries shows that the process of exploitation of cultural heritage is often governed by exogenous entities which tend to follow a standardized approach to tourist development, without taking into account the complexity of the local context. This often leads to the diffusion of exogenous consumption models (food, alcohol, clothing), the transformation of craft products into less original pieces, an emphasis only on the picturesque aspects of intangible culture, and the insufficient use of local human resources. Accordingly, instead of being a local development factor, developing and promoting the cultural heritage for tourism risks having negative repercussions on the social structure, and generating mediocre economic results, well below the expectations of the population.

Therefore, the greater visibility of the ACUM area should be properly managed as soon as possible, in such a way as to promote equitable and responsible tourism, and to avoid the rapid deterioration of resources.

In order to achieve these objectives, the destination plan should not only focus on the preservation of the archeological sites, but also encompass the local context where the historical, artistic and archeological remnants are located. The plan should also be based on a more complex approach to the exploitation and preservation of local resources, in which the cultural heritage is linked to all the significant, identity-related dimensions of the local socio-cultural context, in line with the most recent interpretations of the concept of cultural heritage (Lacy, Douglass, 2002; Byrne, 2008). Similarly, the point of reference for the management of tourist development – which is currently the most dynamic sector in the district’s economy – should not be a mere quantitative element, and should extend beyond the expansion of accommodation facilities. Indeed, it is necessary to adopt a more wide-ranging approach to the development of tourism services, and to focus also on qualitative aspects, in such a way as to guarantee the sustainability and fair division of the benefits deriving from tourist development among the various components of the population.

A point of reference for orienting oneself in this context is offered by socially and culturally responsible development models, which have been defined at an institutional level through the concept of “sustainable tourism” (*Charter for Sustainable Tourism*, Lanzarote, 1995)

Sustainable development models are aimed at preventing mass tourism from levelling out local (regional) specificities, and preventing an excessive emphasis on the picturesque aspects of intangible culture from replacing the traditional,

daily cultural production of local communities. To do so, they assign the role of key player in development processes to the local population, and they identify “cultural heritage” in its broadest meaning as one of the essential elements of the tourist product.

However, the implementation of these models has turned out to be rather difficult for a number of reasons, one of them being the complexity of the concept of “cultural heritage” (Sandis, 2014).

The concept of “cultural heritage” is indeed a complex one.

UNESCO initially classified the most important historical and natural sites in the list of World Heritage sites. However, starting from the *Universal Declaration on Cultural Diversity* (2001), and, above all, from the 2003 *Convention for the Safeguarding of Intangible Cultural Heritage*, the concept of cultural heritage was extended also to intangible manifestations of culture. This led to the introduction of the category of “intangible cultural heritage”, which is defined as “the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage”.

This evolution radically changed the way in which the concept of cultural heritage is addressed in public discourse. While on the one hand this broader view of cultural heritage is now consolidated – i.e. it is now commonly accepted that cultural heritage consists of both tangible and intangible elements – on the other hand there is still some uncertainty in the attribution of value to individual “objects and knowledge”.

As a result, there is some difficulty in implementing, at a local level, the paradigm of sustainable development based on (intangible) cultural heritage. There is often an inability to fully and promptly identify the most significant resources of the local cultural contexts, and to activate them in the development process. This normally happens because there is an insufficient, belated and almost purely formal involvement of the local population. UNESCO is interested in defining the value of intangible culture for the local identity, but this aspect is only rarely taken into consideration in tourism development plans.

In order for tourism not to become a factor eroding “indigenous values”, i.e. the constituent parts of collective imagination, the self-representation mechanisms of the local community, the symbols of local identity, the symbolic value of places, etc., these resources must be carefully examined when planning the development process, and they must be safeguarded through discussion with, and the mobilization of, the local community (Robinson, Picard, 2006). This argument is one of the cornerstones of this plan, the results of which should facilitate interaction with organizations involved in the promotion of sustainable tourism.

An important point of reference for the drafting of this plan is the *Sector-Wide Impact Assessment document* (SWIA) recently drawn up by the Myanmar Centre for Responsible Business (MCRB). This helps to supplement the points raised in the international debate on sustainable and responsible tourism with the specific issues of tourist development in Myanmar, such as gender issues, community dynamics and the safeguarding of cultural heritage⁶.

The SDP for the ACUM area aims at developing a crucial tool to effectively manage local resources towards a responsible and sustainable tourist development of the area. Based on the attractiveness to tourists of archeological sites, the SDP enables the local administration to enhance the economic, environmental and social

⁶ An important result of this approach is the Destination Management Plan for the Inle Lake Region, 2014-2019.

conditions of the region, with positive effects on productive activities (agriculture, handicrafts), infrastructure, and facilities.

The point is to promote a forward-looking, shared and participatory approach to tourist development, starting from a systematic analysis of resources, from the comparison of different types of exploitation models of such resources, and from an assessment of the risks and opportunities associated with each of them.

To this end, the ACUM area is certainly a very delicate region. Indeed, the ACUM area not only includes important archeological sites and areas of natural interest, it also involves different social and territorial systems that have differing levels of complexity: the metropolitan area of Mandalay is juxtaposed with the network of rural villages and to the farming economy of smaller towns, while these are juxtaposed to the river system and to the very important monastic centre of Sagaing. Each of these social and local geographical systems has its own individual resources as regards tourism, but at the same time each has a specific set of problems, which the plan must harmonize and integrate, within a logic of dynamic protection.

The Plan is organized into two sections, which are highly inter-dependent: analysis and plan.

The analytical section consists of five chapters, which serve to provide the information necessary to formulate the recommendations of the plan, in such a way that these may emerge from specific conditions, needs and dynamics expressed by the local area, and so as to respond to the same.

The plan section is arranged into ten chapters, and adopts a strategic planning approach focused on illustrating the strategies, goals and actions that serve the purpose of implementing the plan itself. Each chapter corresponds to a planning strategy. In turn, the ten strategies are divided up into objectives and actions. The actions have differing levels of complexity and detail: the actions for which it was possible to prepare a suitable basis in the form of information have been described with detailed planning recommendations; less complex actions, or those which would require more time to be put into effect than the scope of the plan allows, have been described in more general terms, while still indicating the path to be taken to achieve the goals and strategies.

Chapter 16 (Plan implementation) offers a general overview of the system of strategies, objectives and actions contained in the plan, with an indication of the lead agencies responsible for each action, the performance indicators, a time horizon as a reference for implementation, and the target to be achieved.

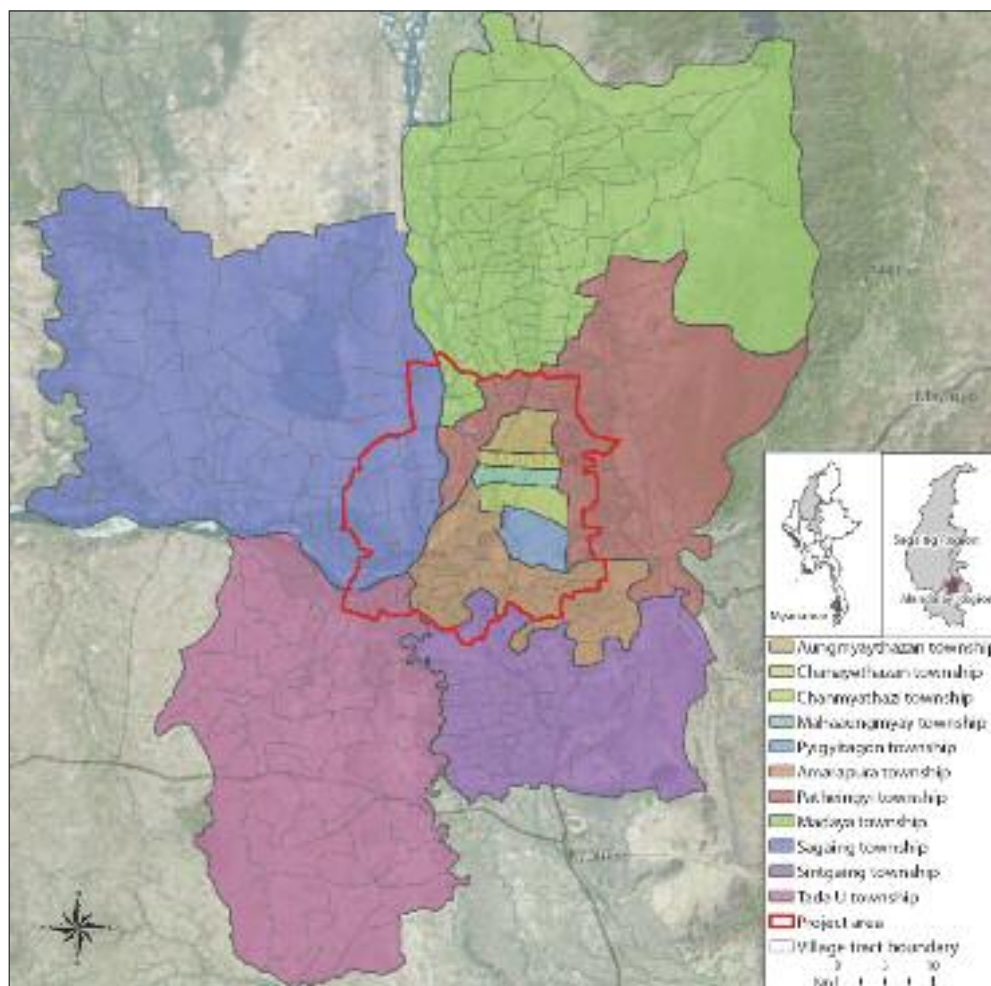
■ 1.3 PROJECT AREA

The project area is situated around the main point of contact between two important Regions in Myanmar, the Region of Mandalay and the Region of Sagaing. It includes almost all the places which, for many centuries, represented the heart of the country. In other words, it was one of the main religious concentrations in Burma and, between the 14th century and the end of the 19th century, it was its main political centre.

The two Regions stand, respectively, on the left bank and the right bank of the great river Ayeyarwady, the course of which, within the project area, alters from a north-south direction to an east-west direction, with the great curve around the Sagaing promontory, which was one of the main cradles of Burmese civilization.

Fig. 1.3.1 The project area.

Source: author, background map from ESRI Imagery Basemaps.



In administrative terms, the project area includes completely the townships of Aungmyeaytharzan, Chanayetharzan, Mahaadungmyay, Chanmyathazi, Pyigyidagun and partly the townships of Amarapura and Patheingyi in the Mandalay District; moreover it contains a small part of the townships of Sagaing to the west (district of Sagaing), and marginal parts of the townships of Madaya to the north (district of Pyin Oo Lwin), and of the townships of Tada U and Sintgaing to the south (district of Kyaukse).

The geographical area covered by the project area is almost 565 sq. km, of which 366.2 sq. km in the district of Mandalay, 140.4 sq. km in the district of Sagaing, 21.4 sq. km in the district of Pyin Oo Lwin and 36.3 sq. km in the district of Kyaukse.

As regards morphology, the project area is basically a broad valley system (or alluvial basin) between the furthest-flung spurs of the Shan uplands, to the east, and the Arakan hills to the west.

The part permanently or temporarily occupied by the waters is very large, around 100 sq. km., of which around 85 is occupied by the course of the major river, around 6 by the courses of its tributary, the Myitnge, and by the numerous seasonal streams and channels that flow down from the uplands, and around 9 by the Mandalay Kan Taw Gyi Lake and the Taung Tha Man lake basins.

Of the dry land, the flat part is dominant, but the project area is surrounded by hills, which stand both on the bank of the Ayeyarwady (Sagaing Hill) and to the rear



Fig. 1.3.2 The administrative subdivision of the project area.

Source: author, background map from ESRI Imagery Basemaps.

of it (Mandalay Hill, Yankin Hill, etc.), and which, along with the river and the lakes, make it the main landscape feature.

1.4 DEVELOPING THE SUSTAINABLE DESTINATION PLAN: METHODOLOGY, RESOURCES AND DATA

Drafting a sustainable destination plan for the ACUM area is one of the actions proposed by the MTMP. The aim is to provide the Administration with a planning instrument which is still strategic in nature, but specific for tourism development.

The development canons of tourism development plans are not uniformly defined in the international literature, and this has resulted in a wide variety of approaches. However, in recent times the attention of planners has instead shifted to an approach based on sustainability. This approach has been adopted by Myanmar's authorities (cf. Ch. 2.2).

1.4.1 PLANNING METHODOLOGY

The Sustainable Destination Plan is a strategic sector plan whose aim is to manage tourism development dynamics in such a way as to meet the legitimate expectations of economic growth, but in the context of the active protection of environmental and cultural resources, and social equity.

In terms of the sector, the plan concerns all infrastructures, functions and bodies directly linked to the tourism sector. However, given the transversal nature of tourism, it is not limited to an analysis of the tourism demand and supply in a strict sense, but also takes into account the influence of other subsystems, such as

demographics, type and distribution of settlements, the economy, and culture, with which tourism is closely interrelated.

In terms of strategy, the plan is based on a medium-term vision of tourism development. The time period of the Plan corresponds to the period from 2016 to 2021.

The general approach of the SDP is to apply the concepts of strategic planning to the tourism system. The organization of the SDP constitutes much more than merely compiling a plan. Rather, it is an ongoing part of the decision-making process, providing planners with useful information for understanding problems, identifying and selecting alternative actions, and developing successful implementation strategies.

In order to achieve these results, the planning process was broken down into a series of rational steps:

- creating a vision of how the community wants to be, and of how the tourism system fits into this vision;
- defining the main goals that comply with this vision;
- assessing future opportunities and limitations in relation to goals, and desired system performance measures;
- identifying the short- and long-term consequences of alternative choices to take advantage of these opportunities, or respond to these limitations;
- understanding the types of decisions that need to be made to achieve the defined vision and goals: strategic guidelines, policies (or measures), and specific actions (Tab. 16.1);
- presenting this information to decision-makers in an understandable and useful way, in order to help them establish priorities, and develop an investment programme.

The preparatory phase of the SDP included the assessment of boundary conditions and project planning, both leading to a diagnosis of the current functioning of the tourist system. The assessment of the boundary conditions involved the description of the regulatory and planning framework, the identification of the key actors and stakeholders involved in the tourism system, and an analysis of the tourism system and of the main factors related to it (demographic and social dynamics, economic aspects, cultural heritage, infrastructure, and land use). Project planning included the definition of the plan's scope, the methods to be adopted, an analysis of available resources, the planning of necessary activities with regard to the usable resources, the identification of data sources, the planning of surveys, and the definition of the main milestones of the project. Particular care was taken with planning the involvement of principal stakeholders, both through the participation, in all the operational stages of the SDP, of experts belonging to the institutions involved in the cooperation agreement, as well as by informing local actors through workshops (cf. Ch.1.1).

The diagnostic stage comprised analyses of the data collected, in order to define the problems and the opportunities emerging from the current state.

The development phase of the SDP was conducted, as mentioned above, on the basis of a strategic planning approach. The first step was to define possible development scenarios, as well as projects and plans already under way, and the evolution in tourist demand emerging from forecasts of trends in international demand. On the basis of this information, and in accordance with what was established in wider terms

in the MTMP, we created a vision of ACUM tourism development, and identified the objectives to be pursued in order to achieve this vision. On the basis of these aims, we then went on to decide on the most effective actions, and to package these actions in a number of policies for the development of the tourism system.

After the plan's adoption by the relevant authorities, the next stage will define the centres of responsibility that must be involved in carrying out the action, as well as dealing with the allocation of resources, the provision of a monitoring programme, and the assessment of the plan's implementation.

Thereafter, the implementation phase of the plan must be based on effective project management, continual checking of the progress achieved, timely communication with and involvement of ordinary people, checking the impact on the mobility system, and regular updating of the plan in the future.

1.4.2 SURVEYS AND DATA

Given the transversal nature of tourism development, the diagnostic phase involved many dimensions of the local system, so as to:

- Define the regulatory framework and the context of projects under way at the local level
- Identify the stakeholders (potentially) involved in tourism development
- Characterize the local context as regards environmental and urban/village features and distribution, available infrastructure, and socio-economic and demographic dynamics
- Analyze the tourism system from the point of view of supply and demand
- Analyze the cultural heritage in terms of its tangible and intangible components.

As far as possible, the analysis was conducted utilizing the available material and literature, and secondary statistical data. However, for some questions use was made of direct investigations, deploying both quantitative and qualitative methods.

The definition of the regulatory framework was effected by means of an analysis of official documents. Particularly useful, owing to the completeness of the information and its affinity with the approach behind this project, was the overview provided by the *Myanmar Tourism Sector-Wide Impact Assessment* produced by the MCRB, DIHR and IHRB.

The identification of the stakeholders and of the projects under way resulted from discussions with our official talking-partners at the Ministries involved, both at the central level and at local offices, as well as from field visits made prior to the commencement of the actual project work.

The summary analysis of the local context, as regards the environmental and urban/village distribution pattern, available infrastructure, and socio-economic and demographic dynamics was conducted on the basis of secondary literature, as well as on the data provided by Myanmar's official statistical sources (mainly the CSO, MIMU, MOHT, MMRD, MMSIS, MNPED, MOT) and by international bodies (ASEAN Bank, FAO, IMF, WTTC, UN, UNESCAP, World Bank). The aforementioned departments at the University of Mandalay collaborated on this section, and in part they produced original data, such as the data on the pollution of surface water in Mandalay (cf. Ch. 3.1). The analysis of the system of towns and villages was conducted at LaGeS by means of photographic interpretations of a recent (2015) satellite image of the area.

Particular attention was devoted to examining the tourism system. For the purposes of the analysis, this system was broken down into two parts: the supply system and the demand system. The first source used were the official data provided by the MOHT, which made it possible to quantify the tourism demand (international arrivals, provenance etc.), and the supply (hotels and accommodation). The availability of comparable data also made it possible to conduct a longitudinal analysis for both aspects. The MOHT data was later supplemented by several items of information provided by the various associations questioned (hoteliers, tourist agencies, tourist guides etc.) or gathered directly during field research.

It was also decided to carry out a direct survey of tourism demand to analyse the profile of visitors, and to characterize their motives, to complement the narrow margins allowed by official statistics. A sample investigation was conducted by directly contacting tourists at hotels⁷ or at the main sites of tourist interest. The survey was conducted between August and December 2015 via a standardized questionnaire that was filled out by the tourists themselves. In order to include the quantitatively largest component sectors of local tourism in the survey, the questionnaire was administered in 7 languages: English, Italian, German, French, Spanish, Chinese and Thai; in this way, theoretically 83% of international tourism in the area was covered. As well as information of a general nature, the questionnaire was specifically aimed at measuring the degree to which interviewees subscribed to forms of sustainable tourism, both as regards their ideal inclinations and in terms of the practical organization of their trip. The questionnaire also included two open questions regarding the perception of the context⁸, and these provided linguistic findings useful for adding qualitative elements to the quantitative survey of the perception, also because they constituted a solid point of reference for the interpretation of the information obtained by sentiment analysis (cf. below).

Indeed, for the purposes of experiment, and also with a view to supplementing the traditional sample-based survey, it was decided to explore the analysis of the perception of the project area by studying the way in which it is represented in social networks. Although the use of data from social networks raises considerable methodological problems (Loda, Tartaglia, forthcoming), the importance acquired by these instruments for sharing the most diverse experiences (Xiang, Gretzel, 2010) makes it a very significant field for tourist destinations in terms of marketing and promotion (Hudson, Thal, 2013).

Finally, great attention was also devoted to an analysis of the cultural heritage, given the importance that this factor holds in prospects for sustainable tourist development. As regards the tangible cultural heritage, the aim was to have as complete and up-to-date a picture as possible of the significant episodes. To this end, use was made primarily of the data provided by the MOC DANM. This information was supplemented with information provided by other sources. Especially useful were the studies by Khin Khin Moe (2012) and Khin Khin Moe and Nyo Nyo (2015), which also surveyed other categories of assets not included in the MOC DANM data, such as those built recently, and with non-religious functions. All the information gathered was processed using GIS software, and made available on a geo-referenced database.

As regards the intangible cultural heritage, it was decided to focus attention on cultural practices that are unanimously seen as particularly significant and perceivable for the (re)production of local cultures, namely food culture, specifically in the form of street food, and craft skills. For each of these two sectors, thorough field

⁷ The sampling plan was formulated in such a way as to include, in the survey, tourists staying at different types of accommodation facilities (from guest houses to 5 star hotels), in basically equal numbers.

⁸ The questions were formulated as follows: "What has made a positive impression on you here?" and "What has made a negative impression on you here?"

research was conducted with the aid of qualitative methods. Surveys, conducted both with semi-structured interviews and interviews with experts, and using audio-visual techniques, provided wide-ranging and original documentation. Taking part in this part of analysis of the intangible cultural heritage was the Studio Azzurro Produzioni company, and the Progetto Continenti NGO.

Consideration was also given to the main festivities: in these, specific and agreed forms of socialization take shape, forms that are of definite interest to a tourism that is attentive to the local context, and which are of great importance for active protection of the intangible cultural heritage. This issue was addressed in part via the available literature, and in part by the Florence team by participatory observation. The Department of Anthropology of the University of Mandalay took part in the handling of this issue.

The maps in this book have been elaborated using cartographic data from different sources, as mentioned in the caption of each map.

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Having reached the end of this journey, we would like to thank, above all, the people living in the ACUM area, for the extraordinary welcome we received on all our visits. We would like to thank the institutions, both in Nay Pyi Taw and in the ACUM area, which so efficiently cooperated with our University, overcoming geographical distance with such ingenious solutions.

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ANALYTICAL SECTION

2. Strategies, policies and actors

■ 2.1 STAKEHOLDERS ANALYSIS

The identification of the stakeholders involved in the tourism system is a fundamentally important action when it comes to the construction of sustainable tourism development. Indeed, the concept of sustainable tourism already contains within its definition an involvement in decision-making processes on the part of the actors present at the local level (WCED, 1987). In order to encourage this involvement in the planning phase for a tourism development programme, stakeholders must first be identified and analysed, also by means of suitable forms of classification. In the particular context of Myanmar, one must however bear in mind that only recently has it started to reappropriate a certain freedom of expression, and a more open attitude to the outside world, which, for political reasons, had been substantially denied for around 50 years. In a context of this sort, it is certainly not easy to activate processes involving discussion, exchange and dialogue between different actors, who are traditionally unaccustomed to this form of managing development, and building decisions. This, then, is all the more reason why identifying and involving stakeholders seems vital for the growth of a tourism that is of a sustainable type.

2.1.1 STAKEHOLDERS INVOLVED IN TOURISM DEVELOPMENT

The analysis of the stakeholders involved in a given process can be achieved by setting out from different classification criteria. Tab. 2.1.1 shows in detail who are the main stakeholders actually involved in the development of tourism in the ancient cities of Upper Myanmar. In the table, stakeholders have been classified by subdividing them between actors belonging to government institutions or to the various authorities, economic players, members of the local community and other individuals or bodies involved in the process of developing tourism, in various ways (UNCHS Habitat, 2001).

2.1.2 PRIMARY STAKEHOLDERS, KEY ACTORS AND INTERMEDIARIES

The development of tourism is a dynamic process that requires a continual interaction between the stakeholders involved. To get a better understanding of the interactions within this process, it is possible to identify three different categories of stakeholders: key actors (or key players), primary stakeholders, and intermediaries. The key actors are those who hold political responsibilities, and authority, and have financial resources relating to tourism and to its development in a given area. They are thus the people who make decisions, who formulate policies, and who control interventions in the tourism sector. Intermediaries are those who handle tourism-related activities in operational respects. They are the people who deal directly with all the services linked to tourism, and also with the communications linked to it. Finally, primary stakeholders are those who feel the effects of tourism, both positive and negative. They are those on whom tourism has a more direct impact, in economic, social, environmental etc. respects. Setting out from these general definitions, we can identify, more specifically, the players involved in tourism development in the ACUM area that can be ascribed to each category of stakeholders listed above:

Government/Authorities	Businesses/Operators	Communities/Local Neighbourhoods	Others
Cultural Department of the National Museum and Library	Travel agencies	Chinese community	University of Mandalay
Department of Hotel and Tourism Development Group	Hotels	Media	Research Institutes
Department of Religious Affairs	Restaurateurs	Religious communities	UNWTO
Directorate of Hotels and Tourism	Shop-keepers	Members of the public	WTTC
District Support Team	Street-sellers	Tourists	MAECI
Mandalay City Development Committee	Mandalay Airport	Trade unions	University of Florence
Mandalay Districts	Organizers of cultural events	Myanmar Hotelier Association (MHA)	Myanmar Centre for Responsible Business
Ministry of Commerce	Tourist guides	Private Auto Club	Yadanaborn University
Ministry of Construction	Myanmar Railways	Mandalay Tourist Guide Society (MTGS)	Continents Project
Ministry of Cooperatives, Provincial Department	Cruise Agencies	Myanmar Restaurant Association (MRA)	NGOs
Ministry of Culture Department of Archaeology and National Museum (MOCDANM)		Myanmar Travel Association (UMTA)	
Ministry of Environmental Conservation and Forestry, Provincial Department		Mandalay Hotelier Association	
Ministry of Hotels and Tourism			
Ministry of National Planning			
Ministry of National Planning and Economic Development (MONPED)			
Ministry of Rail Transport			
Ministry of Religious Affairs			
Ministry of Transport			
Police			
Public Works Department			
Sagaing Municipality			
Township offices			

Tab. 2.1.1
Classification of main stakeholders involved in tourist system of Upper Myanmar.

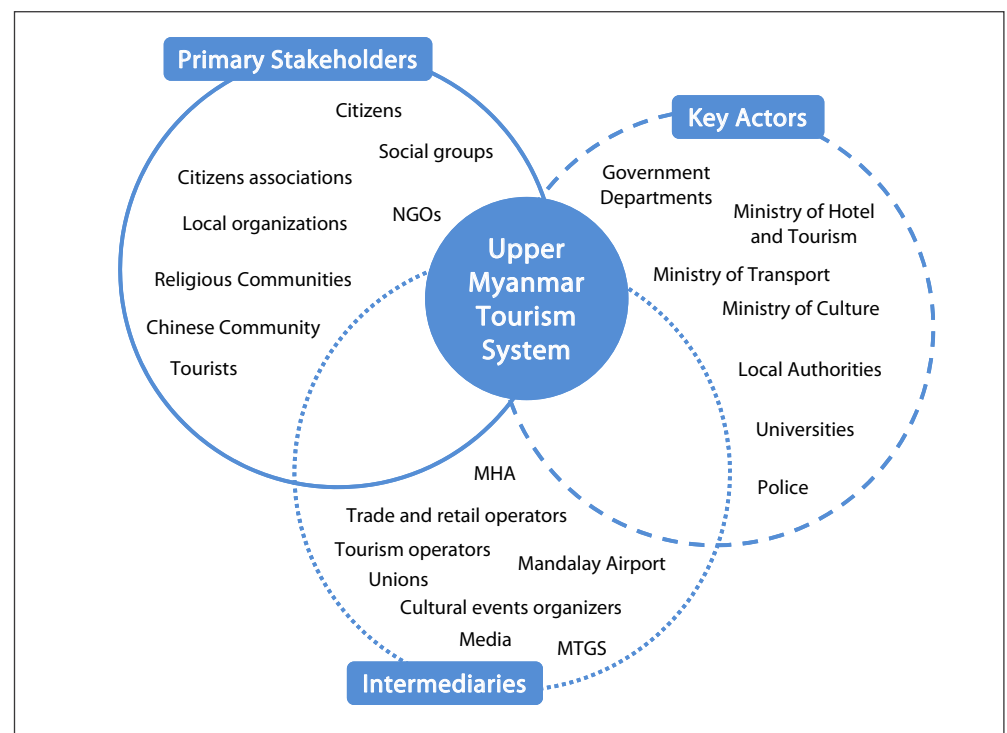
- *key actors* are the government, in particular the Hotels and Tourism Ministry, and the Ministry of Culture and all the entities, from the central or local government, identified by the Ministry of Hotels and Tourism, as listed in Tab. 2.1.1 under the heading Government and Authorities.
- *intermediaries* are the shop-keepers, hoteliers (especially as represented by the Myanmar Hotelier Association), restaurateurs, local transportation operators, the operators of Mandalay airport, local media, operators of cultural events, and tourist guides, also as represented by the Mandalay Tourist Guide Society.

- the *primary stakeholders* in tourism development are primarily members of the public in the ancient cities of Upper Myanmar, as well as the tourists who visit them. It is possible to also identify sub-groups among the public at large, with special interests: the Chinese community, first and foremost, or the various religious communities present on the ground. Inasmuch as they are groups of members of the public, associations are also also primary stakeholders, having a more well-defined and consolidated level of interest.

A representation, in summary form, of the stakeholders present in the context of the ancient cities of Upper Myanmar, subdivided into these three aforementioned categories, is shown in Fig. 2.1.1.

Fig. 2.1.1 A map of tourism stakeholders in Upper Myanmar.

Source: compiled by the author.



The process of tourism development will be marked by a continual interaction between these players, which may take place according to different approaches (Fig. 2.1.2).

Firstly, it is possible that tourism development may come about by means of a top-down approach, in which the key players devise policies and interventions that will affect the intermediaries, who, in turn, will implement them.

The final effects of this process will impact on the primary stakeholders.

In this type of approach, intermediaries and primary stakeholders do not have much say as regards decision-making, even though the intermediaries retain a certain decision-making margin in actually putting decisions into practice, and transferring them to the local area in concrete form, in terms of services.

Another approach could be, on the other hand, that of collective discussions, involving intermediaries and key actors, whereby policies are devised by the key actors together with the people who actually put them into practice, starting out from existing problematics, requests, or discussions. In this case, too, the effects will be felt

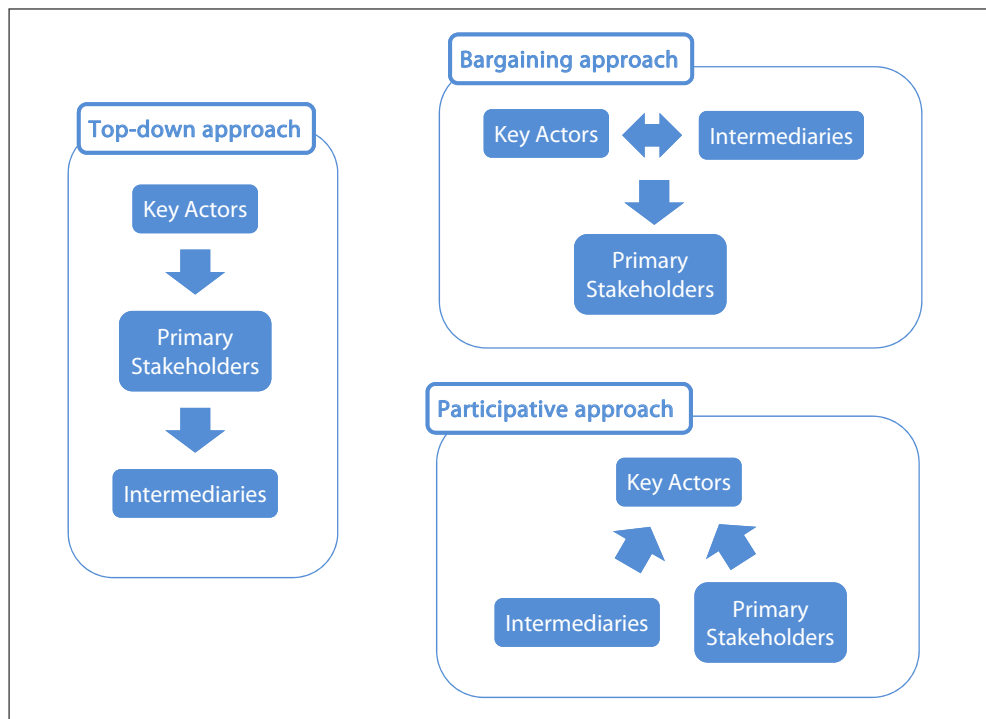


Fig. 2.1.2 Diagram of interactions between groups of stakeholders according to different possible approaches.

Source: compiled by the author.

by the primary stakeholders, who are not directly involved in the decision-making process.

Finally, there may be a participatory approach, in which, via processes of participation, discussion events, and other procedures (UNCHS Habitat, 2001), the needs of primary stakeholders are questioned, and their needs picked up on, to draw up policies and forms of managing the process of tourism development in which, obviously, intermediaries and key actors are also still involved. This latter approach is certainly the model closest to the recommendations relating to a sustainable development, which includes the participation in decision-making processes of the players who feel the effects of tourism among the primary dimensions of sustainability (UNESCO, 2010, European Commission 2012).

To this end, it is appropriate to stress that, so far, the decision-making process in Myanmar has taken place solely in accordance with a top-down approach, mainly owing to the political situation existing in the country. Indeed, although, as of 2011, conditions are gradually changing, the process of transparency in communications between the government and the public is still proceeding slowly, and not without some difficulties. However, it is as well to underline that important steps have been taken in the last few years, for example the publication of more information and data on ministerial websites, as of 2012 (the year when censorship of news organs was abolished), as well as the publication of a number of lists of intent on future policies, on the part of some ministries, for example the Directorate of Investment and Company Administration (Myanmar Centre for Responsible Business, 2015). Extremely important steps towards a decision-making process that is not built exclusively via a top-down approach, but, instead, with a view to a sustainable approach, have been taken by the government of Myanmar with the drafting of the Myanmar Tourism Master Plan (MOHT, 2013a) and with the Policy on Community Involvement in Tourism (MOHT, 2013b). These, for the first time,

include within them attempts to build participatory processes and processes involving stakeholders in decision-making processes, with special attention also being paid to ethnic minorities. It is thus necessary to continue in this direction, gradually increasing the involvement of primary stakeholders and key actors in the process of developing sustainable tourism at the local level.

2.1.3 MATRIX OF INFLUENCE OF STAKEHOLDERS

Once the stakeholders have been identified, it is possible to reclassify them on the basis of two dimensions: their influence in the process of tourism development, and the size of the interests which they promote. In this way, a “matrix of influence” will be configured, which will make it possible to understand what players are strongest, and which are weakest, in the process of constructing tourism development, and also which are the first ones to be involved actively in decision-making processes. As shown in Tab. 2.1.2, the stakeholders who have the most possibility of asserting themselves in the processes that lead to decisions are those who have a high interest and high influence, while those who will have less say are those with few interests, and low influence. By contrast, the stakeholders who have low interests but high influence can have a very positive impact in building decision-making processes, since they have authoritativeness without having too many interests to defend. By contrast, players with high interests and low influence can, in one way or another, obstruct the optimization of decision-making processes, especially if they interpret the process of building tourism development solely as a pretext to increase their influence.

Tab. 2.1.3 shows the position in the matrix of influence of the stakeholders in the tourism development process in the ACUM area.

In this context, the situation that manifests itself sees the most influential people, along with the governmental bodies, as being those who, in addition to having strong interests of an economic nature, also have the possibility of investing on a large scale, namely property developers, also linked to the Myanmar Hotelier Association (Mandalay area), together with a number of foreign investors, especially Chinese investors. The main interest of these particular stakeholders is to develop certain plots of land, converting green areas into hotel zones, and investing in the construction of new hotels in rural zones. Tourist development is seen as a source of possible financial gain, also in terms of building speculation. On the other hand, a number of

Tab. 2.1.2
Matrix of stakeholder influence.

	Low Influence	High Influence
Low stake	least Priority Stakeholder Group	useful for decision and opinion formulation, brokering
High stake	important stakeholder group, perhaps in need of empowerment	most critical stakeholder group

Tab. 2.1.3
Matrix of stakeholder influence
in context of tourist system of
Upper Myanmar.

Source: compiled by the author.

	Low Influence	High Influence
Low stake	Members of the public, religious communities	Police, Media
High stake	Tourists, Shop-keepers, Hoteliers, Restaurateurs, Chinese community, Associations, tourist guides, UNWTO, WTTC, local universities, University of Florence, NGOs, Myanmar Centre for Responsible Business, MTGS, MRA	Ministry of Hotels and Tourism, Mandalay City Development Committee, Mandalay Region, Airport, Myanmar Hotelier Association, Chinese investors, Ministries and government authorities

associations, with strong interests but low influence, are found to be very sensitive to the promotion and development of a sustainable tourism, and also to educating tourists towards a responsible form of tourism.

For example, the Mandalay Tourist Guide Society offers extra training courses for tourist guides, in addition to the institutional training programme for getting a licence to be a tourist guide, promoting tours that are not simply limited to pagodas, but that pay attention to culture and to local habits and customs, expanding the horizon of visits also to include villages, and towards experiential tourism involving coming into contact with nature, by means of cycling tours and trekking.

To this end, the construction of a tourism development that is participatory could serve to boost the work, the efforts, and the skills of these players, who do not enjoy high influence, but who already present a very sustainable vision for the future of the ACUM area.

It is therefore a case of finding the most suitable form for the active involvement of these actors, who are more typical of society at large, in debate over the tourism development process, and in its construction and implementation.

■ 2.2 THE REGULATORY FRAMEWORK

2.2.1 A RAPIDLY EVOLVING SCENARIO

The period of political transition which has affected Myanmar in recent years has had, and will have even more so in the future, profound and transversal repercussions as regards the regulations involving all the various socio-economic sectors. On the one hand, a need is taking shape to update the legal framework, also in relation to more recent international approaches which Myanmar could draw inspiration from. On the other hand, there is an equally evident need to harmonize regulations and institutional bodies between the various socio-economic sectors, and between older legislations and more recent ones¹. These are clearly highly complex steps – in some cases they are already under way – which presuppose the formation of new institutional bodies, and the sharing/negotiation of new visions, strategies and political procedures.

It is no coincidence that, of the various sectors, the tourist sector is one of those most heavily affected by these processes. Back in 2012, the *Framework for Economic and Social Reforms* (2012, p. 34) already identified tourism as: “potentially one of Myanmar’s most important sectors, with tremendous potential to contribute to greater business opportunities and balancing social and economic development if properly managed and developed”.

On the basis of the information contained in the above-mentioned Framework, the following paragraphs reconstruct the regulatory framework regarding the tourism sector, distinguishing between the main legislative measures (laws and directives), and policy guidelines and strategic planning policies.

2.2.2 LEGISLATIVE MEASURES

The *Hotels and Tourism Law*, which dates from 1993, constitutes the main measure on the subject of tourism. The law sets out the rules and procedures relating to the development of the tourism industry and, in particular, regulates the process of awarding licences for economic activities connected with tourism, laying down procedures for verifications and checks, and the possible withdrawal of the licences themselves.

¹ For an introductory overview of Myanmar’s government legal and regulatory framework, including the most recent developments, see MOHT (2014).

The law also sets out a series of guiding principles for Myanmar's tourism development, including:

- enabling tourists to observe Myanmar's cultural heritage and natural scenic beauty;
- preventing the destruction and damage of cultural heritage and natural scenic beauty due to the hotel and tourism industry;
- contributing to international friendship and understanding through the hotel and tourism industry;
- developing technical knowledge and understanding through the hotel and tourism industry;
- providing security and satisfaction for tourists.

The MOHT later issued Orders aimed at the implementation of the terms of the law on the issue of licences for the *Hotel and Lodging-House Business* (2011), for the *Tour Guide Business* (2011), for the *Tour Operator Enterprise Sector* (2011), and for the *Tourist Transportation Business* (2011).

It is also worth mentioning that a new law on tourism is currently in the process of being drafted, aimed at replacing the 1993 Hotel and Tourism Law, as envisaged under the MTMP (see below). Despite the fact it is still being drawn up, the new law is expected to be founded on a broader and more complex conception of tourism development compared to the law currently in force, and should pay more attention to the impacts and repercussions, not just economic, but also social and environmental. The guiding principles of the new law will include:

- promoting and protecting tourism resources, and carrying out the development of tourism resources;
- protecting and supervising the provision of safety, security and satisfaction of foreign tourists;
- causing benefit to the State and the whole of society, with the foreign currency and domestic income obtained from the hotel and tourism industry;
- contributing to the reduction of poverty in the State;
- contributing to the preservation of the natural environment;
- upgrading the image of Myanmar;
- promoting the quality and raising the standard of hotel and tourism industry employees;
- developing the hotel and tourism industry in accordance with prescribed norms, standards and regulations.

As well as the Hotel and Tourism Law, other laws closely connected to the tourism sector are also in force. In some cases, some of these laws are in the process of being revised, as envisaged under the Myanmar Tourism Master Plan. However, it is only possible to list them briefly here:

- *Directives for Coastal Beach Areas*: These directives are intended to promote the systematic sustainable development and management of coastal beach areas consistent with the Myanmar Hotels and Tourism Law. They regulate construction, operation and management in coastal beach areas.
- *Movement within Myanmar – Restricted Areas*: The Ministry of Home Affairs has

defined restricted areas, which cannot be accessed by foreign visitors due to security concerns. In each State and Region, areas are categorized as “Permitted Areas”, “Permitted only in the Downtown Areas” and “Areas which need Prior Permission”.

- *Protection and Preservation of Cultural Heritage Regions Law* (1998, amended in 2009): The law is aimed at protecting and preserving the cultural heritage, fostering greater awareness among local people of the value of heritage.
- *Protection of Wildlife and Wild Plants and Conservation of Natural Areas Law* (1994): This addresses wildlife protection and the conservation of natural areas, protecting endangered species and wildlife, and contributing to the development of natural science research.
- *Environment Conservation Law* (2012) and *Environmental Conservation Rules* (2014): The procedures establish a process through which an *Initial Environmental Examination* (IEE) or an *Environmental Impact Assessment* (EIA) are to be undertaken for projects that have the potential to cause significant adverse environmental impacts. Tourism and leisure facilities are given extensive consideration under these procedures.
- *Consumer Protection Law* (2014): This guarantees safe products and services, including foodstuffs, drugs and a number of other commodities.

2.2.2.1 POLICY FRAMEWORKS ON TOURISM

As a function of the strategic role which tourism is believed to have for the country’s development, in recent years the MOHT has brought in a series of initiatives aimed at significantly renewing and updating policy guidelines in the sector.

Of these, it is essential to cite the following ones, that are the result of processes of inter-ministerial talks and are promoted in collaboration with international bodies and organizations:

- the publication, in 2012, of the *Responsible Tourism Policy*, with the support of the Hanns Seidel Foundation;
- the publication, in 2013, of the *Myanmar Tourism Master Plan (2013-2020)* by the MOHT, with the support of the ADB and of the government of Norway;
- the launch, in 2013, of the *Policy on Community Involvement in Tourism*, once again with the support of the Hanns Seidel Foundation.

The aforementioned initiatives promote a strongly integrated vision of tourism, one that is inspired by the international debate on the concepts of sustainability, responsibility and heritage (cf. Ch. 1.1), with the goal of maximizing the contribution of tourism from the point of view of revenue and jobs and, at the same time, redistributing resources and benefits in an equitable way.

This conception is explicitly expressed in the Responsible Tourism Policy (2012) in an agreed, shared strategic vision:

“we intend to use tourism to make Myanmar a better place to live in – to provide more employment and greater business opportunities for all people, to contribute to the conservation of our natural and cultural heritage and to share with us our rich cultural diversity. We warmly welcome those who appreciate and enjoy our heritage, our way of life, and who travel with respect”.

The strategic vision is, in turn, divided up into nine guiding principles:

- Tourism as a national priority sector;

- Broad-based local social-economic development;
- Maintenance of cultural diversity and authenticity;
- Conservation and enhancement of the environment;
- Competition based on product richness, diversity and quality – not just price;
- Ensure health, safety and security of visitors to Myanmar;
- Institutional strengthening to manage tourism;
- Developing a well-trained and rewarded workforce;
- Minimization of unethical practices.

These principles form the basis of the MTMP. The Master Plan is divided into six strategic programs, each of which is, in turn, subdivided into proposals for actions and projects. Overall, there are 38 project proposals, of which 21 are regarded as vital for the plan's implementation. The following are the strategic programs:

- Strengthening the institutional environment;
- Building human resource capacity and promoting service quality;
- Strengthening safeguards for destination planning & management;
- Developing quality products and services;
- Improving connectivity and tourism-related infrastructure;
- Building the image, position and brand of Tourism Myanmar.

It should also be noted that, in the implementation phase, the Master Plan indicates a number of transversal issues to be given consideration in every action and project:

- gender equality;
- environmental sustainability;
- partnerships;
- innovative financing;
- regional cooperation;
- ensuring access for disabled people;
- consultation and participation.

Also of particular importance, especially as regards the evolution of the concept of tourism, is the *Policy on Community Involvement in Tourism*. The general goal of the policy is to put into operation the principles contained in the Responsible Tourism Policy, which it is supplementary to, and to foster the involvement of local communities in tourism, in accordance with an inclusive logic that redistributes the proceeds of tourism. The policy is divided into six guiding principles:

- strengthening the institutional environment and civil societies;
- capacity building or community-related activities in tourism;
- developing safeguards, systems and procedures to strengthen community planning and management in tourism;
- encouraging local entrepreneurship through micro and local enterprises;
- diversifying and developing quality products and services at community level;
- monitoring positive and adverse impacts of community involvement in tourism.

It is worthy of note that, in the *Policy on Community Involvement in Tourism*, there is also a draft version of the *Myanmar Bed & Breakfast Service Standards*.

This draft, which currently appears to be at the discussion phase, envisages the issuing of licences to establish B&Bs, in support of the decentralization of tourism accommodation facilities, and making them more widely available, also at the village level.

A further policy currently being drawn up is the *Ecotourism Policy and Management Strategy*, over which there is collaboration between the MOHT and the Ministry of Environment Conservation and Forestry. The aim of the policy is promoting a tourism that is sustainable not only as regards culture, but also from the strictly environmental point of view, ensuring that protected areas are opened, and managed, and that biodiversity is protected and conserved.

Finally, among the various tourism promotion policies, worthy of note is the recent publication of an initial Integrated Management Plan for the Inlay Lake area. The plan, entitled *Destination Management Plan for the Inlay Lake Region 2014-2019*, is a response to the recommendation, contained in the Tourism Master Plan, to create tourist development plans at the sub-national scale. The Plan “provides a situational analysis of the current tourism situation in Myanmar and how this links to the Inlay Lake Region, provides a summary of the environmental issues, provides a strategic direction for sustainable tourism development and the visitor economy, and provides key action points required to achieve a world-class tourism destination” (p. 7).

2.2.2.2 OTHER POLICIES CONNECTED TO TOURISM

As well as the policies and initiatives mentioned above, as stated in the introduction, the country is currently at the centre of a wider process of renewal in terms of its institutions and norms. New laws and new policies are in the process of being issued in many sectors, some of which are directly connected to tourism. Of these, it is possible to mention the following:

- *Draft National Land Use Policy*: This is a framework for the governance of land tenure and related natural resources and to facilitate the resolution of land use disputes. In particular, it makes provision for mechanisms for informing and involving local people, as well as setting up an independent body for the resolution of conflicts.
- *National Plan of Action for the Advancement of Women 2011-2015*: prepared by the Women’s Protection Technical Working Group at the request of the Department of Social Welfare, the plan envisions that Myanmar will be an equitable, inclusive and sustainable society in which all women can achieve both their rights and aspirations. Key objectives offered in the Plan of Action include the strengthening of mechanisms to mainstream gender interventions that improve livelihoods for women, ensuring equal access to formal and informal education for women and girls, and ensuring women’s equal access to fair employment practices, credit, assets and other economic benefits.
- *National Transport Development Master Plan*: created in collaboration with the Japan International Cooperation Agency in 2014, the transportation plan naturally has direct repercussions as regards tourism, having an impact on how easy it is to travel around within the country. The vision on which the plan is founded is “to build a safe, comfortable and impartial transport system and a sustainable and efficient public transportation system in order to guarantee the mobility and accessibility of urban services needed by the people and society”. The plan rests on three pillars: i) strengthening road maintenance and improvement; ii) strengthening public transport development; iii) strengthening traffic management.

■ 2.3 PLANS AND PROJECTS CURRENTLY UNDER WAY

One of the results of the fact that Myanmar has opened up its economy and institutions more, in recent years, has been a proliferation of projects for the development of the ACUM area. However, it is not easy to establish hierarchies of interest amongst these, for the purposes of this study.

In the end, it was decided to exclude, from this study, projects put forward by bodies having a direct interest in their development (eg. the *Study for a Mandalay's Transportation System*, 2015, compiled by SAFEGE Consulting Engineers), as well as projects that are too sector-specific, and thus removed from the themes of this current work (eg. the *Mandalay Urban Services Improvement Project*, 2015, compiled at the behest of the Asian Development Bank and the Agence Française de Développement).

In the end, it was agreed that two projects constituted an inescapable reference point (and a subject for assessment that could not be ignored). Moreover, these two studies also appear to be the most authoritative and the most ambitious: the *Tada U Hotel Zone Plan* (2012), and the *Urban Plan of Mandalay District* (2013).

2.3.1 TADA U HOTEL ZONE PLAN

Plans for a Hotel Zone in the ACUM area under study are part of an ambitious programme to boost Myanmar's tourism reception facilities, including the formation of 12 complexes of this sort, distributed nationwide, announced by the federal government in 2012, and developed up until the start of construction in 2015.

The location identified at the government level for the Hotel Zone of the Mandalay region is a large area of flat land in the township of Tada U, near Innwa and on the bank of the great river, around 10 km north of Mandalay's international airport, along the Yangon-Mandalay Highway.

The planned complex covers an area of around 22 sq. km. (around half the size of Mandalay when originally founded; almost a quarter of the size of modern-day Mandalay; in other words an area of land equivalent to a city of more than 300,000 inhabitants). The Myanmar Tourism Development Company is tasked with its construction.

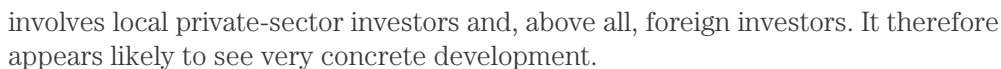
The functions which are expected to be included are:

tourist accommodation, for which 30% of the area has been set aside: There are plans to build around 300 hotels (two thirds destined for local investors, and one third for foreign investors); when fully up and running, there should be around 20,000 bedspaces (10,000 rooms);

- commercial enterprises (13% of the area);
- amenities and public services (3.2%);
- entertainment services and night shopping (2%);
- a far from negligible quota of residential accommodation (8.3% of the area).

Some 21% of the area is set aside for green spaces and parks (there are also plans for a 10-ha. golf course), while the remaining 22% (approximately) is taken up by roads, car parks, and the various terminals for transport connections, including a dedicated ferry port on the Ayeyarwady.

This project must be given careful consideration, both in terms of the authoritativeness of the body proposing it, and on account of the formula chosen for its implementation, which, as well as the federal State and peripheral authorities, also



Source: Tada U Hotel Zone Plan (2012),
processed by the author.

The concerns derive from the following observations:

- 40

- ment in the organization of population centres, perhaps comparable to the duality in the colonial era, between local centres and “external” centres (in this case, of predominantly Chinese derivation);
- in the economic sphere, the solution could seriously affect the passage of resources from incoming tourists to local society, creating a bottleneck that would withhold the majority of the currency spent by tourists in order to remunerate the huge public and private investment;
- from the point of view of scale, the project seems frankly exaggerated, not so much on account of the enormous sacrifice of farmland (and of rural landscape, also, moreover, threateningly close to the historic landscape of Innwa), as for the purposes of allowing the tourist village itself to function properly. Indeed, roads and paths within the complex involve a network of primary routes no less than 20 km long, with a density of relationships that is too low to create a minimum “city effect”, which appears indispensable for competing against the appeal of traditional hotels, located in the central urban areas;
- the solution proposed risks attracting an excessive amount of the supply of tourist accommodation in the area, effectively limiting to Mandalay the development of original or alternative accommodation formulas;
- moreover, the excessive geographical spread of the “exclusive” complex, added to its considerable distance from all the main surrounding areas of tourist interest, risks worsening the difficulties with which visitors will be able to come into contact with local society, and interact with it, because it makes journey times longer, and therefore very much restricts the possibility of spending time in the most authentic form of Burmese social environment, for the purposes of what may be termed “flanerie”.

The opportunities are connected:

- to the undeniable practical logistical features offered by the proposal, with a location very well served by road, river and air transport links, and thus able to constitute an accommodation base not just for this reference area, but also for all those that can be reached reasonably quickly using existing connections, and those that could be developed in the future using all three modes of transport (conceivably, the whole of the central and northern part of Myanmar);
- to the possibility of concentrating investments in infrastructure, offering simultaneously a good level of environmental features and services to a truly considerable number of bedspaces.

We therefore believe that the planned Hotel Zone may indeed play a positive role only on condition that it is drastically scaled down (by 50%), and this should also coincide with locating the new buildings at a significant distance from the Innwa protected area.

2.3.2 THE URBAN PLAN AND STRUCTURE FOR THE METROPOLITAN AREA OF MANDALAY

Drawn up in 2013 by the Ministry of Construction, Department of Urban and Housing Development, this outlines the main recommendations for the area’s urban and territorial development, in part by collating projects from other plans (for example, the Hotel Zone of Tada U).

For clarity, we will divide up the content of the Urban Plan into structural provisions (habitation centres, manufacturing sites, trade centres) and infrastructure provisions (involving networks of transport routes and services).



Among the former, the complex of recommendations relating to the residential expansion and manufacturing expansion has a certain importance.

The Urban Plan marks a break with the traditional form of growth in Mandalay by continuity and confirmation of the original formulation (in short, the Barcelona model), and introduces a model of growth in the form of separate nuclei, which are imagined as being surrounded by “green belts” and arranged around the existing city on the northern side (10 new nuclei in the township of Patheingyi) and south-eastern side (8 new nuclei in the township of Amarapura), with just one new nucleus to the east. In all, therefore, 19 residential suburbs (17 of which are called “green cities”), equipped with all services, but corresponding to a model of expansion that is neither in the form of “leopard spots”, nor satellite areas, and which is vaguely Anglo-Saxon in inspiration.

The suggestions for manufacturing sites are along the same lines. Indeed, there are plans for 5 new industrial zones. Of these, the two furthest north (between the road to Madaya and the river) form a proposed industrial town along with three of the new residential nuclei. There are two much smaller ones to the east, on the edge of the main road linking Mandalay to Yankin hill, while a larger one stands in the south, but is divided up between the residential nuclei.

As regards infrastructure suggestions, those concerning the new road and transport system are fairly challenging. Indeed, the Urban Plan contemplates a system of

Fig. 2.3.2 Urban and Structure Plan of Mandalay.

Source: Urban Plan of Mandalay District (2013).

ring roads around Mandalay: an initial semi-ring to the north, east and south (as far as the Sagaing bridge), standing between the existing city and the new expansions, and acting as an internal-external collector, because the main cross-city thoroughfares of the existing city are connected to this circuit, as are the main local link roads; and a second semi-ring road on the western side, which replaces and develops the whole riverside thoroughfare (Strand Road) from Kiangin to the Sagaing bridge.

A system of bus terminals is connected to the new road system. This takes into account not only the needs of local transport but also of tourist demand. Indeed, there are plans for some terminals located at Mandalay hill (on the north side), Yankin hill (on the south side) and Lake Thaungthaman (near the U Bein bridge).

Considerable prominence is given in the plan to the creation of parks and green spaces, the latter especially taking the form of dividing elements between the various different built-up areas that are envisaged. There are three full-scale parks (as well as the Mandalay and Yankin hills): the whole area on the banks of Lake Thaungthaman; a riverside park along the Myitnge; and the Tha Kin Ma hill system, on the north-eastern fringes of the planned development.

By contrast, no changes are planned to the rail network. However, measures to improve the port are contemplated.

The new expansions are backed up by their own system of central areas, designed to attenuate the pressure from the additional population on the services of the existing city of Mandalay. However, there is no provision for new, higher-level facilities (hospitals, universities and so on).

One finds it hard to back the 2013 Urban Plan's suggestion of a northward development, which contradicts the logic behind the organization of the urban built-up area over one and a half centuries, not just in its subsequent expansions, but above all in the hierarchy of central places. The positioning of a large development north of Aungmyathazan seriously threatens the equilibriums in this township, which is the one with the highest density of cultural heritage (Mandalay hill, the royal city, the major monasteries) and that is most heavily residential. Indeed the power of attraction of the central areas of Chanayethazan, which has thus far been perceived almost exclusively in a southward direction, leading to the gradual densification of the southern townships, expanding the tertiary sector there, would also spill over in a northward direction, triggering phenomena that would unquestionably have an impact on Aungmyathazan, altering in an unpredictable way its current physiognomy, in which the sites and complexes classifiable as cultural assets play a dominant part.

In addition, one finds it hard to agree with the suggestion of a manufacturing site between the city and Yankin hill, owing to the fact that this would clearly compromise the landscape.

3. The local context

■ 3.1 THE ENVIRONMENTAL SYSTEM

3.1.1 PHYSICAL CONTEXT OF THE ACUM AREA

3.1.1.1 CLIMATE CHARACTERISTICS

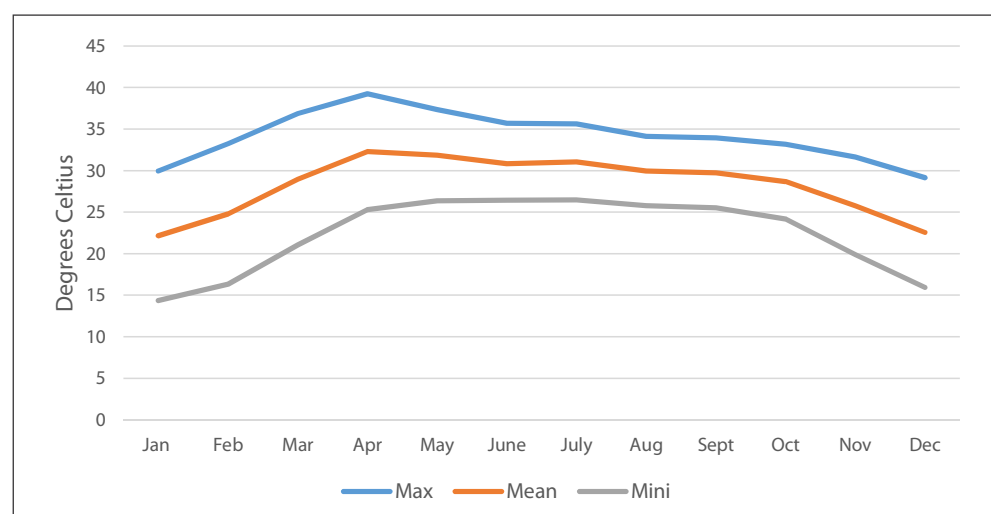
From the point of view of climate, the ACUM area is wholly included within the area called the Dry Zone, which characterizes the central, flat part of Myanmar. This term originates from the fact that the local area receives a lower amount of precipitation – on an annual basis – than any other geographical region in Myanmar, and, specifically, between three and four times less than the average for the country, and between six and eight times less than coastal areas. Indeed, although participating in the monsoon climate which characterizes the whole region, the area is greatly influenced by its proximity to the chain of mountains that cuts north-south across the country. This forms an effective climatic barrier for the southwest monsoon in the summer period, and also for the northeast monsoon in the winter period.

As a result, the Dry Zone receives sporadic and irregular rainfall, between 500 mm and 1,000 mm. Looking at the figures collated for the present work by Thet Khaing and Hlaing Myo Myo Htay (2016) for the period 1980-2014, average annual rainfall has been around 875.3 mm. Ninety percent of this rainfall occurs in the months between April and October, with two peaks in May and September. The remaining 10% is manifested in the period November-April (fig. 3.2).

The temperatures show a gradual increase during the month between mid-April and mid-May, namely the pre-monsoon period in which, over the Dry Zone, there is an area of low atmospheric pressure. The rains generally come when pre-monsoon cycles enter the area from the west. Sometimes, tropical cyclones bring rains to the Dry Zone between the end of May and June, and in September and October. Heavy

Fig. 3.1 Average monthly rainfalls (1980-2014).

Source: Thet Khaing, Hlaing Myo Myo Htay, 2016.



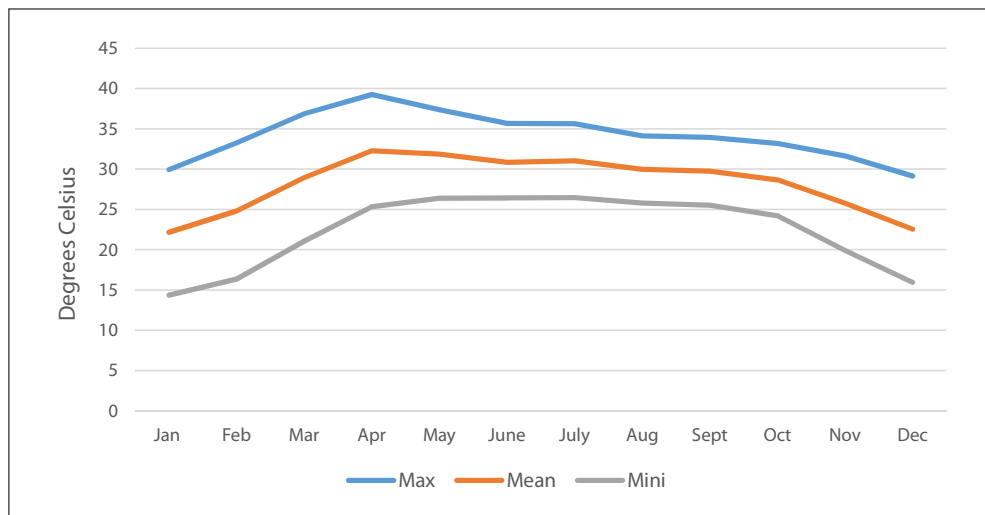


Fig. 3.2 Monthly average temperatures.

Source: Thet Khaing, Hlaing Myo Myo Htay, 2016.

rains usually occur in July and August, while periods of drought take place when dry winds blow in from the south (Ministry of Forestry, 2005). The average annual temperature is 28.22 C, with average maximum temperatures of 34.16 C and minimum temperature of 22.31 C. The hottest month is April (32,28 C on average), while the coolest month is January (22,16 C) (fig. 3.1).

Understandably, climatic characteristics constitute one of the main features determining seasonal trends in international tourism in the area, which, as has been seen (cf. Ch. 4.3.1), is mainly distributed in the months from October to February.

3.1.1.2 HYDROGRAPHY AND MORPHOLOGY

The ACUM area is located at the confluence of two main water-courses: the Ayeyarwady runs north-south in the centre of the ACUM area between Sagaing, Tada U and Mandalay; the Myitnge, flowing down from the Shan highlands to the west, joins the former in the vicinity of Inwa, where the Ayeyarwady bends west in a large arc. Both these water-courses play a crucial role as regards shaping the landscape, giving the morphology of the territory certain specific features which accentuate its potential interest from the point of view of eco-tourism¹.

To the east of the river, the city of Mandalay stands on a large alluvial plain which extends as far as the Yankin Hills, the first hills belonging to the vast Shan Highlands plateau. The Mandalay plain stands at an altitude of between 46.3 mt asl. near the river and the Shcwetachaung canal, and 74.67 mt asl. at its eastern, north-eastern and south-eastern extremities. Between 81st and 82nd Streets, a number of river terraces are identifiable, running parallel to the course of the river. The alluvial plain continues south of the ACUM area at the confluence of the Ayeyarwady and the Myitnge, an area occupied by the Tada U and Amarapura townships, as well as by the historical and archeological site of Inwa. In terms of geology, the plain is characterized by sediments of alluvium (mainly clay, silt and sand) deposited during flooding of the Ayeyarwady.

In the zone south of Amarapura, near the confluence between the Myitnge and the Ayeyarwady, the two rivers give rise to a number of marshy areas, known locally as In (lakes). The largest Ins are Taungthaman In, Thetthay In, Wunbe In, and Myit Sut In. They can be used as cultivated lands in low-water periods, and are also a habitat for fish and seasonal migratory birds. One of Myanmar's famous examples of architectural heritage, the U Pein Bridge, runs across Taungthaman In. In the

¹ In this context, it is worth mentioning that the river constitutes a habitat for the Ayeyarwady Dolphin (*Orcaella brevirostris*), one of only four species of freshwater dolphin in the world, classified as Vulnerable on the IUCN Red List of Threatened Species. In the last century, the dolphin population fell by 60%, and is currently estimated as represented by only 59 examples (ADB, 2015).

western part of the ACUM area, in Sagaing Township, Kaung Mu taw and Yega In are the most famous wetlands (Thet Khaing, Hlaing Myo Myo Htay, 2016).

In the ACUM area, the characteristics of the terrain display a number of prominent peculiarities: to the north of the city of Mandalay stands the isolated Mandalay Hill. This is a privileged place, not only because it affords all-round views over the landscape of the surrounding plain below, but also owing to the concentration of monuments and pagodas of historical and religious importance. Mandalay Hill stands at an altitude of 240 mt asl., covering a somewhat small area, 1.6 km in a north-south direction, and 1-2 km east-west. As regards its geology, the hill is composed of metamorphic rocks of various types: limestone, schist, quartzite and granite.

To the west of the Ayeyarwady stands the Sagaing range. Its altitude is between 37 and 100 mt asl., and in all it is 140 km long, running north-south, almost parallel to the course of the river. As well as the cultural interest represented by the historical and monumental heritage of Sagaing, the hill complex represents an interesting site for the observation of the surrounding riverine landscape and plain.

Behind the Sagaing range, and parallel to it, runs the Sagaing fault, a tectonic fault line 1,500 km in length that passes near to Nay Pyi Taw, Sagaing and Mandalay². Despite the fact that the fault is not easily visible and recognizable, and is therefore unlikely to represent a tourist draw, it is nevertheless certainly of great geomorphological interest to specialist visitors and academics. To quote the information provided on the website sagaingfault.info: “The Sagaing Fault links two very different, but equally active tectonic domains: the Andaman Sea in the south and the eastern Himalayan syntaxis in the north (Searle and Morley, 2011). It is a strike-slip fault, which means that the pieces of the crust on either side of it slide sideways past each other without widespread vertical motion. Since its formation about 22 million to 15 million years ago, during the Miocene epoch (Curry, 2005), the Sagaing Fault has accommodated about 330 km (Curry, 2005) to 450 km (Mitchell, 1993) of dextral displacement between its eastern and western sides”.

3.1.2 ENVIRONMENTAL PRESSURES

Despite some progress achieved in recent years, the availability of data and information on the quality of the environment and on the main environmental pressures in Myanmar is still lacking. Moreover, the available data often refers to geographical areas that do not correspond to the ACUM area, or which cannot be completely associated with it. This makes the task of identifying and describing the state of the environment and its components even more complex. Nevertheless, by consulting the available sources and making use of direct observations in the field, it has been possible to derive some information on the state of the main environmental receptors, and on the most important causes of pollution in the area.

Specifically, the document used as a reference tool on the subject of environmental indicators is *Myanmar's National Environmental Performance Report 2007-2010* (EPA Report) (ADB, UNEP, 2006). A recent addition to this is a report published by the ADB specifically devoted to the city of Mandalay in the context of a project to improve the efficiency of environmental services (ADB, 2015)³.

The EPA report (ADB, UNEP, 2006) identifies six main environmental problematics for the country, in part extendable to the ACUM area (findings partially adapted by this author):

- losses of forest vegetation;
- land degradation;

² Owing to its proximity to the Sagaing fault, Mandalay is regarded as a city potentially vulnerable to earthquakes (Department of Meteorology and Hydrology, 2009).

³ The project is entitled *Preparing Mandalay Urban Services Improvement Project*. It sets out to thoroughly reorganize environmental services in the city of Mandalay, including: water supply and water quality; waste collection and disposal; protection from environmental risks (flooding and earthquakes); making energy generation more efficient.

- threats to biodiversity;
- quality and availability of water resources;
- solid waste management;
- air pollution and climate change.

3.1.2.1 DEFORESTATION AND DESERTIFICATION

Despite the lack of up-to-date information, deforestation represents one of the main critical factors for Myanmar's environment. Although the ACUM area is not directly affected by the phenomenon, the surrounding lands (especially within the Mandalay Division) belonging to the Dry Zone have a rate of deforestation that is proceeding at an alarming rate (ADB, UNEP, 2006). There has been a constant reduction in forest cover in Myanmar since 1975 (61%) and until 1998 (52%). As of 1989, it has been estimated that around 460,000 ha of forest have been lost, on average, every year. In the decade between 1989 and 1999, the rate of annual deforestation was 4% in Magway Division (the Division most hit by the phenomenon), followed by Mandalay Division (1.5%) and Sagaing Division (0.7%). Specifically, Mandalay Division saw a decline in forest cover from 35% to 19%.

The causes of the rapid deforestation are to be ascribed mainly to commercial forestry products, and also to an intensification in the process of urbanization, and to the related increase in the demand for wood for use as fuel, in support of a growing population.

Owing to the gradual deforestation, processes of soil degradation and desertification have started to appear in the Central Dry Zone, leading to a fall in agricultural productivity.

However, it is worthy of note that, in recent years, the forestry sector has been the subject of growing attention by the government, both nationally and locally, and that new initiatives have been promoted in the sphere of regulations, along with reforestation measures (in particular in the Divisions most affected, and at risk) (Ministry of Forestry, 2005).

Despite the fact that tourist numbers are not directly connected to an increase in deforestation in the ACUM area, in the context of promoting a responsible tourism it is advisable that visitors are made aware that the area they are visiting is one of the zones at most risk from soil degradation and desertification.

3.1.2.2 WATER QUALITY AND AVAILABILITY OF WATER

The EPA report devotes a specific in-depth section to the city of Mandalay on the state of the water system, and urban water consumption.

Water provision in Mandalay is via a dishomogeneous system consisting of a piped water supply, private wells and moat water. The piped water supply system was created in the period between 1983 and 1992 in the framework of the Mandalay Water Supply Project, jointly financed by ADB, OPEC and the Myanmar Economic Bank. Later, further investments were made by the Water and Sanitation Department of the Mandalay City Development Committee (WSD/MCDC). The water is drawn from the Ayeyarwady via special pumping stations, and circulated through a network of pipes. However, at present only 60% of the urban area of Mandalay is covered by the piped water supply system. Moreover, there is great dishomogeneity between the various townships that make up the municipal area of the city: for example, while 90% of the resident population is served in Chan Aye Thar Zan, this figure falls to 11% in the township of Pyi Gyi Tagon. Outside the zones served, res-

idents make use of wells created by the WSD/MCDC or by international donors (ADB, UNEP, 2006). In addition, there are no centralized water supply systems for industrial production, and industries make use of their own supply systems.

The availability and exploitation of water resources in the urban area of Mandalay was the subject of a specific study undertaken by JICA (2003). The study notes a critical situation of over-exploitation, since water abstraction in Mandalay city was 170,000 cubic meters per day, against the 100,000 m³ per day of natural recharge. The study also notes that total water withdrawal (including agriculture, domestic and industrial use) is 106% of available water resources, stressing that water resources are heading for major problems, if exploitation exceeds the threshold of 40% of available resources.

As regards the quality of surface water, in the context of the project samples from various sites within the ACUM area were taken and analyzed by the WSD/MCDC (fig. 3.3) (Thet Khaing, Hlaing Myo Myo Htay, 2016).

Despite the fact that these sites are not used as reservoirs for drinking water, they are nevertheless within residential areas, or areas of public use, or in the immediate vicinity of them, and they therefore require particular attention over pollution levels.

The first two sites are Kandawgyi Lake (whose waters were sampled at two points, at the confluence with the Ayeyarwady and in the centre of the basin) and Taungthaman In. As shown in Table 3.1, both sites are found to be particularly polluted. Kandawgyi Lake (whose banks are also used as a place of recreation and

Tab. 3.1.
Parameters of Water Quality of
Some Water Bodies in Mandalay
and Amarapura Area.

Source: Thet Khaing,
Hlaing Myo Myo Htay, 2016.

Physical Examination and Chemical Analysis on 21st March 2016		(1) Kandawgyi (Stagnant)	(2) Kandawgyi (Entrance)	(3) Taungthaman Inn	(4) S.E Corner of Moat	WHO Standard	
Physical Examination						Desirable	Imperative
1	pH value	7.6	7.5	7.6	6.9	7- 8.5	6.5- 9.2
2	Colour	>50	>50	>50	20	5	50
3	Turbidity (NTU)	16	16.8	108	5.8	5	25
4	Conductivity (micros/cm)	691	597	736	137.6		
5	Total Dissolved Solids(mg/l)	375	322	399	73		
6	Total Suspended Solids (mg/l)	42	39	177	9		
7	Dissolved Oxygen (D.O) (mg/l)	2.40	0.34	0.25	4.8		
8	B.O.D (mg/l)	15	12	21	5.4		
Chemical Analysis							
1	Calcium as Ca (mg/l)	48	48	32	24	75	200
2	Hardness, Total as CaCo3 (mg/l)	220	180	128	80	100	500
3	Magnesium as Mg (mg/l)	24	15	12	5	30	150
4	Chloride as CL(mg/l)	150	125	125	5	200	600
5	Total Alkalinity as CaCo3 (mg/l)	320	296	388	92	200	500
6	Iron, Total as Fe (mg/l)	>0.2	>0.2	>0.2	0.02	0.1	1.0
7	Manganese as Mn (mg/l)	0.03	0.03	0.03	0.02	0.05	0.5
8	Sulphate as So4 (mg/l)	<300	<300	<300	<200	200	400

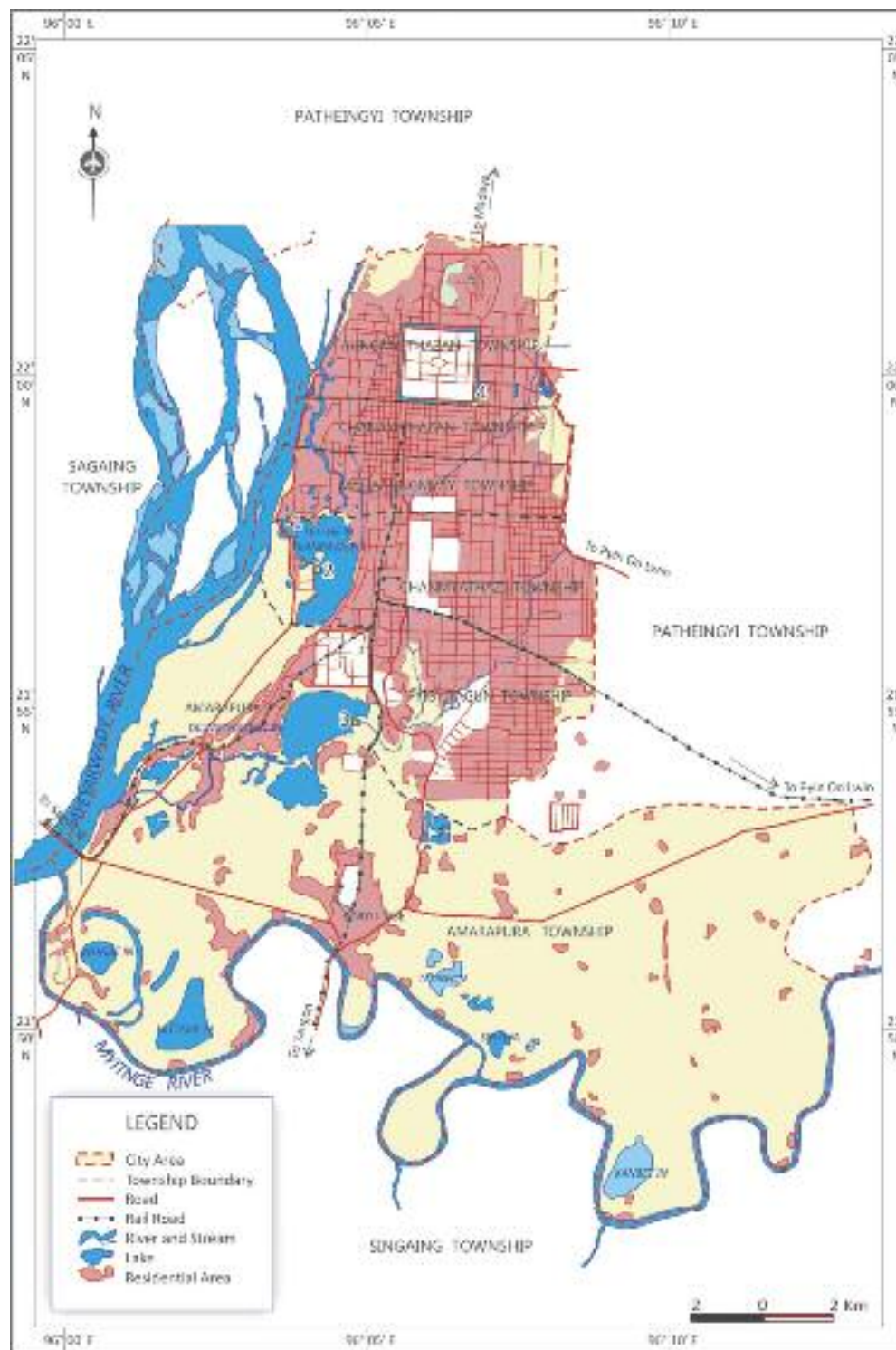


Figure 3.3 Sample Sites of analysis of water quality in Mandalay- Amarapura Area.

Source: Thet Khaing, Hlaing Myo Myo Htay, 2016.

leisure, especially in the evening), acts as a collector of rainwater and sewage from the western part of the city of Mandalay, without any form of environmental treatment. Especially with a view to tourist exploitation of the lake (cf. Ch. 9.1.1), an environmental clean-up operation is therefore urgently necessary. Taungthaman

Lake, at the southern extremity of Mandalay, receives its waters from the Payandaw Chaung, a channel that passes through one of the city's new industrial zones. Therefore, the lake receives pollutants from the various manufacturing and industrial activities, such as paper mills, sugar mills, brewing factories, plastic recycling factories, and food processing industries.

The third site is the moat of Mandalay Palace, whose waters come from the Mandalay canal via the Sedawgyi Dam. In this instance, the quality of the water does not show high levels of pollution, since the canal flows through farmland for irrigation purposes, and does not pass through densely inhabited zones or industrial zones.

3.1.2.3 PROCESSING OF URBAN AND INDUSTRIAL REFUSE

In an economy that is going through a phase of expansion, and that is seeing a marked increase in the population living in urban areas, waste disposal and processing is one of the main environmental problems to be addressed. The production of urban waste represents, also, one of the sectors in which an increase in tourist numbers produces a higher impact, since it leads to an increase in the volume of waste to be processed. In this connection, the available data on the production, collection and processing of solid urban waste in the ACUM area is highly fragmentary. Recent estimates for the city of Mandalay alone calculate a production of urban waste from households, commerce and tourism in 2014 as 932 tons/day. The same estimates consider as likely an expansion of waste production of up to 1,220 tons/day in 2020, 1,765 in 2025, and 2,274 in 2025.

In 2007, estimates regarding the composition of urban solid waste in Myanmar give top place to biodegradable material (AIT/UNEP, 2010): 73% organic waste, 2% paper, 18% plastic and 7% other waste. In the two main cities of Yangon and Mandalay, solid urban waste production is respectively 0.3 kg/cap/day and 0.5 kg/cap/day (ADB, UNEP, 2006), a figure seen as being in line with other capitals in the Greater Mekong Sub-region (World Bank, 1999). Records show that in Mandalay in 2007 the waste recycling rate was 10%.

Traditionally, the collection and disposal of refuse in Myanmar takes place under the responsibility of the local municipal authorities, without any private sector involvement. In the case of Mandalay, processing is transferred to the MCMD. The waste collection service has improved significantly in recent years, with the introduction of mechanized equipment and technology, as well as by means of an increase in waste collection personnel. Recent estimates (ADB, 2015) put the volume of collection at 85%, of which 5% reportedly takes place via the informal sector (especially as regards recyclable material such as plastic, tin cans and glass). The uncollected percentage “ends in the different drains, canals and creeks (consequently reducing the hydraulic capacity of these systems) and in a multitude of small illegal dumping sites all over the urban area, a phenomenon strengthened by the lack of awareness of the population regarding solid waste management” (ADB, 2015, p. 74).

Also according to the ADB (2015) report, the disposal facilities in Mandalay consist of two disposal sites, one in the north (Kyar Ni Kan), with a capacity of 450 t/d for the 3 northern townships, and one in the south (Thaung Inn Myount Inn), with a capacity of 350 t/d for the 3 southern townships⁴. However, “the landfills are simple dumpsites without any pollution control facility: no liner, no drainage of leachate. Waste is dumped on the landfill by the trucks, and waste pickers sort recy-

clable waste (cans, bottles, metal etc.) before the bulldozer pushes the waste and compacts it (...). Fires are observed in several places of Kyar Ni Kan landfill resulting in the release of dense smoke. In north landfill about 446,000 t have been stored and the remaining capacity is about 700,000 t or 4.25 years at the present rate (450 t/day). Scavenger families operate, including women and children, without any safety protection: no mask, no gloves” (ADB, 2015, p. 77).

Overall, however, the processing of urban waste appears inefficient, and above all unsuited for supporting rapidly-expanding waste production: the Municipal Waste Management problems include lack of resources – equipment (eg. vehicles) and personnel, improper collection and management of disposal sites, lack of awareness and cooperation from the public, and lack of awareness in solid waste management (AIT/UNEP, 2010). There is no refuse processing facility in the city, but there is a site designed and used as a dump (semi-landfill) where refuse can be brought (AIT/UNEP, 2010).

3.1.2.4 AIR QUALITY

As in the case of refuse, no systematic data is available for air quality either inside the ACUM area or for the other regions and cities in Myanmar. For this reason, the EPA report uses as its source the Car Equivalent Unit⁵ per square kilometer. The idea is that an increase in the pool of cars in the two main cities of Yangon and Mandalay may be regarded as a reliable indicator to estimate a worsening in air quality.

SITE	TSPM (μ G/m ³)	PM10 (μ G/m ³)	SO ₂ (μ G/m ³)	NO ₂ (μ G/m ³)
Commercial (Zai Cho Market)	495.87	112.498	0.86	32.13
Residential (MCDC Office)	213.08	61.67	0.98	17.80
Industrial (Mandalay Industrial Zone)	350.57	131.54	1.50	19.14
WHO Standards	/	50	20	40

Tab. 3.2.
Air quality in Mandalay in
January 2008.

Source: ADB (2015).

“The values of CEU per square kilometer increased by 13% (Yangon) and 39% (Mandalay) between 1999 and 2004. From 1999 to 2004, total car equivalent units per square kilometer steadily increased from 1,463 to 1,674 units in Yangon (13%) and from 545 to 759 units in Mandalay (39%). The rapid increase of CEU in Mandalay is linked to a large-scale licensing of motorcycles imported from a neighboring country” (ADB, UNEP, 2006, p. 241). As a result, the EPA report deduces that “the level of pressure on mobile source air pollution in Myanmar is increasing in terms of the notable increases in vehicular density in major cities” (ADB, UNEP, 2006, p. 241).

More recently, further measurements of air quality were made in Mandalay in January 2008 by the National Commission for Environmental Affairs (NCEA) at three sites located respectively within a commercial area, a residential area and an industrial area (tab. 3.2). When compared to World Health Organization (WHO) standards, the results of the measurements show that “the 24-hour average concentrations of NO₂ and SO₂ levels in three selected sites are well below the WHO guideline. The TSPM and the PM10 at the three sites are higher than the WHO guidelines. More generally, air quality is still reasonably good in Mandalay. Suspended matter is sometimes high, but it is just the consequence of the prevailing

⁴ “An incinerator, with a capacity of 30 t/d, is located next to the southern landfill, but has never been commissioned because of the cost of energy (diesel) and the pollution (no air filters)” (ADB, 2015, p. 75).

⁵ “Car Equivalent Unit (CEU) is the measurement of the different type of vehicles by its engine power and automotive fuel consumption equivalent to a car with normal engine power and average consumption level of automotive fuel” (ADB, UNEP, 2006, p. 242).

dry climate conditions combined with a multitude of areas with bare ground” (ADB, 2015, p. 54).

3.2 DEMOGRAPHIC AND SOCIAL STRUCTURE

The ACUM area covers an administrative territory of 11 townships (cf. Fig. 1.3.2)⁶ comprising both rural areas and very urbanized areas. Its constituent parts are reflected in the demographic and social structure. The availability of data from the recent census (2014)⁷ allows us to put together a fairly complete and up-to-date picture of the situation, albeit with some limitations due to the level of aggregation of the data. While the figures for the number of inhabitants are available down to the 4th administrative level (ward/village tract), figures for socio-habitational conditions are available down to the 3rd level (township), which is wholly adequate for an analysis of the urbanized zones that fall within the ACUM area (the 5 urban townships of Mandalay City⁸ and the wards of Amarapura

Tab. 3.2.1 Inhabitants, households and extension of townships involved in the ACUM area⁹.

Source: MIMU (2016) data, processed by the author.

Township	Inhabitants	Area of township involved in ACUM area (sq km)
Aungmyaythazan	265,779	26,2
Chanayethazan	197,175	12,3
Mahaaungmyay	241,113	15,5
Chanmyathazi	283,781	26,1
Pyigyitagon	237,698	33,1
Amarapura	202,604	135,5
Patheingyi	104,180	117,8
Sagaing	149,738	140,6
Sintgaing	24,870	14,2
Madaya	5,797	21,4
Tada-U	9,335	22,2
Total	1,722,070	564,9

⁶ Readers are reminded that 5 townships are wholly included in the ACUM area (Aungmyeytharzan, Chanayetharzan, Mahaaungmyay, Chanmyatharzi, Pyigyitagon), while only parts of the remaining 6 are included within it.

⁷ MIMU (2016).

⁸ Aungmyeytharzan, Chanayetharzan, Maharaungmye, Chanmyatharzi, Pyigyitagon.

⁹ For the townships not wholly included in the ACUM area (Patheingyi, Sagaing, Tada U, Sintgaing and Madaya), the table only shows inhabitants, households and the size of the village tracts under consideration.

ra township, and Sagaing township), but it is less adequate for rural villages belonging to Patheingyi, Madaya, Sagaing and Tada U, for which we will have to refer to the aggregate figure for each respective township.

3.2.1 THE POPULATION

The first element that characterizes the ACUM area is the great increase in population. In the space of around 30 years, between 1983 and 2014, the population of Sagaing township grew by 30%, and that of Mandalay City actually tripled (Nyo Nyo, 2016). In 2014 the total number of inhabitants in the ACUM area was 1,722,070, divided up as follows between the 11 townships (Tab. 3.2.1).

According to figures from the MCDC, the expansive trend is set to continue in the coming years, too, especially in the townships corresponding to the urban area of Mandalay (Hla Myo, 2014) (Fig. 3.2.1).

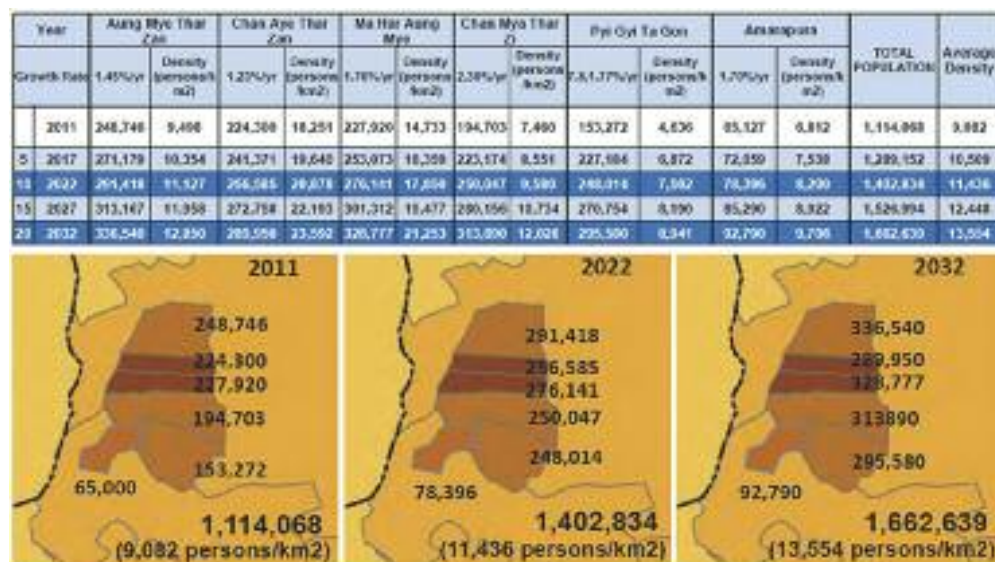


Fig. 3.2.1 Forecasts of demographic increase by Mandalay City Development Committee.

Source: Hla Myo (2014)

Five of the 11 townships that fall within the ACUM area are regarded by the MIMU as wholly urban, while the other six are regarded as rural because they comprise urban agglomerations and also rural settlements (village tracts) (Fig. 3.2.2).

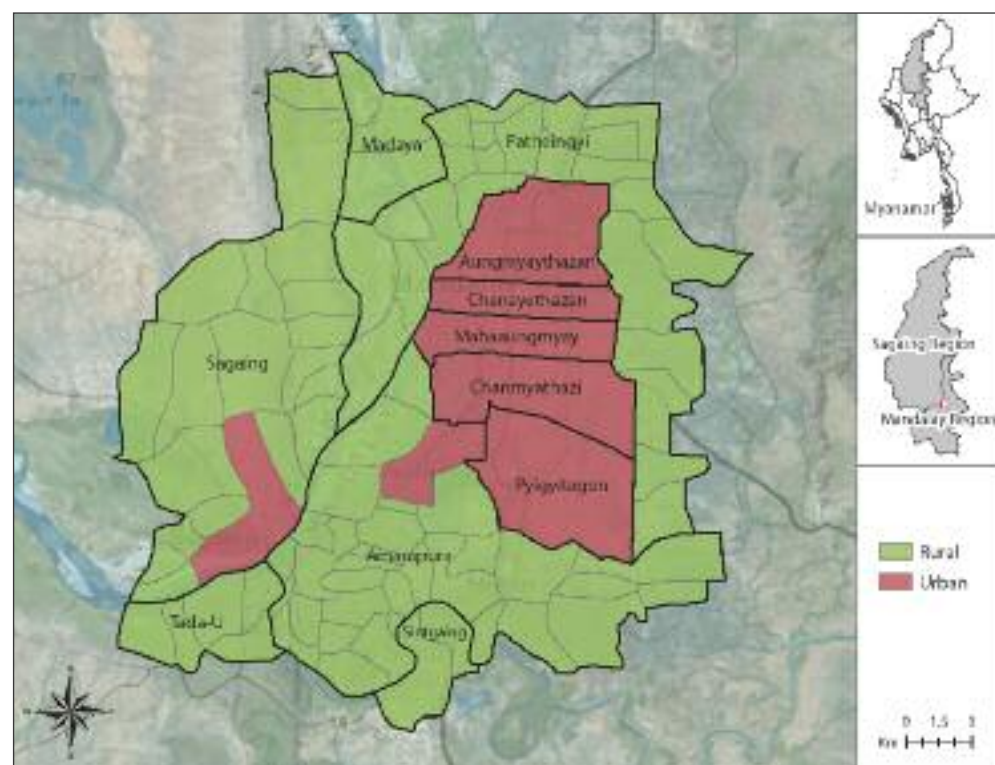


Fig. 3.2.2 Urban and rural township: MIMU's classification.

Source: MIMU data (2016), processed by the author. Background map from ESRI Imagery Basemaps.

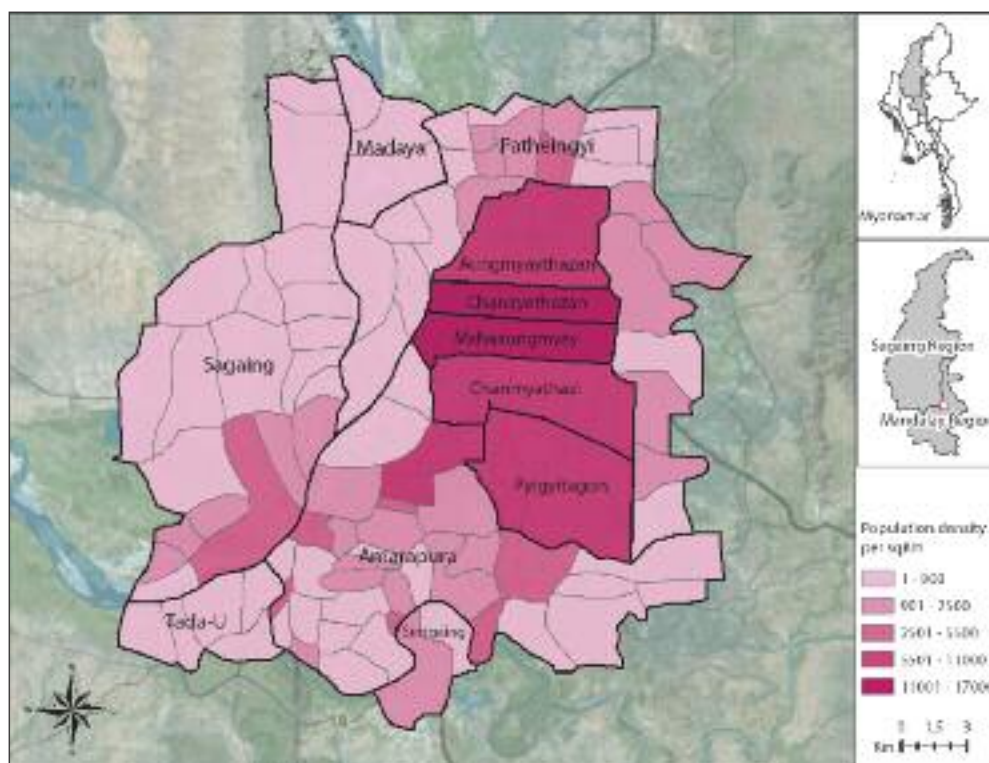
The average population density in the ACUM area is 3,048 inhab./sq. km, but with marked variations depending on the area's urban or rural characteristics. Since the figures for the number of inhabitants are available down to the fourth administrative level¹⁰ (village tract), it is possible to draw up a detailed map of how

¹⁰ However, for urban townships the available figures stop at the township level (3rd level), and do not descend to ward level.

the population is distributed in the ACUM area (Fig. 3.2.3). The maximum values for density are of course found in the townships that are part of Mandalay City, and in particular in Chanayethazan (16,037 inhab./sq. km) and Mahaaungmyay (15,555 inhab./sq. km).

Fig. 3.2.3 Population density by village tract and township.

Source: MIMU data (2016), processed by the author. Background map from ESRI Imagery Basemaps.



An analysis of the structure by age shows that the population in the ACUM area is a young population, in which the over-65s are just 6% of the total (Fig. 3.2.4)¹¹. Consequently, the dependency ratio of the elderly population – namely the value that indicates how dependent the 65+ population is on the active population (15-64) – is very low. Especially low values coincide with the townships corresponding to the metropolitan area of Mandalay (the lowest value is in Pyigyitagon: 5.7), where work opportunities attract the maximum concentration of people of working age; slightly higher values are found in rural areas (Sagaing township and Tada U, respectively on 11.5 and 11.1)¹².

The level of education of the population reflects conditions in the country overall. The Burmese educational system (previously entirely given over to monastic communities, but reorganized as of 1886 in line with the British model) displays considerable structural weaknesses (Heiden and Martin, 2013), which are currently being addressed with reform measures. The main critical area is certainly represented by the great inequality in educational opportunities existing between urban and rural areas (UNICEF, 2011). Myanmar is nevertheless in third place among south-east Asian countries in terms of literacy, with 92% of the population above the age of 15 being literate (UNESCO, 2016). The ACUM area has better values than the national average: except for markedly rural areas (Patheingyi and Madaya), the literacy rate is much higher everywhere than the average for the country, with peaks of 97.9% in Chanayethazan and

¹¹ We stress that, for these aspects and the following ones discussed in this chapter, aggregate data for townships are used, since the breakdown for the 4th administrative level is not available.

¹² By way of comparison, structural dependency in Italy was estimated in 2015 at 55.5%, and the dependency of the elderly at 34.2% (ISTAT, 2016).

Sagaing. Furthermore, in the over-25 age group, 17.2% have a university or post-university qualification. This situation constitutes a positive prerequisite for a sustainable development policy geared towards the broad involvement of the local community in the tourism sector. However a further, determined investment in this field would be necessary, primarily to spread a knowledge of English and Chinese.

In terms of working status, there is a clear dominance on the part of salaried work, and a very low rate of unemployment. The sector and the kind of activity varies a great deal depending on whether the context is urban or rural. In rural townships, as in most of the country, for that matter, the population lives by agricultural activities¹³; incomes, produced by one or at most two members of the family, are measured against the harvest. In urban townships the population carries out several different kinds of activity, and there are two or more active members for each family (Nyo Nyo, 2016). The activities conducted in urban areas can be divided into a so-called formal sector and an informal sector. Workers in the formal sector, corresponding to salaried labour (public and private sector), receive a fixed income which is annually in the region of between 150,000 and 500,000 Kyat¹⁴ (ibid.). The informal sector comprises the activities conducted by independent workers who largely make use of the collaboration of family members, such as shops, tea shops, jewellery shops, restaurants etc., and their incomes vary a great deal depending on how the business is faring. The informal sector also includes a multitude of menial jobs, such as street-sellers, builders, and rickshaw drivers, which normally give workers a maximum income of 10,000 kyat a day (ibid.).

3.2.2 HOUSING

The total number of housing units in the ACUM area is 326,239.

Two thirds of houses are owned by their occupants, with smaller percentages in urban townships, and higher levels in rural townships (Fig. 3.2.6):

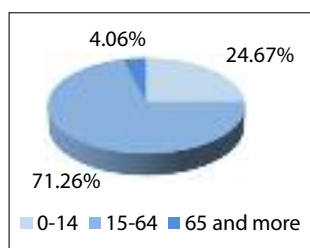


Fig. 3.2.4 Population by age in the ACUM area.

Source: MIMU data (2016), processed by the author.

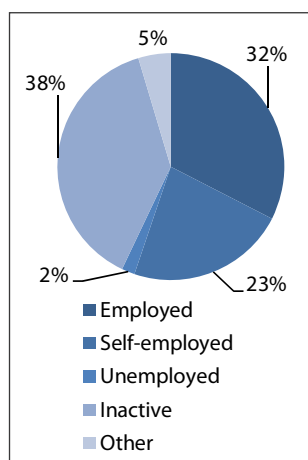


Fig. 3.2.5a Population 10 years and over by usual activity status in urban townships.

Source: MIMU data (2016), processed by the author.

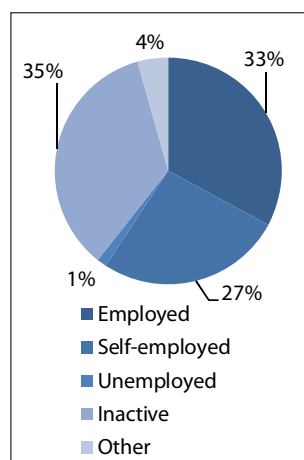


Fig. 3.2.5b Population 10 years and over by usual activity status in rural townships.

Source: MIMU data (2016), processed by the author.

Township	Households ¹⁵
Aungmyaythazan	49,731
Chanayethazan	33,281
Mahaangmyay	41,927
Chanmyathazi	53,047
Pyigytagon	43,875
Amarapura	42,656
Patheingyi	20,796
Sagaing	31,758
Sintgaing	5,637
Madaya	1,314
Tada-U	2,217
Total	326,239

Tab. 3.2.1. Households by Township.

Source: MIMU (2016) data, processed by the author.

¹³ Overall, for Myanmar, the active population in this sector numbers 70% of the total.

¹⁴ The exchange rate is US\$ 1 = Kyat 1,225 (15.03.2016). Myanmar's average annual income has been estimated by the World Bank for the period 2011-15 as 1,270 US\$.

¹⁵ For the townships not wholly included in the ACUM area, the number was obtained by applying the total percentage of inhabitants in conventional households (i.e. not in institutions, monasteries etc.) to the inhabitants included in the ACUM area, and then dividing the resulting figure by the average number of inhabitants per household in each respective township.

Fig. 3.2.6 Percentage of households owning the house they occupy, by township.

Source: MIMU data, processed by the author.

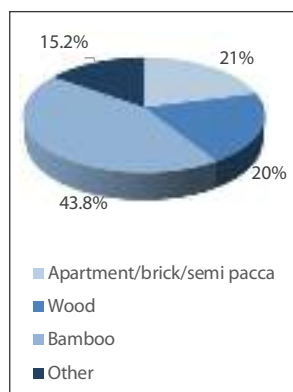
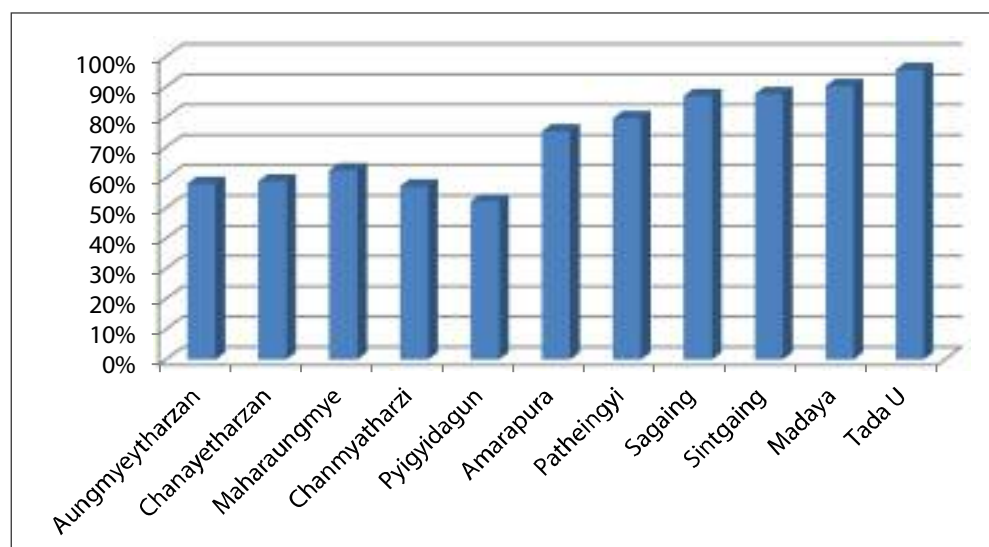


Fig. 3.2.7 Housing stock by building type.

Source: MIMU data, processed by the author.

Fig. 3.2.8 Percentage of brick or bamboo buildings, by township.

Source: MIMU data, processed by the author.

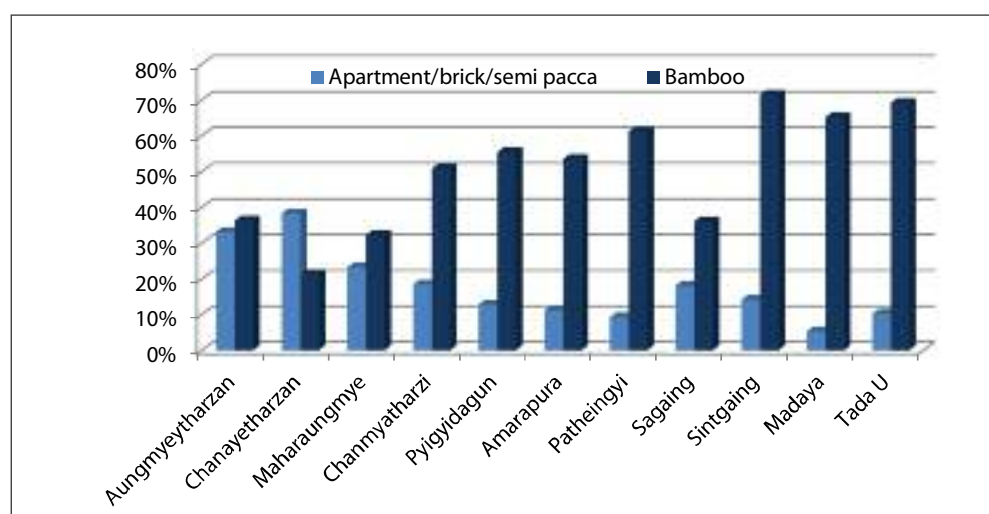


As regards types of building, a large proportion of the housing stock in the ACUM area was built using the materials and techniques typical of the local tradition: there is a marked dominance of bamboo dwellings, and wooden buildings are also common; only 1/5 of houses are built from concrete, bricks or semi pacca (Fig. 3.2.7):

Buildings built of concrete or brick are mainly found in urban townships, while bamboo buildings still account for the overwhelming majority of the housing stock in rural townships (Fig. 3.2.8).

As regards the provision of basic amenities, the housing stock in the ACUM area displays numerous limitations. In 10% of cases, sanitation services is inadequate (Fig. 3.2.9) and in 30% of cases there is no electric lighting (Fig. 3.2.10). The availability of water is even more problematic, given that only just over 1/5 of homes are connected to the mains water supply (Fig. 3.2.11).

The level of basic conveniences naturally differs greatly between urban townships, where a fair percentage of homes have basic amenities, and rural townships, where they are more the exception than the rule (Fig. 3.2.12):



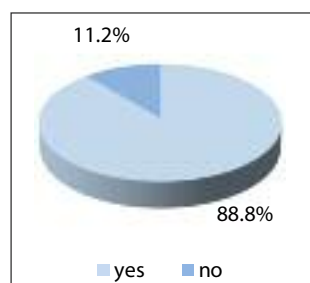


Fig. 3.2.9 Housing by availability of safe sanitation in the ACUM area.

Source: MIMU data, processed by the author.

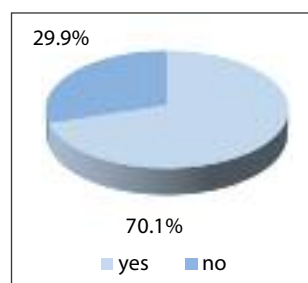


Fig. 3.2.10 Housing by availability of electric lighting in the ACUM area.

Source: MIMU data, processed by the author.



Fig. 3.2.11 Housing by availability of tap/piped water in the ACUM area.

Source: MIMU data, processed by the author.

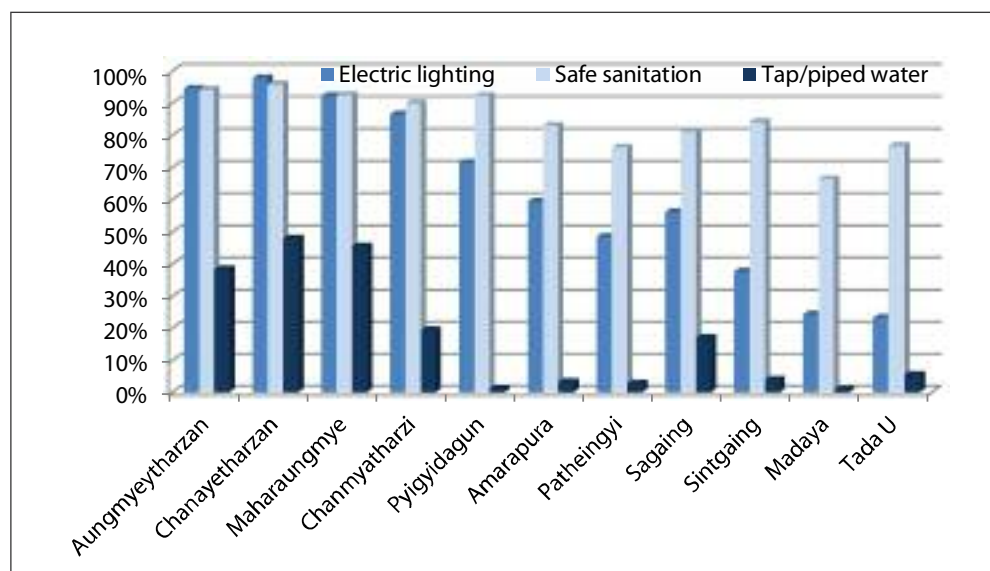


Fig. 3.2.12 Percentage of homes with basic conveniences, by township.

Source: MIMU data, processed by the author.

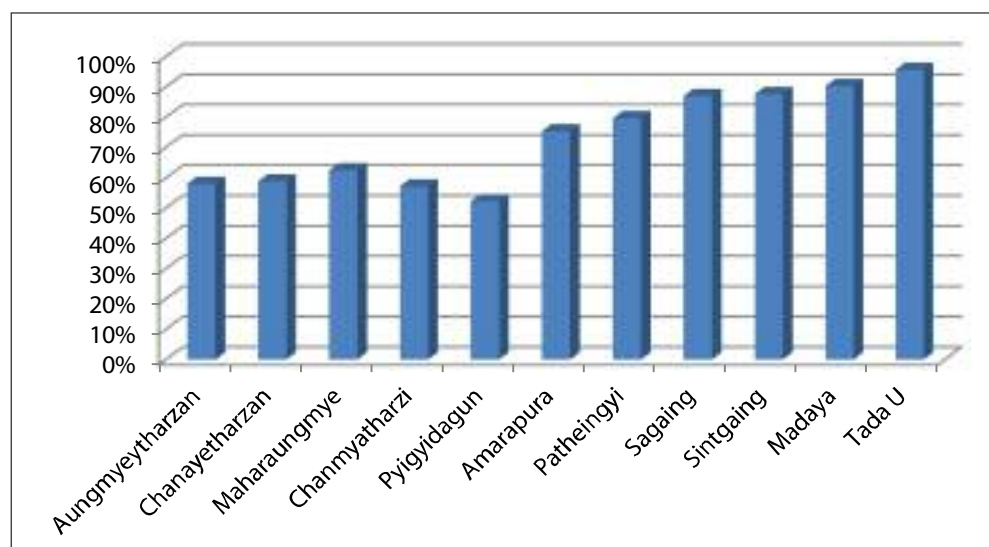
As regards telecommunications, the most common connection is to the TV network: most of the homes in urban townships are connected to it, as are more than half of those in rural townships; radio connections are far less common, but above all Internet connections are extremely infrequent (Fig. 3.2.13).

Overall, the picture that emerges from an analysis of the socio-demographic data reveals the area's good potential with a view to sustainable tourism development, but also a series of critical aspects.

One very positive aspect is certainly represented by the age pyramid, and by the position occupied in that pyramid by younger age groups, and the population group of active age, who are naturally more open and receptive to the opportunities which the development of tourism could offer. The level of education is also a positive factor, being higher, on average, than in the rest of the country, despite the fact that considerable differences between urban areas and rural areas are also found in the ACUM area. Determined investments in this sector nevertheless appear vital for consolidating the human capital resources.

Fig. 3.2.13 Percentage of homes connected to telecommunications networks, by township.

Source: MIMU data, processed by the author.



The main problems are seen in the poor quality of the housing stock, and in particular in the low level of minimum standards of comfort, especially in rural areas. A careful assessment of these aspects appears vital for expanding the catchment area of players involved, and to develop the supply of home tourism. Targeted improvements of a structural nature could also be necessary, backed up by prior, specific surveys, in areas of specific tourist interest.

A further aspect to be considered to complete the demographic overview are the large-scale transformations under way in the ethnic composition of the population in the ACUM area, and in particular the sharp increase among the Chinese community in recent years. This dynamic¹⁶, accompanied by the myth of the *road to Mandalay*¹⁷, is of particular interest as regards the prospects for the tourist development of the area. The Chinese community is showing a particular aptitude for economic entrepreneurship, and it is therefore likely that in the future it will play a prominent role in the tourism sector, especially, of course, when it comes to tourism from China. It would thus be highly opportune to involve Chinese operators directly in the sector, in order to help to gear their tourism packages in line with a sustainable vision of development.

¹⁶ There is no reliable data as to the scale of this transformation, but the percentage of the Chinese community is currently estimated to be around 30% of the current total population of the city of Mandalay.

¹⁷ This is the strategic artery which, crossing the Shan uplands, connects Mandalay to Lashio and to Yunnan province. It was built by the British in the 1930s to supply Chang Kai-Shek's nationalist troops in their efforts against Japan. Since the start of the 2000s, it has become a privileged route for Chinese penetration in the Burmese economy.

3.3 THE SYSTEM OF SETTLEMENTS

The great bend in the Ayeyarwady river, around the Sagaing promontory, contains what is perhaps the most significant and concentrated area of sites belonging to Burmese civilization. An analysis of these is almost impossible without distinguishing between the various systems that comprise it: the system of sanctuaries; the system of royal cities; and the system of modern-day towns.

The element that unites the various systems, and their individual parts, and that distinguishes them at the same time, is the great river. The fact it is navigable from the sea all the way to the creeks higher upriver has, up until the last millennium, made it the main channel of communications for the whole country, and the very origin of almost all the settlements mentioned in the paragraphs below.



Fig. 3.3.1 The bend in the Ayeyarwady around the Sagaing promontory, and the surrounding region.

Source: Google Earth Pro, 2016.

In this section of the Ayeyarwady, its course has a wide range of different widths and configurations, giving rise to landscapes, and ways of interacting with the river, that are completely different from one point to the next.

The river is more than 5 km wide at the point where the hill of Mandalay stands. Here there are large areas beside the river that become periodically flooded. Within these areas, villages arose which still exist. By contrast, the river is barely 1 km wide upriver from Innwa. At the end of this narrower point, navigation was kept under surveillance by two defensive strongholds, erected on opposite banks by King Mindon. This was designed to oppose the British, with military consultants from Piemonte (Italy), in order to deny passage along the river, and protect the new capital, Mandalay.

This point, between Sagaing on the right bank and the confluence of the Myitnge on the left bank, is also the point most suited physically to the construction of a bridge. Indeed it was here that, in 1934, the British built the first bridge over the Ayeyarwady (the Ava Bridge). It has a dual structure, one for road and the other for rail transport. The bridge superseded the ferry service which, up until then, had allowed a continuous rail link between the two sides of the river. The reliability of this connection led to a preference, in 2002, for the construction, in the same spot, of the second bridge (the Yadanabon Bridge, or Sagaing Bridge). This four-lane road bridge has greatly facilitated transport links between the two banks. However, it has not led to any change in the equilibrium of the settlements, precisely because it has not opened up new geographical relationships between differing parts of the area.

The navigability of the river is expressed in terms of the system of settlements via three main ports, and a number of minor harbours.

The biggest port is the port of Mandalay, which stretches for around 3.5 km along the left bank of the river. Despite being devoid of modern infrastructure for mooring and support facilities, it is still today the site of one of the city's biggest

activities. Indeed, it operates equally for new supplies of goods, for long-haul and short-haul passenger transport (a ferry service to the opposite bank and for the villages standing on the dry river-bed), and river-borne tourism. Upriver from the port of Mandalay, in the estuary of a canal, there is an area specializing in the collection and storage of the rafts of tree trunks that are allowed to drift down from the forests in the north.

The next most important port is Sagaing. This extends for around 2 km along the right bank of the river. Despite also being devoid of modern infrastructure for mooring and support facilities, it is the site of one of the city's most large-scale activities, offering the same diversification of traffic which the port of Mandalay has.

The third port is the port of Amarapura, extending for around 1.5 km along the left bank of the river, between the mouth of the great overflow canal, the Mandalay Kantawgyi, and the mouth of the Myitnge. Despite also not having real moorings and support infrastructure, it is very active, especially for ferrying goods and travellers between the two banks (it is very close to the port of Sagaing) and for river-borne tourism.

All the lesser towns along the river, starting with Mingun, and the villages on the dry river-beds have harbours. The Mingun harbour is also served by river tourism routes.

The river is also the location of a far from insignificant activity for local food supplies: fishing.

However, the main location for fishing is the system of riverside lakes that characterize the plain on the left bank of the Ayeyarwady, and which arose as a result of the fact streams and channels flowing down from the Shan uplands, and from the mountains in the north-east, created a marshland.

The main lakes, Lake Thaungthaman and the lake of Mandalay (Mandalay Kantawgyi), still today constitute a source for food for a non-negligible part of the local populace, as well as being the home of a particular fishing technique that is part of Burma's intangible cultural heritage.

3.3.1 THE SYSTEM OF SANCTUARIES

The particular density of pilgrimage and worship sites is the characteristic of the region that one notices first in terms of buildings.

Two millennia of sedimentation of these particular structures have shaped the local area irreversibly, also by means of the formation of specific concentrations, which have given rise to typical local territorial formations.

Three of the main concentrations of sanctuaries and places of worship correspond to two of the cities which have been Burma's capitals in the past (Sagaing and Mandalay), while the fourth, Mingun, has never been a political centre.

Sagaing Hill

Sagaing constitutes one of Myanmar's holy cities. Indeed, it plays host to one of the biggest concentrations of sites of worship in the whole country, and perhaps the biggest in Upper Myanmar.

Sagaing Hill, in particular, represents a place of pilgrimage whose attraction extends beyond the nation's borders. The relatively recent institution (1994) of the International Buddhist Academy, on the western slope of the hill, confirms the continuation of this sacred aspect also in the modern-day reality.



Fig. 3.3.2 Sagaing Hill.

Source: Google Earth Pro, 2016.

This was certainly also at the origin of the importance which this spot has taken on, on several occasions, in the country's political history.

Not unlike the role played by other sanctuaries in the political history of their respective countries (one thinks of Delphi in Greek history, or Mecca in Arab history), Sagaing has represented, for some Burmese dynasties, the site of choice for their attempts at reinforcing the national identity, under the aegis of religious devotion and a sense of piety.

However, this is also a reason why Sagaing was an anomalous capital, the site of an almost pilgrim-like regality, consciously kept in the shadow of the sacred, in a sort of understatement, the result of which is the lack of remains relating to a royal base (a palace or similar).

Sagaing Hill, a geological formation around 14 sq. km in size, standing on the right bank of the Ayeyarwady, is perhaps the largest area of land in Burma that is wholly, and exclusively, organized for a place of worship. The forms of this site are characteristic not only as regards the buildings, but also as regards infrastructure and the landscape.

In particular, the system of processional paths and steps, often covered, introduces into the landscape a network of three-dimensional elements that accompanies the undulations of the hill, and helps to position the features at the top of the system, consisting in the great pinnacled temples, in their hierarchy.

Mandalay Hill

This hill is less than 3 sq. km in size, and stands as an isolated feature in the plain on the left bank of the Ayeyarwady. The same observations made in the case of Sagaing are also true of Mandalay Hill. Indeed, the way the terrain is shaped is similar to it, as is the vegetation, and the way the buildings are nestled along the sides of the hill. The hill-top temple can also be reached using a system of lifts, linked to a car park hidden on the eastern side of the hill, served by a road that climbs up



Fig. 3.3.3 Mandalay Hill.

Source: Google Earth Pro, 2016.

from the north. The capacity for attraction of this holy place is attested to by the proliferation of monasteries and temples also in the low-lying areas immediately surrounding it.

Yankin Hill

Yankin Hill, less than 1 sq. km in size, and standing east of the royal city of Mandalay, being isolated on the plain between the city and the lower slopes of the Shan uplands, is a place consecrated to worship, and has been for around 2,000 years, owing to the presence of several caves, near which rises an important temple, on the top of the hill. The religious nature of the site has created the same forms of landscape, with processional stairways and paths, both covered and uncovered, as described for the Sagaing and Mandalay hills. Indeed, the terrain, the vegetation and the way the buildings are located on the hill slopes are completely similar to them.

The main access to the hill is linked to the eastern gate of the royal city of Mandalay by a straight, 6-km long road, corresponding to 19th Street, which may have been the first, primary axis laid out when the whole urban system of Mandalay was founded.

The Mingun area

The religious site of Mingun has a very recent plan compared to the three sacred hills. Indeed, it derives from a specific planning programme that was drawn up by King Bodawpaya in 1790. In this spot, on the right bank of the Ayeyarwady, 18 km upriver from Sagaing Hill, and 3 km upriver from Mandalay Hill, the founder of Amarapura set out to erect a pagoda that would be higher than all the other known pagodas (*Pahtodawgyi Paya*). The fact it was not completed facilitated its destruction by an earthquake in 1839, which reduced the building to the state in which it finds itself still today.



Fig. 3.3.4 Yankin Hill.

Source: Google Earth Pro, 2016.

However, religious fervour has given rise to several, widely-spread places of worship around the immense ruin. Alongside them, a village has grown up over the lower slopes of the hill and the river, and this still constitutes the main access route to the sanctuary.



Fig. 3.3.5 The site of Mingun.

Source: Google Earth Pro, 2016.

3.3.2 THE SYSTEM OF ROYAL CITIES

The great bend on the Ayeyarwady was the cradle of Burmese regality for around five centuries. Here, on the two sides of the river, in an area of around 200 sq. km, four of the country's capital cities came and went, one after the other, between 1315 and 1885.

Burmese history has never seen a long-lasting dominance of one city over the others, and thus has not encouraged the consolidation of an historically indisputed metropolis. On the contrary, it has given rise to a multiple flowering of dominant centres, which is only in part to be ascribed to the ancient subdivision of the country into separate kingdoms. Indeed, even during the phases of reunification, primacy was never permanently established in a single capital, and instead there was a continual alternation of the official royal seat.

Between 849 and 2016, 22 cities have held the role of capital in Burma (from Bagan to Naypyidaw), with 39 changes (Pegu was capital in six different historical phases, Ava in five, and so on).

The oldest capital standing on the great bend of the Ayeyarwady was Sagaing, as the heart of the Kingdom of Sagaing between 1315 and 1364, and later, for a brief period, between 1760 and 1765, as the Burmese capital under the Konbaung dynasty.

However, already in 1365 it was superseded by Innwa, the capital of the Kingdom of Ava until 1555, and thereafter of the whole of Burma, under the Toungoo dynasty, from 1599 until 1613, and again from 1635 until 1752.

Ava became the Burmese capital again under the Konbaung dynasty, from 1765 until 1783, and for the last time between 1821 and 1842.

In 1783 King Bodawpaya transferred the royal seat to the city he founded, Amarapura, which became the Burmese capital from 1783 until 1859, with an interruption between 1821 and 1842 (in this 20-year period King Bagyidaw returned the royal seat to Ava, up until the dreadful earthquake of 1839).

The last capital in the area was Mandalay, founded by King Mindon in 1857, which took over from Amarapura in 1859. Mandalay remained the capital of Burma until 1885, when it was occupied by the British, and annexed to the Burmese Province of the Indian Empire, until, in the city liberated from Japanese occupation in 1945, the British ceded government to the Union of Burma (1948).

The distinctive urban feature of this long history is that no fewer than three of the four cities in the area that have been capitals (Innwa, Amarapura and Mandalay) adopted the typical binary model of cities in southern Asia, consisting in an inner city (or royal city) and an outer town. In this model, the royal city, defended by its own walls, was designed to house the palace, the central functions of the kingdom, and the residence of the king's relatives and his followers. Meanwhile, the outer town, which could be defended by a second circuit of walls (as in the case of Innwa), or not (Amarapura and Mandalay), was designed to accommodate the ordinary populace and all the urban service activities, or activities independent of the court, even.

Unfortunately, of the three adjacent royal cities, which constitute perhaps the most extraordinary concentration of this kind of urban site anywhere in the world, only fossil remains are left. Indeed, Innwa was almost razed to the ground by the 1839 earthquake, and only a few sections of the walled circuit survive, along with a few parts of the ditches, and the shape of many individual plots of land.

Amarapura was dismantled by King Mindon himself, when he moved the capital to Mandalay. His scrupulousness in doing so can only be explained by an intention

not to offer any convenient foothold for the much-feared British advance. Today the only remains are a few sections of the defensive ditch, the configuration of the plots of land along the city walls, and the four stupas at the corners of the square layout of the foundation.

The royal city of Mandalay has also come down to us as a fossil skeleton, despite the dazzling splendour of its outer walls, reflected in the waters of the moat that is still intact. Indeed, after the 1885 conquest, the British, in keeping with their actions in all the cities of Rajahstan, dismantled all the buildings within the royal city, except for the royal palace and some sacred buildings, and in this huge precinct they set up the largest military installation in the Burmese province (Fort Dufferin). The royal city is still today occupied by military buildings, and access to it is barred, except for the rebuilt palace.

The system of the three royal cities is thus a sort of latent presence in the area, and it would be likely to yield incalculable developments, were it to be the subject of large-scale research efforts, and brought to light and made known more widely, and if accessibility was adequately promoted, or even its revitalization.

3.3.3 THE SYSTEM OF CONTEMPORARY SETTLEMENTS

The most surprising fact when examining the contemporary state of urban settlements in the area is the substantial survival of the prior layout, or, as one might say, the lack of phenomena that have radically altered the centuries-old conformation of the system of settlements.

Of course, the absolute dimensions have changed: today the ACUM area is home to a total of 1,722,070 inhabitants. However, the relative dimensions of the various parts of the area, especially between the two sides of the Ayeyarwady, have remained very similar to the ancient equilibriums.

One is most struck by the fact that the layout of the periurban areas, still founded along the lines of the system of villages, has survived all the structural upheavals of the last century, and the demographic growth of more recent years.

In the area, both forms of village are still alive: the rural village, which is obviously much more widespread; and the river village.

The rural villages in the ACUM area that have remained outside the area of urban expansion still number around 50 today. Most of these belong to the rural townships of Sintaing, Madaya and Tada U, but they are also present in the extra-urban areas of Amarapura, Patheingyi and Sagaing. They have not partaken of the phenomena of demographic growth and building development, as seen in urban areas, nor have they changed their basic form of activity. They therefore appear as the population centres that have the highest level of persistence of the original components, both as regards the community and as regards the built environment, and the landscape.

River-side villages are villages whose basic activities (fishing and ferrying) depend on the river, or rather on the rivers, because the Myitnge also has some of these. There is a much smaller number of these (no more than 22), and they are in part sited on the banks of the rivers, and of Lake Thaungthaman, and in part on the islands in the flood-plain. The observations regarding the extraordinary survival of pre-existing settlement layouts also apply to these sites.

Mandalay is without doubt still the biggest urban centre in the area, as it has been ever since its foundation. Today it has around 1,225,000 inhabitants (1,225,546 in the 2014 census), and it plays host to the main activities of transformation and the main services in the area, or rather throughout northern Myanmar.

Its modern-day size covers an area of around 98.5 sq. km (it was 42.14 sq. km when founded, and it had already grown to 66.17 in 1939, Thin Thin Kaing 2015), with a development from north to south of around 15.5 km, and from east to west of around 6.5 km.

Its urban configuration has been confirmed, not betrayed, by this growth. Squeezed between the furthest-flung hills and the river in an east-west direction, and obstructed by the presence of the sacred hill to the north, expansion has taken place only southwards.

Ever since its foundation, the Outer Town derived its organization from the interplay of two distinct frames: a regular network of streets, at a uniform distance of 170 x 170 mt between them; the pre-existing network of creeks originating from the eastern hills, and channels for water management and irrigation in the plain.

The orderly structure of the road grid has been systematically extended southwards, reaching and going beyond the latitude of Amarapura. The main east-west foundation axes of the Outer Town are numbered from 1 to 50; the north-south streets from 51 to 91. Outside this range, the streets have varied place names. The layout of streets in a network of east-west and north-south arteries did not maintain, in subsequent expansions, the same regularity as the foundation nucleus, but became denser, or more thinly spread out, depending on the varying needs of the urban centre.

Thus, in the suburban residential neighbourhoods in the south-east, the size of each basic block could be 40 x 120 mt. It was thus narrow and elongated, and suited for very elementary residential units. By contrast, in the industrial zones in the south-west and south, the basic mesh size is 170 x 340 mt. It is thus twice the size of the foundation unit, and can easily accommodate the industrial facilities of the small to medium-sized businesses that characterize the manufacturing fabric of northern Myanmar.

By contrast, the network of creeks and canals has a looser, freer pattern (rendered only slightly more regular in some parts, following the city's foundation). In general, the creeks are aligned north-east to south-west (Shwetachaung and Payantaw, and also the Yay Ni Canal), according to more or less converging courses, from the foothills of the Shan uplands down to the river. They thus cut across the network of streets in a great variety of ways. By contrast, some of the canals (especially the Nadi Canal) are aligned with the lattice of streets. The most important canal for the urban landscape is, however, the Thinga Yazar Channel, a kind of riverside lake which follows a course sub-parallel to the river, between 23rd Street and the Mandalay Kantawgyi. Only the creeks and the main canals have roads running alongside them (which thus depart from the uniformity of the street network). This is another reason why the presence of the canals adds elements of marked morphological characterization to the urban environment. These elements are enriched by bridges, which, especially in the case of pedestrian-only bridges (such as the bridge over the Thinga Yazar canal), make a crucial contribution to the townscape.

A third element that acts as a systematic connecting feature in the urban environment is the large-scale presence of trees. Indeed, not only are most of the streets, and all the canals, lined with trees, but also the internal spaces not built on, standing within almost every urban block, are full of trees. This, together with the fact that most buildings are no higher than two storeys, creates an urban skyline literally dominated by tree vegetation. Indeed, only the tops of the pagodas rise above this tree growth,

and the very few tall buildings built more recently were erected on an isolated basis, in some points of the urban fabric. The presence of trees is so preponderant that some parts of the city could be described as inhabited woods.

Topographically and administratively, the city is divided into five townships: Aungmyathazan, Chanayethazan, Mahaaungmyay, Chanmyathazi and Pyigyitagon (from north to south). The 26th street separates Aungmyathazan from Chanayethazan, 35th Street separates Chanayethazan from Mahaaungmyay, Theik Pan street separates Mahaaungmyay from Chanmyathazi, and the railway line for Lashio separates Chanmyathazi from Pyigyitagon.

The township of Aungmyathazan, which covers an area of 26.2 sq. km, comprises the great sacred complexes of Mandalay Hill and its slopes, and the remains of the royal city, with the palace and its military installations, as well as the residential districts north of 26th Street. Its population numbers more than 265,000, making it Mandalay city's second-largest residential concentration.

The centre of urban life is still located in the township of Chanayethazan, and takes place between 26th and 35th Street, and between 78th Street and the bank of the river. Here there is the highest concentration of commercial businesses (starting with the traditional Zegyo market) and places to eat, and the most important entertainment locales are also situated here: the MyoMa Theatre just behind the central station, and the Myo Daw Garden amusement park, almost on the bank of the Ayeyarwady. Chanayethazan is the least extensive (12.3 sq. km) and least populous (approximately 197,000 inhabitants) of Mandalay's townships, but it is certainly the one that exerts the biggest attraction.

Further south lies Mahaaungmyay (15.5 sq. km, 241,000 inhabitants), partly looking out over the north bank of the Mandalay Kantawgyi. This township is home to the university city (Mandalay University), which is around 93 ha., and the City Hospital.

In Chanmyathazi township (26.1 sq. km, around 283,800 inhabitants, the most populous township) there stands the hospital city, with many of the main medical facilities, including Kandaw Nadi Hospital, and a large sports complex, including the athletics stadium (Mandalay Thiri Stadium). Inside the township (along 78th Street) there is also the old city airport of Chanmyathazi.

Further south lies Pyigyitagon township (33.1 sq. km, 237,700 inhabitants). Here, two large industrial sites have established themselves in the street grid, without interrupting the regular network of streets. The first stands on the left bank of Payantaw Creek, and covers an area of around 300 ha. The second stands 2 km further south, and covers an area of around 250 ha.

On what are now the southern fringes of the Mandalay agglomeration, but already in Amarapura township, there stands the logistical centre of the whole conurbation, where incoming supplies converge, and from where goods are distributed to the whole area.

By contrast, development has been limited in the northern sector. The only important function is represented by the large district prison, situated on the northern edge of the urban area, but already in Patheingyi township.

The urban area of Mandalay is also served by a circular rail line, still open, located near the royal city. Indeed, the line that used to operate at the internal foot of the west wall, crossing the south ditch and the north ditch, was never reactivated after the war. The circuit begins from the central station (Chanayethazan, on 78th Street, at the 27th street crossing), and comprises the line for Yangon as far as the junction for Lashio, and the line for Lashio as far as 62nd Street, where a

crossing originates an exclusively local line headed north that runs between 60th and 59th Streets; after the station of Aung Pi Le, this line branches off eastward near 26th Street, and then heads north again. It meets 19th Street outside the town, and sticks to the fringes of the city, skirting the foot of Mandalay Hill from east to north. Finally, it runs westward until merging with the northern railway (Madaya) near 76th Street. This circuit constitutes a vital resource for the reorganization of urban mobility, also for the purposes of tourism.

The town of Amarapura occupies the area of land between the south-west margin of Mandalay City, the river, and Lake Thaungthaman, in the context of a very large township (135.5 sq. km) which today has a total population of over 202,000 inhabitants. The city has retained its suburban nature, with a significant presence of craft businesses and activities linked to river transport and fishing.

Tada U township, which is even larger than Amarapura township, also comprises Innwa (which has taken over the urban legacy of Ava). The essential nature of Innwa is still rural today.

The very large Sagaing township has 140.6 sq. km in the ACUM area. The city has grown to the extent of numbering around 150,000 inhabitants, in a relationship of continuity with the ancient town, located inland from the hill (the sanctuary site), and standing alongside the river only for a brief section, facing Innwa.

Sagaing's urban configuration is still determined today by the structural dominance of the centuries-old road connection between the population centres in the west and north-west (Monywa, Shwebo, India) and the harbour at the foot of the sacred hill. The importance of this connection has always been confirmed, first with the addition of the rail line, and later with the construction of the two single bridges over the Ayeyarwady. The urban formation of Sagaing is thus of linear type, with the main functions being concentrated behind the area bordering the river.

For all the settlements, the observation applies whereby the building types adopted for development have been, with very rare exceptions, in keeping with local tradition, and that the skyline has maintained a horizontal dominance, so as not to lead to significant alterations to the landscape context.

Important infrastructure investments have taken place in the last decade. These have greatly improved the area's accessibility. As well as the second bridge over the Ayeyarwady, mentioned above, the two biggest projects are undoubtedly Mandalay's new international airport, in Tada U township, and the highway that connects Mandalay to Naypyidaw and Yangon.

■ 3.4 THE ECONOMIC SYSTEM

There is no need to stress the close link between the economy of a territory and its development trajectories, in the past, the present and the future. In a highly globalized world, that is almost totally hegemonized by the current evolution of economic capitalism, any discussion of territorial development cannot exclude a close analysis of the underlying economic system, and of the tendencies in its development. This is even more true in the case of the ACUM area, for a great variety of reasons, among which it will be enough to mention the fact the country has opened up to the international markets in the last five years, with numerous constitutional and economic reforms; the inestimable value of the tangible and intangible her-

itage of the places and people of Myanmar; the very rapid and very recent growth of the tourist phenomenon; and, finally, the urgent need – stemming from the above – to increase the sustainability and responsibility of the development currently in progress. With a view to this, and in order to provide a concise overall picture of the economy of the places that are the subject of this plan, here below we illustrate the main elements that characterize the national and local system.

3.4.1 THE NATIONAL MACROECONOMIC SITUATION

In analyzing the current state of Myanmar's economic system, one cannot omit a consideration of the effects of the long period spent by the country under the military regime as of the 1960s. Indeed, from that time on, the isolation sought by the political powers, and the economic sanctions applied by other countries, heavily influenced Myanmar's chances of economic development, seriously limiting import and export activities, as well as access to international investments and aid (Mieno, 2013). Only in 1990s a process was undertaken to reform the economic system, and this opened the country up to international trade and foreign investments (ADB, 2012b). This led to a high growth in the nation's Gross Domestic Product (GDP), with an annual average greater than 10% up until 2007, and just under this in the following years, and also, according to forecasts, until 2020 (Fig. 3.4.1.1). The political and economic reforms also saw an acceleration as of 2011, after the approval of the new Constitution, being steered towards a complete opening up of the economy in the international context (Mieno and Kubo, 2016). The election of Myanmar's first civilian head of state in November 2015 also consolidated the country's desire for a more open economy and growth, while still pursuing general goals of sustainability (World Bank, 2016a).

The country's economy thus seems to be growing considerably, if compared with that of other Asian countries. The average GDP growth rate in the period 2011-2013, for example, was around 7% for Myanmar, around 7% for emerging countries in Asia, and around 5.5% for ASEAN countries. Meanwhile the respective forecast average rates of growth, for the period 2015-2020, are more than 8%

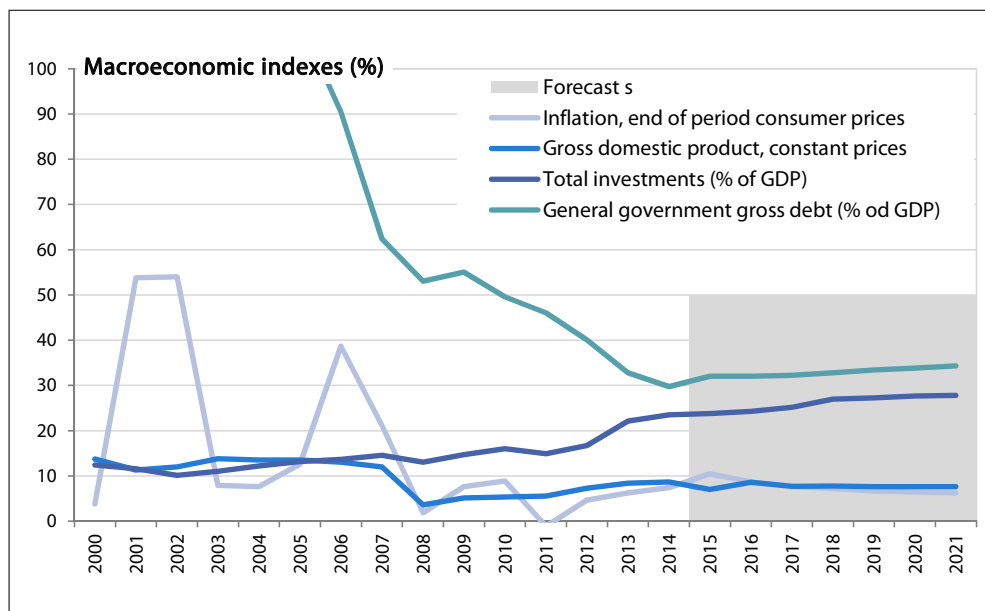


Fig. 3.4.1.1 Some of Myanmar's main macroeconomic indexes; forecasts on grey background.

Source: processed by author; data from IMF, 2016a.

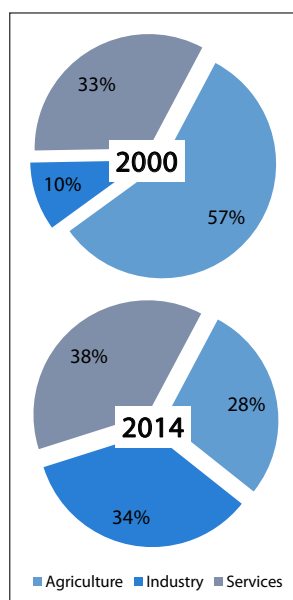


Fig. 3.4.1.2 Contributions to Myanmar's GDP in 2000 and 2014, percentages based on value.

Source: processed by author; data from MMSIS, 2016.

for Myanmar, around 6.5% for emerging Asian countries, and around 5% for ASEAN countries (OECD, 2016a). However, Myanmar's GDP growth appears relatively slow compared to its current low level in absolute terms, being around 63 billion USD in 2014, and above all when compared to its current per capita level (OECD, 2013). Indeed, per capita GDP based on PPP¹⁸ recorded in 2014 in Myanmar is equal to 24% of the same value produced on average by emerging Asian countries, and is 22% of the average for ASEAN countries, and 13% of the average for OECD countries (IMF, 2016a). The composition of Myanmar's GDP at current prices, shown in Fig. 3.4.1.2, shows what the evolution of the nation's economy has been like in recent years. Indeed, while in 2000 more than half of the contribution to GDP came from the agricultural system, and industry did not play a crucial role towards it, only fourteen years later the contributions to national output by the three macro-sectors¹⁹ of agriculture, industry and services had become very balanced, following considerable growth by industry.

Also, in Fig. 3.4.1.1, one can see the trends in some other main macroeconomic parameters. After a sharp rise in inflation in the early 2000s, and the rise in the middle of that decade, inflation then fell, and began to have annual rates similar to those of GDP, in other words around 7.5% in 2014, with forecasts of between 8% and 6%, on a falling trajectory, until 2021. Investments have been constantly growing in the last 15 years, with rising annual rates of between 15% and 20% up until 2012, and above 20% in the period 2013-2014, and forecast as being between 20% and 30% from now until 2021. Overall, the growth of investments therefore seems to be constantly accelerating, but the foreign component of these investments is essential for triggering the country's solid development. Indeed, national investment resources alone are too limited compared with spending needs, mainly owing to the current taxation system, which contemplates taxing only 0.4% of the population, namely around 200,000 inhabitants, and owing to difficulties in collecting taxes. This leads to the fact that Myanmar's government revenues are among the lowest of all emerging Asian countries (World Bank, 2013b). Despite this, sovereign debt has been drastically and gradually reduced in the last 15 years, from almost 150% of GDP in 2000 to around 30% of GDP in 2014, with stable levels forecast, of between 30% and 35% of GDP, until 2021 (cf. Fig. 3.4.1.1). Moreover, as of 2011, the approval of new laws has encouraged the sector of micro-finance, and has introduced a more elastic regime for managing sovereign currency exchange rates. It has also opened up the insurance sector to private initiative, and made the banking system more independent from the Central Bank of Myanmar, whilst still leaving a lot of room for the modernization of the banking sector²⁰.

In 2014, the value of Myanmar's foreign trade was just under half of the total amount of national production, with exports standing at around 12.5 billion USD, equivalent to 20% of GDP, and imports on around 16.6 billion USD, equivalent to 26% of GDP. As noted in Fig. 3.4.1.3, the growth of foreign trade began only as of the mid-2000s, but from that time on it has soared, with average annual rates of 22% and 14% for exports and imports respectively. Also high are forecast growth rates, which are put at around 14% a year both for imports and for exports. In Fig. 3.4.1.4 we can see the distribution of Myanmar's foreign trade among its main partner countries in 2014. Most imports and exports are to and from Asian countries, involving especially south-east Asia, while trade with the other continents is very limited (6.5% of imports, and 4% of exports). The countries from which most imports come are China and Singapore, with Japan and Thailand in second place, and then India and Malaysia. The re-

¹⁸ In other words, harmonized according to the purchasing-power-parity (PPP) method, which enables comparisons between the currency variables of the various countries, maintaining equal purchasing power (Gulde and Schulze-Ghattas, 1993; IMF, 2004).

¹⁹ The macrosectors considered comprise: Agriculture: agriculture, livestock and fishery, forestry; Industry: energy, mining, processing and manufacturing, electric power, construction; Services: transportation, communications, financial institutions, social and administrative services, rental and other services, trade.

²⁰ For further discussion of the banking and financial sector in Myanmar, see KPMG (2013).

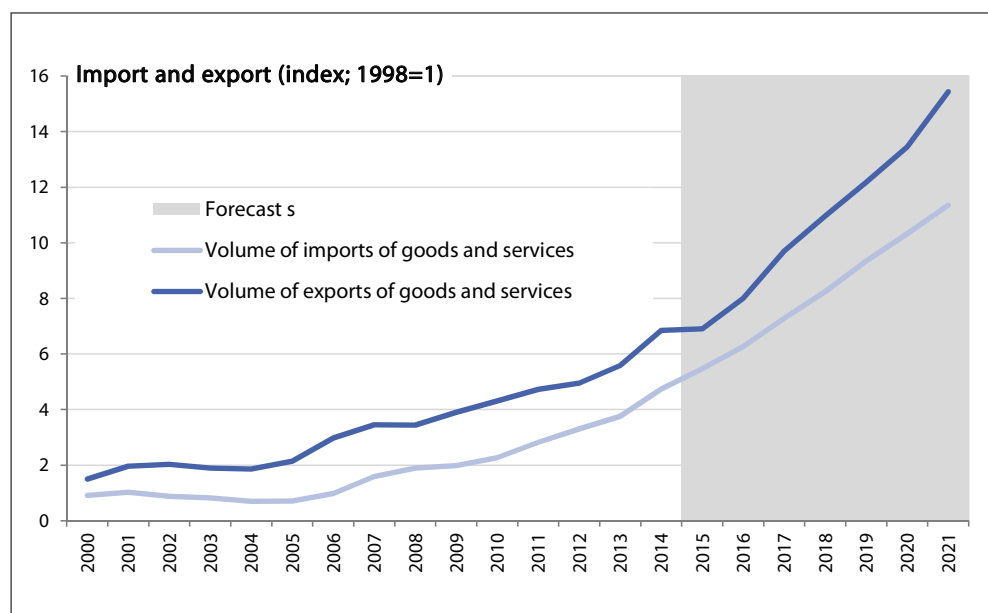


Fig. 3.4.1.3 External trade of Myanmar; forecasts on grey background.

Source: author's processing; data from IMF, 2016a.

maintaining 16% of imports come from other countries. Of these, the leading non-Asian country is the USA, on 3% of the value, the second being Italy, with 0.6%. Exports are mainly to China and Thailand, which together account for almost 70%, and thereafter with Singapore, India, Japan and Korea. The remaining countries only total 11% of exports, and of these the leading non-Asian partner is Germany, with 1% of the total. As shown in Fig. 3.4.1.5, the chief commodities²¹ imported by Myanmar are, in order of importance, mineral products, mechanical and electrical machinery (including media devices), manufactured products, transportation vehicles, and metals (raw materials as well as articles in metal). All these goods represent, together, a value of between 10% and 17% of total imports. The remaining commodities are quite numerous, and represent less than 30% of the total. Also in Fig. 3.4.1.5 we see that exports are mostly of manufactured products and minerals. In addition, smaller percentages of exports, each accounting for around 10% of the total, are represented by vegetable and textile products, while the remaining types of commodity make up less than 6% of the total exported.

3.4.1.1 ECONOMY AND AGRICULTURE IN MYANMAR

The agriculture sector traditionally constitutes one of the main foundations for the economy of Myanmar²², a country in which most of the population today still lives in rural areas. Also concentrated in these areas are almost all situations of poverty, often linked to the lack of access to appropriate quantities and types of food (Ram-mohan and Pritchard, 2014).

In 2013, all of Myanmar's agricultural production constituted a value of almost 20.5 billion International Dollars²³ (billion I\$); almost all of this comprised food (20 billion I\$). The subdivision of this output, and of this production of crops and livestock, was found to be very unevenly weighted towards the former category, which made up around 77.5% of the total. By far the most important agricultural product in Myanmar is paddy rice (unmilled rice), of which around 29 million tons was produced in 2013, for a value of 8 billion I\$, followed by dry beans (2.2 billion I\$), chicken (1.5 billion I\$), and other products, both animal and vegetable (Fig.

²¹ This analysis does not include equipment for military use, figures for which are not currently available.

²² For a thorough quantitative description of Myanmar's agriculture sector, see Republic of the Union of Myanmar (2013) and MoAI (2014).

²³ An international dollar would buy in the cited country a comparable amount of goods and services a U.S. dollar would buy in the United States. This term is often used in conjunction with Purchasing Power Parity (PPP) data (World Bank, 2016b).

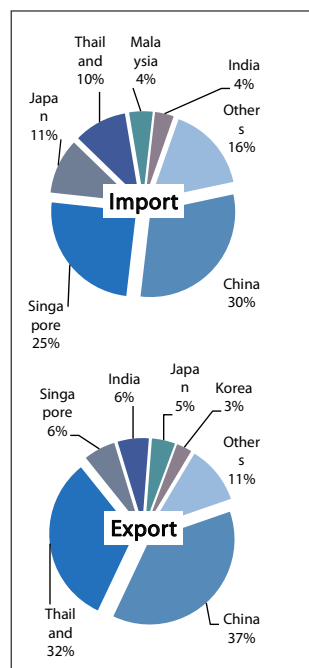


Fig. 3.4.1.4 External trade of Myanmar by countries, year 2014, percentages based on value.

Source: author's processing; data from MMSIS, 2016; MNPED, 2015.

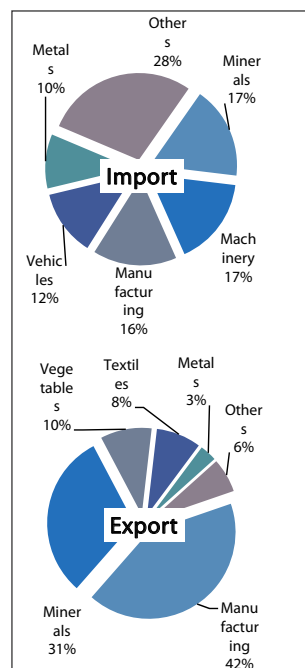


Fig. 3.4.1.5 External trade of Myanmar by type of commodity, excluding military equipments, year 2014, percentages based on value

Source: author's processing; data from MMSIS, 2016; MNPED, 2015.

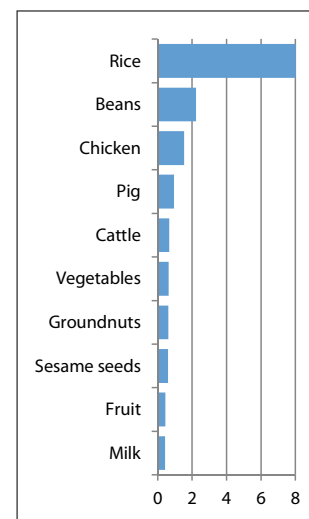


Fig. 3.4.1.6 Value of Agricultural Production of Myanmar in million international dollar at constant 2004-06 price, year 2013

Source: author's processing; data from FAO, 2016.

3.4.1.6). However, as stated above, most of Myanmar's annual GDP currently comes from services, and agriculture has become the least important sector, decreasing, in terms of value (Dapice, 2010), its historical, primary importance, linked above all to the production and export of rice to the southeast Asian market, and to the markets of China and India.

The biggest problems currently afflicting the county's agricultural system, and which presumably led to its contraction, is the lack of basic infrastructure, the low level of investments and know-how, and the fact that individual firms are very small. Indeed, 55% of businesses occupy an area of less than 2 ha., while only 4.3% of these occupy a site measuring between 8 and 20 ha., with 0.3% larger than 20 ha. (OECD, 2016b). This leads to a low rate of productivity (Oxfam, 2014), and consequent low levels of income in the agricultural sector, which remains largely a system based on survival; indeed, the smallest businesses tend to maximize production per hectare, but they obtain a low quantity of product per working unit employed (FAO, 2014). Anyway, agriculture still plays an extremely important role in Myanmar's economic system. Although its contribution to GDP has fallen from almost 60% in 2000 to just under 30% in 2014, the agricultural sector still employs around 60% of the country's workforce, and contributes around 20% to exports (OCDE, 2016a). It is thus clear that if Myanmar regains its historical role as a major agricultural producer in the sub-continent, this could constitute a powerful engine for the county's economic development, and help fight rural pover-

ty. Moreover, the nature and peculiarity of local agricultural products could be a vital resource for attracting tourism to local gastronomic traditions, such as street food, for example (cf. Chapter 4).

According to a recent analysis by the OECD Development Centre, carried out with the collaboration of stakeholders in Myanmar, the priorities for action that ought to be adopted today, for the development of the country's agricultural system, consist in the creation of value by means of high-quality products, promoting training and research in the sector, modernizing the financial system linked to agriculture, strengthening land rights, engaging in participatory policy design, and managing migration (OECD, 2016b).

3.4.2 THE LOCAL ECONOMIC SYSTEM

The geographical area that is the subject of this plan (i.e. the ACUM area) is around 565 km² in size, and is located in an area between the two regions of Mandalay and Sagaing, covering 75% of the extent of the former, and 25% of the latter (cf. Chapter 1.2). Around 75% of the area has rural characteristics, since only the two cities of Mandalay (made up of five townships, equivalent to 21.5% of the ACUM area) and Sagaing (contained in the township of the same name, for 2.5% of the ACUM area) can be regarded as urban (MIMU, 2016a).

The city of Mandalay is the real urban nucleus of the ACUM area. It is situated in a strategic zone of Upper Myanmar, at the junction of the country's most important lines of communication (cf. Chapter 3.5). This favourable position, together with the local resources available to it, have made Mandalay one of the biggest national centres for trade and investments, for industrial and manufacturing output, and for tourism (cf. Chapter 5). The city's industrial activity is mostly concentrated in the industrial zone of Mandalay, situated on the southern edge of the city, and just over 500 ha. in size. In this area, in 2014, almost 1,400 businesses with an average number of almost 10 workers per firm were found to be present, and around 1,100 factories devoted to manufacturing (44%), metal and minerals processing (18%), the production of food and beverages, in particular sugar factories and beer breweries (12%), and the production of textiles and clothing (10%), with residual percentages for the other productive activities such as electrical and industrial equipment, cars, artistic products and personal items (Abe, 2014). However, Mandalay's industrial zone does not currently feature among the most important of those present in Myanmar, since it is among the least important both in terms of the number of employees per firm, and in terms of the amount of sales and gross profits of the firms located in it (Abe, 2014). According to the Mandalay Region Chamber of Commerce and Industry, in the urban area of Mandalay there were around 20,000 firms and 14 branches of private banks in 2014 (Pompa and Bissinger, 2014). However, the city stands in a rural regional context, whose economic production is traditionally based on agriculture. Together with animal farming and freshwater fishing, agriculture still represents the main source of sustenance for most of the non-urban population (MMRD, 2015). Indeed, 75% of workers are found to be involved in agricultural activities (Pompa and Bissinger, 2014), of whom 40% are directly listed as involved in the economic branch of agriculture, animal farming, and fishing (MoIP, 2016). However, according to a study conducted by the United Nations Development Programme (Schmitt-Degenhardt, 2013), in the region of Mandalay agricultural workers do not receive an appropriate return from their work, mainly owing to the lack of adequate skills and struc-

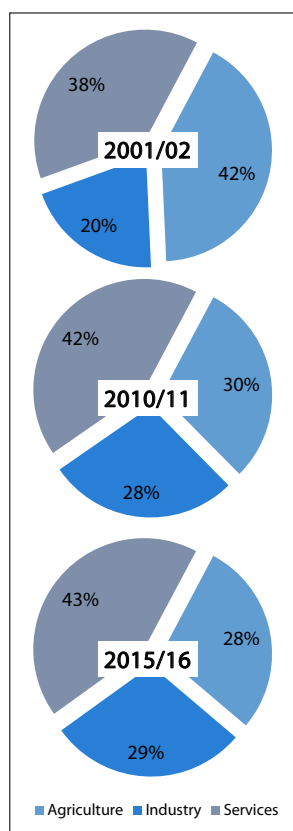


Fig. 3.4.2.1 Contribution of the Mandalay Region to Myanmar's GDP, percentages by sectors based on value.

Source: author's processing; data from MMRD, 2015.

tural investments. In this sector, drought annually leads to the loss of 12% of production, especially in rice production, and government policy on rice production, aimed at regional self-sufficiency rather than the optimization of production at the national level, does not seem the optimum strategy. Mandalay region is nevertheless an important centre for the production, processing and distribution of cultivated products, mainly rice, wheat, maize, peanuts, sesame, cotton, legumes, tobacco, chili, and vegetables. These types of products are the subject of an important trading activity involving exports, based in the city of Mandalay, and it exploits its strategic position as regards transportation networks. The goods are exported both to the states that are best connected to Mandalay, such as China and India, and to Yangon in the south, for retail sale nationally. Mandalay region is also a source of forestry products such as teak and other hardwoods, as well as of deposits of minerals and precious metals. Mining of these, in some cases, is of considerable importance, such as in the case of the ruby mines in Mogok, around 200 km north-east of Mandalay.

Tourism, also owing to its headlong growth in the last few years, constitutes an increasingly important component for the economy of the ACUM area, both in the area of Mandalay and Sagaing. For an illustration of the characteristics of the tourism phenomenon in the area, see Chapters 5.1 and 5.2, while for some considerations on the economic impact of tourism in Myanmar, and in the local context, see the subsequent Chapter 6.

The regions of Mandalay and Sagaing are among the biggest contributors to Myanmar's national GDP, with percentages recorded in 2014/15 of 11.4% and 11.6% respectively, second only to the figure for Yangon, which makes a 22% contribution to the country's production (MMRD, 2015). Specifically, the GDP produced by the region of Mandalay, previously based on raw materials from agriculture and forestry, has been more and more founded, in recent years, on the sectors of industry and services, whose economic output has risen a lot in the regional context. Whereas in 2001/02 agriculture accounted for 42% of the region's GDP, today it contributes only 28%, while there has been growth in both the industry sector (from 20% to 29%) and the services sector (from 38% to 43%), which is today the area's chief economic sector (Fig. 3.4.2.1).

Although the regions of Mandalay and Sagaing are the two biggest contributors to national economic production after Yangon, their levels of production per capita are lower not only than that of Yangon itself, but also those of other regions in the country. In 2014/15 these amounted to around 1.2 million Kyat²⁴ (around 1,000 USD) for Sagaing, and around 1 million Kyat (approximately 840 USD) for Mandalay, compared with more than 1.6 million Kyat (over 1,350 USD) for the region of Yangon. Thus, in terms of per capita GDP produced, Sagaing is the fourth region in the country, after Yangon, Tanintharyi and Magway; while Mandalay is the seventh, placing below Mon and Nay Pyi Taw, as well as Sagaing.

In the 11 townships that fall within the ACUM area, the unemployment rate²⁵ is, on average, 1.6%, but this rises to 1.8% in the urban subdivisions, and falls to 1.4% in rural zones. In all three cases, these values are lower than national averages (2.3% in total, 2.6% in urban areas, and 2.2% in rural areas), and also lower than general averages in the two regions of Mandalay (1.9%) and Sagaing (2.3%). By the same token, in the ACUM area the number of people in employment is much higher in rural areas (more than 58%) than in urban areas (less than 56%), in both cases with a prevalence of the employed over the self-employed (cf. Fig. 3.2.5a and Fig. 3.2.5b in Chapter 3.2). At the

²⁴ On 19 June 2016, 1,000 Kyat corresponded to 0.84 USD (<http://www.bloomberg.co>)

²⁵ Calculated as the percentage of the active population, over the age of 10, found to be seeking work (MIMU, 2016a).

time of the 2014 Population Census, in the townships that fall within the ACUM area there were more than 1.2 million people in employment, just over 900,000 inactive persons, and around 35,000 unemployed people. Although there is no detailed information available as to the types of work in the ACUM area, one can say that these are more numerous and diverse in urban contexts than in rural contexts, where employment is predominantly in agricultural activities (Nyo Nyo, 2016, cf. Chapter 3.2).

In the context of Myanmar's development strategy²⁶, the city of Mandalay is identified as the most important economic centre after Yangon, together with which it constitutes the two-pole hub around which is centred the vision of the nation's economic evolution in the next 20 years (Kudo et al., 2014). This development model, called the "two-polar growth model" (Kudo and Kumagai, 2012), envisages a process of further industrialization of the areas of Yangon and Mandalay, as well as an increase in their national and international connectivity by means of the enhancement of four main major communications corridors: the west-east corridor from the port of Sittwe to China, the corridor linking Yangon to Thailand to the south-east, and the two corridors that pass through Mandalay: the first going from India, in the west, to China, Thailand, Lao PDR and Vietnam in the east; the second from China in the north to Yangon in the south. In this context, Mandalay would constitute the centre for economic growth for the northern part of the country, and would also benefit from the planned investments in the national road, air, and rail transport systems, as well as in the development of its own existing river port (cf. Chapter 3.5). It is clear that the implementation of this programme would involve not only the urban area of Mandalay but also neighbouring zones; therefore, in our view, it would be necessary to reconcile the purely industrial vision of the "two-polar growth model" with the more specific vocations and potential of the areas that constitute the subject of this plan.

■ 3.5 THE TRANSPORTATION SYSTEM

The transportation system is universally recognized as being one of the main factors that influence the development of tourism (Page, 2009). Since mobility is a phenomenon that is an intrinsic part of any visit to a place, and thus of tourist activity, the level of availability and the quality of the transportation supply are crucial elements in shaping the phenomenon of tourism, both domestic and international. Moreover, tourism is influenced by the transportation system on differing spatial scales, from long-distance travel, needed to arrive at the tourist destination, to local travel, constituting the network for an exploration of the destination itself. The importance of transportation for the development of tourism is particularly evident in the case of Myanmar and the area around Mandalay that is the subject of this development plan. Indeed, whereas on the one hand the limited degree of maturity of Myanmar's current systems of transport requires great attention to the planning of their development, on the other hand this planning is a necessary condition for opening the country up to a sustainable and aware tourism development, after the recent periods of isolation.

3.5.1 TRANSPORTATION IN MYANMAR

Myanmar has a set of infrastructure that makes it possible to move people and goods using all the main forms of transport: as well as the rail and road networks, there is also a system of internal waterways and their ports, a system of maritime ports, and a system of airports. However, as will be seen below, the transportation

²⁶ Myanmar's development strategy is drawn up by the National Comprehensive Development Plan, that includes four 5-year plans covering a 20-year period (2011-2031), of which the Framework for Economic and Social Reforms is the first plan (ADB, 2014).

sector is still not very developed, both generally and compared to other ASEAN countries²⁷.

First and foremost, the governance of the transportation sector in Myanmar is fairly fragmented: Indeed, responsibility is divided between more than one Ministry, and – in the major urban areas of Yangon, Mandalay and Nay Pyi Taw alone – between their respective City Development Committees. These act locally in managing urban transport. There is therefore no one, single body that has coordination over the entire sector, and a clear subdivision of the areas of responsibility is not always evident (Asian Development Bank, 2012). The Ministries with responsibility in the transport sector are the Ministry of Transport (MOT), the Ministry of Rail Transportation (MORT), the Ministry of Construction (MOC), the Ministry of Border Affairs (MOBA), the Ministry of Livestock, Fisheries and Rural Development (MOLFRD), and – only for sector-specific aspects – the Ministry of Defence and the Ministry of Home Affairs. The MoT deals with management of air transport, maritime transport, and internal river craft; it has the role of port authority, and directly runs the national carrier, Myanma Airways, and the shipping company, Myanma Five Star Line; it also has responsibility for water resources, the river system, meteorology, and hydrology, and also, finally, runs the Myanmar Maritime University and the Institute of Marine Technology. By contrast, the MORT is responsible for the management of rail and road-based transport. It regulates road transport (motor vehicle inspection, registration and taxation; driver licenses, traffic regulations), and it has authority over the national rail company, Myanma Railways, and the road transport company for passengers and goods, Road Transport. The MORT is also responsible for national transport planning, and for licences for private operators in the passengers and goods transportation sector, and finally for the Central Institute of Transport and Communications. The construction and maintenance of roads and bridges is, meanwhile, one of the tasks of the MOC in the national context, of the MOBA in border areas, and of the MOLFRD in rural areas (MOT, 2015a).

Myanmar's road system comprises a total of around 150,000 km of roads (MOT, 2014a), corresponding to around 2.8 km for every 1,000 inhabitants, as against approximately 11 km per 1,000 inhabitants, on average, in ASEAN countries (UNDP, 2011). The main national core road network, shown in Fig. 3.5.1.1, is just under 38,000 km, corresponding to 0.7 km per 1,000 inhabitants, as against a similar average of 2.4 km per 1,000 inhabitants for ASEAN countries (ESCAP, 2016a). The percentage of surfaced roads is less than 22% in total, although this rises to just under 50% if one considers the national core network alone. There are several development projects regarding Myanmar's road system, on a continental or regional scale, including the *Master Plan for the Association of Southeast Asian Nations Connectivity* (ASEAN, 2011), the *Greater Mekong Subregion (GMS) corridor network strategy* (ADB, 2011), the *Asian Highway Network* (ESCAP, 2016b) and the *India-Myanmar-Thailand Trilateral Highway project*, sponsored by the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). Each of these projects has drawn up a supranational network with important corridors crossing Myanmar. For example, four primary routes of the Asian Highway Network pass through Myanmar: these are the AH1 and AH2 routes, linking India with Thailand, and the AH14 and AH3 routes linking Myanmar to China. Of these, the two AH1 and AH14 routes pass through the urban centre of Mandalay (UN, 2003).

In 2015 there were just over 5,300,000 motorized vehicles registered in Myanmar (MMSIS, 2016). The overwhelming majority of these consisted in motorcycles (84%),

²⁷ Association of Southeast Asian Nations, including Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam (ASEAN, 2016).

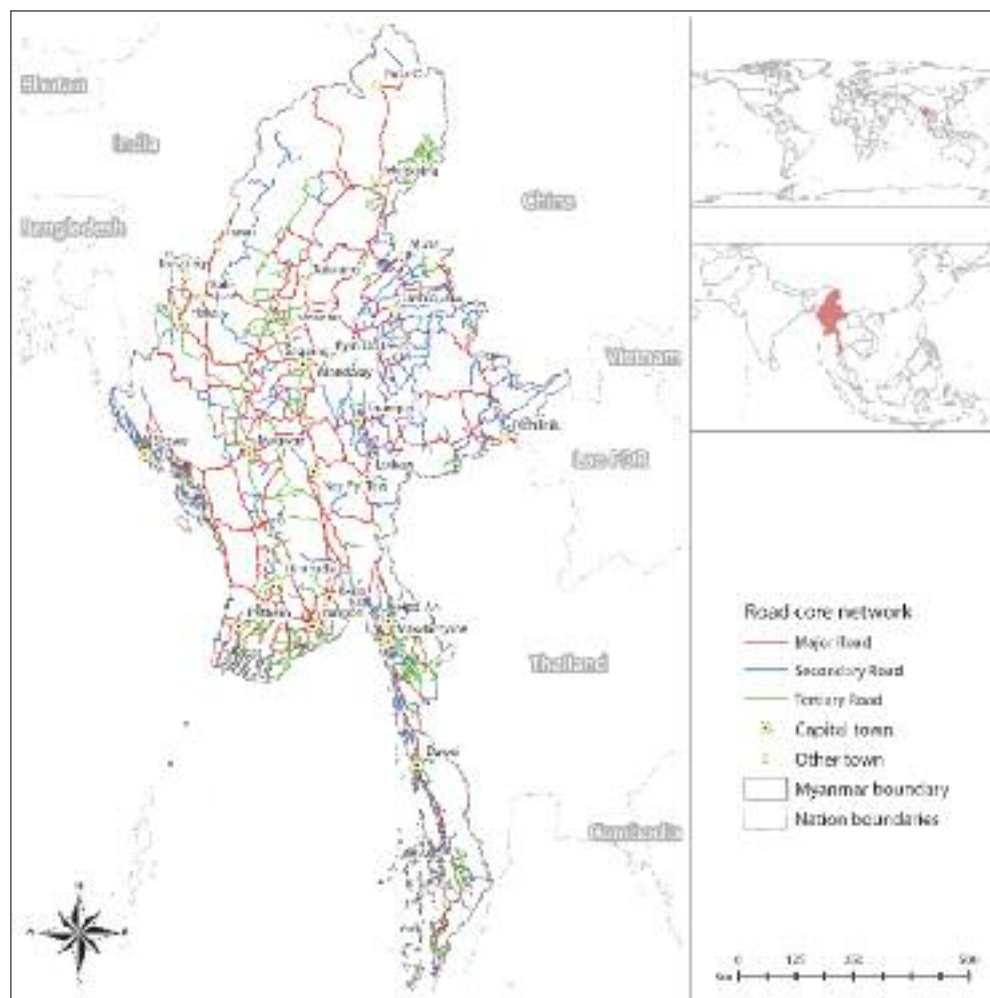


Fig. 3.5.1.1 Myanmar's core road network.

Source: data from MIMU, 2016a; MOT, 2014a; GSM, 2016; processed by author.

followed by automobiles (8%), trucks (3% light-duty, and 2% heavy-duty and other heavy vehicles), and finally buses (1%), three-wheelers (1%) and trawlergis (small agricultural vehicles, 1%). As shown in Fig. 3.5.1.2, the growth of vehicle registrations in the last 10 years has been considerable, although not constant, with an average increase of over 20% a year, and 30% between 2013 and 2014 alone. However, the number of motor vehicles²⁸ per 1,000 inhabitants, equivalent to 7, is considerably lower than the global average, and than the average among East Asia and Pacific countries, and also than ASEAN countries, which are respectively 176, 119 and 147 (World Bank, 2013a, cf. Fig. 3.5.1.3).

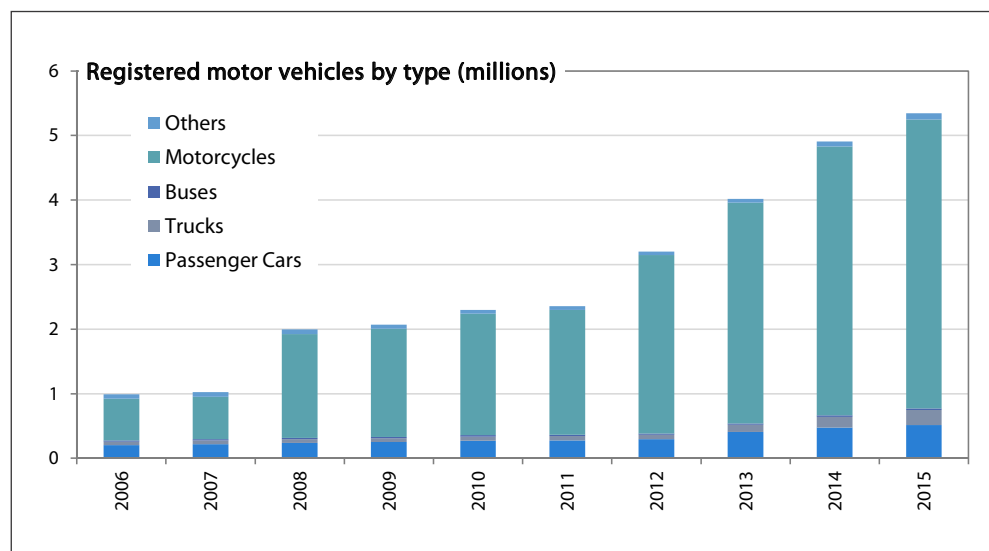
City-to-city public transport by bus has recently developed a lot in Myanmar, rising from approximately 1,600 fixed route bus operators in 2008, to more than 16,000 in 2011 (MOT, 2014a). Although more than half of the service are allocated in the area of Yangon, bus services include many intercity routes. The best served of these are north-south routes between Yangon, Mandalay and Nay Pyi Taw, and, thereafter, between Yangon and Mawlamyine, Hpa-an and Hinthada.

Myanmar's rail network, shown in Fig. 3.5.1.4, comprises more than 5,900 km of track – of which more than 700 km is dual-track – and almost 950 stations (MORT, 2014). The extent of the network has been almost doubled in the last 20 years, so that today it is among the most extensive of all ASEAN countries, having around 6.5

²⁸ According to the World Bank's definition, the following are regarded as included in the category of motor vehicles: automobiles, SUVs, trucks, vans, buses, commercial vehicles and freight motor road vehicles, excluding motorcycles and other two-wheelers.

Fig. 3.5.1.2 Time series of registered motor vehicles in Myanmar.

Source: data from MMSIS, 2016; processed by author.

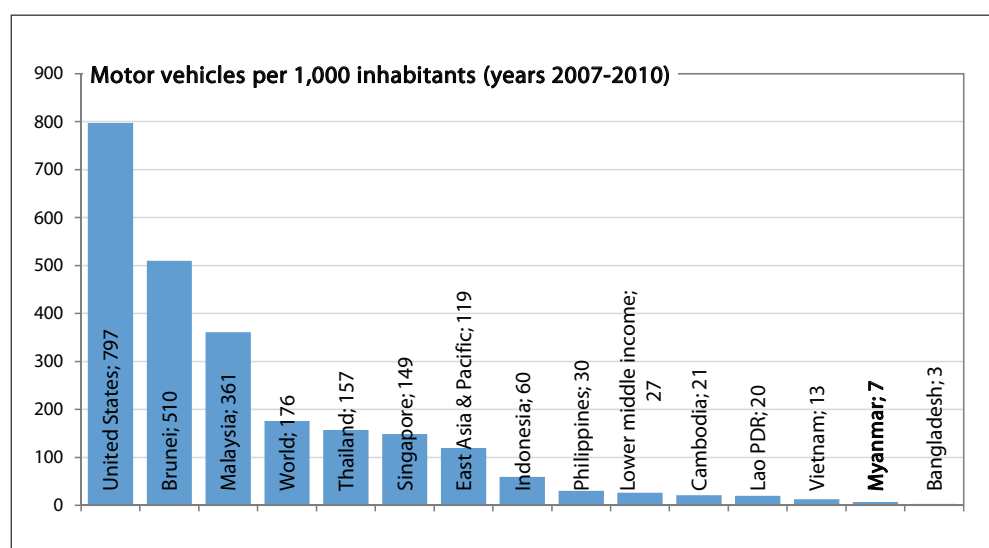


km of track for every 100,000 inhabitants, as against a regional average of less than half that figure. However, Myanmar's railway system is still a lot less dense than that of more developed economies, it is limited to the internal parts of the country, and there are currently no connections to neighbouring countries. Myanmar's rail network is nevertheless currently the subject of numerous international initiatives for the development and standardization of Asia's rail transport (ESCAP, 2013). In particular, some main routes, most of them passing through Mandalay, are part of the Trans-Asean Railway (Papazoff, 2015), although trans-border links are yet to be constructed that will connect Myanmar to China, India and Thailand (cf. Fig. 3.5.1.4). As mentioned, the rail network and train services are wholly managed by the national company, Myanma Railways, which transported around 53 million passengers in 2013, of whom around 24 using intercity trains, and almost 30 in the suburban network of Yangon (Yangon Circular Railway).

Owing to the country's physical characteristics and mountainous terrain, in Myanmar transport by boat, both using the inland waterways and by sea, is particularly used

Fig. 3.5.1.3 Motor vehicles ownership benchmark.

Source: data from World Bank, 2013a; processed by author.



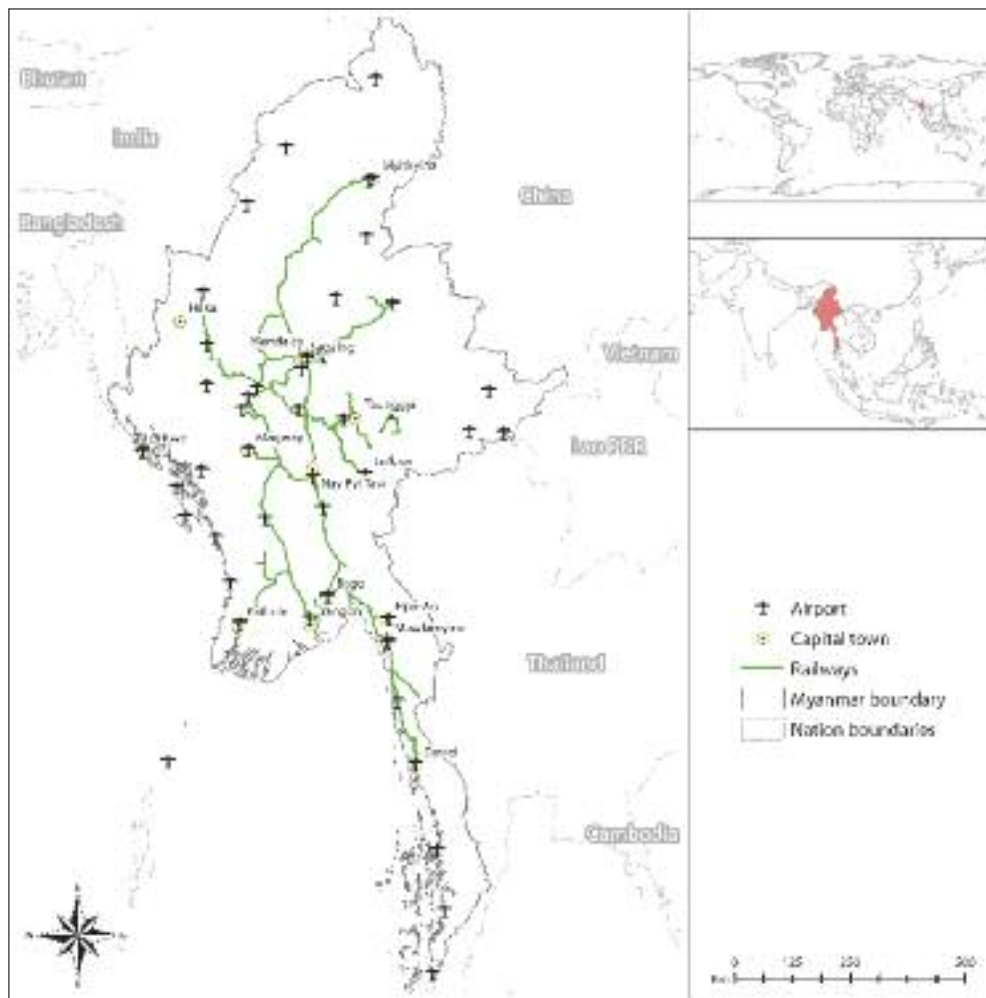


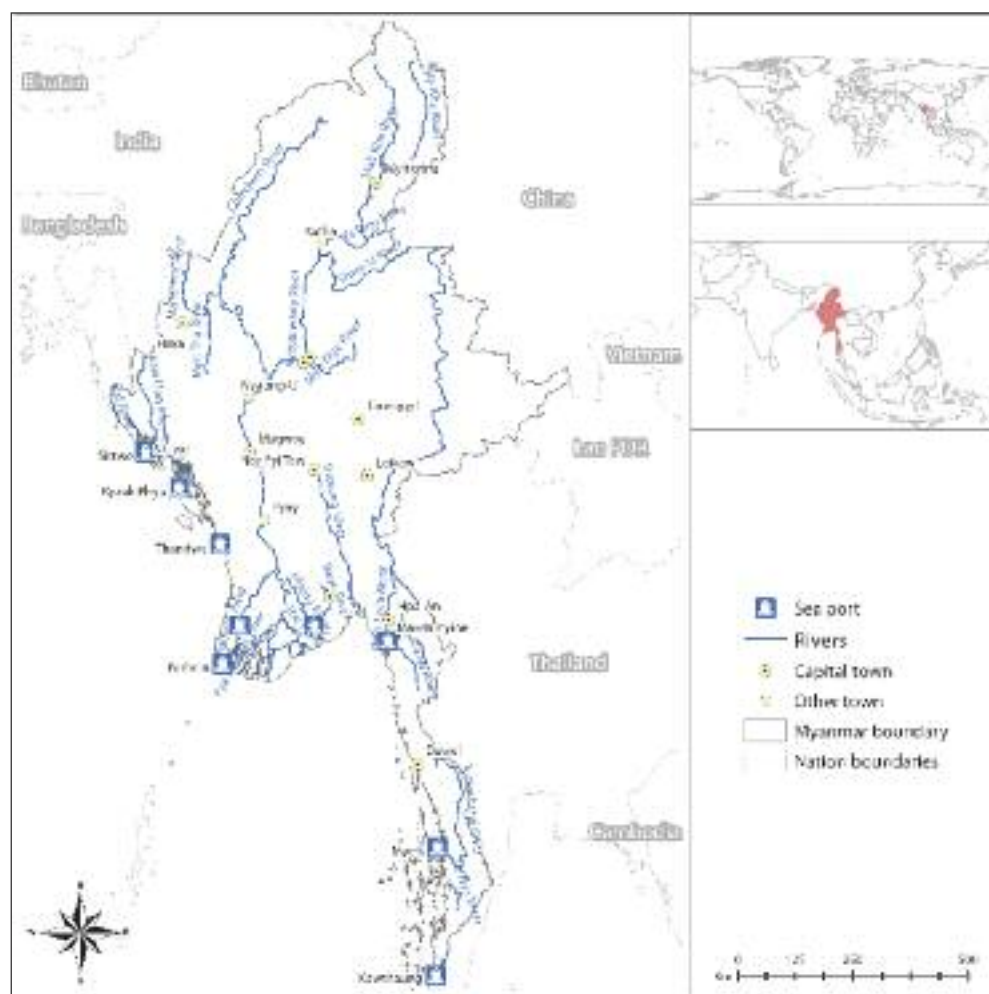
Fig. 3.5.1.4 The Myanmar's rail network and the national airport system.

Source: data from MIMU, 2016a; MOT, 2014a; GSM, 2016; processed by author.

(cf. Fig. 3.5.1.5). Indeed, there are more than 8,000 km of navigable routes along the country's main rivers, the longest of which (almost 4,200 km, including the main course of the river and branch rivers in the delta) is the *Ayeyarwady River route*. This starts in the north of the country and meets the sea in the south in the Indian Ocean, after also skirting the urban area of Mandalay and its port, about halfway along its route (MOT, 2015b). Along these water routes, services for transporting people and goods are operated both by the Inland Water Transport (IWT) company, owned by the MOT, which in 2013 had over 430 boats, of which 60% were motorized, and by several different privately-owned companies (MOT, 2014a). Although river transport is considerably attractive owing to the fact it is so economical (Nam and Win, 2014), it has some major critical aspects, such as the seasonable variability of the depth of the waters, the lack of facilities in ports, and the fact many vessels are now old and antiquated. These factors make an improvement in the whole sector desirable (MOT, 2014b). Myanmar currently has nine sea ports in operation. Of these Yangon and Sittwe conduct international traffic. The main port is unquestionably Yangon, which, with almost 25 million tons and more than 700,000 containers (TEU) per year transported in 2014-2015, operates most of the country's international goods traffic (MOT, 2015b). Between Yangon and the other ports there is also coastal traffic of more than 20,000 tons per day of goods for final consumption, such as fuel and foodstuffs (MOT, 2014a).

Fig. 3.5.1.5 The Myanmar's inland waterways network and maritime ports.

Source: data from MIMU, 2016a; MOT, 2014a; GSM, 2016; processed by author.



The national system of airports comprises three international airports, Yangon, Mandalay and Nay Pyi Taw, as well as 30 domestic airports and 26 other minor airports (cf. Fig. 3.5.1.4). International traffic is conducted by the government carrier, Myanmar Airways International, and by more than 20 international airlines, while in the domestic sector there are fewer than 10 airlines (MOT, 2014a). The number of passengers using air transport is rising constantly, and greatly (MOT, 2014c). In 2013, for example, international air traffic was around 2,663,000 passengers (+270% compared to 2009), 90% of which was concentrated at Yangon airport, while domestic traffic was around 3,836,000 passengers (+197% compared to 2009). In order to respond to this growth, measures are being looked into to expand the main airports (MOT, 2014a).

Only recently has Myanmar drawn up a *National Transport Development Master Plan* (Shibata, 2014). This followed a large-scale programme of research and analysis of the country's entire transportation system (MOT, 2014a). The plan envisages infrastructure development based on boosting ten priority corridors which connect the main urban, agricultural and industrial centres, for which a major development is foreseen in the coming decades. The transport plan was developed so as to be in line with *Myanmar's National Comprehensive Development Plan*, which describes the country's development vision and strategic goals, and also with the documents of supra-

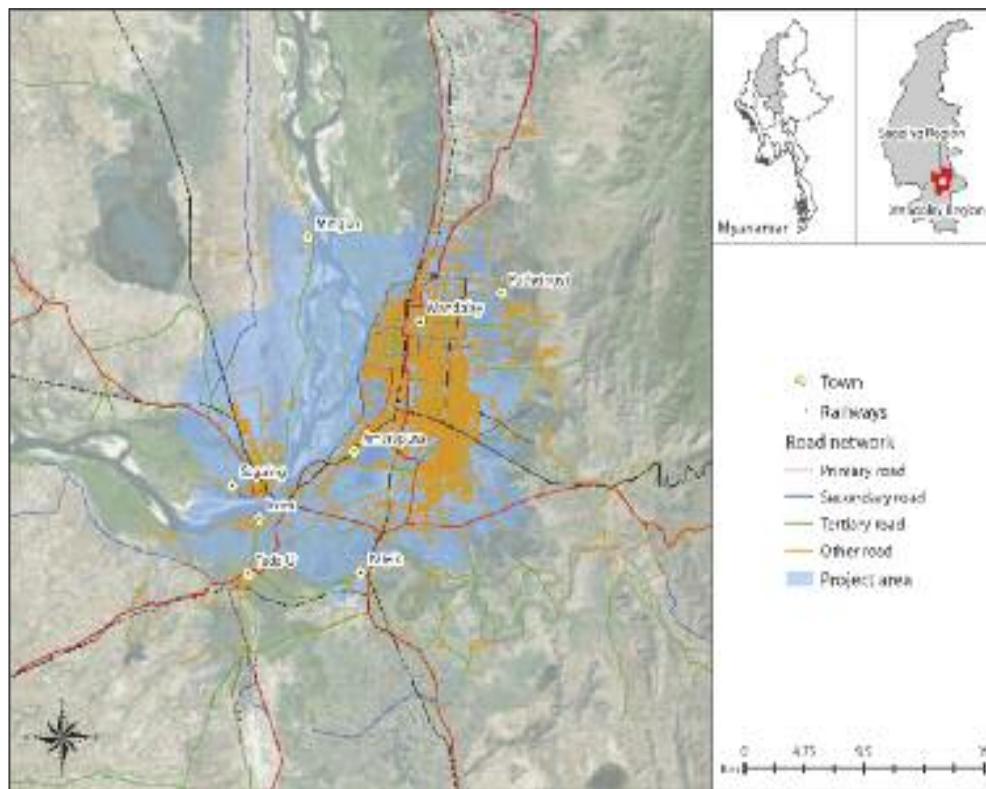


Fig. 3.5.2.1 Transport infrastructures in the area around Mandalay.

Source: data from MIMU, 2016a; MOT, 2014a; OpenStreetMap, 2016; background map from ESRI Imagery Basemaps; processed by author.

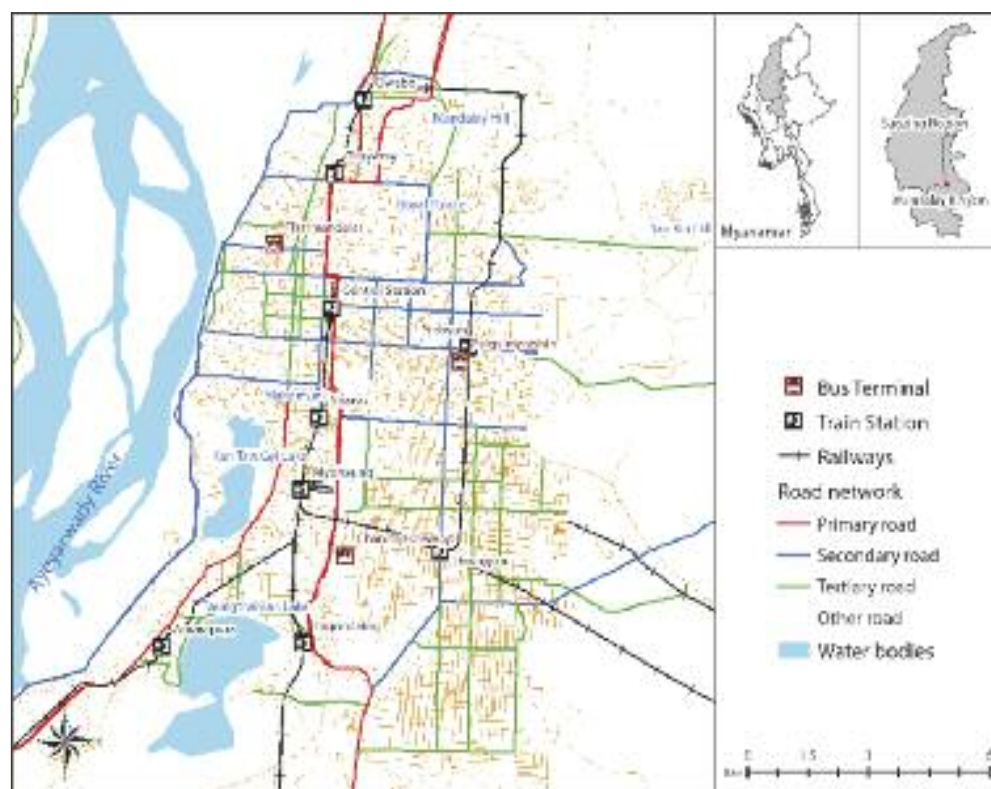
national planning which Myanmar has subscribed to, and which are mentioned above (*ASEAN network, GMS Corridors, Asian Highway Network, India-Myanmar-Thailand Trilateral Highway route, Trans-Asian Railway Network*).

3.5.2 TRANSPORTATION IN THE ACUM AREA

Being the most important centre in Upper Myanmar, Mandalay has, over time, taken on a focal role also in the country's national transport system. This role involves both passenger transportation and the transportation of freight; in the case of the latter, Mandalay represents an important handling centre for exports (chiefly legumes) and for imports (chiefly agricultural equipment, and fertilizers) to and from China (via Muse) and India (via Tamu), as well as an important distribution point for goods within Myanmar, especially along the axis to Yangon in the south (MIC/JICA, 2015). Indeed, via the road, rail and river network, Mandalay can take advantage of relatively efficient long-distance national relations, both of passengers and goods. These connect it directly to the main parts of the country, and with some of the neighbouring states: in particular, Myitkyina in the north, in Kachin State, Lashio, and Muse in the east, in Shan State, towards the Chinese border, the capital Nay Pyi Taw, and Yangon with its international port in the south, Magway in the state of the same name, and also Sittwe, with its medium-sized port, in the south-west, and finally Kale in the north-west in Chin State, and also Tamu in the Sagaing region on the Indian border (cf. Figs. 3.5.1.1, 3.5.1.4 and 3.5.1.5). Some of these relations coincide, moreover, with two of the corridors on which the *Myanmar National Transport Development Master Plan* intends to concentrate infrastructure development: the north-south Myitkyina-Mandalay-Nay Pyi Taw-Yangon corridor, and the west-east corridor which goes from India to China, passing through Tamu, Kale, Shewbo, Mandalay, Pyin Oo Lwin, Lashio and Muse (Shibata, 2014).

Fig. 3.5.2.2 Transport infrastructures in Mandalay city.

Source: data from MIMU, 2016a; MOT, 2014a; OpenStreetMap, 2016; processed by author.



The city thus stands at the centre of the main long-distance road links, since the main international routes mentioned in the paragraph above pass through it: the *Asian Highway Network*, the *ASEAN Highway Network*, the *GSM corridors* and the *India-Myanmar-Thailand route*. Particularly important is the motorway corridor to the south, Nay Pyi Taw and Yangon. Several long-haul bus services also use these corridors, connecting Mandalay with Takaung and Puta-O in the north, with Muse on the Chinese border in the north-east, and with Taunggyi, and also with Tachileik on the border with Thailand in the south-east, with the capital Nay Pyi Taw and south all the way to Yangon, with Magway, and also south down to Yangon, with Haka, and also with Tonzang near the Indian border in the north-west. Intercity bus services converge on three urban terminals (SAFEGE, 2015). One of these is situated east of the Royal City (Thirimandalar), one is in the eastern zone of the city (Pyigyimyatshin), and the last is in the south (Chanmyashwepyi or Kyelselkan), as shown in Fig. 3.5.2.2.

The portion of the national railway network that passes through Mandalay, on the other hand, is limited to crossing the city along a vertical, north-south axis (Fig. 3.5.2.1). The city's main station is situated just over 500 mt south of the Royal City (Fig. 3.5.2.2). The northern branch of the line comes from Madaya, situated around 35 km away, and it reaches the station of Mandalay, before then continuing south. Currently, however, this branch line goes around the Royal City in the eastern part of the urban area, before heading north as far as the main station. Indeed, the rail line that borders the Royal City is now disused. In the southern part of the urban area, the rail line splits into three different directions, bound for differing parts of the country: Lashio to the east, Amarapura, Sagaing to the south-west, and thereafter Myitkyina heading north again, and finally the zone of Tada-U and all the southern corridor as far as Nay Pyi Taw, Yangon and beyond. Therefore, in terms of rail connections, Man-



Fig. 3.5.2.3 Boats at the Ayeyarwaddy river bank, Mandalay.

Photo: C. Lo Presti, 2015.

dalay represents an important connecting point between all the various different parts of the country. Indeed, Myanmar's busiest rail lines for passenger travel radiate out from Mandalay: for Myitkyina in Kachin State in the north, via the nearby Amarapura (more than 2 million passengers a year), Nay Pyi Taw (around 2 million) and, with a lower volume of traffic, Muse, in the direction of China, in the east, Magway to the south-west, and finally Tamu in the north-west on the Indian border (MORT, 2015). Mandalay is equally important for freight transport by rail, both for international import/export with China (via Muse) and India (via Tamu), and for internal distribution. The main axis for goods transit by rail remains, however, the corridor linking Mandalay to Yangon and its international port (MIC/JICA, 2015).

Mandalay also has particular importance in the context of transport on internal waterways, which, as seen above, constitutes one of the country's main modes of transport. Along the Ayeyarwaddy river, the largest in Myanmar (Tun, 2014), there is large-scale goods trafficking, consisting of foodstuffs such as rice, as well as liquid fuels and coal, heavy machinery, building materials, and also various products for final consumption (MIC/JICA, 2015). Mandalay's port on the Ayeyarwaddy river, standing immediately west of the urban centre, is one of the country's most important river ports (Fig. 3.5.2.2). It provides passenger connections between the largest urban centres along the river, including Yangon, Pyay, Nyaung-U, Kathar and Bamaw (Fig. 3.5.2.3). It also handles freight cargoes for national and international transportation. Between 2012 and 2013, around 600,000 tons of goods were handled in the port of Mandalay, of which 500,000 by private sector operators, and the remainder by the government-owned company Inland Water Transport (MOT, 2014c). Mandalay's river port is fairly congested, and does not have modern equipment to load and unload goods; indeed these operations are carried out manually (MIC/JICA, 2015). Therefore it is to be hoped that it is modernized in the future. In this regard, the *Myanmar National Transport Development Master Plan* makes provision for a port development project which includes interventions to access roads, a new 3-ha open service area, and a dual jetty by the water-course, with a total length of 180 mt, connected to the service area by two

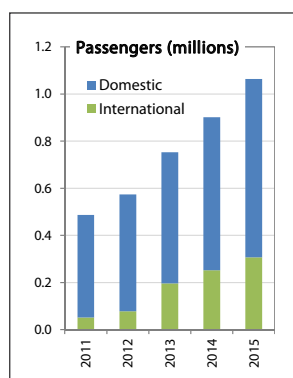


Fig. 3.5.2.4 Mandalay International Airport passenger traffic statistics.

Source: data from MOT, 2015b; processed by author.

bridges, 160 mt and 140 mt long respectively. In this way, it is forecast that the volume of traffic handled by the port may grow up to almost one million tons annually by 2020, rising to more than two million by 2040 (MOT, 2014c). In the vicinity of Mandalay there is also another important river port, further south-west along the Ayeyarwaddy river, around 75 km from Mandalay itself. This is the port of Semeikhon, covering an area of around 380 acres, in which there are the main port operation yard, processing areas, warehousing, free trade zone and administrative, ancillary services and transshipping areas. The port of Semeikhon is the subject of a development plan, in order to establish a better embarkation point for products from the nearby Mandalay Myotha Industrial Park, situated less than 20 km further east, towards Mandalay, and the improvement of its road links with Mandalay and the nearby airport, less than 60 km north-east (MMID, 2016).

Mandalay's international airport²⁹ is situated at around 90 mt a.s.l., and is 35 km south of the urban area. More precisely, it stands in the township of Tada-U, around 15 km south of the town of the same name, near the beginning of the highway between Mandalay and Yangon. The airport has a single, asphalted runway, 14,003 mt long. Links between the airport and the city are provided by fixed-rate taxi services; the fee ranges from 4,000 Kyat for a Shared Taxi, to 12,000 Kyat for a Private Taxi, and 15,000 Kyat for a Private Taxi with air conditioning³⁰ (Mandalay Airport, 2016). As well as the national carrier, Myanma National Airlines, flights to and from this airport are also made by several other airlines that connect Mandalay to national airports³¹ and – mostly overnight – the international airports³² of Bangkok (Thailand) and Kunming (China). The total number of daily flights is around 40 outgoing, and the same number incoming, of which around a quarter are international flights³³. Airport services for the general public include currency exchange, taxi transfers, duty free shopping and dining. As seen in Fig. 3.5.2.4, total traffic at the airport in 2015 was just over one million passengers a year, of whom around 300,000 were international passengers. Owing to the importance of Mandalay Airport, the Myanmar government has made provision for a development plan aimed at giving it a larger role as a regional passenger hub, and also – by an increase in handling capacity – as a logistical and goods pole (MOT, 2015b).

As well as being a nodal point for long-haul mobility, Mandalay is also an important pole for suburban mobility within a radius of around 20 km, which comprises the ACUM area of this Development Plan (Fig. 3.5.2.1). In this respect, the most important centres around Mandalay are Mingun in the north-west, Sagaing in the south-west, Amarapura, Inwa and Tada-U in the south-west, and Patheingyi in the north-east. Although close to the urban area of Mandalay, Mingun can be reached by road, via a long, indirect route of 40 km that takes around 80 minutes. This requires crossing the Ayeyarwaddy river to the south, taking the bridge situated near Inwa, and then following the river north. Alternatively, one can travel by riverboat. By contrast, Sagaing can be reached more directly by road, using the same bridge over the Ayeyarwaddy river, and driving around 25 km in 40 minutes. Along the road to Sagaing one also comes across the nearer locations of Amarapura (10 km and 20 minutes by road from the centre of Mandalay), Tada-U (25 km and 35 minutes) and Inwa (around 28 km and 45 minutes, passing via Tada-U and then heading north). To the east of the city, the centre of Patheingyi can be reached by road in less than half an hour, since it is about 12 km from the urban centre.

The actual urban area of Mandalay itself is characterized by its position between the Ayeyarwaddy river to the west and the hills to the east. For this reason, the urban lay-

²⁹ The Mandalay International Airport IATA code is MDL; its ICAO code is VYMD.

³⁰ On 19 June 2016, 1,000 Kyat corresponded to 0.84 USD (<http://www.bloomberg.co>).

³¹ On 1 June 2016, the airlines operating a national service were: Air KBZ, Mann Yadanarpon Airlines, Asian Wings Airways, Golden Myanmar Airlines, Yangon Airways, and Air Mandalay; they connected Mandalay to Nay Pyi Taw, Nyaung-U, Yangon Heho, Myitkyina, Bhamo, Kalemyo, Khamti, and Tachilek (<http://www.flightstats.com>).

³² On 1 June 2016, the airlines operating an international service were: Thai Air Asia, China Eastern, KLM, Bangkok Airways, Qatar Airways, Malaysia Airlines, Emirates, Ethiad Airways, and Japan Airlines (<http://www.flightstats.com>).

³³ On 1 June 2016 (<http://www.flightstats.com>).



Fig. 3.5.2.5 A vehicle for collective transport in Mandalay

Photo: C. Lo Presti, 2015.

out and transport infrastructure have traditionally developed in a fairly linear way, in a north-south direction (Fig. 3.5.2.2). Traditionally concentrated on the northern side of the urban area, south-west of the Royal City and between the latter and the river (cf. Chapter 3.2), the population seems today to be displaying a trend in expanding south-east toward zones that are now more peripheral, but still with dense habitation (SAFEGE, 2015). The primary thoroughfares are focused around the Royal City, towards which the main arteries, from outside the city, converge: the road to Myitkyina in the north that links up, skirting the northern and western perimeter of the Royal City, with the road to Shwebo in the south, which passes through Amarapura and then bends west for Sagaing; the main road to Yangon in the south, and the main road for Kyauk Mee and Lahio in the south-east. The network of city streets is not all that regular, but it often has a horizontal and a vertical grid, especially in peripheral zones in the south-east.

As well as the central station of Mandalay, already mentioned, there are other rail stations in the urbanized area: Owebo and Thayeazay on the northern branch, Yin-byan on the eastern branch, and Shansu, Myohaung, Thoegyan, Tagondaing and Amarapura to the south. In terms of traffic, the station most used is the central station of Mandalay, serving around 2,700 passengers a day, followed by Thayeazay (800 passengers) and Owebo (400 passengers); the other stations serve fewer than 100 passengers a day (SAFEGE, 2015). The role of gateway station is played by Owebo in the north, which gives onto the line for Madaya, by Thoegyan in the south-east from where the line for Lashio leaves, by Tagondaing in the south, marking the start of the of the line for Nay Pyi Taw and Yangon, and by Amarapura in the south-west, from where one proceeds for Sagaing and Myitkyina. The average daily number of passenger trains, and the journey times for the main long-distance rail services from Mandalay, are shown in Tab. 3.5.2.1. The main places connected to Mandalay by short-haul rail services are Paleik (1h, 15'), Shwekyetyet (1 h), Madaya (3 h, 45') and Thayeazay (1 h, 55'). Freight services by rail are operated only for Myitkyina, Lahio and Yangon (SAFEGE, 2015).

The city does not have fixed-track urban transport systems such as underground trains or trams. Collective transportation services are run by private sector operators in the form of buses and pick-ups (Fig. 3.5.2.5). The use of urban public trans-

Tab. 3.5.2.1 Main railway long haul passenger services from Mandalay.

Source: data from various sources; processed by author.

Destination	Intermediate stations	Trains/day	Travel Time
Yangon	Thazi - Pyinmana - Taungoo - Bago	9 pairs	14 h ÷ 15 h
Myitkyina	Kawlin - Naba - Mohnyin - Mogaung	3 pairs	10 h ÷ 15 h
Bagan	Paleik - Wetlu - Myingyan - Kyaw Si	2 pairs	6 h ÷ 7 h
Lashio	Pyinoolwin - Gokteik Kyauk Mee - Hsipaw	2 pairs	130 h ÷ 14 h
Pakokku	Chaungu - Yesagyo	1 pair	7 h

port appears to be declining, however, since it fell from almost 20 million passengers a year in 2013 to fewer than 19 million in 2014, and fewer than 18 million in 2015. Accordingly, there has been a 10% decrease in the last two years (MMSIS, 2016).

The distances travelled by passengers fell in the same two-year period by the same percentage, as did gross revenue for operators (from 1.3 to 1.2 billion Kyat), while there was an 8% reduction in the number of means of transport used on a daily basis (from almost 5,600, to around 5,100), and an 11% decrease in the number of journeys made every day by the public (from over 17,000 to fewer than 15,500). In parallel, there is a rise in individual transport (SAFEGE, 2015). Indeed, it is estimated that around 53,000 privately-owned four-wheel vehicles are present in the city, as well as 450,000 motorcycles (Fig. 3.5.2.6) and 225,000 bicycles, with the number of motor vehicles soaring over the years, as is also happening nationwide. This leads to a total number of around 2 million trips a day in the urban area. Of these, 70% are by motorcycle, 20% by bicycle, 7.5% by car, and just 2.5% by public transport (Fig. 3.5.2.7). The current scenario of urban mobility thus displays multiple problematic features, which conflict with the prospect of a sustainable transport system. These critical points are mainly the result of the very low use of public transport – which also features an equally low level of quality – as well as the high numbers of individual motor vehicles on the roads, and the absence of integration between public transport and public spaces. These elements have led to a system which is inefficient overall, very polluting, and not very virtuous from the social point of view. This seems to

Fig. 3.5.2.6 Motorcycles are the main transport mode in Mandalay.

Photo: C. Lo Presti, 2015.





Fig. 3.5.2.7 Mixed traffic in Mandalay.

Photo: C. Lo Presti, 2015.

be an even more critical factor with a view to the major demographic, economic and social development that is expected from the city, and which will probably worsen the levels of sustainability, unless important interventions of governance and management of urban mobility are implemented.

Finally, it is necessary to consider that the characteristics of Mandalay's transport system are a crucial element in influencing the mobility behaviour not just of the resident population, and of visitors from the hinterland, but also of tourists visiting the city and other neighbouring areas. Some information aimed at describing the relationship tourists have with the transport system in the area under investigation emerge from the empirical investigation conducted in situ, in the process of drawing up this development plan (LaGeS Survey, cf. Chapter 1.4.2). From this research, it emerges, for example, that taxis are the means of transport which most tourists (65.1%) use to move around, followed by bicycles (26.7%), boats (25.1%) and scooters (23.7%). By contrast, the percentage for buses and rickshaws is lower (Fig. 3.5.2.8). The relatively high percentage for bicycles is positively significant in terms of environmental sustainability, also in view of the fact that, in the ACUM area, there are few routes suitable for cycling, and that the physical characteristics of the transport system, and the regulations governing it, do not in any way encourage the use of bicycles. The average daily level of spending³⁴ by tourists for transport services is approximately 21.5 USD, namely 18% of total average daily spending. The quality/price ratio for transportation, as perceived by tourists in Mandalay, is fairly good overall: almost 60% of those interviewed said it was either good or excellent (Fig. 3.5.2.9). However, around 10% of interviewees expressed a bad or very bad opinion of transportation, indicating, as one of their grounds for dissatisfaction, the inconvenience deriving from traffic congestion, first and foremost (57%), and also the general situation of transportation (26%), and finally taxis, which they regarded as too expensive, and inefficient.

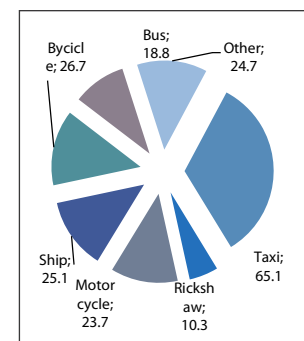


Fig. 3.5.2.8 Percentage of tourists using each mode of transport during their stay in Mandalay.

Source: LaGeS Survey data, 2015; processed by author.

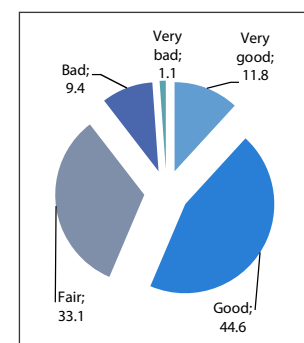


Fig. 3.5.2.9 Price/quality levels perceived by tourists during their stay in Mandalay.

Source: LaGeS Survey data, 2015; processed by author.

³⁴ Calculated only for tourists who are not travelling with organized tours.

4. Cultural Heritage

■ 4.1 DEFINING CULTURAL HERITAGE

According to the definition offered by UNESCO in the context of the *Universal Declaration on Cultural Diversity* (2001), culture is “the set of distinctive spiritual, material, intellectual and emotional features of a society or a social group that encompasses art and literature, lifestyles, ways of living together, value systems, traditions and beliefs”.

In an increasingly globalized and interconnected world, culture is the element that distinguishes sites and territories from each other, making them unique, one way or another. For this reason, cultural diversity plays a fundamental role from the point of view of tourism. This is because, on the one hand, it represents one of the main motives tourists have for visiting a given destination, and, on the other, it constitutes one of the most important products that local areas can boast to establish themselves, and distinguish themselves, in the global market. At the same time, if it is not carefully managed, tourism can be a threat from the cultural point of view, not just owing to the fact that greater pressure from tourism may threaten the physical integrity of sites and monuments, but also because it may profoundly alter the cultural specifics of a given area, introducing forms of standardization and homogeneity, restricting the ability of local communities to preserve, and hand down, their cultural heritage (UN Habitat, 2015).

To emphasize the fragile balance between development for tourism and heritage conservation, in the framework of the *International Cultural Tourism Charter* (Icomos, 1999), UNESCO identified six principles that remain extremely relevant today:

- conservation should provide well-managed opportunities for tourists and members of the host community to experience and understand the local heritage and culture at first hand;
- the relationship between heritage places and tourism is dynamic, and should be managed in a sustainable way for present and future generations;
- conservation and tourism planning should create a visitor experience that is enjoyable, respectful, and educational;
- host communities and indigenous people should be involved in planning for conservation and tourism;
- tourism and conservation activities should benefit the host community, improving development and encouraging local employment;
- tourism programmes should protect and enhance natural and cultural heritage characteristics.

Drawing on these principles, this chapter sets out to identify and analyse some elements that make up the cultural heritage in the ACUM area, with a view to delineating – at the planning level – the best forms of development and promotion as regards tourism, as well as the most effective forms of protection and conservation.

In order to define the cultural heritage, UNESCO’s distinction between two differing ideas of heritage has been adopted: the tangible cultural heritage (TCH) and the intangible cultural heritage (ICH).

The TCH refers to the material elements inherited from the past, such as historical buildings, monuments, artefacts, works of art, archaeological sites, and constructed landscapes which are considered worthy of preservation for the future. The material cultural heritage has a fundamental symbolic value to the communities that possess it, and constitutes not just a testimony of the past, but also a value for the present. In the context of the SDP, the following categories of elements have been considered as expressions of the TCH:

- ancient walls and kingdom palaces;
- pagodas;
- monasteries;
- vernacular architecture.

The ICH indicates “the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artifacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage” (UNESCO, 2003). Compared to the tangible heritage, the ICH expresses more the daily culture of a local area, in part inherited from the past, and in part subject to constant evolution. Examples of intangible heritage are oral traditions, performing arts, local food, local knowledge, traditional skills, and so on. In this plan, consideration has been given to three kinds of ICH as particularly representative of the living culture of the ACUM area:

- crafts and traditional artistic activities;
- forms of association and festivities;
- street food and food culture.

Having different characteristics, TCH and ICH require differing approaches and strategies for promotion and protection. For example, the forms of ICH are usually seen as more fragile and more vulnerable, since they are incorporated within social, economic and cultural models that are subject to very rapid and fast changes. However, despite this differentiation, the management of forms and manifestations of TCH and ICH cannot be addressed separately. Indeed, both kinds exist within a more general notion of heritage that characterizes, collectively, a given territory, and which therefore requires a strategic, overall vision that defines their forms of protection and development.

With a view to this, modern cultural policies are found to be oriented in line with three fundamental, general principles:

- selecting and recognizing the aspect of cultural asset for objects from the past in which the present generation sees a cultural meaning, or testimonial aspect; from this principle derive the practices of cataloguing the cultural heritage, designed to establish its extent, and the categories of assets that go to make it up;
- protecting cultural assets by means of suitable maintenance practices (corresponding to the minimum level of intervention), preserving them (the measures that conserve assets via indirect interventions) and restoring them (measures that intervene directly on the assets in question); these practices are geared toward protecting the authenticity and integrity of the assets themselves¹;
- enhancing the cultural heritage by means of programmes and policies geared not only towards ensuring the transmission of heritage to future generations, but also towards making it accessible (in terms of being understandable, being appreciated,

¹ The concepts of authenticity and integrity of the cultural heritage, both tangible and intangible, are highly controversial and hard to define, for several reasons: 1) they are very place-sensitive, in the sense that the diversity of types, conditions and geographical areas in which the heritage is manifested leads to differing definitions; 2) they change their meaning considerably depending on the relevant cultural context; 3) they are subject to ongoing evolution, the product of continual processes of social construction and political negotiation, involving both international organizations (such as UNESCO) and government organizations (such as the various Ministries which deal with heritage), and also the local collectivity and tourists. Indeed, for some time now international literature has concentrated on the phenomenon of “staged authenticity” (Wang, 1999), namely the construction of authenticity in order to meet tourists’ expectations, and on the fragile boundary between heritage conservation and forms of commoditization for tourism (Cohen, 1988). While aware of these difficulties over definitions, in this Plan we adopt the proposal by Heike Alberts and Helen Hazen (2010), according to whom authenticity and integrity – as well as other equally ambiguous concepts such as identity – may be used as “useful guiding concepts” to set out priorities for intervention and action, which must necessarily be re-processed, contextualized, and applied to the various different local contexts.

and enriching one's personal experience) to a much larger public than the community that historically possesses that heritage.

■ 4.2 THE TANGIBLE CULTURAL HERITAGE

The effective application of the aforementioned principles cannot come about without an accurate knowledge of heritage resources. In the following pages, we therefore propose to conduct a survey of the scale of the intangible cultural heritage (historical and archaeological sites, monuments, buildings, etc) in ACUM area. Specifically, we are interested above all in illustrating the database used to catalogue the monuments and other cultural buildings situated in Mandalay and in the other royal cities of Innwa, Sagaing-Mingun and Amarapura. As a preliminary step, we will go over the sources of information that were used. Subsequently, an analysis will be conducted of the typological characteristics of some categories of the monumental and religious heritage, and of vernacular architecture.

4.2.1 EXISTING REPERTOIRES OF TANGIBLE CULTURAL PROPERTIES

One source that proved to be extremely useful is the detailed survey conducted in the framework of the Department of Geography of the University of Mandalay (Khin Moe, 2012).

This study is original for more than one reason:

- for broader recognition of what constitutes a “cultural property”: this term is used to describe not only the buildings officially declared to be “scheduled monuments”, but also other buildings regarded as important because they are associated with particular cultural or natural events, or else because they have important testimonial value for the classification of the intangible cultural heritage in typological and functional categories: religious, institutional, commercial-industrial and residential buildings;
- for the chronology proposed for the purposes of dating buildings.

In all, 361 buildings (religious, institutional and commercial-industrial) were documented. The survey only covers Mandalay City.

A second source is the *List of sites of interest in Mandalay* drawn up by the Ministry of Culture, Department of Archaeology, National Museum and Library. This repertoire is composed of 52 record cards written in Burmese, compiled on an unspecified date, and relating to mostly religious monuments located in Mandalay. Although this survey is restricted to a small sample of cultural properties, it offers detailed information regarding the location of the documented monuments, the person who commissioned them, their date, the employed construction material, their state of conservation, and the body responsible for looking after them. Each individual record card has an accompanying map of the monument, and a photo. A summary in English made it possible to derive the essential information contained in the records.

The *List of sites of interest in Innwa* appears to be no less interesting. The survey work which was carried out is considerable: the survey consists in no fewer than 299 record sheets, each accompanied by effective graphics (plan and sections of the monument) and photographic illustrations. The individual fields that make up the survey card offer a very detailed description of the monument: name, location, size, typological category, date (chronology), materials used, decorations, state of con-

ervation etc. Only the fact that the descriptions are written in Burmese prevents a more effective processing of the recorded information. The GIS coordinates shown on the record card for geo-referencing are slightly perplexing: in some cases, the fact that the named monument does not correspond with the location given leads to some uncertainty over the degree of precision with which the coordinates were recorded.

The third source used is the list of “places of worship” derived from Open Street Map (URL: www.openstreetmap.org, consulted during 2015 and 2016). The information content that can be extracted from this source is extremely limited, since it is reduced to just the name and geographical coordinates of 255 places of worship. However, it is the only list which, unlike the previous lists, limited to individual cities, provides a comprehensive list of the places of worship present in all the ACUM area.

The last source used are the most internationally famous tourist guides. These clearly offer information that is limited to the main monuments, but this is still useful for identifying what one may call the “core heritage”, comprising the monuments that attract most tourists:

- *Lonely Planet*, November 2014 (eighth Italian edition); this mentions 50 monuments in the Ancient Cities of Upper Myanmar;
- *The Rough Guide to Myanmar (Burma)*, 2015: this mentions 34 monuments in the Ancient Cities of Upper Myanmar;
- *Insight Guide Myanmar (Burma)*, 2015 (10th edition, English version); this mentions 32 monuments in the Ancient Cities of Upper Myanmar.

4.2.2 DATABASE OF THE TANGIBLE CULTURAL HERITAGE

The inventories cited in the previous paragraph are flawed in that they are very heterogeneous as regards geographical coverage (only the tourist guides and *Open Street Map* provide information for all the ACUM area) and the other information relating to types of heritage site, the date of monuments, and their state of conservation.

Nevertheless, all items of information that could be acquired, in whatever way, were channelled into a database produced by LaGes. Thanks to this it was possible, for the first time, to unify information concerning the various monuments in a standardized format, which can be added to over time, as new information is gradually acquired.

Each property catalogued is matched by a record structured as follows (Tab. 4.2.01):

- the official name (followed by the other names under which the particular property appears in the other sources considered);
- the location (township and GIS coordinates)
- the type of building (pagoda, monastery, community hall, monument, facility, etc)
- the dates, or construction period, shown in the various sources in which the property appears (the dates given in differing sources do not always agree with each other);
- the predominant building material;
- the state of conservation.

This is the information that was initially compiled. It is clear that, in subsequent phases, the records would need to be implemented with other sections: survey of decoration (sculpture, mural paintings, stucco and wood carving), description of reconstruction and restoration work carried out in the past, a ground plan and other floor plans, and photographs (outside and inside, where relevant).

ID	TOWNSHIP	NAME_DEF	NAME_GL	NAME_GR	NAME_GI	NAME_O	NAME_P	TYPE	PERIOD_P
162	Amarapura	Maha Ganayon Kyaung	Maha Ganayon Kyaung	Maha Gandayon Kyaung	Mahagandhayon M.	Mahagandhayon Kloster		Monastery	
163	Aungmyaythazan	Maha Ku Tho Taw				Maha Ku Tho Taw Pagoda		Pagoda	
164	Chanayethazan	Maha Wi Zi Tar Yon				Maha Wi Zi Tar Yon Monastery		Monastery	
165	Aungmyaythazan	Mahaatulawaiyan (Atumashi)	Atumashi Kyaungdawgyi	Atumashi Kyaung	Atumashi Kyaung	Atumashi Kyaungdawgyi	Mahaatulawaiyan (Atumashi)	Monastery	1859-1885
166	Aungmyaythazan	Mahadamikayama (Shwekyin)					Mahadamikayama (Shwekyin)	Monastery	1859-1885
167	Mahaungmyay	Mahadammikayama					Mahadammikayama	Monastery	Before 1859
168	Aungmyaythazan	Mahadepeyin					Mahadepeyin	Monastery	1859-1885
169	Aungmyaythazan	Mahagugyitikehit					Mahagugyitikehit	Monastery	1859-1885
170	Aungmyaythazan	Mahakaymikayama (Thitseint)					Mahakaymikayama (Thitseint)	Monastery	1859-1885
171	Aungmyaythazan	Mahalawkamanhnain					Mahalawkamanhnain	Pagoda	1859-1885
172	Aungmyaythazan	Mahalawkamarrazain Kuthodaw	Kuthodaw Paya	Kuthodaw Pagoda	Kuthodaw Pagoda	Kuthodaw Paya	Mahalawkamarrazain Kuthodaw	Pagoda	1859-1885
173	Chanayethazan	Mahalawkayanhnain				Aung Taw Mu Pagoda	Mahalawkayanhnain	Pagoda	1859-1885
174	Mahaungmyay	Mahaminhlaminhtin					Mahaminhlaminhtin	Monastery	1859-1885
175	Chanmyathazi	Mahamuni	Mahamuni Paya	Mahamuni Paya	Mahamuni Pagoda	Mahamuni Pagoda	Mahamuni	Pagoda	Before 1859
176	Chanmyathazi	Mahasandamuni					Mahasandamuni	Pagoda	Before 1859
177	Aungmyaythazan	Mahasatubonmika					Mahasatubonmika	Monastery	1859-1885
178	Aungmyaythazan	Mahasitrayama					Mahasitrayama	Monastery	1859-1885
179	Mahaungmyay	Mahasiyeiktha					Mahasiyeiktha	Monastery	1948-1962
180	Aungmyaythazan	Mahathakymarrazain Kyauktawgyi	Kyauktawgyi Paya	Kyauktawgyi Paya	Kyauktawgyi Pagoda	Kyauktawgyi Paya	Mahathakymarrazain Kyauktawgyi	Pagoda	1859-1885
181	Chanayethazan	Mahathakyathiha	Setkyathiha Paya	Setkyathiha Paya	Setkyathiha Pagoda	Setkyathiha Paya	Mahathakyathiha	Pagoda	1859-1885
182	Chanayethazan	Mahawaiyanbontha					Mahawaiyanbontha	Monastery	1859-1885
183	Aungmyaythazan	Mahawiseiktayama (Tagaung)				Tagaung Taik	Mahawiseiktayama (Tagaung)	Monastery	1859-1885
184	Mahaungmyay	Mahawithoaddayone (Shwekyin)					Mahawithoaddayone (Shwekyin)	Monastery	1885-1948
185	Aungmyaythazan	Mahawithoatdayama (Innkhan)				Inn Khan Tail	Mahawithoatdayama (Innkhan)	Monastery	1859-1885
186	Aungmyaythazan	Mahawithutayama (Tiketaw)					Mahawithutayama (Tiketaw)	Monastery	1859-1885
187	Chanmyathazi	Mahawizitayama					Mahawizitayama	Monastery	Before 1859
188	Chanayethazan	Man Aung Myin				Man Aung Myin Pagoda		Pagoda	
189	Chanayethazan	Manaung					Manaung	Monastery	1859-1885
190	Aungmyaythazan	Mandalay Distillery Plant					Mandalay Distillery Plant	Industrial	1859-1885

Table 4.2.01 Selection from the Tangible Cultural Heritage Data Base of the Ancient Cities of the Upper Myanmar.

Source: LaGeS, 2016.

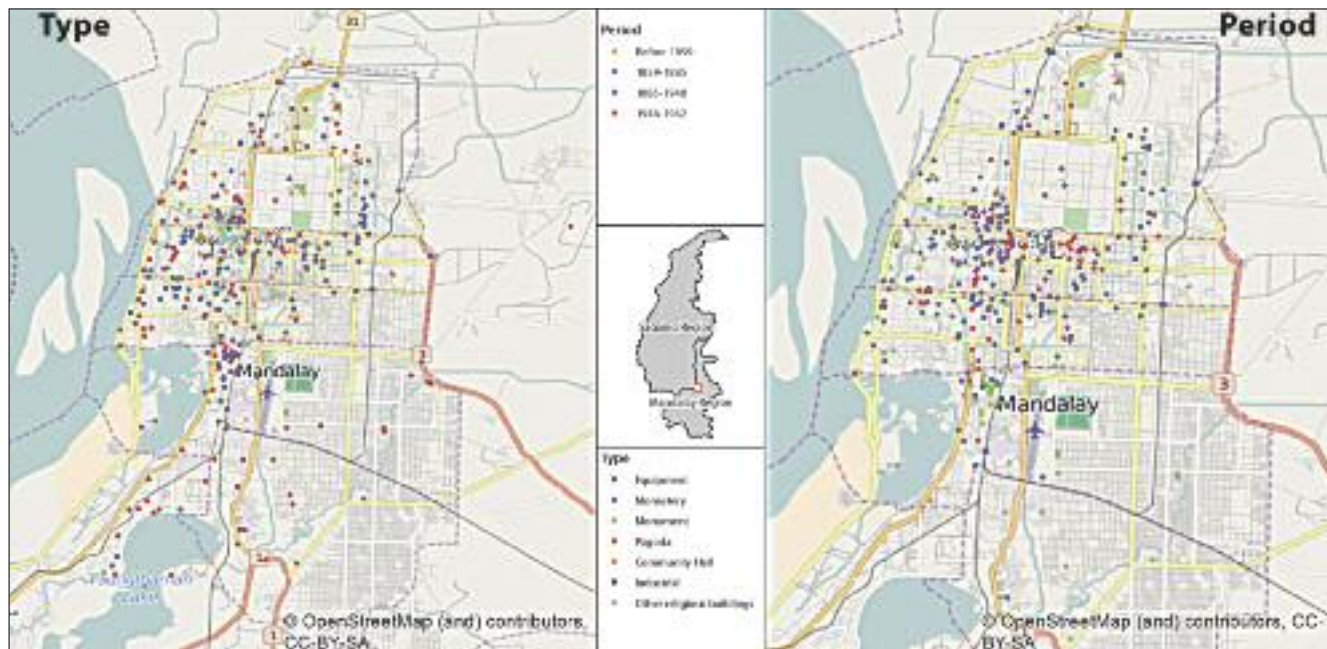
By entering all the information deriving from previous records (PhD Dissertation, the Mandalay and Innwa Lists, *Open Street Map* and tourist guides) on the database, 742 monuments were identified.

There are many different possible ways of processing and analysing the cultural heritage. From the illustrations and tables shown below, it is possible to examine the extent and spatial distribution of the Mandalay heritage, by construction period and type:

- Fig. 4.2.01 clearly shows the predominant building types (pagodas and monasteries) in the context of the strictly religious heritage (258 buildings in all); this finding is also confirmed by Tab. 4.2.02, confirming the prevalent percentage importance of the two types (30.2% for monasteries and 27.9% for pagodas);
- Fig. 4.2.02 shows, by contrast, the predominant percentage of the total tangible heritage (347 buildings) that was created in the period 1859-1885; Tab. 4.2.302 provides the percentage corresponding to this preponderance of heritage datable to the period when Mandalay was the capital of Burma.

4.2.3 DATING OF TANGIBLE CULTURAL HERITAGE

The dating of monuments plays a key role in investigations and in the management of the cultural heritage: in investigations, because from the date of construction it is possible to get an accurate understanding of the materials used and the construction techniques of the time (and it is on the basis of this information that restoration work can



be carried out in the most appropriate way); and in management, because visitors aspire to getting ideas and sensations that are not misleading from the enjoyment of the cultural heritage; a knowledge of dates is the prime piece of information for a full awareness of the meaning of a cultural property.

The antiquity of the tangible cultural heritage of the ACUM area is not always easy to establish. The available documentation, used to compile the database, is very patchy in this regard. While the dating of monuments and buildings of cultural value present in Mandalay is easy (they only have a relative antiquity, since they are later than the foundation of the city in 1857), it seems more problematic to establish an accurate chronology for the heritage of the other capitals, for a fundamental reason. Following serious dam-

Fig. 4.2.01 (on the left) Religious buildings in Mandalay by type.

Source: author's processing, data from LaGeS Tangible Cultural Heritage Data Base, background map from ESRI Imagery Basemaps.

Fig. 4.2.02 (on the right) Heritage buildings in Mandalay by period.

Source: author's processing, data from LaGeS Tangible Cultural Heritage data Base, background map from ESRI Imagery Basemaps.

Township	Before 1859	1859-1885	1885-1948	1948-1962	Total (va)	Total %
Aungmyethazan	13	47	29	10	99	28,5
Chanayethazan	13	42	38	29	122	35,5
Chanmyathazi	26	8	4	5	43	12,4
Mahaungmyay	13	35	14	12	74	21,2
Pyigyitagon	8	1	0	0	9	2,5
Total (va)	73	133	85	56	347	100
Total %	21	38,3	24,5	16,2	100	

Table 4.2.02 Religious buildings in Mandalay by type and period.

Source: author's processing, data from LaGeS Tangible Cultural Heritage Data Base, 2016.

Building type	Before 1859	1859-1885	1885-1948	1948-1962	Total	Total %
Pagoda	46	23	2	1	72	27,9
Monastery	13	55	6	4	78	30,2
Community hall	4	8	9	12	33	12,8
Church	0	1	12	2	15	5,8
Temple	2	2	8	5	17	6,6
Mosque	4	39	0	0	43	16,7
Total (va)	69	128	37	24	258	100
Total %	26,7	49,6	14,3	9,4	100	

Table 4.2.03 Heritage buildings in Mandalay by township location and period.

Source: author's processing, data from LaGeS Tangible Cultural Heritage Data Base, 2016.

age (if not the total destruction) which the oldest monuments have suffered following earthquakes, fires, and other calamities, the current form of many monuments is the cumulative result of successive, multiple repairs and adaptations. Many of the oldest pagodas have been repeatedly expanded and rebuilt: renovations and alterations have altered their appearance, giving them a new physiognomy which, having erased the ancient parts, hinders the most direct route to tracing their original date. Despite this, in this paragraph we will try, albeit in very summary form, to trace the stages in the formation of the intangible heritage, connecting it above all to the dynasties that produced it.

1044 – 1287 (Bagan Dynasty)

This is the dynasty responsible for the reunification of the regions that led to the formation of the modern state of Burma (now known as Myanmar). There are practically no traces left of this period, except for some parts of the *Htilaingshin Pagoda*, datable to the Bagan period (late 11th century) and built by King Kyansittha (1030 - 1112).

1315 – 1364 (Myinsaing Kingdom)

With the fall of the Bagan dynasty in 1287, Sagaing briefly became the capital (1315 – 1364). Very little remains from this era, too: tradition (or legend) claims that the construction (in one night) of the *Soon U Ponya Shin Paya* (Fig. 4.2.03) on Nga-pha hill, one of the southern hilltops of Sagaing Hill, dates to 1312. Even more uncertain is the dating of the nearby *Umin Thonse` Pagoda* (Fig. 4.2.04), a unique complex in which 45 Buddha images sit in a crescent-shaped colonnade within the pagoda. Built by a venerable monk named Padugyi Thangayaza, the date was variously given as 1005, 1050, or 1085 AD.

1364 – 1555 (Ava Kingdom)

With the move of the capital in 1364 to Ava (Innwa), after which the capital remained there until 1842, except for some interruptions, a centuries-long phase in Burma's history began. This basically took place under the dominion of two subsequent dynasties: the Toungoo Dynasty (until 1752) and the Konbaung Dynasty (from 1752 to 1885). The start of the *Ava period* coincides with the official inauguration of the new capital – Innwa – on 26 February 1365 on a man-made island created by connecting the Ayeyarwady, to the north, and the Myitnge, to the east, with a canal. The construction of the artificial island also involved filling in swamplands and lakes. What remains of the ancient city is only some sections of fortifications, now in ruins. The *Htupayon Stupa*

Fig. 4.2.03 Soon U Ponya Shin Paya, Sagaing.

Photo: M. Preite, 2015.

Fig. 4.2.04 Umin Thonse` Pagoda, Sagaing

Photo: M. Preite, 2015.





Fig. 4.2.05 Kaunghmudaw Pagoda, Sagaing.

Photo: D. Julie, 2010.



Fig. 4.2.06 Tilawkaguru Cave Monastery, Sagaing.

Photo: M. Preite, 2015.

in Sagaing is dated to 1460. It was begun in approximately 1460 but never finished. It retains the bell-shaped dome of the Pagan period. The rows of niches, however, found in all three of its circular terraces, are an innovation.

1555 - 1752 (Toungoo period)

After repeated attacks by rival kingdoms, Innwa was taken by storm in 1555, and the dominion of the Toungoo Dynasty began. The most important monument surviving from this period is the *Kaunghmudaw Pagoda* (Fig. 4.2.05), built in Sagaing in 1636 and completed 12 years later in 1648, in an unusual white, broad and hemispherical domed shape. While there are interesting theories about the source of this shape, it is most likely to have been inspired by Ceylon's Maha Zeti Pagoda. Set upon three, circular terraces, it is a copy of the famous Mahaceti Stupa in Sri Lanka. Also dating to this period is the *Tilawkaguru Cave Monastery* (Fig. 4.2.06), adapted from a cave complex situated on the south-western slopes of Sagaing Hill, whose walls are decorated with wall-paintings dating to 1672.

1752 – 1885 (Konbaung Dynasty)

The Konbaung dynasty is the last dynasty that governed the ancient state of Burma. Except for brief intervals in which the capital was moved to Amarapura, Innwa remained the capital of the kingdom until 1859, when the king decided to move it to Mandalay. This was a period of great constructions and a great flourishing of Burmese architecture which includes, among its most famous manifestations, the construction of the *Maha Myat Muni Pagoda* in 1784 in Mandalay (Fig. 4.2.07), no less than 73 years before the foundation of the last Burmese capital. The Maha Myat Muni Pagoda complex, founded by King Bodawphaya, is one of the most famous Buddhist shrines, and the best known place of pilgrimage in Upper Myanmar. It hosts the ancient and most sacred Statue of the Buddha, or Maha Myat Muni Image: "Hence, pil-



Fig. 4.2.07 Maha Myat Muni Pagoda Mandalay.

Photo: M. Preite, 2015.



Fig. 4.2.08 Pahtodawgyi Paya, Mingun.

Photo: M. Preite, 2015.

grims and devotees, travellers and tourists from all walks of life visit this remarkable Maha Myat Muni Image all the year round. . . the Maha Myat Muni complex represents unique architectural, sculptural and aesthetic achievements highly respect of our religious identity” (Phyo Wai, Shwe, 2014).

Unfortunately, the remaining heritage from this dazzling era has not survived in a satisfactory state of integrity. On the one hand, we must lament the interruption of work in 1781 on the large-scale *Pahtodawgyi Paya* (Fig. 4.2.08) in Mingun by King Bodawpaya: he laid the foundation stone for the construction of this pagoda in 1790, but it remained incomplete, as Bodawpaya died in 1819. Had it been fully built, it would have been the biggest pagoda in the world (more than 150 mt high). It was to have an enormous *shikhara* tower modelled on the temples at Pagana, as can be seen by means of the *Pondaw Paya*, a working model for the Mingun Paya, built along the Ayeyarwady river. A colossal pair of guardian lions were constructed in brick and stucco at the river landing, which served as the main entry to the temple. Bowdawpaya had the largest bell in the world, cast as an intended fixture of the temple. It weighs 90 tons, and still rings from its pavilion near the temple base.

On the other hand, we must mourn the terrible effects of the disastrous earthquake in 1838 on much of the heritage of the time, starting with the *Royal Palace* of Innwa (Fig. 4.2.09) rebuilt several times in 1597, 1763 and finally in 1821: “The Palace Ruins had an irregular plan measuring roughly 1.5 kilometers east to west and 1.0 kilometer north to south. . . The west gate and part of the wall around the gate were restored in recent years. . . Today, the area inside the walls is mostly farmland, with a scattering of villages, but it is believed that the former palace occupied a 400-square-meter central area in the site. The Department of Archaeology excavated the site around 15 years ago and unearthed the platform of a building, but the only structures that exist above ground are an ablution pond and a watchtower” (Japan Consortium, 2011). As well as the Palace Ruins there also remains a derelict and solitary masonry building, the *Watchtower* (Fig. 4.2.10), built in 1822 as part of the royal palace of King Bagyidaw: “It collapsed in a major earthquake in 1838, leaving only the foundation. In its current state, the tower is a square brick tower that rises to a height of about 30 meters and has a wooden pavilion at the top. . . Since no reference materials exist that provide information about the original appearance of the tower, it was restored based on little academic basis”.

However, apart from the ruins, a number of grandiose monuments survive from the Konbaung Dynasty. After successive restoration programmes, these are able to offer to our modern-day view a faithful account of Burmese architecture in the 19th

Fig. 4.2.09 Royal Palace, Innwa.

Photo: M. Preite, 2015.

Fig. 4.2.10 Watchtower, Innwa.

Photo: M. Preite, 2015.



century. First and foremost, the *Hsinbyume Paya* in Mingun (Fig. 4.2.11), built in 1816 and restored in 1874, whose powerful cosmic symbology, which had inspired the original project, remains intact. A few years later (1822) came the construction of the *Maha Aungmye Bonzan Monastery* in Innwa (Fig. 4.2.12), restored in 1883. Built of bricks covered in stucco, its architecture is a simulation of wooden monasteries with multiple roofs and a prayer hall having a seven-tiered superstructure. In 1834 the *Bagaya Kyaung* was built at Innwa (Fig. 4.2.13) This is a very impressive monastery built of wood supported on 267 teak trunks, and its wooden beams are carved with repeated motifs of peacocks and lotus flowers.

Wonderful examples of Burmese architecture from this period are also found in Amarapura. These were constructed in the brief periods when this city took on the role of capital, first in the years from 1783 until 1821, and later from 1842 to 1859. The first period is the date of the construction, outside the old city walls, of the *Pah-todawgyi Pagoda*, built in four years: 1820-1824 (Fig. 4.2.14), offering a magnificent view over the surrounding countryside from the terraces above. The lower terraces have marble slabs on which scenes from the Jataka are carved. Dating to the second period are: the *Kyauktawgyi Pagoda* (Fig. 4.2.15), built near the Taungthaman Lake in 1847, along the lines of the Ananda Pagoda at Pagan. The artistic interest of the temple lies in the numerous frescoes with which its four porches are adorned, and in the five-tiered pyatthat roof that crowns the building; and the *U Bein bridge* (Fig. 4.2.16), for the construction of which, beginning in 1849, 1,000 teak columns were used, taken from the ancient *Royal Palace* in Innwa.

The year 1852 marked a watershed: following the second Anglo-Burmese war, the British took over control over the lower half of the country: Mandalay and Upper Burma remained completely cut off from the coast and the rest of the world. King Mindon began building Mandalay as his new capital city, 11 km north of Amarapura, trying to reuse as much material from Amarapura as possible in the construction of the capital. Although Mandalay remained the capital for 25 brief years (1859–1885), it was under the short-lived rule of King Mindon that Burma's architecture and arts reached their final flourishing. This heyday was certainly encouraged by King Mindon's decision to hold an International Buddhist Council, in 1871. This would be the fifth synod since the death of Buddha in the 6th century BC. The king started the construction of a number of buildings to play host to the synod, and to welcome the delegates (monks).

In 1853 work began on the construction of the *Kyauktawgyi Buddha Temple*, completed in 1878 (Fig. 4.2.17). Also known as the Great Marble Image, this temple is located near the southern entry to Mandalay Hill. Approximately halfway up the southern approach to Mandalay Hill, King Mindon ordered the construction of the



Fig. 4.2.11 Hsinbyume Paya, Mingun.

Photo: M. Preite, 2015.



Fig. 4.2.12 Aungmye Bonzan Monastery, Innwa.

Photo: M. Preite, 2015.



Fig. 4.2.13
Bagaya Kyaung, Innwa.
Photo: M. Preite, 2015.

Fig. 4.2.14
Pahtodawgyi, Pagoda,
Amarapura.
www.corradopreiter.com, 2011.

Fig. 4.2.15 Kyauktawgyi Pagoda,
Amarapura.
Photo: M. Preite, 2015.

Fig. 4.2.16 U Bein bridge,
Amarapura.
Photo: G. Maciocco, 2015.



Shweyattaw temple, built “to house an enormous standing image of Gautama Buddha that dramatically points to the royal palace on the plain below – the reification of the Buddha’s prophecy that a great Buddhist metropolis would appear there. The building is of interest because the names of Burmese lay donors cover the interior walls” (Cooler, 2002). Between 1857 and 1859 the *Mandalay Palace* was built (Fig. 4.2.18), the last royal palace of the last Burmese monarchy.

At the same time as the *Mandalay Palace*, the *Kuthodaw Paya* (Fig. 4.2.19) was also built (1857). This is a large walled complex situated at the base of the south-east stairway to Mandalay Hill and surrounded by 729 pitaka pagodas, each containing a marble slab bearing transcriptions excerpts from the Tipitaka (sacred Buddhist writings). In 1874 the *Sandamuni Paya* was built (Fig. 4.2.20), a complex very similar to the *Kuthodaw Paya*: the central stupa of the *Sandamuni* complex is encircled by 1,774 stone tablets, gathered in 1913, recording commentaries on the Tripitaka. Some have called this grouping *Volume II of the World’s Largest Book*. In 1880 the last relocation of the *Shwenandaw Monastery* took place: the building was originally part of the royal palace at Amarapura, then it was moved to Mandalay, where it formed the northern section of the Hmannan (Glass Palace), and part of the king’s royal apartments. In October 1878 King Thibaw Min, believing he was being haunted by his father’s spirit, decided to dismantle the apartment formerly occupied by his father, and reconstruct it as a monastery on a plot adjoining Atumashi Monastery. *Shwenandaw Monastery* is built in the traditional Burmese architectural style, and it represents the only major original structure of the original Royal Palace that remains today.

1885 – 1948 Colonial Period

After its defeat in the 3rd Anglo-Burmese War, Burma was colonized by Britain, and the capital moved to Yangon. In this period, numerous institutional buildings were constructed, and today academic studies are beginning to appreciate their undeni-



Fig. 4.2.17 Kyauktawgyi Buddha Temple, Mandalay.

www.PBase.com, 1995.



Fig. 4.2.18 Great Audience Mandalay, Mandalay Palace before the destruction in WW2.

Photo: unknown photographer, 1903.



Fig. 4.2.19 Kuthodaw Paya, Mandalay.

Photo: unknown photographer, no date.



Fig. 4.2.20 Sandamuni Paya, Mandalay.

Photo: G. Camici, no date.

able value from the heritage point of view (Khin Khin Moe, 2012). Here we shall only mention three complexes dated to the colonial phase: *Mahagandaryone Monastery* (Fig. 4.2.21), founded in 1914 in Amarapura as the largest centre for monastic study in Myanmar; *Mandalay College* (Fig. 4.2.22), set up in 1925 as an affiliated college of Rangoon University, and which later (1958) became an independent university and the only university in Upper Myanmar; and, finally, the *Innwa Bridge* (Fig. 4.2.23), a cantilever structure erected by the British in 1934, put out of action by the retreating British Army in 1942 in order to deny the bridge to the advancing Japanese, and rebuilt in 1954 after Burmese independence. Also dating to the colonial phase are the numerous pagodas and monasteries built on Mandalay Hill (Fig. 4.2.24), especially thanks to the efforts of U Khandi (1868 – 14 January 1949), a Burmese who became a hermit in 1900 and who meditated at the Mandalay Thakho hill and Shwe-myin-tin hill. His goodwill organization completed construction and renovation of several pagodas and hilltop religious buildings.

However, one cannot overlook colonial period alterations and damage to Burma's heritage following British occupation, and military events in the 20th century. Mandalay Palace is certainly the complex that suffered most, ever since the start of occupation. Renamed Fort Dufferin, the colonial authorities immediately proceeded to alter its original functions: in the Lily Throne Room of the Queen, the Upper Burma Club was installed, while the King Thibaw's Great Hall of Audience was used as the Garrison Church. These improper uses were later revoked by the Viceroy, Lord Curzon, whose manifestations of interest in the integrity of Burma's cultural heritage mark the first emergence of a policy of defending the cultural heritage: "Its survival and maintenance are both a compliment to the sentiments of the Burman race, showing them that we have no desire to obliterate the relics of their past sovereignty, and a reminder that it has now passed forever into our hands" (Di Crocco, 1987). However, this display of sensitivity did not prevent the destruction of the

Fig. 4.2.21 Mahagandaryone Monastery, Amarapura.

Photo: M. Preite, 2015.

Fig. 4.2.22 Mandalay College, Mandalay

Photo: Ekyaw, 2007.

Fig. 4.2.23 Innwa Bridge.

Photo: M. Preite, 2015.

Fig. 4.2.24 Mandaly Hill.

Photo: unknown photographer, no date.



Burmese archives by the British forces during the takeover of Mandalay, nor the later demolition of numerous buildings in the former royal complex, as can be seen from the special perimeters indicating the buildings destroyed by the British in the detailed key of the *Plan of Mandalay Palace* (Scott O'Connors, 1987). Perhaps there is little point in documenting here the individual demolitions that took place with the advent of colonial occupation. But if “cultural heritage” means a commitment not to forget the past, this effort not to forget also relates to the component of this past that has been lost, and how this loss occurred.

When it did not involve a full-scale destruction, British occupation led to serious damage and alterations to the religious heritage. “After the annexation of Mandalay by the British in 1885, the walled city with Mandalay Palace became Fort Dufferin, and troops were billeted all around Mandalay Hill in the monasteries, temples and pagodas. They became off-limits to the public and Burmese were no longer allowed to visit their religious sites. One revenue surveyor called U Aung Ban then came up with the idea of appealing direct to Queen Victoria since she had promised to respect all religions practised by her subjects. To their amazement and great joy the British queen promptly ordered the withdrawal of all her troops from religious precincts in 1890. This however turned to great sadness when they found that the pagoda had been looted from the hti [sic], left lying on the ground stripped of its bells, gold, silver, diamonds, rubies and other precious stones, down to the Italian marble tiles from its terraces. The zayats lay in utter ruin and the bricks had been used to build a road for the troops. ... The gold ink from the letters as well as the sides and top of each marble slab had also disappeared. All the biloes along the corridors had lost their heads, and the marble eyes and claws from the masonry chinthes gone” (Tun, 1949).

When it was not a case of carelessness by the occupiers, some heritage was also damaged by fire (Phyo Wai, Shwe, 2014). *Atumashi Monastery*, used as a Christian

church in the early colonial period, was destroyed by a fire in 1890. The original Atumashi was a magnificent wooden structure with considerable exterior stucco and set on a high platform reached by a formal ceremonial staircase. Instead of the traditional “pyatthat” (graduated wooden spires of decreasing size) and multi-roof design of traditional monastic buildings, the Atumashi was a huge grandiose structure surrounded by five graduated rectangular terraces. It was considered one of southeast Asia’s most magnificent buildings. In 1892 a fire destroyed the *Kyauk-taw-gyi Pagoda*, a replica of Ananda at Pagan. *Mandalay Palace* was almost entirely destroyed following Allied bombing in 1945.

After 1948: The reconstruction of a national heritage

Following independence, the new Burmese state had to contend with two factors of weakness: an institutional weakness, due to both the disappearance of all the pre-colonial civilian structures (“the collapse of the last Konbaung monarchy”), and the fact that the structures created in the colonial era were not deeply-rooted (“Burma’s colonial-era structures were singularly fragile, having had barely fifty years of life”); and a weakness of identity, due to the incomplete unification of the various ethnic groups within a common national framework: “In Burma the strength and political dominance of a Burmese/Myanmar identity based on older Ava-based memories has never allowed the development of a newer identity which would incorporate the diverse people inhabiting the modern state” (Thant Mynt-U, 2001).

Amid this institutional “vacuum” and absence of identity, the ruling military elite came to power in 1962. This elite “seeks to promote the real Myanmar cultural heritage and gain international recognition by attracting international tourists and unifying the nation by engaging in a process of ‘tradition recovery’ through reconstruction of the cultural heritage” (Hudson-Rodd, 2005). In the space of just a few years, work was started on restoring some of the most important lost monuments. The first project which was got under way was the reconstruction of the *Royal Palace* (1989-1996, Fig. 4.2.25). Almost immediately afterwards came the start of the reconstruction of the *Atumashi Kyaungdawgy Monastery* (1995-1996, Fig. 4.2.26), used as a Christian church in the early colonial period, and then burnt down in 1892. “For many years the ruins of the building lay open to the elements. Stumps of the charred teak pillars, a grand staircase and some colonnaded walls remained. The area was cleared in the 1990s and was rebuilt according to the original plans in 1996 by the Burmese Archaeological Department with the use of convict labor”. The use of such singular manpower (also used for the reconstruction of Mandalay Palace) leads to some reservations regarding the statements of



Fig. 4.2.25 Royal Palace, Mandalay.

Photo: M. Preite, 2015.

Fig. 4.2.26 Atumashi Kyaungdawgy Monastery, Mandalay.

Photo: Wagaung, 2015.

pride over “the skill and the talent of Myanmar to create National consolidation” (Hudson-Rodd, 2005).

In the same year, the *Bagaya Monastery* (Amarapura) was inaugurated. This is an ancient monastery made of teak wood, with origins dating to 1593. It was destroyed by fire in 1821, and rebuilt in 1996 with brick in place of wood, and with concrete pillars. Replacement of the original materials with differing materials became frequent practice also in restoration work. The *watchtower* of Mandalay Palace, which miraculously survived the destruction of the complex in the 1945 bomb attacks, was restored using reinforced concrete to replace the original structure made of bricks. In 2011 the dome of *Sagaing Kaung-mu-daw Stupa*, traditionally painted in white to signify purity (in Ceylonese tradition), was painted gold.

There is much debate over critical judgment of this reconstruction campaign. On the one hand, the Myanmar Government claims that the reconstructions were carried out in close conformity with existing documentation: the reconstruction of the *old palace* was based on descriptions from *Sitthu Maung (City and Palace Construction Record)*, Maung Kyuw’s book (in Burmese), supplemented by the archaeological notes on Mandalay and the *Guide to Mandalay*, by Durosille (1925) (Hudson-Rood, 2005). The *Atumashi Kyaungdawgy* monastery was rebuilt according to the original plans in 1996 by the Burmese Archaeological Department. However, there is no shortage of reservations in the views of experts: the Athumashi Monastery, which is fairly impressive, does not come close to recreating the magnificence of the original building; regarding the result of the new Mandalay Palace, “the harsh, clumsy, and inauthentic re-construction has no cultural appeal” (Hudson-Rood, 2005).

In general, one cannot fail to note that experts’ opinions of the 1990s campaigns to rebuild the cultural heritage in Myanmar are rather negative (Crampton, 2005): “If we critically analyse the case of Bagan, we may deduce that the utilisation of new materials and the indiscriminate use of concrete have contributed to falsifying to a considerable extent the existing monuments, accordingly many experts speak of them as being Disney style set on a historic-religious site. Unfortunately all too often the initial intentions were based above all on a reconstruction not founded on strictly scientific bases but rather the fruit of a fervent imagination” (Messerli, 2006). The path embarked upon in the 1990s to regenerate the lost heritage must therefore be resolutely abandoned: “Instead of artificial reconstructions, better a proper conservation and methodical maintenance... above all... in the archeological sites that lie idle in ruinous conditions due to protracted periods of neglect” (Facchinetti, 2014). Above all, the hope formulated by the law for the *Protection and Preservation of Cultural Heritage Regions (State Peace and Development Council Law No.9/1998)* must become a reality, where it recommends “to carry out protection and preservation of the cultural heritage regions in conformity with the International Convention approved by the State”, and thus to operate more closely in accordance with the principles of the charters for the protection of the cultural heritage: the Venice Charter (1964), the UNESCO Convention (1972), the Nara Charter (1992), etc.

4.2.4 TYPES OF MONUMENTAL HERITAGE

Defining building types is a basic theoretical precondition for an understanding of the tangible cultural heritage. In common parlance, the “type” may be defined as an ideal category, which may cover a multiplicity of objects, on the basis of fixed, common characteristics (Devoto, Oli, 1971). Accordingly, in the field of architecture,

a building type does not represent the image of a model to be copied or imitated perfectly, but rather a correlated set of notions (regarding the building's layout, building techniques, and the materials used) that have become codified in the course of the previous building tradition in relation to similar buildings, and which today makes it possible to take on informed decisions when it comes to addressing difficult restoration problems, thanks to the possibility of distinguishing the architectural elements that must be protected at all costs from those elements that are less important, and that may see partial adaptations without substantially harming the identity of the monument (Quatrèmere De Quincy, 1837; Muratori, 1960; Caniggia, Maffei, 1979). There have also been several typological studies of Burmese architecture, especially as regards the Kingdom Palaces, stupas and monasteries (Dumarçay, 1984; Chayakul, 2009; May Zin Phyo, U Hlaing, Daw Pwint, 2013).

Ancient Walls and Kingdom Palaces

It is said that the name Mandalay derives from the word *mandala* or *mandhal*, the meaning of which refers to the circle that encloses the universe. This is a cosmological principle that has a fundamental value in Buddhist culture; its implications are not only terminological, in other words they are not restricted to having given origin to the name of Burma's last capital. Also deriving from these are rules and principles governing the spatial organization of numerous capitals in Buddhist kingdoms in Asia, and of great religious complexes. The Ancient Cities of Upper Myanmar were also planned according to these principles, in keeping with the traditional plan of palaces which have now long disappeared, and which reproduces to a certain extent the wooden architecture of ancient India and Asia.

Broadly speaking, these plans are not merely ancient Indian, but rather pan-Asiatic, for their prototypes were found scattered over a vast stretch of country from Patna to Peking and — perhaps — as far as Nineveh: “The features which may be said to have been, on the whole, common to pan-Asiatic cities and palaces are the following: The city was surrounded by high fortified walls, generally forming a square and surmounted by bastions and towers, a deep moat running all along these walls; the number of gates giv-

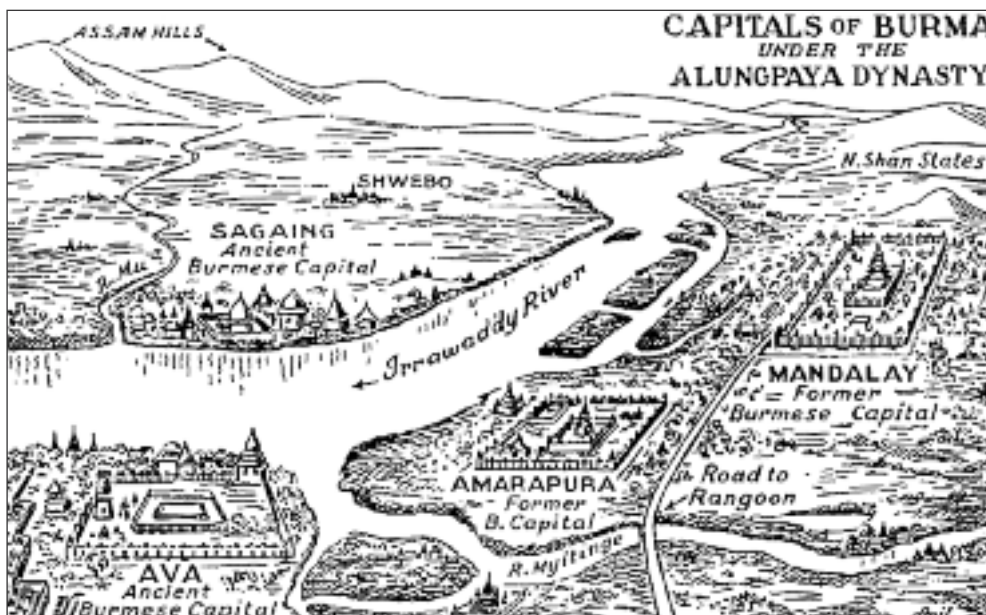


Fig. 4.2.27 Walls of Ancient Cities of upper Myanmar.

Source: old print.

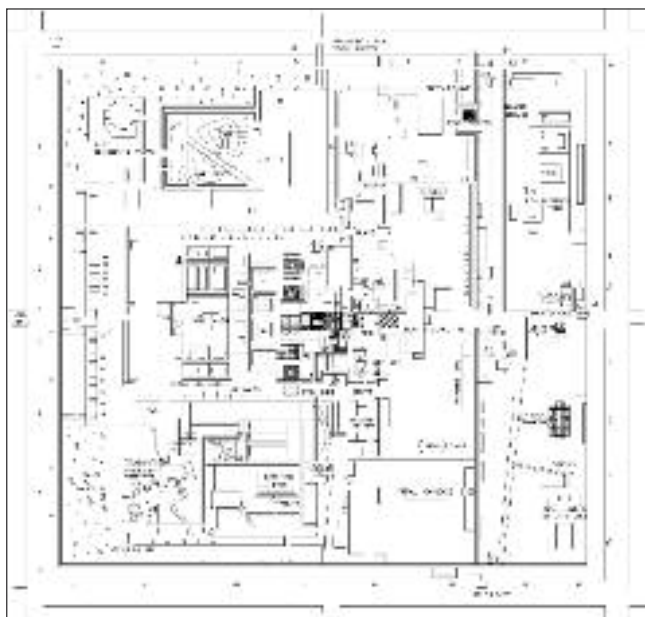


Fig. 4.2.28 Plan of Mandalay Palace.

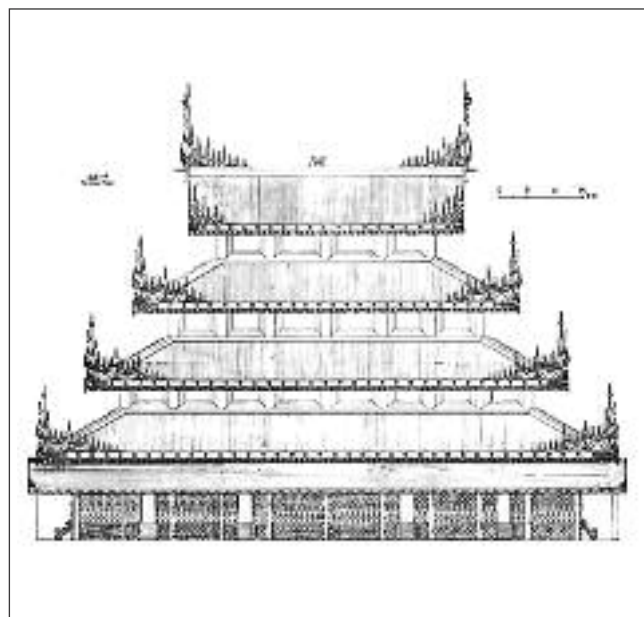


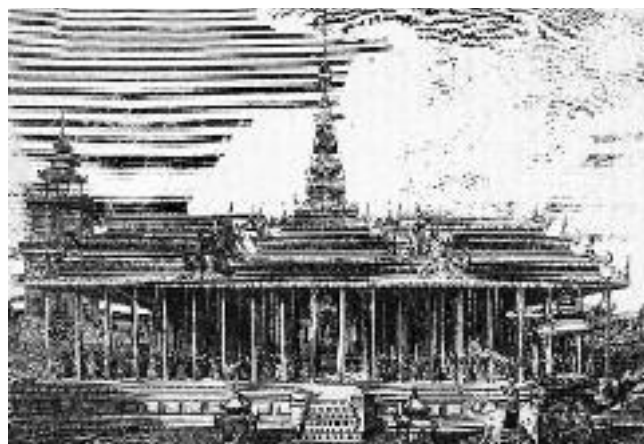
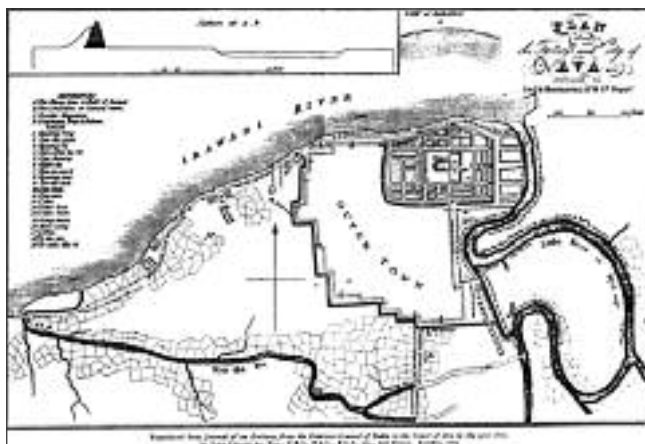
Fig. 4.2.29 Glass palace cross-section, Mandalay Kingdom Palace.

Fig. 4.2.30 Plan of Fortress of City of Ava, 1827.

Source: O'Connor (1987).

Fig. 4.2.31 Kingdom palace of Amarapura.

Source: O'Connor (1987).



ing access into the city through these walls was not always exactly the same in every case; but there is a number of instances in which twelve gates are mentioned, as at Mandalay. The palace was erected in the centre, or very nearly the centre, in most cases, of the city, that is, of the square enclosed by the fortified walls; the palace was built on a raised platform or terrace elevated fairly high above the ground, and enclosed by a retaining masonry wall; this platform was generally longer than it was broad, that is, it was rectangular in shape. The buildings on this terrace, the agglomeration of which formed the palace as a whole, were constructed of wood and of only one storey; they were beautifully adorned with sculptures and mosaics, and heavily gilt and painted. Another feature was that the palace, for greater security to its inmates, was surrounded at no great distance by two or three enclosing walls" (Directorate of Archaeological Survey, 1963).

The city plans of Mandalay, Amarapura and Ava abide very closely by this typology (Fig. 4.2.27). With 12 gates connected by straight roadways dividing the enclosure into 16 blocks, Mandalay Kingdom Palace (Figs. 4.2.28 and 4.2.29) is a ritual centre of geometrical perfection that gives full expression to the Buddhist meaning of *mandala* (Snodgrass, 1985). The square sides face the cardinal points, with three



Fig. 4.2.32 Map of Amarapura, 1855.

gates in each of them (for a total of twelve), each marked with a sign of the zodiac. The city was conceived in the likeness of the heavenly constellations revolving around Mt Meru, which was represented by the Royal Palace and its structure (palace and city ground) fortified by high wall fortresses; within the outer wall, another set of walls surrounding a square palace; palace located almost exactly at the city centre and composed by a group of one-storey wooden buildings gathered together on a rectangular brick platform (Directorate of Archaeological Survey, 1963; Hudson-Rood, 2005).

The orthogonal layout of the Mandalay fortifications can also be seen at the older site of Amarapura in a map dated 1855 (Figs. 4.2.32), although today there remain few signs of the older fortified design. In the case of Innwa, the type of square defensive perimeter appears deformed in the outer walls that surround the Royal City (Fig. 4.2.30). The brick fortifications do not follow the conventions of the traditional rectilinear city plans. The zigzagged outer walls are popularly thought to outline the figure of a seated lion. But, despite this, the inner enclosure was laid out according to traditional cosmological principles, and provided the requisite twelve gates.

Types of pagoda

The same cosmological principle of the *mandala* also informs Myanmar's religious architecture. Numerous academic works have now demonstrated the evolution of Burmese pagodas from original Indian models (Chayakul, 2009; Oo, Hlaing, 2014). These studies, although focusing on the Pagan region, offer a series of findings that can also be applied more generally to the religious heritage of the ACUM area.

The pagoda derives from the stupa of ancient India, which was a dome-shaped commemorative structure, usually erected to enshrine the relics of the Buddha or his disciples' remains. Its form is intended primarily as a monument, and has very little usable interior space. Burmese pagodas can roughly be divided into the following two types:

- dome-shaped, when pagodas consist of solid brickwork (called *Chetiya*), built on a multi-tiered square base, and crowned with a finial;
- hollow, vaulted pagodas built for housing Buddha images. These are more square in design, and include projecting porches and four large vestibules: an example of this type is the Kyauktawgy Pagoda in Amarapura, where the four porches are adorned by frescoes, and a five-tiered pyatthat roof crowns the building.

Pagodas have three main architectural elements: *base*, *middle part* and *top part* (*finial*).

The *base* consists of sets of high and massive square platforms and moulding bases. The moulding base consists of series of square and round bases (Kiriya Chayakul, 2009). The shape of bases is gradually changed from square to round, in order to gradually transition to the bell above (see as example *Kuthodaw Paya* in Mandalay, Fig. 4.2.33).

The *middle part* is the main body of the pagoda. Several shapes have derived from the evolution of the original hemispherical domed stupa of ancient India, a demonstration of which is the *Kaunghmudaw Pagoda* in Sagaing (Fig. 4.2.34). More frequently, the evolution has led to bell-shaped profiles, of which there are several variants: cylindrical bell shape and slightly slope bell shape. The shoulder of the bell is slightly spread out and decorated with floral patterns.

The *top part* – the decorative crowning ornament of the stupa – is multi-tiered and elongated, topped with the typical Burmese parasol. It consists of a ringed spire, a series of ring mouldings, a conical spire (*finial*) and the parasol.

The cosmic principle, which, as we have seen, was the source of inspiration for the design of fortifications of the ancient royal cities, was also the inspiration for the conception of pagodas. This finds expression, for example, in the *Hsinbyume Paya* (Mingun) which is arranged over seven white undulating terraces representing the seven mountain chains that surround Mt Meru – the mountain at the centre of the Buddhist universe.

Moreover, one should remember that pagodas are never isolated. They occupy the centre of an enclosed space, closely connected to devotional practice, and which, once assimilated with the world-universe, conceptually places the pagoda at the centre of the cosmos (Figs. 4.2.35 and 4.2.36).

Monasteries

While pagodas represent a distinctive feature of the architectural and monumental heritage of Myanmar, monasteries represent an equally fundamental chapter, one that is in some respects complementary: especially wooden monasteries. Indeed, despite the numerous examples that were destroyed or set fire to during WW2, a number of very high quality complexes remain in Mandalay.

A recent study traces the process of their evolution: “The remains of masonry monasteries, and the monastic traditions of the Pyu and Pagan periods in Myanmar, served as the primary prototypes for the development of wooden monasteries. Wooden monasteries were called Hpon-Kyi-Kyaung; large teak edifices crowned by tiered roofing systems were constructed on wooden platforms, supported by piles, that

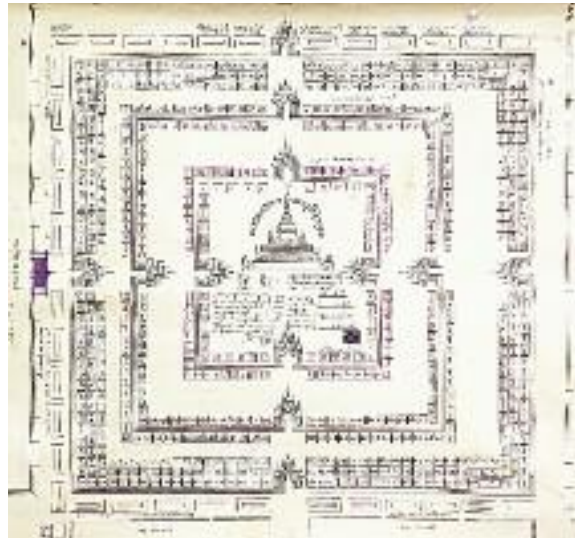


Fig. 4.2.33 Kuthodaw Paya, Mandalay.

Photo: M. Preite, 2015.

Fig. 4.2.34 Kaunghmudaw Pagoda, Sagaing.

Photo: M. Preite, 2015.

Fig. 4.2.35 Map of Kuthodaw Paya, Mandalay.

Fig. 4.2.36 Sandamuni Paya, Mandalay, from local information display.

Photo: M. Preite, 2015.

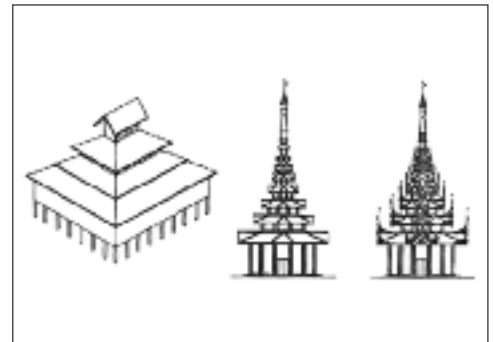
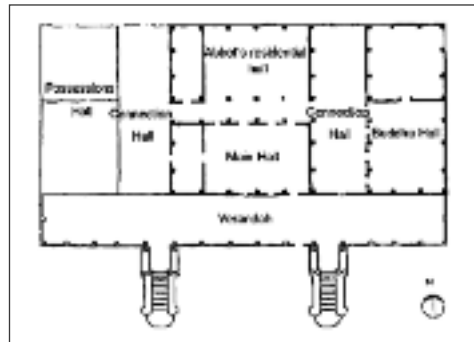


Fig. 4.2.37 Plan of Taw Wan Monastery.

Source: Chaturawong (2003).

Fig. 4.2.38 Drawings of Jetawan roof type and Pyatthat.

Source: Chaturawong (2003);
Moilanen, Ozhegov (1999).



were prevalent throughout Myanmar during the 18th and 19th centuries” (May Zin Phyo, U Hlaing, Daw Pwint, 2013). The authors of this study, after an examination of a sample of wooden monasteries in Mandalay, identified four types that can be distinguished on the basis of the number of internal spaces that make up the complex, the number of floors, and the type of roof, corresponding to the various internal spaces. Indeed, the main architectural characteristic of monasteries is that they do not have a single roof. Instead, they have differentiated roofed areas for each of the rooms and chambers that go to make up the structure as a whole.

The subdivision into differing spaces derives from the fact that several functions take place in monasteries, from collective functions linked to worship to educational functions for religious teaching, and including the specifically domestic functions of the monks living there. Although the multi-purpose building combines public and private areas, the spatial organization of Burmese monasteries is based on a simple building plan, lying along an east–west axis. The spatial model is composed of five parts: the Buddha Hall, the Main Hall, the Possessions Hall, and two connection halls (Fig. 4.2.37).

The eastern part – the Buddha Hall, where a throne with the Buddha image stands – represents the official area for religious ceremonies. The western part –

Fig. 4.2.39 Map of Bagaya Kyaung, Innwa, from local information display.

Photo: M. Preite, 2015.

Fig. 4.2.40 Cross-section of Bagaya Kyaung, Innwa, from local information display.

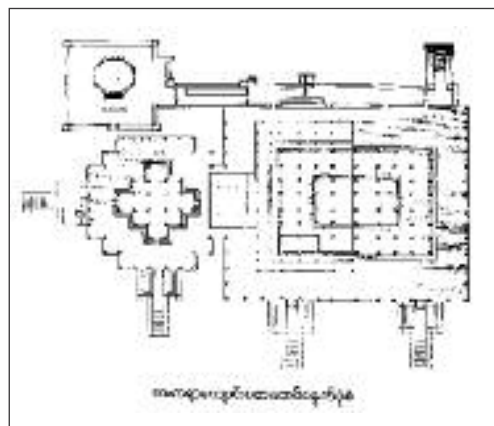
Photo: M. Preite, 2015.

Fig. 4.2.41 Buddha hall and Pyatthat of Bagaya Kyaung, Innwa.

Photo: M. Preite, 2015.

Fig. 4.2.42 Jetawan of Bagaya Kyaung, Innwa.

Photo: M. Preite, 2015.



the Possession Hall – is a more private one, and is used by the monks. The Main Hall located in the middle is called the *Jetawan*, and its function is for teaching and delivering sermons. Two connection halls connect the Buddha Hall to the Main Hall, and the Main Hall to the Possessions Hall. Each internal area, as stated above, has its own corresponding roof, each with a different form and structure (Fig. 4.2.38):

- the Buddha Hall has a tiered roof called a *pyatthat* in Burmese. Normally, the roof can have three, five or seven tiers, but it is not allowed to exceed nine tiers;
- the Main Hall or Jetawan Hall has a *Jetawan* roof type;
- typically the upper part has a corrugated iron roof, which has been used for important buildings since the earliest period of Mandalay.

Teak is the significant material for the construction of monasteries. However, plastered brick is used for the lower part, especially for stairs, for solidity, and for outstanding features. The decoration of monasteries, carried out by skilled Burmese craftsmen, is the result of material and colour contrast: “plastered brick stairs and wooden buildings obviously show the different material, while the dark brown colour of wood and gilt and white plaster highlight the contrast of colour itself” (Chayakul, 2009).

One of the best examples of wooden monasteries is the *Bagaya Kyaung* in In-nwa, a fine timber monastery dating to 1834 (Figs. 4.2.39, 4.2.40, 4.2.41 and 4.2.42). The building, supported by 267 teak beams carved with repeated peacock and lotus flower designs, mainly consists of two chambers: the Buddha Hall and the Main Hall, with their respective roofs, the *pyatthat* for the Buddha Hall and the *Jetawan* roof type for the Main Hall.

The best example of Burmese teak architecture remains, however, the *Shwenandaw Kyaung* in Mandalay (Fig. 4.2.43). The temple is fragile yet a significant masterpiece of the wood-carver’s art. It is a large multi-tiered building with four separate roof levels. This monastery, that was relocated from Amarapura to Mandalay Palace and from there to the present location, has neither a *paya-saung* (Buddha Image Shrine Room), nor a *baw-ga-saung* (Store Room). Moreover, “the *pyatthat* of the Shwenandaw Monastery is no longer extant; but it nonetheless is depicted on the frescoes of the Kyauktoggi at Amarapura” (Dumarçay, 1984, Fig. 4.2.44).

Fig. 4.2.43 Jetawan of Shwenandaw Kyaung, Mandalay.

Photo: M. Preite, 2016.

Fig. 4.2.44 Buddah Hall, Main Hall and Store Room of Shwenandaw Kyaung, Mandalay, from the frescos of the Kyauktoggi at Amarapura.

Photo: M. Preite, 2015.



4.2.5 VERNACULAR ARCHITECTURE

“Vernacular building is the traditional and natural way by which communities house themselves”. As a record of the history of a society, the built vernacular heritage is “the fundamental expression of the culture of a community, of its relationship with its territory and, at the same time, the expression of the world’s cultural diversity” (Icomos, 1999). In this document, Icomos recognized on the one hand the absolute centrality of this category of properties in the preservation policies of the cultural heritage, and on the other hand the serious threat to the survival of this tradition by the worldwide forces of economic, cultural and architectural homogenization.

Defending the built vernacular heritage therefore becomes one of the goals on the agenda of Myanmar’s heritage policies, especially in the Ancient Cities of Upper Myanmar. Indeed, it should not be forgotten that, in many countries, the built vernacular heritage has become a powerful factor in attracting tourism; the potential revenue that can be obtained make it a vital resource in tourist development policies. In an age when the paradigm of environmental sustainability has become the yardstick for judging human activities, one understands very well the attraction that this habitat model has for visitors who are more sensitive to these issues: vernacular architecture, owing to its systematic use of natural, renewable resources that have a very low impact, is the construction method that minimizes most the effects of man’s activities on the environment.

Burmese vernacular architecture has already been the subject of a number of pioneering studies as regards the materials used, building techniques, and building types (Chayakul, 2009; Paik, 2016).

Materials

In Burmese tradition, homes were built using plant-derived materials such as wood, straw, rice paper, thatch, reeds, tree bark, and bamboo, which can be implemented naturally and flexibly. Wood is the main material, and its ratio between weight and resistance is four times better than that of reinforced concrete, and one and a half times that of metal. Wooden structures offer better flexibility, and thus better resistance: flexibility of materials is necessary in the event of earthquakes. Moreover, wooden houses are considered the most proper for the tropical climate of Burma, which has fairly high levels of heat and humidity. Wood does not accumulate heat during the day as much as masonry. Another benefit of wooden buildings is good ventilation (Facts and Detail, 2008).

Structure

Burmese vernacular houses are built on piles. The building’s frame is composed of posts and beams, while walls and partitions were attached to the frame. At least six posts would be driven into the ground, and arranged to support the main rooms of the house; each of the significant six posts has its own position, name, and deity. The floor is elevated 1 or 2 mt above ground, in order to protect the house from floods, humidity and animals. Inside there are two or three rooms partitioned with plywood sheets that have curtains instead of doors. The main room is reached by the front door, which stands at the top of a small flight of stairs. The space under the building is used for workshops, and keeping cattle (Chayakul, 2009).

Typologies

Vernacular houses in Burma consist of two types, depending on materials and structural system (Chayakul, 2009). The first type mainly includes the houses occupied by families of modest financial means, living in rural villages. The traditional house is made of prefabricated elements made from light and cheap materials such as bamboo, leaves, and small logs, largely of bamboo; the frame of the house is made of wood, with hard and durable wood being used for the house posts; the walls, doors and windows are made from bamboo mats; the floors are made of bamboo planks or wood.

In the past, roofs were made of a variety of materials, including thatch (made from broad-leaved grass or palm fronds, or banana leaves), or layered in rows with tiles, or wooden shingles (Fig. 4.2.45); today, traditional roofing materials are systematically replaced by corrugated zinc sheets (Fig. 4.2.46).

The second type of house was more sophisticated, solid and expensive. The owners of this kind of house were rich merchants. The posts usually have rectangular holes bored to insert beams which join posts together. Wedges of hard wood render the joint immobile. The frame is assembled by means of notches, wedges and tenons. Nails are not used, due to the fact that rust would be harmful to the building.

The construction technique of the second type is obviously more sophisticated than the first type: walls and partitions are made from panels placed horizontally, overlapping each other; roofs are made from shingles.

The plan of Burmese houses of the second type consists of rooms with open terraces (Fig. 4.2.47); the terrace is the place for domestic activities, corresponding to a living room and dining room; rooms are used for rest and receiving guests. It can

Fig. 4.2.45 Example of traditional roof, Tat G Village.

Photo: M. Preite, 2016.

Fig. 4.2.46 Example of corrugated zinc roof, Tat G Village.

Photo: M. Preite, 2016.

Fig. 4.2.47 Vernacular house with open terrace.

Photo: M. Preite, 2015.

Fig. 4.2.48 Traditional houses in frescoes of the Kyauktawgyi Pagoda at Amarapura.

Photo: M. Preite, 2016.



be said that the terrace is the daily living zone, while rooms are more private zones (Chayakul, 2009).

Ancient, highly stylized depictions of traditional houses for wealthy families are recognizable in the frescoes of the Kyauktawgyi Pagoda at Amarapura (Fig. 4.2.48). One can see the spacious open terrace for multipurpose functions, while the private rooms can just be glimpsed; the bamboo partitions are decorated with geometric motifs.

Vernacular Villages Plan

During the mission conducted in March 2016, four rural villages were visited, consisting mainly in vernacular habitats (Fig. 4.2.59). Villages are characterized by the fact that they are located in different positions, and by the fact that the work carried out by their inhabitants is of differing economic status.

TAT G

Of the four villages visited, Tat G has the simplest layout (Fig. 4.2.49), since it grew up on the fringes of a winding linear route along the banks of a tributary of the Irradaway. Along the route, homes of the second type, with windows, wooden external walls, and a veranda on the first floor, alternate with homes of the first type, with walls made from bamboo mats, and a traditional shingle roof. The picture representing the construction of a new house reveals the use of concrete bases on the ground for wooden posts, and new galvanised zinc roofs (Fig. 4.2.50). The main economic activities of Tat G village are pottery and storing hay (Fig. 4.2.51).

Fig. 4.2.49 Map of Tat G Village.

Source: data from Imagery
© GeoEye-1; 2015; Distributed by
e-GEOS. Processed by the author.

Fig. 4.2.50 Frame of a new
vernacular house
in construction.

Photo: M. Preite, 2016.

Fig. 4.2.51 Artisanal pottery
production at the ground floor
of a traditional house.

Photo: M. Preite, 2016.





Fig. 4.2.52 Map of Shan Kalay Kyaung.

Source: data from Imagery
© GeoEye-1; 2015; Distributed by
e-GEOS. Processed by the author.

Shan Kalay Kyaung

The second village, Shan Kalay Kyaung, is situated near the southern shore of Mandalay Lake. A satellite photo reveals a settlement layout with a very compact form (Fig. 4.2.52), with well-delineated boundaries that are in no way blurred, within an area of farmland presumably designed to be flooded on a seasonal basis, as shown by the high wooden piles which the homes stand on (Fig. 4.2.53). The structure is certainly more complex than that of Tat G:

- Tat G, as we have seen, is arranged along a single roadway, giving the settlement an essentially linear shape. By contrast, Shan Kalay Kyaung develops in line with an orthogonal lattice of roadways. It is not cruciform, but it could be described as having a checker-board layout (having several parallel axes);
- Tat G does not offer any functional variety: buildings are mainly residential; Shan Kalay Kyaung, on the other hand, has a higher level of complexity; there are some basic collective facilities (schools), grouped together so as to form an embryonic central site (Fig. 4.2.54);
- craft activities (making Buddha statues) are typical of a production that looks beyond the local context, looking to the regional market, if not the national market (Fig. 4.2.55);
- the standard of houses is higher on average, both as regards the architectural quality of the facades, and of the sober decorative elements, and also as regards the robustness of the frame (note the solidity of the plots), and the use of wood, instead of woven bamboo panels, in the wall elements (Fig. 4.2.56);
- unfortunately, the traditional roofs have been largely replaced by corrugated metal sheets.

Saetar and Kanar Daw

As regards Saetar, satellite photo (Fig. 4.2.57) show a village having some similarities to Shan Kalay Kyaung (an equally compact layout, with well-defined boundaries with regard to the surrounding farmland), but which does not have similar structural clarity as regards the layout of its streets. Indeed, from studying aerial

Fig. 4.2.53 Homes standing on high wooden piles.

Photo: M. Preite, 2016.



Fig. 4.2.54 Public school.

Photo: M. Preite, 2016.



Fig. 4.2.55 Craft activities making Buddha statues.

Photo: M. Preite, 2016.



Fig. 4.2.56 The use of wood in the wall elements.

Photo: M. Preite, 2016.



Fig. 4.2.57 Map of Saetar Village.

Source: data from Imagery
© GeoEye-1; 2015; Distributed by
e-GEOS. Processed by the author.

Fig. 4.2.58 Map of Kanar Daw Village.

Source: data from Imagery
© GeoEye-1; 2015; Distributed
by e-GEOS. Processed by the author.

photos it was only possible to discern the main roadways leading into the village; the internal system of access routes does not appear clearly delineated.

Finally, the structure of Kanar Daw is even more shapeless: no settlement pattern can be discerned, the boundaries of the village remain undefined, while the layout of access routes seems to functionally obey types of travel that have their reference points (origin and destination) on a scale that is much higher than that of a village.



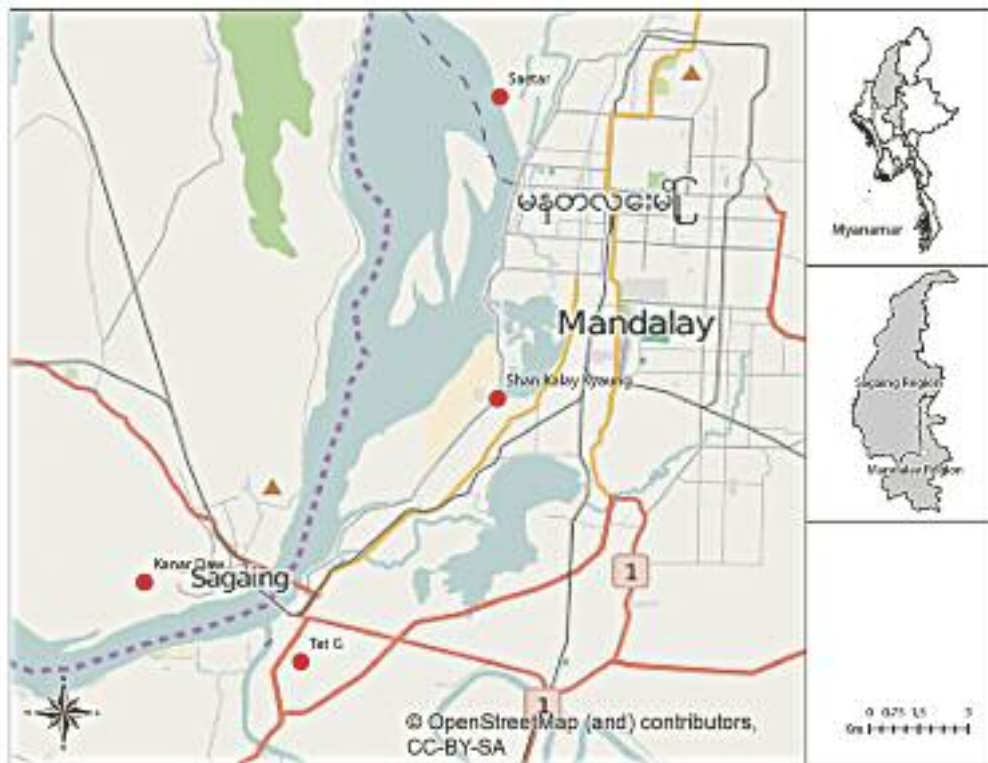


Fig. 4.2.59 The four villages of Tat G, Shan Kalay Kyaung, Saetar and Kanar Daw.

Source: author; background map from ESRI Imagery Basemaps.

4.3 THE INTANGIBLE CULTURAL HERITAGE

4.3.1 TRADITIONAL CRAFTS

The ACUM area is regarded as the heart of Burmese craft industry. Skills and ancient traditions for making handmade goods are handed down here in very many fields. Traditional craft goods are mostly made in small or very small workshops, located in concentrated areas, which make up full-scale productive districts. These districts are often established in the context of rural villages, where production is also carried out from home, conducted by the local womenfolk, or as a way of supplementing the family income.

The original combination of a traditional community setting, widespread craft skills, and the often excellent quality of the products makes these locations a leading tourist attraction, despite the fact that tourists currently only take advantage of this attraction to a very small extent, and sometimes only in trivial form.

Below, we give a summary of the main features of local craft production.

STONE-CARVING

Marble was carved in this area from as far back as ancient times. In the hills north of Mandalay there are large deposits of valuable marble, which have given rise to a tradition of large-scale quarrying centring around the area of Sagyin (around 30 km from Mandalay). However, marble-carving takes place mainly in Mandalay, where the best marble-carvers are concentrated.

The main products consist in Buddha statues of various sizes (up to 3 mt high), mainly intended for export, especially to China and Thailand.

Fig. 4.3.1.1 Marble-working at
Kyauk-Sit-Than village.

Photo: Studio Azzurro (2015).

Fig. 4.3.1.2 Marble-working at
Kyauk-Sit-Than village.

Photo: Studio Azzurro (2015).



Ever since the kingdom of Thibaw the workshops have been sited in the area corresponding to the western entrance of the Mahamuni Pagoda. Today there are many more marble-workers, and they are concentrated not far from that place, along the 85th Road, appropriately called *Kyauk-Sit-Than* (Carver Street). The number of workshops has grown a lot since the early 1990s, with the introduction of electrical tools, allowing the craftsmen to work faster. However, in many cases, the change has been to the detriment of the accuracy of the finished product. The use of electrical tools has also greatly increased the production of harmful dust.

In the framework of a sustainable tourism development plan, this district can play a significant role, since it is the expression of a productive tradition that is intimately bound up with the cultural identity of the region: Indeed, one of the most famous monuments in Mandalay is *the World's Largest Book* (*Kuthodaw Pagoda*, built in 1868 under King Mindon), in which the entire Tipitaka canon of Theravada Buddhism is inscribed in Pali upon 729 large marble tablets, each of which is housed in its own pagoda.

Fig. 4.3.1.3 Work by hand.

Photo: Studio Azzurro (2015).

Fig. 4.3.1.4 Machine work.

Photo: Studio Azzurro (2015).





Fig. 4.3.1.5 Bronze-working at Tampawadi village.

Photo: Studio Azzurro (2015).

Fig. 4.3.1.8 Silver-working at Ywa-Htaung village.

Photo: Studio Azzurro (2015).

Given the high traditional skill of Mandalay craftsmen in this field, it seems advisable and worthwhile to aim to recover traditional skills, involving manual techniques and tools, and pursue a determined policy of encouraging quality products.

BRONZE AND SILVER

Metals, and their transformation, have always held a strong fascination for the Burmese, who associate with them courage, strength and moral integrity (Fraser-Lu 1994, p. 122). Skills and excellence have developed especially in bronze- and silver-working.

As regards bronze-working, in the first period of the Konbaung dynasty (second half of 18th century), Myanmar's biggest centre was Ywa-taung, in the northern part of the region of Sagaing. With the transfer of the capital to Amarapura (1783), under the reign of King Bodawpaya, the district of Tampawadi, on the southern outskirts of Mandalay, became important (ibid., p. 128).

There are two types of technique: bronze casting (*kyaye-thun*) and bronze striking (*kyaye-khat*). *Kyaye-thun* takes place by melting brass and pouring it into a mould of the required shape. *Kyaye-khat* involves beating heated brass or bronze to the required shape. Many of the tools used (tongs, hammers, chisels etc.) are also made by local metal-smiths, depending on the needs of the individual craftsmen (Zin Latt, 2016).

In Tampawadi a large variety of objects are made, ranging from religious figures to musical instruments, and from bells – important both as symbols of devotion and to mark time in monasteries – to household objects, decorative ornaments, and small,



Fig. 4.3.1.6 Bronze-working at Tampawadi village.

Photo: Studio Azzurro (2015).

Fig. 4.3.1.7 Silver-working at Ywa-Htaung village.

Photo: Studio Azzurro (2015).

charming reproductions of animals. Many of these objects would be very suited to being sold as souvenirs, if they were appropriately brought to the attention of visitors.

As regards silver-working, although the principles of Theravada Buddhism limited the possession of silver to the nobility, an important tradition grew up in the country, and Mandalay was one of its main centres. With the presence of the British, there was increased production of objects for export, such as cups and jewellery boxes, and also objects for local use (Schäfer, Stein, Weigelt, 2014, p. 202-4). Today silver-working is mainly concentrated in the village of Ywa-Htaung, near Sagaing.

GOLD-LEAF WORK

This tradition is closely connected with the deep meaning which gold has for the Burmese people, and its colour can be seen everywhere in Burmese architecture, religious and otherwise. The meaning is primarily religious: applying gold leaf on a statue of Buddha is a central practice in the ritual whereby multitudes of worshippers manifest their devotion to the *Mahamuni Pagoda* and in other prominent pagodas. But gold is also attributed as having healing properties (it is consumed mixed together with medicinal herbs) and cosmetic properties (fine gold dust is mixed with other ingredients, and pure rainwater, before applying it to the skin).

Gold leaf can be bought at many pilgrimage sites, but its production is concentrated in Mandalay, and especially in the Myatpar district.

There are two phases in its production. The first consists in hammering gold manually. This produces gold leaf 0.000005 of an inch thin (0,000127 cm). This activity requires a lot of physical effort, and is conducted by men positioned in a row, beating the metal rhythmically, with heavy hammers. The gold is protected by a cushion, and held in place on a stone. The second activity, carried out by women, consists in cutting the leaves of gold and arranging them together in traditional packs of 100 pieces, which can also be bought individually, as souvenirs.

Closely connected to gold leaf production is the production of very fine sets of bamboo paper, which are used to hold the gold together when it is being hammered. This process, called *Shwe-pwar-satku*, uses bamboo, and is conducted in two workshops in the village of Daung-Ma, around 3 km from the city of Sagaing. The main raw material, bamboo, comes from the zone of Pyin-Oo-Lwin. The bamboo is cut into pieces, softened and mixed in wooden basins, and is then pressed and dried (cf. Zin Latt et al., 2016).

Fig. 4.3.1.9 Fixing the gold on the stone, before hammering.

Photo: M. Loda, 2015.

Fig. 4.3.1.10 Hammering.

Photo: Studio Azzurro (2015).





Fig. 4.3.1.11 The pack of 100 sheets.

Photo: Studio Azzurro (2015).



Fig. 4.3.1.12 Drying the sheets.

Photo: Zin Latt (2016).

Fig. 4.3.1.13 Separating the sheets.

Photo: Zin Latt (2016).

Finally, connected to the production of gold-leaf is the production of the sheets of paper that are used to keep the gold sheets separate from each other, once completed. This activity, conducted in the Nyaung-kone Village of the Te-gyi Village tract, is called *Shwe-lhaung-satkyu*, and it only uses dried grass (straw): 50 strips of 12 inch straws produce about three stacks of *Shwe-lhaung-satkyu*. The production requires a dry climate, and is therefore undertaken between October and April: in these climatic conditions, about three to five large sheets of paper are made per day, which is an average 100 to 150 finished sheets. One family usually can finish about 100 sheets of paper per day. A bundle containing 98 sheets of *Shwe-lhaung-satkyu* is called a hundred-sheet bundle (Zin Latt et al. 2016).

All the activities that go together towards making gold leaf are very appealing, and may represent an interesting and effective way of attracting visitors into taking an interest in various aspects of local culture.

GOLD EMBROIDERY

Mandalay is historically the centre of the prestigious production of gold embroidery. The technique consists in embroidering, with much use of gold and silver threads, pearls and beads, sequins and other material designed to embellish the product. This was the technique used to make ancient regal ceremonial robes called *Maha Latta*, which used precious stones. Indeed, it was the skilled artisans of Mandalay who wove the luxuriant *Maha Latta* worn by the last monarchs of Myanmar, King Thibaw and Queen Suhpayalatt, now on display in the National Museum of Yangon². The same technique was used, in ancient times, to make many other artistic products such as cushions, crowns, headgear and turbans, and especially tapestries (*kalaga*) etc. In this instance, embroidery was made in relief on a velvet base, sometimes imported from Europe, and with the use of locally-produced semi-precious stones (Fraser-Lu, 1994, p. 265). The decorative motifs were usually stories of the past lives of the Buddha (*Jataka*), or else mythical animal figures (birds, snakes, elephants).

With the recent development of tourism, the production of embroidery has been geared towards the new demand, creating objects that take less time to make and that are more accessible in terms of price, such as clutch bags, haversacks, cushion covers, berets, and even the emblems of major European football clubs. This process has inevitably placed objects on the market that are of much less value than those produced in the past.

² <http://www.easenpeace.com/index.php/tapestry-gold-silver-embroidery>

Fig. 4.3.1.14 Gold embroidery.

Photo: Studio Azzurro (2015).



Fig. 4.3.1.15 Tapestry.

Photo: M. Loda, 2015.

In this instance too, as for marble-working and bronze-working, tourist interest could, however, become a way of promoting the recovery of traditional skills, and boosting quality goods. Moreover, there are already records of attempts made in this direction, such as those by U Sein Myint, which marketed new productions of a high artistic level, using pieces of fabric from ancient *lon-gyi*, peacock feathers etc. (Fraser-Lu, 1994, p. 272).

Fig. 4.3.1.16 Weaving.

Photo: Studio Azzurro (2015).

Fig. 4.3.1.17 Weaving.

Photo: Studio Azzurro (2015).



³ See, in this connection, Fraser-Lu (1994), pp. 267-271. It should nevertheless be stressed that the British themselves, in an attempt to revitalize the Burmese art of weaving, in 1914 opened a specialized school in Amarapura, Saunder's Weaving Institute (ibid., p. 270). Today, Saunder's Weaving Institute offers its 50 students a study grant of 18,000 Kyat a month, for the duration of two years, thanks to the support of Germany's GIZ.

⁴ <http://www.artgallery.nsw.gov.au/collection/works/290.2000/>

⁵ In some cases, the drawings contain adapted forms of the Chinese rock motif, as highlighted by an artist and weaver from Tampawadi, U Win Maung, cited in Fraser-Lu (1994), p. 275, note 37.

WEAVING

Amarapura has had great importance in the history of textile making in Burma. Despite the complex events which weakened its strength during British colonization – especially as a result of very low-cost imports of raw materials (silk from China and cotton from India)³ – weaving is still very much practiced, and the area of Amarapura still remains the main fulcrum for this activity.

Silk-weaving techniques were imported here by expert craftsmen from the Indian State of Manipur. They were taken prisoner and brought to Burma in the 18th century, during the military campaign of Alaungphaya⁴. The specific feature of that technique, called *lun-taya*, consists in working on the reverse side of the fabric, handling 100-200 spools at a time, on a weft of 1,500 threads (Fraser-Lu, 1994, p. 259).

The drawings (*acheik*) are original to Burma, and inspired above all by natural phenomena, such as the water-wave, light and clouds, according to recurrent motifs found also in Pyu ceramics, and in frescoes dating to the Pagan and Ava period⁵.

The *lun-taya* technique has always been very costly, because it is very time-consuming: it takes the work of two people just to add a few centimetres a day. Today weaving with 100-200 threads is extremely rare: usually around a dozen threads are used, and there is a preference for using a maximum of 2-3 colours, but the variety of the products is still very wide and attractive, also for the purposes of tourism.



Fig. 4.3.1.18 Weaving.

Photo: Studio Azzurro (2015).

In Amarapura around 400 looms are active in making the traditional Burmese *lon-gyi* with various different materials: silk, cotton, and also nylon and rayon. There are also a dozen or so small workshops producing the traditional *acheik*-patterned *lon-gyi* with the *lun-taya* technique, but with a modified loom allowing the weaving of larger pieces of cloth.

The traditional hand-weaving is also very widespread in Sagaing, where it is handed down through family and village traditions (Zin Latt, 2016).

Some tour operators (e.g. Easy Tours) have recognized the potential attraction of this traditional activity, and they offer weaving courses lasting some weeks for tourists.

POTTERY

Ceramic production became established in the ACUM area above all during the colonial period, when the people living in some villages south-west of Mandalay began to dedicate themselves to it. The area became more specialized in the production of teapots, often made in the shape of animals (cockerel, duck), or using motifs from Buddhist mythology, such as the protective *kinnara* (half man, half bird).

A similar production still continues in the district of Sagaing (Fraser-Lu, 1994, p. 211).

The village of Tat-kyi has become specialized in making cooking receptacles, and multi-coloured toy tea sets for children (Zin Latt, 2016).



Fig. 4.3.1.19 Shaping.

Photo: Studio Azzurro (2015).



Fig. 4.3.1.20 Finishing.

Photo: Studio Azzurro (2015).

Fig. 4.3.1.21 Drying.

Photo: M. Loda, 2015.

Fig. 4.3.1.22 Bowl for monks at Innwa.

Photo: Zin Latt (2015).



Fig. 4.3.1.23 Wood-carving at Shan-Ka Lay Kyun.

Photo: Studio Azzurro (2015).



Fig. 4.3.1.24 Wood shop.

Photo: Studio Azzurro (2015).

Fig. 4.3.1.25 Wood sculpture.

Photo: Studio Azzurro (2015).



In the village of O-bo (Ywa Htaung ward), by mixing red and black clay with sand, excellent cooking vessels are made, as well as vases and jars, on which floral decorations are impressed.

In the village of Myit-pauk, red clay vessels are made, to store drinking water (ibid.).

In Innwa, in the Thabeik-than section of Zegyo market, the typical clay or metal receptacles are made that are used by monks to collect food offerings.

WOOD-CARVING

Myanmar has a great wealth of forests, especially teak (*kyun*), a wood that is very resistant to variations in temperature and humidity. Teak also contains an oil that has an odour that repels insects (eg. Termiti), and which makes it immune to fungus. The great availability of this excellent raw material led to the development of profound knowledge of how to use wood for architectural and artistic purposes. There are very many examples of this in the project area, for which see ch. 4.

The craft industry in wood, and the art of wood inlay, which initially flourished in the Tampawadi quarter of Mandalay City, are today mainly located in Shan-Ka Lay Kyun village, in Amarapura.

PAPER (PAPIER M,CHÉ) TOYS

This traditional craft, which is carried out in the dry season from October to April, has its centre in a village near Sagaing. The toys are made by starting from a concave mould



made of wood or terracotta. On this, layers of very fine paper and rice paste are applied. It is left to dry for a day, and then the paper part is separated from the mould, finished and painted. Typical shapes of these toys are the gold-foil owl (*se-kwet*), an oval, Russian-style doll (*pyi-daing-taung*), and a doll with outstretched arms (*pu-wa-yok*)

BASKETS, BAMBOO, MATTING

The craft of rattan-making spread across Burma as of the colonial period. In the project area, this activity is concentrated in Mangyisin village near Sagaing, where it was introduced in around the 1970s by some inhabitants of the village who had learnt it in Yangon (Zin Latt, 2016). Many types of object are made: baskets, hats, balls, and also items of furnishing, such as chairs, tables, and lamp shades.

In Innwa, mats, screens, roofs and various types of container are made using bamboo imported from Banmaw (Kachin State).



LEATHER INSTRUMENTS

Near the *Yadanarpura Museum*, at the east gate of *Phayargyi pagoda* in Mandalay city, there are shops that sell drums and musical instruments made of leather, such as the *Patlone*, *Patma*, *Sakhunt*, *Chauklonepat*, *Burmese Oe-si* and *shan Oe-si*, *Doe-Pat*, instruments for *Nat* offerings, and toy instruments for children. The instruments are made in Tantaw village (Yamethin Township) (Zin Latt, 2016).



Fig. 4.3.1.26 Preparation of paper toys.

Photo: M. Loda, 2015.

Fig. 4.3.1.27 The Owl.

Photo: <https://www.etsy.com/listing/176529167/vintage-myanmar-or-burmese-owl-gold>

Fig. 4.3.1.28 The Ox.

Photo: <https://mountainfolkcraft.com/2013/04/12/burmese-papier-mache/>

Fig. 4.3.1.29 Rattan-making.

Photo: Studio Azzurro (2015).

Fig. 4.3.1.30 Rattan-making.

Photo: Studio Azzurro (2015).

Fig. 4.3.1.31 Rattan-making.

Photo: Studio Azzurro (2015).



Fig. 4.3.1.32 Rattan-making.

Photo: Studio Azzurro (2015).



JADE

In the villages of Tabyu and Daung-Ma, just west of Sagaing, local people work jade. The raw material comes from the mines of *Hphakant* (Kachin State) and *Taw-maw*. In the past, jade was cut and polished by hand. Ever since Tabyu was connected to mains electricity, in 2012, the work has been done with the help of machinery.

In the second half of the 20th century, jade-carving also spread to *Magyisin* and to other villages in the Zee-Chaung village tract, where jewellery, utensils and amulets are currently made.

WRITING AND PAINTING

An overview of the high-value craft activities in the project area can be completed by mentioning calligraphy in Pali, and the art of glass-painting, which some (very few) artists still cultivate. In keeping with the ancient tradition of manuscript writing, the art of transcription in Pali (*Vianaya*) is still handed down. It is written on sheets made from lacquered palm, bronze and gold, often intended as votive donations to Buddhist monasteries.



Fig. 4.3.1.33 Leather instruments.

Photo: Zin Latt (2015).



Fig. 4.3.1.34 Rattan-making.

Photo: Zin Latt (2015).



Fig. 4.3.1.35 Jade-polishing at Tabyu village.

Photo: Zin Latt (2015).



Fig. 4.3.1.36 Jade-polishing at Tabyu village.

Photo: Zin Latt (2015).



Fig. 4.3.1.37 Writing in Pali.

Photo: Studio Azzurro (2015).



Fig. 4.3.1.38 Writing in Pali.

Photo: Studio Azzurro (2015).



Fig. 4.3.1.39 Glass-painting.

Photo: Studio Azzurro (2015).

Finally, worthy of mention is the art of painting on glass, and in particular painting inside bottles. This is being reclaimed, and spread, by a group of artists in Mandalay, around the master artist U Chit Mya.

The geographical distribution of these craft districts is shown in Fig. 4.3.1.40

As can be seen from this brief overview, the rich and varied craft tradition is a vital component in the local cultural heritage, as was already realized around 30 years ago by U Win Maung, who, from Tampawadi, set out to encourage initiatives to develop and spread knowledge of that heritage⁶.

Enhancing this resource, as part of a plan to develop sustainable tourism, requires actions aimed at giving a boost to local products as products of excellence, maintaining (and in some cases reclaiming) the historical level of quality. The interventions could operate in two areas: on the one hand, fostering the recovery of traditional skills within workshops, and stimulating their use in the

⁶ See Fraser-Lu (1994), p. 314 e p. 316 note 41.

Fig. 4.3.1.40 Localization of handicrafts district.

Source: author; background map from ESRI Imagery Basemaps.



production process; and on the other hand facilitating the transmission of these skills in workshops, and also with solutions that are accessible to an international public. For example, workshops could be set up that are open to the participation of tourists wanting to learn how to make some craft products. Such tourists would thus be interested not only in seeing and buying, but also in learning how to make things with their own hands. Finally, for the more complex activities, visit formats could be devised explaining the sequence of operations that make up the production cycle.

Training courses of this sort could become, by themselves, a factor of attraction for a larger public than the local public, and reinforce the tourism image of the place itself, as shown by some successful experiences carried out in situations with a mature form of tourism⁷.

4.3.2 STREET FOOD AND LOCAL CULINARY CULTURE

4.3.2.1 STREET FOOD AS A CULTURAL PRACTICE AND TOURISM RESOURCE

Over the last few years, attention to food quality and local culinary traditions has started to establish itself as one of the most important factors that distinguish and promote local areas and regions, especially with a view to tourism. In several Asian countries, the experience of local food and cooking has for some time now become established as one of the main reasons why tourists choose a particular destination, and also as one of the resources that act as an attraction to visitors coming to the host locations (Enright, Newton, 2005). Generally, food is recognized as a fundamental component of the tourist experience, and as a privileged channel for coming into contact with the host culture and with its traditions, customs, and rituals (UNWTO, 2012).

⁷ A successful example is the *Scuola del cuoio* (School of Leather Work) in Florence.

In the broader sector of wine and fine food, street food represents a practice that is especially attractive to tourism. According to the official definition provided by FAO⁸, the term street food is used to mean: “ready-to-eat foods and beverages prepared and/or sold by vendors or hawkers especially in the streets and other similar places”. Street food concentrates in a single place, namely streets, squares or other dedicated public spaces, a multitude of practices that are each connected to the other: preparation, selling, buying, and, in many cases, also eating the food. The stalls are usually found in the open air, or in covered spaces that are easy to access from outside, and they normally have some seating, provisional or temporary.

Although it comes in an extremely varied range of forms, the sector can be reduced to a series of common characteristics (Cardoso, et al., 2014; FAO, 2007), including the following:

- embeddedness: Street food is marked by the use of raw materials, transformations, and dishes that are typical of the place. This characteristic makes it a cultural practice that is the expression of specific local food traditions incorporated in an almost endless variety of different preparations⁹.
- environmental sustainability: while not all street food practices can be regarded as “sustainable”, the sector normally has a low environmental impact, since there is a wide use of raw materials of local origin, and their processing and consumption takes place predominantly “in situ”.
- urban aspect: Street food is a markedly urban practice, linked to the rhythms of urban spaces, and the diverse ways in which those spaces are frequented by a wide variety of social categories and different social classes.

In many countries, the street food sector has been subject to gradual forms of regulation, as well as a full-scale change of status. The range of products on offer has become more and more sophisticated and elaborated, aimed at satisfying consumers interested not only in satiating a bodily need, but also a cultural need, and a need for information and for quality food; in many cases, stalls have started to leave the street and operate out of dedicated premises (such as shops and shopping malls), or on specific occasions (fairs and events dedicated to street food), which are also able to generate a considerable level of attractiveness to tourists.

At the same time, in large parts of Asia, and Central and South America and Africa, the sector is still very much deregulated, and is identified by the term “informal food sector” (FAO, 2007). Stalls continue to operate mainly to meet a widespread, daily demand, often in situations of precarious health and hygiene conditions. In these areas, which also include Myanmar, the sector does however have a vital function as regards food self-sufficiency, and jobs (Hugon, Kervarec, 2001). Indeed, although consuming street food is not necessarily limited to the poorer sectors of the population, “street foods may be the least expensive and most accessible means of obtaining a nutritionally balanced meal outside the home for many low income people, provided that the consumer is informed and able to choose the proper combination of foods” (FAO, 2007). Moreover, street food represents a crucial resource for supplementing one’s income, especially for those parts of the population that have difficulty in finding a job in the formal sectors. Often, the preparation and sale of food involves whole family nuclei, and particularly women (Yasmeen 1992; Simon, 2003).

⁸ For a concise definition of street food, see: <http://www.fao.org/fcit/food-processing/street-foods/en/>

⁹ Especially in the United States and Europe, alongside these more “traditional” forms of street food, in recent years ethnic forms of street food have become established, importing culinary traditions from other countries, and mixing various different culinary cultures together, in a form of syncretism.

For these reasons, street food can be conceived as a tourist resource in two ways.

From the point of view of tourists, street food makes it easier for them to come into contact with the host culture incorporated in the foods they eat, and the ways in which these foods are served and consumed. Since it operates in a public arena, Street food facilitates socialization, interaction, and the exchange of information and knowledge, and can be something that considerably enriches the travel experience of tourists.

As regards the host area, promoting street food for tourism enables added value to be generated, in several respects:

- the economy, by means of support for a sector which constitutes a source of income for numerous family groups and social categories;
- the environment, by means of the promotion of products having a low environmental impact, and mainly using local raw materials;
- socio-cultural aspects, by building on a practice which is a tangible expression of local daily culture, and the local intangible cultural heritage.

4.3.2.2 STREET FOOD IN MANDALAY

Street food represents a practice that is very widespread throughout Myanmar, and which has its roots in the country's culinary culture (Meiji Soe, 2014). Being a predominantly (but not exclusively) urban phenomenon, it is present in the biggest towns and cities, including (in the project area) Mandalay. The city is a privileged space for food preparation and consumption, and food-sellers from nearby villages converge on it every day to offer dishes and products consumed by a wide variety of customers as they criss-cross the city.

In Mandalay, as elsewhere too, the phenomenon proves to be predominantly spontaneous and informal, as well as being widely available in a multiplicity of forms in the various spots in the city, and at different times of day. This fact makes any attempt to conduct a survey of the practice, or to make checks on it, on the part of the administration, particularly complex, and indeed we have to note an absence of official information about the number of stalls and stands, their location, and on ways they operate. Similarly, it is hard to check the provenance and quality of the ingredients, and how the products are prepared and sold¹⁰.

In order to analyse the phenomenon, we have focused on the urban area of Mandalay, and a survey was conducted in the field as regards the following aspects:

- the types and structure of the food stalls;
- the spatial distribution of the stalls;
- the variety of the products on offer

TYPES AND STRUCTURES OF STALLS

The phenomenon of street food in Mandalay has three different types of stall, and manner of sale:

- stalls with a fixed structure;
- stalls with a mobile or itinerant structure;
- stalls with a hybrid structure.

¹⁰ The availability of information as to how many spaces there are, and how they are operated, is a vital requisite for undertaking processes to regulate the practice, and help to develop it. Unlike Mandalay, the phenomenon of street food has been the subject of specific research and studies, for example in Yangon (Wai Yee Lin, Yamao M, 2014), as regards Myanmar, and in Bangkok (Nwe Zin Zin, 2011) and Calcutta (Chakravarty and Canet, 2011), in the case of two neighboring countries.

The first type offers a service comparable to that of a conventional restaurant, concentrating in a single place the preparation, sale and consumption of food, with more or less “fixed” opening and closing times, and a limited amount of seating (fig. 4.3.2.1).



Fig. 4.3.2.1 Example of a fixed-structure stall.

Photo: S. Bartolini, 2014.

The second type is usually represented by a single food vendor, predominantly a woman, who travels around

in a rickshaw or on foot among the city streets, selling to passers-by food prepared previously (fig. 4.3.2.2 and 4.3.2.3).

The third type is represented by food-sellers who have a fixed site designed for the preparation and sale of food, but where the arrangement of seating and benches is flexible, and the installation is usually dismantled at the end of the day (Fig. 4.3.2.4 and Fig. 4.3.2.5)

THE SPATIAL DISTRIBUTION OF STALLS

An observation of the phenomenon on the ground makes it possible to confirm the fact that the practice is very widespread and omnipresent, being found in all the city districts and zones.

However, there are a number of concentrations, connected especially to the presence of fixed-structure or hybrid installations, and to the presence of particular categories of consumers (Fig. 4.3.2.6).

One major area of concentration is the Night Market, which is open every day from 5 p.m. to 10 p.m. and which stands between 26th and 27th street, and along 84th street. This street is also the location of a covered market, Zegyo Market, which takes its name from the tower on 26th street, the Zegyo Clock Tower (Fig. 4.3.2.7). Zegyo Market is open during the day, and here one can buy longyis, books, fabrics and shoes. In the later afternoon, the covered market closes, and 84th

Fig. 4.3.2.2 and Fig. 4.3.2.3 Examples of stalls with a mobile structure.

Photo: C. Lo Presti, 2015.





Fig. 4.3.2.4 and Fig. 4.3.2.5
Example of a hybrid-structure
stall. In the upper photo, a stall
is laid out ready for the first
customers; in the photo below,
the cart in which the female
vendors transport everything
every day.

Photo: C. Lo Presti, 2015.

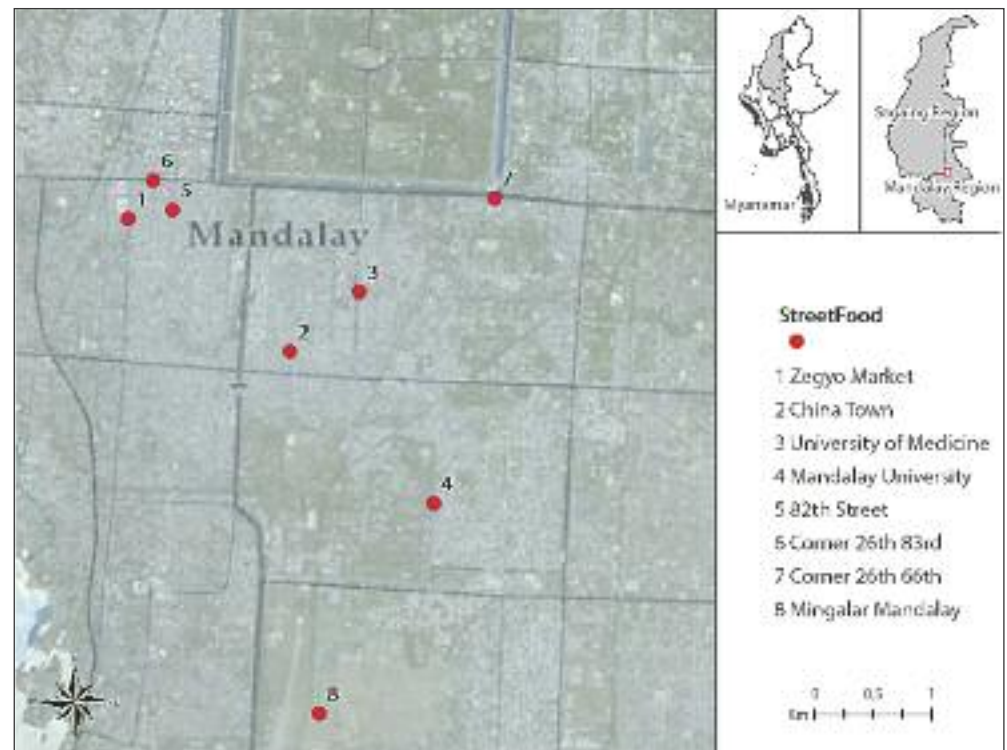
street becomes populated with people selling all types of street food, especially Pork Stick and sweet glutinous rice.

On 76th street there is a second area of concentration of street food. This market zone – operating both by day and by night – is known as China Town, and it specializes in selling fruit and vegetables. In this area it is possible to find foodstuffs that are examples of contamination between Chinese and Burmese culture, or expressions of neighbouring regions. A particular example of this is Noodles Shan Salad, originally from Shan State. In the evening, the Night Market becomes one of the busiest and most lively parts of the city (Fig. 4.3.2.8).

Further concentrations of stalls are found near the main university buildings in the city, and specifically east of the University of Medicine (73rd street), and north

Fig. 4.3.2.6 Areas where street
food is concentrated in
Mandalay.

Source: author; background map
from ESRI Imagery Basemaps.



and east of Mandalay University (Maha Myaing St. and 43rd street). In these cases, most of the customers are students.

Meanwhile, 82nd street is known for the density of stalls where one can find mainly Indian food. In this zone, the vendors are predominantly Muslim, and indeed, during Ramadan, the spaces are occupied by other vendors who offer differing types of food (such as vegetable salads and sweet snacks). Another popular gathering place where Indian food can be eaten, and which is also frequented by foreign tourists, is not far away, in 26th street and the corner of 83rd street.

Furthermore, a new street food area is expanding and becoming more and more established on the pavement alongside the Palace moat at the junction of 26th and 66th street. Recently, a fountain was installed in this spot, where sports facilities used to exist, and this attracts large numbers of local people here, and a few foreign tourists, every evening. They are drawn by the atmosphere of tranquillity, and the possibility of walking in a pedestrian area. The supply of street food is currently limited to a few itinerant stalls selling mainly puddings and ice cream. Despite this, the pedestrian area surrounding the royal palace lends itself to a greater supply of street food also of the fixed or hybrid type, with potential interest to tourists.

Finally, worthy of particular mention is the commercial area of Mingalar Mandalay, near the stadium along 73rd street (Fig. 4.3.2.9 and 4.3.2.10). This is a recently-built shopping mall, in line with the international models of large shopping centres designed to cater for the local middle-high class. It houses shops and outlets selling foreign-made and Western-style products, especially clothes. Being distant from the centre and the main historic and cultural monuments, the mall does not currently represent a site that is especially attractive to foreign tourists. Nevertheless, it attracts local tourists from other parts of Myanmar who are interested in the new district. Among the streets of the shopping mall, arranged around a central square where events and concerts are held, there are a number of stalls (around 30), of fixed structure, selling street food. Stalls are provided by a private company, and vendors pay a monthly fee of 60.000 Kyats. This includes not only rental for the stall (and its facilities) but also uniforms, space for parking, electricity (up to a certain amount of kilowatts-hour), water, and waste disposal. Vendors sign monthly contract agreements with the private company, which also contain health and hygiene standards based on procedures at international five star hotels where the managers worked before. In this area, prices are slightly higher than elsewhere in the city. Generally, these stalls differ from those found in other parts of the city in that they pay more attention to the quality of their context and to the health and hygiene



Fig. 4.3.2.7 Zegyo Clock Tower and the covered market, on the corner between 26th and 84th street.

Photo: C. Lo Presti, 2015.



Fig. 4.3.2.8 Stall specializing in Noodles Shan.

Photo: C. Lo Presti, 2015.



Fig. 4.3.2.9 and Fig. 4.3.2.10
Street food at Mingalar
Mandalay.

Photo: M. Puttilli, 2016.

conditions in which food is prepared, sold, and consumed. These aspects mean that the stalls represent a possible model for street food that may be more attractive for both the local population and tourists.

THE VARIETY OF FOOD

In Mandalay, street food is marked by the supply of a wide range of foods that enrich the urban landscape with their colours, odours and flavours. Each stall normally specializes in making a small range of foods, and the variety of the food reflects the wealth of the country's culinary culture, a vast and ancient Bamar culinary tradition, and the various ethnic influences of other parts of Myanmar. Thus, it is no surprise to find a stall on 76th street specializing in Noodle Shan, typical of the neighbouring state. Not to mention Chinese, Thai and Asian influences in general.

Although it does not have the same fame and global diffusion as the cuisine of its neighbours, India and Thailand, Burmese cuisine offers a variety of supply, and a wealth of unique flavours, which we describe briefly in the list below.

Fig. 4.3.2.11 Glutinous rice
snack.

Photo: C. Lo Presti, 2015.

Fig. 4.3.2.12 Fermented green
tea leaf salad.

Photo: C. Lo Presti, 2015.

- Glutinous rice snack (Fig. 4.3.2.11).

Most Myanmar snacks are made of rice or glutinous rice, milk or grated shreds of coconut, and sugar. There are many varieties, eg: Hto Mon, a quick and very





sweet dessert to be eaten at the end of meals; Mont Khaw Pyin, a sweet snack consisting in rice, cashew nuts and coconut, usually eaten in the afternoon; and War Kyi Htauk, a sweet pudding wrapped in a bamboo roll and eaten at breakfast.

- Fermented green tea leaf salad (Burmese: *Lapheq Thoq*, Fig. 4.3.2.12). This is a salad based on fermented tea leaves, and it is very common throughout the country. *Lapheq Thoq* attracts the curiosity of many tourists, used to drinking tea, not eating it. This dish also comes in many different varieties, depending on the type of green tea leaves used.
- Steam banana with banana leaf (Burmese: *Kauknyin Htoke*, Fig. 4.3.2.13). This consists in a sweet snack made with rice and steamed inside a banana tree leaf. It can be bought in the street, and it is easy to carry because it is “packaged” inside the banana leaf.
- Husband and wife snack (Burmese: *Mon lin mi a*, Fig. 4.3.2.14). This is a small crepe, filled with chick-peas, egg, chilli pepper and tomato. The name comes from the fact that it is prepared by dividing the ingredients into two symmetrical portions, which are then joined together.



Fig. 4.3.2.13 Steam banana with banana leaf.

Photo: C. Lo Presti, 2015.

Fig. 4.3.2.14 Husband and wife snack.

Photo: C. Lo Presti, 2015.

Fig. 4.3.2.15 Pork Stick.

Photo: C. Lo Presti, 2015.

Fig. 4.3.2.16 Fried vermicelli noodles.

Photo: C. Lo Presti, 2015.





Fig. 4.3.2.17 Fried crab.

Photo: C. Lo Presti, 2015.



Fig. 4.3.2.18 Mohinga.

Photo: C. Lo Presti, 2015.



Fig. 4.3.2.19 Mandalay Beer.

Photo: C. Lo Presti, 2015.

- Pork Stick (Burmese: *Watthar Dote Htoe*, Fig. 4.3.2.15).
Rather than an actual dish, this is a sort of open-air barbecue, where you can find all the parts of the pig, placed on skewers and cooked in boiling oil. The meat is accompanied by various sauces.
- Noodles.
If it was possible to georeference all the sellers of noodles present in Mandalay, we would have a very dense map of points able to cover all parts of the city. But this would also not be an easy operation, since often the women carry on their heads everything needed to serve various types of noodles with vegetables or ready-cooked meat. The variety and types of preparation also vary greatly: in the city, a very common version is *Ja Zan Jaw*, fried vermicelli noodles which people then add their chosen ingredients to (Fig. 4.3.2.16).
- Fried Crab (Burmese: *Ganaan Jaw*, Fig. 4.3.2.17).
During the rainy season, in some parts of the city, it is easy to see men frying crabs taken directly from the Ayeyarwady.
- *Mohinga* (Fig. 4.3.2.18)
This is regarded as the most popular dish in all the cuisine of Myanmar. It is a soup that varies depending on the ingredients and the recipe. It can be made both with meat or, more commonly, with cat-fish. It is eaten at all times of day, but is usually eaten at breakfast. It is a complex dish, requiring long preparation.
- Mandalay Beer (Fig. 4.3.2.19).
Although not exactly food, Mandalay Beer is sold in every tea house and at very many street food stalls. It is also claimed as one of the city's specialities. It is a local beer, made at a brewery in the area of Mandalay Hill (80th street).

4.3.2.3 POTENTIAL FOR TOURIST DEVELOPMENT AND RELATED PROBLEMS

The direct survey conducted in the context of this plan (cf. Ch. 1.4) confirms the attractiveness of street food for tourism (Fig. 4.3.2.20). Indeed, most tourists who visit Mandalay say that they tried street food in the city, and liked it, while only a small minority say they did not enjoy it. Moreover, of those tourists who did not sample street food, a majority still say they are interested and willing to try it,

compared to those who would not try it for any reason.

However, there are a number of important problematic features connected with developing and promoting street food for tourism. These mainly consist in two aspects, which complement each other: the hygiene and context-related conditions in which stalls operate, and the resultant health risks.

- Food preparation often takes place in the absence of the most common standards of hygiene, and in contexts which lack the most elementary services linked to handling food, such as the availability of drinking water and water to wash plates and dishes, and systems to dispose of waste. The vendors themselves are generally unaware of

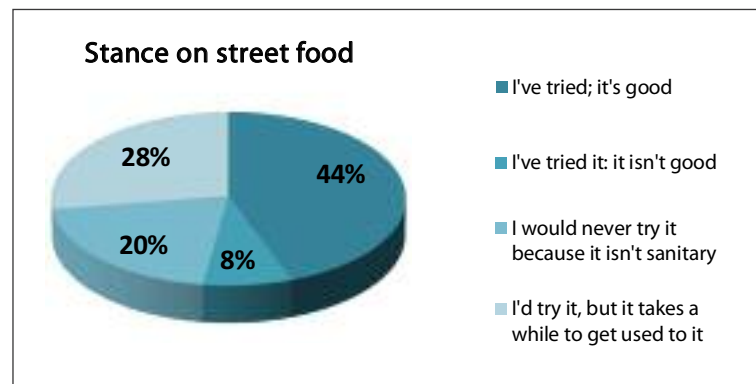


Fig. 4.3.2.20 Data from own survey on tourism demand, 2015.



Fig. 4.3.2.21 Consuming street food by the roadside.

Photo: C. Lo Presti, 2015.

Fig. 4.3.2.22 Selling and eating street food near a drain.

Photo: C. Lo Presti, 2015.

food regulations, and do not receive training in food-related matters. In most cases, the phases of preparation, selling, and consuming take place by the side of the street, in situations with high motorized traffic congestion and air pollution, sometimes in direct contact with the presence of waste left in the immediate vicinity of open-air drains (Fig. 4.3.2.21 and 4.3.2.22).

- As a result, microbiological contamination is a serious problem associated with street food, together with the common use of unauthorized food colourings, such as Auramina O, present in tea leaves in brine, and Rhodamine B, present in fish paste, in chilli powder, and in boiled bamboo shoots (Zin Zin Nwe, FAO 2011)¹¹.

The itinerant, spontaneous and informal nature of the practice obviously complicates checks by the relevant authorities (ie the FDA, Food and Drug Administration Supervisory Committee), which, moreover, suffer from a lack of adequate staff training (Yi Yi Htwe, FAO 2004). Nevertheless, since 2014, the FDA has carried out regular inspections in Mandalay – especially at stalls located inside schools and markets – which highlighted:

- use of “unsafe” food (bamboo shoots, chilli sauce and fish paste were the most likely products to fail the test);¹²
- use of banned chemical dyes or additives;¹³
- use of unregistered or banned drinking water brands;¹⁴
- Use of fake peanut oil (and the practice of reusing the oil again and again).¹⁵

¹¹ The health problems linked to the consumption of street food clearly do not affect tourists only, they also represent an important risk factor for the local population. Studies on health risks find that diarrhoea is the fourth most common cause of death in Myanmar (Ibid.)

¹² Si Thu Lwin, *Dozens of food samples fail FDA tests*, Myanmar Times (2 June 2015).

As well as the health and hygiene aspects, there are critical aspects involving language and communication between vendors and tourists. Indeed, while street food is associated with an image of authenticity, and a link with the local area and its traditions, the language barrier can represent an obstacle in offering information on the food, and also lead to mistrust in tourists with regard to how the food is prepared, its ingredients, and generally to the quality of the food.

Accordingly, any attempt to promote and develop street food for the purposes of tourism cannot fail to meet the need to offer tourists quality products that are safe as regards the raw materials, the production process, and the conditions of the places where they are eaten, as well as information concerning the products that are offered and sold. At the same time, from the point of view of the host area, tourist promotion must avoid exposing street food to excessive forms of commodification, or turning it into an artificial “pre-packaged” phenomenon, namely the risk that certain cultural practices may be promoted, and operated, solely for the economic value that they can generate in the tourism sector, without regard to other repercussions of a social nature. In the case of street food, this sort of process would risk making a daily practice, involving mass consumption by the local populace, an asset accessible only to a small number of elite consumers and tourists (Robinson, Picard, 2006). This possibility can in part already be seen and recognized in some parts of the city, as in the case of Mingalar Mandalay (cf. para. 4.2.2), in which a form of street food that is more controlled, and safer, is situated in an area accessible only to certain categories of consumers, and with prices that are considerably higher than at the stalls present in other parts of the city, and accessible to most of the population.

4.3.3 FESTIVITIES AND ASSOCIATIONS

As explained above (cf. ch. 4.1), we decided to address the vast and problem-laden realm of immaterial, intangible or “living” culture, concentrating on traditional arts and crafts, street food and, last but not least, (religious, para-religious or secular) festivities and events, cultural associations and performing arts, all confined to our research area in the Mandalay region.

For arts and crafts in Mandalay and its surroundings, we found the study by Sylvia Fraser-Lu, although published in 1994, still reliable. Fraser-Lu studied the Myanmar tradition in brick- and stucco-work; wood and ivory carving; bronze, iron and associated metal casting; precious metals and jewellery; ceramics (pottery and plaques); lacquer ware; textile-weaving, and palm and bamboo works, including paper crafts, with regard, of course, to the entire country, and not only to Mandalay (Fraser-Lu, 1994). However, we checked her information for our research area on the ground, and were able to add to her information numerous craft-districts or villages, especially in the pottery and in the bamboo sector. We have given an account of our findings in ch. 4.3.1.

For festivities of every kind, we relied on our own experience on the ground, as well as on reports compiled for us by staff members of Mandalay University (Zin Latt, 2016). In the following chapter we concentrate on those festivities and events which are (actual or potential) tourist attractions. We will divide the following overview into secular, religious and para-religious (*Nat*) festivals, noting from the beginning the overwhelming number and importance of religious and para-religious events over secular and political ones. We will then briefly dwell upon cultural associations in Mandalay, and the role of performing arts (marionette-theatre, and music).

¹³ Si Thu Lwin, *Mandalay FDA targets food additives*, Myanmar Times (11 May 2016).

¹⁴ Si Thu Lwin, *MCDC carries out checks on drinking water companies*, The Global New Light of Myanmar (22 October 2015).

¹⁵ Si Thu Lwin, *FDA to test drinking water, cooking oil*, Myanmar Times (22 October 2015).



4.3.3.1 SECULAR FESTIVITIES AND CELEBRATIONS

I. *Thingyan* Water Festival. Without doubt, the most important secular event is the New Year Water Festival (*Thingyan*), celebrated throughout Myanmar in the last week of March, or at the beginning of April (*Tagu*), for a period ranging from 3 to 5 days, depending on the phases of the moon. Although the Myanmar calendar is (like all calendars) grounded in religion, we have placed this Festival under the recurring secular events, since today it takes the form of a huge funfair, or gathering, with musical performances and dancing in all the main streets, with carnival parades, and, of course, enormous amounts of water, sometimes ice-cold water, splashed on the onlookers. The sense of this event, apparently similar to the European Carnival, seems to be mainly mass enjoyment and mass unification (including massive drinking).

In Mandalay, this feast is celebrated mainly around the Royal City moat, where the main stage scaffolds are erected, but it actually spreads over the main roads of the whole city, and, via trucks and cars with loudspeakers and sufficient water supply, involves the entire urban network, night and day, also including the most remote villages.

Since the New Year Water Festival occurs near the end of the hot and dry season, and the end of the school holidays, many people take their yearly vacations in the period immediately before the event, in order to prepare themselves carefully and expectantly. It is, in fact, easily observable that all Myanmar cities are much less busy already some weeks before New Year. The Water Festival thus constitutes a kind of climax in the annual rhythm of Myanmar's people. This holds especially true for Mandalay and its surroundings, since, being situated in the hot and dry zone of the country, it has a particularly high level of expectancy over the arrival of the monsoon season in May (and some preparatory showers on the streets).

The *Thingyan* Water Festival is broadly canvassed by many Myanmar travel agencies as the most important secular community event in the Myanmar calendar, in order to particularly attract younger tourists, who can easily immerse themselves among the local participants of the festival, who are equally young.

The Mandalay *Thingyan*, taking place around the Royal City moat, could easily outplay the Water Festival in other parts of Myanmar, especially if it could in the future involve both sides of the moat (the street side, as now, plus the Royal City side). A special, extra thrill could be given to this festival if it could also involve the moat itself, that was navigable until the time of the last Mandalay King, Thibaw Min, about a century and a half ago, as shown by contemporary paintings¹⁶ and photographs.

Fig. 4.3.3.1 Thingyan Water Festival.

Photo: www.aprilnandar.blogspot/archive.html

Fig. 4.3.3.2 Thingyan Water Festival.

Photo:

<http://singer.myanmarcelebrity.com/2010/04/myanmar-singers-hot-performance-at.html>

¹⁶ Cf. the painting of Saya Chone, *King Thibaw Leaving Mandalay* (1886), in O'Connor (1907) 1996, 207.

Fig. 4.3.3.3 King Thibaw's boat
on the Mandalay Royal City
moat.

Photo: Wallace Hooper 1885,
https://en.wikipedia.org/wiki/File:King_Thibaw's_State_Barge_on_the_Mandalay_Moat.jpg.



II. National Independence Day is celebrated in Myanmar on January 4, on a fixed date since it depends on the European calendar, in order to commemorate the country's independence from British colonial rule in 1948, after General Aung San signed the independence treaty with Prime Minister Attlee on October 17, 1947 (Htin Aung, 1967, 308). Concentrated, naturally, in the national capital Nay Pyi Taw, the festivities consist in military parades (in Mandalay again around the Royal City moat), and flag-raising ceremonies, accompanied, however, by more popular entertainments such as music shows, sports contests (cane-ball, football), funfairs and the like. There are also sports contests reserved specifically for this holiday, such as climbing a greasy pole for young men, but sack races for children are to be found as well.

Although the Independence Day celebrations are endowed with a much more official and patriotic character than the *Thingyan* festival, for example, and the political speeches are only enjoyable for people who understand the language, they are still the most important occasion on which to observe the country's national self-representation. Another aspect is that, for patriotic reasons, people like to wear their traditional ethnic dress on this day, which thus can be admired without travelling to remote tribal areas. Apart from the political importance of Independence Day celebrations, this occasion thus offers tourists a good possibility to study the country's ethnic multiplicity.



Fig. 4.3.3.4 Stamp Union Day of
Burma 1947-1972.

Photo: http://colnect.com/en/stamps/stamp/342047-Union_Day-Union_Day-Myanmar_Burma

III. Union Day. Another official, national holiday, called Union Day, is the celebrations to commemorate the Panlaung Agreements, signed on February 12, 1947, with the British government, in which peripheral ethnic peoples adhered to the Burmese state (cf. Htin Aung, 1967, 315s). The Panlaung Agreements, thus, are the founding act of what now is called the Union of Myanmar.

The celebrations consist of literary contests – like essay – and poem-writing contests, and award shows – and markets at which the numerous ethnic groups display their traditional food, crafts, clothing, music etc.

In Mandalay the celebrations took place on the Bahtoo playground until very recently, but have now been relocated to the Mandalay Thiri Stadium.

Since the Myanmar Union Day symbolized national unity in a multi-ethnic federation, it is quite natural that ethnic groups should display their traditions at markets, music and dance performances and the like. In Mandalay, the Shan people



Fig. 4.3.3.5 Chief Minister of Mandalay Region U Ye Myint attended the ceremony to mark the 68th Anniversary of Union Day at Mandalar Thiri Stadium in Mandalay on 12 February 2015.

Photo: <http://globalnewlightofmyanmar.com/mandalay-region-observes-68th-anniversary-of-union-day/>

become active, especially, in their district, on 35th street, between 66th and 67th street, with an ethnic market and traditional dance shows performed for three days before February 12. Since upholding national unity in a multi-ethnic state has been the principal legitimation for the central (military) government¹⁷, the Union Day festivity offers a peculiar mixture of official political celebrations and genuine ethnic performances that are hard to see elsewhere.

Other political celebrations in Myanmar in general, and in Mandalay in particular, seem to be met by little popular interest. Myanmar Women's Day, for example, celebrated on July 3, in Mandalay is confined inside the city hall, and consists of quite insipid singing and poetry performances, with (so far) little tourist attraction.

4.3.3.2 RELIGIOUS FESTIVITIES

In Myanmar, not all religious activities are confined to pagodas, and not everything happening inside pagoda compounds should be classified as "religious" in a narrow sense. The important pagodas galvanize all sorts of social activities, and also the most important civic associations like the Pagoda Trustee Boards are organized around them. Tourist participation in activities held inside the pagodas, of course, requires a high social and cultural responsibility on part of foreigners, in order not to offend the feelings of the worshippers.

I. Mahamuni Pagoda Festivals. What is by far the most important pagoda in our research area is the *Mahamuni Pagoda*, simply called the Big Pagoda (*Paya-gyi*) by locals, situated between Mandalay and Amarapura, which hosts the golden Buddha statue brought by King Bodawpaya in 1784, after definitively defeating the Arakan kingdom of Mrauk U, in older texts Mrohaik¹⁸. The vast Mahamuni compound comprises not only the Pagoda but also four bazars along its entrance gates, with important activities in traditional crafts (wood carving, gold inlay work etc.), religious schools, a museum, and outside its northern gate it leads into a long market area, walkable only by foot, with monastic areas around it, for tourists certainly a very attractive route.

Not all festivities or ceremonial activities taking place inside the Mahamuni compound can be called religiously grounded in some "dogma", but since they take place under the aegis of the Mahamuni Trustee Board we have classified them as such.

1) Every day ceremonies, easily observable by visitors, include the ringing of the holy bell (*Se-daw*) every three hours, the washing of the Buddha image with aro-

¹⁷ For the self-legitimation of the Myanmar *Tatmadaw* as guarantor of national unity, opposed to centrifugal forces and ethnic guerillas, cf. Charney, 2009, 188 – 191, and, more recently, Egretreau/Robinne, 2016, 15 – 42.

¹⁸ The transferral of the Mahamuni Buddha constitutes the fundamental trauma between the Bamar and Arakanese people (a high percentage of whom are Muslims) until today, cf. Htin Aun, 1967, p. 197 and De Mersan, 2016.

matic water every day at dawn (*Yey-Daw Sayadaw*), and the mixing of aromatic water from *tha-nat-kha* wood at 12 o'clock every day for the washing ceremony on the next day. Yearly recurring festivals at the Mahamuni compound are:

2) The Scripture Recitation Festival (*Pathan-pwe*), in the Pali language, taking place in January/February (*Thabo-Twe*).

3) Offering of provisions to monks (*Soon-san-saing-laung-pwe*) in January/February (*Thabo-Twe*).

4) The *Tha-nat-kha* wood-burning Festival (*Chay-let meekin-pwe*), in which leftover sandalwood from the production of aromatic water is burnt in January/February (*Thabo-Twe*).

5) The Banyan Tree (*Maha Bodhi* Tree) Watering Festival (*Nyaung-Yay-Thun-Pwe*), taking place in April/May (*Kasone*).

6) The Cane-ball Playing Festival on full moon day in June/July (*Waso*). Cane-ball playing is the national sport of Myanmar's youth, and it is played with high acrobatic dedication. On this occasion it is organized in a contest, highly attractive for foreign visitors.

7) The Monk Robe-Weaving Festival (*Ma-thoe-thingan-yet-pwe*) on full moon day October/November (*Dasaungmone*).

8) The Nervinna Market Festival (*Neik-ban zay-pwe*); this is a food donation festival open to everyone, and a kind of popular gathering at the same time, occurring in October/November, a day after the full moon.

These celebrations cover more or less the entire calendar, and could, apart from local people, attract visitors from every barnyard with interests in spirituality, sports, food, crafts etc.

The other important Mandalay pagodas offer a smaller number and variety of socio-religious occasions.

II. The *Kyauk-taw-gyi Pagoda*, distinguished by a monumental Buddha in white marble (end of 19th century) outside the north-eastern edge of Mandalay Royal City, at the foot of Mandalay Hill, holds its four-day festival before the full moon day of September/October (*Thidingyut*). It consists in a big funfair, circuses, all kinds of performances, and, especially, an open-air market. Like the Mahamuni, the Kyauk-taw-gyi Pagoda also has a bazar at its entrance gates, though on a smaller scale. These bazars can simply be enlarged on festival occasions.

Fig. 4.3.3.7 The Mahamuni Pagoda Bazar.

Photo: M. Hinz, 2015.





Fig. 4.3.3.6 The Mahamuni Buddha and worshippers.

Photo: M. Hinz, 2015.



Fig. 4.3.3.8 The Kyauk-taw-gyi Buddha.

Photo: M. Hinz, 2016.

Finally, the pagodas outside of Mandalay also have their own festivals, which are impossible to list in their entirety. On this occasion, we wish to underscore at least two of them.

III. The festival of the big (golden, since recently, formerly white) *Kaung-hmu-daw Pagoda* west of Sagaing is divided into a town festival (*Myo-pwe*) for city-dwellers on full moon day in September (*Thadingyut*), and a rural festival (*Tawn-pwe*) on full moon day in October/November (*Tazaungmon*). It consists of religious processions, the usual profusion of food, and performances in local dress of the Sagaing Division that is inhabited also by non-Bamar ethnic groups, etc.

IV. Particularly striking is the Lamp Floating Festival on the Ayeyarwady river (*Se-mee-myau pwe*) at the Tipidaka-dama-na-da-paripati Monastery in Mingun. It is dedicated to a venerated monk (Sayardawgyi), and held in the first part of January/February (*Thabo-thwe*).

4.3.3.3 PARA-RELIGIOUS CULTS AND FESTIVITIES

To categorize Nat-cults (omnipresent in Myanmar) as para-religious certainly requires some explanation, if not an apology. Nat cults are regarded as “sub-religious” folklore by strict Buddhist followers, but this undervaluation does not exclude their presence in practically every pagoda compound of the country, and, in the form of a small Mahagiri-altar, a kind of household spirit (*eindwin*), in the corner of nearly every private Myanmar house.

Foreign visitors have always been, and modern tourists still are, deeply fascinated by Myanmar Nat-cults. Tourists, however, are normally very poorly informed about the background of these cults, and therefore regard them simply as a folklore curiosity, or, if not worse, as a manifestation of some kind of “primitive” animism.

Also in academic literature, Myanmar Nat-cults have often been interpreted as relics of a pre-Buddhist, animistic creed mingling and compromising with the official

Fig. 4.3.3.9 Mahagiri Altar at
Innwa village.

Photo: M. Hinz, 2016.



state religion in various ways (Spiro, 1996). This approach is difficult to dispute in the case of locally-venerated “lower Nats” with limited followings, like the household-, tree-, or even personal protection Nats (*kosaung*), comparable perhaps to the *genii* of ancient Roman religion. Such a folkloristic approach, however, risks overshadowing the specifically “modern”, ie. political dimension of the “higher Nats”, especially the famous 37 Nats assembled on the Olympus of Mount Poppa volcanic cone near Bagan (Obi 2014, 122-129). This cult was established as a state cult with a full-blown “political theology” by King Anawrahta (1044-1081), immediately after his conquest of the Mon-empire in the southeast of contemporary Myanmar, with its capital at Thaton. Originally, the 37 Nats were arrayed in the Shwezigon Pagoda in Bagan, the central state Pagoda of the day, where they remained until the beginning of the 20th century. There, in the core of the new Bamar empire, they represented the very structure of the newly-defeated Mon power. Indeed, the Mon state was organized into 32 provinces, governed by four governors (=36), under the sovereignty of one king (=37), a state administration which in turn was an effigy of the Mon cosmology. The Buddhist king of the newly-founded Bamar state thus assured himself of his newly-vanquished enemies by integrating them into a para-religious state cult. This necessity was enforced by the Buddhist belief that these enemies, having died an unnatural death, are excluded from rebirth, and risk haunting the living as evil demons. The list of the 37 Nats is not definitively fixed, but can be adjusted according to the political necessities of the moment. In general, every enemy or local chieftain and rival to royal power, or member of a potentially dangerous minority (eg. a Muslim) has a fair chance of ascending to Nat status, on condition that he (or she) was killed, excluded from the cycle of rebirths, and, regularly, that his/her sister was included (as a kind of hostage) into the royal serail.

These general considerations hold true also in the case of the Nat brothers Shwe Hpyin Gyi and Shwe Hpyin Nge, who are in charge of the Mandalay district, and are venerated in Taungbyon north of Mandalay city, just outside of our research area. According to legend, the father of the two brothers was a Muslim, executed by king Anawrahta, and their mother a lotophagus living on Mount Poppa. When the king



Fig. 4.3.3.10 Bago Medaw at the shrine of Kywan Pin Maung and Hna Ma, south of Mingun¹⁹.

Photo: M. Loda, 2016.

erected a pagoda in Taungbyon, he forced all his subjects to contribute with one brick. Two bricks, however, kept missing, due to the disobedience of the two sons, who were immediately executed. But when the king wanted to return downriver to Bagan, nobody was able to move his ship. It was understood, therefore, that the souls of the two brothers haunted the scene, and they were reconciled by instituting their Nat cult, which still today is one of the most important in Myanmar.

The case of the much less prominent Nat cult around the *Siblings of the Teak Tree*, Kywan Pin Maung and Hna Ma, south of Mingun, instituted only at the beginning of the 20th century, when Mandalay was under British rule, seems to function in a similar way. According to legend, this Nat cult arose out of a rebellion by the younger brother of King Mindon, who finally succeeded in ousting the chieftain (Sawbawa) of Hwipaw on the upper Ayeyarwady river, killing all his children. His only two surviving sons were struck by a teak tree trunk, and they drowned in the river. Since then, these two sons were declared to be Nats and became the keepers of the river. At the same time, a big teak tree root was washed up on the Ayeyarwady shore, and a holy monk saw the two grandparents of the siblings, invisible to everybody else. These grandparents were given their own Nat shrine nearby, above the teak tree root.

In order to function properly, the (artistically unimportant) Nat statues standing in shrines scattered all over the country, must be periodically “animated” by spiritual mediums, the “Nat-wives” (*Nat kadaw*). The yearly Nat festivals, therefore, have the possessive rituals of these Nat-wives at their core, in which these mediums conjure up the spirit in trance, and establish contact between it and the believers (Brac de la Perrière, 1996). Since the Nat spirit does not distinguish whether to possess a man or a woman, (homosexual) men often become *Nat kadaws*, taking on female names, and letting themselves be called “mothers”. Finally, the ritual sacrifices brought to the Nats have to take into account their former, “real” existence. The drinker, gambler and womanizer Ko Gyi Kyaw Nat north of Pakkoku for example, who has his festival in March, demands sacrifices in whisky and roast chicken. Of his *Nat kadaws*, an exceptional capability to stand hard drinking is required. To the brothers Shwe Hpyin Gyi and

¹⁹ Bago Medaw, as the name suggests, is the Nat in charge of Bago Region in Mon State, but she is also one of the most venerated Nats nationwide.

Fig. 4.3.3.11 Nat shrine at *Shwe-kyun-pin* village south of Mingun.

Photo M. Hinz, 2016.



Shwe Hpyin Nge of Taunbyon, having been Muslims from their father's side, no pork meat must be dedicated.

In the ACUM area, we have identified the following Nat shrines with their cults, the most important Nat festival, that of Taungbyon, being outside our concerns:

- the *Shwe-kyun-pin* Nat Festival held at *Shwe-kyun-pin* village, just south of Mingun, where a Nat shrine dedicated to Mo Meik Sawbwari's sons is located. This festival is the prelude for all other Nat festivals in the region, taking place in July/August (*Wa-khaung*). Its legend has been summarized above. In this festival, which takes place immediately after harvest time, hundreds of farmers, wearing colourful garb, arrive with beautifully decorated bullock carts, and perform Nat dances in order to be granted a good harvest in the next season;
- the *Yadana Gu* Nat Festival at the Yadana Gu Pagoda in Amarapura. This festival lasts six to seven days, and is attended by thousands of worshippers displaying hundreds of possessed *Nat kadaws* in ritual and frenzied dancing and music. One day of the festivities consists of a boat procession on the river. The offerings provide alcohol, food, flowers and money. The festival takes place before new moon day in the month of August (*Wagaung*), one week before the Taungbyon festival. The underlying legend runs as follows: Poppa Medaw, the lotus-eating lady of Mount Poppa, and mother of the Taungbyon brothers, travelling on a raft down the Ayeyarwady river learnt at Yadana Gu about the execution of her sons, and remained there. In the performances of this festival a foreign girl also appears: Thoe Saung, evidently the heir of a rival dynasty, taken by King Alaungphya as a minor wife.

The Yadana Gu-, the Shwe-kyun-pin- and even more so the Taungbyon Nat cults have always fascinated European observers and have prompted much ethnographic research. The Bavarian Lucius Sherman, who attended the Taungbyon festival in



1911, felt reminded of the Munich “Oktoberfest” (Obi, 2014, 124). Other, contemporary visitors told us of their impression as a kind of Myanmar “Gay Pride”. The colourful, exaggerated performances combined with shows by entranced mediums, and contests between gender-ambiguous *Nat kadaws*, market fairs and a great variety of businesses, big and small, easily evoke fascination among visitors dabbling in anthropology, well beyond possible interests in the history of religious beliefs.

The Tangbyon- and the Yadana Gu festivals, being perhaps the most important ones in the country, and certainly the ones most easy to reach, are heavily advertised by Myanmar travel agencies. The festival at Taungbyon and, to a lesser extent, at Yadana Gu, being real mass events, are, however, rather stressful, and are reportedly not entirely safe. The *Shwe-kyun-pin* Nat Festival south of Mingun, which is equally accessible, is less well-known and, to our mind, less commercialized. In



Fig. 4.3.3.12 Poppa Meidaw Nat (Mother of Mount Poppa) at Yadana Gu, Amarapura.

Photo : <http://www.gomyanmartours.com/wp-content/uploads/2015/09/Popa-Meidaw-Nat-Mother-of-Mount-Popa.jpg>

Fig. 4.3.3.13 Yadana Gu Festival, boat procession.

Photo: http://www.panoramio.com/photo_explorer#view=photo&position=56045&with_photo_id=96190015&order=date_desc&user=5871637

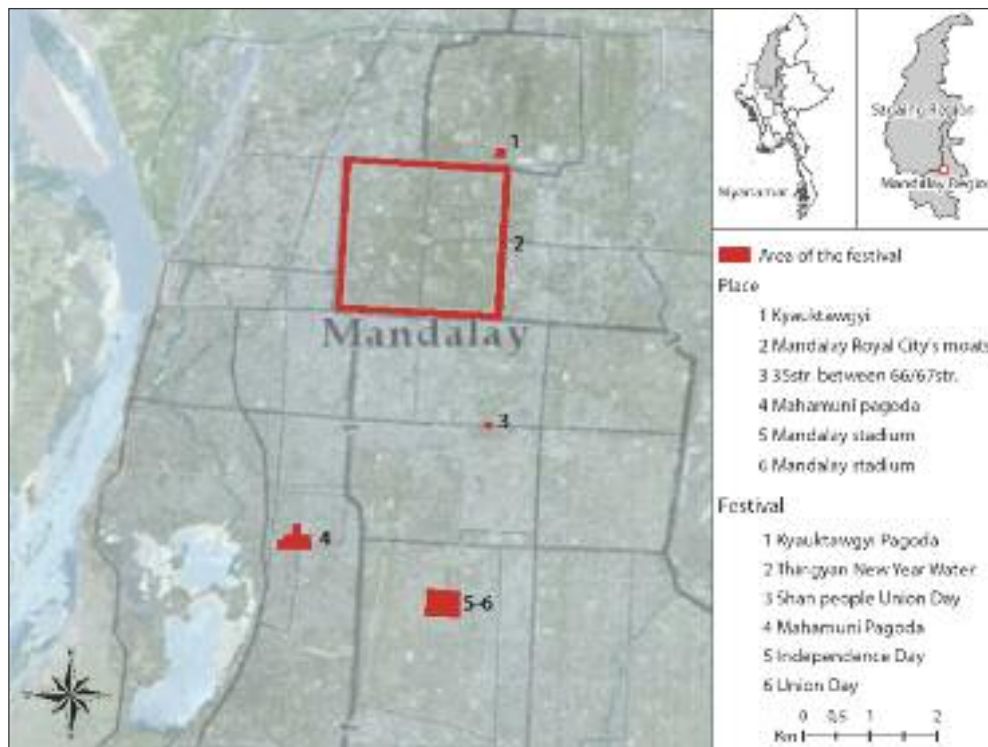


Fig. 4.3.3.14 Festivals and celebrations in Mandalay city area.

Source: author. Background map from ESRI Imagery Baemaps.

Fig. 4.3.3.15 Festivities and celebrations in the Amarapura and Sagaing area.

Source: author. Background map from ESRI Imagery Baemaps.

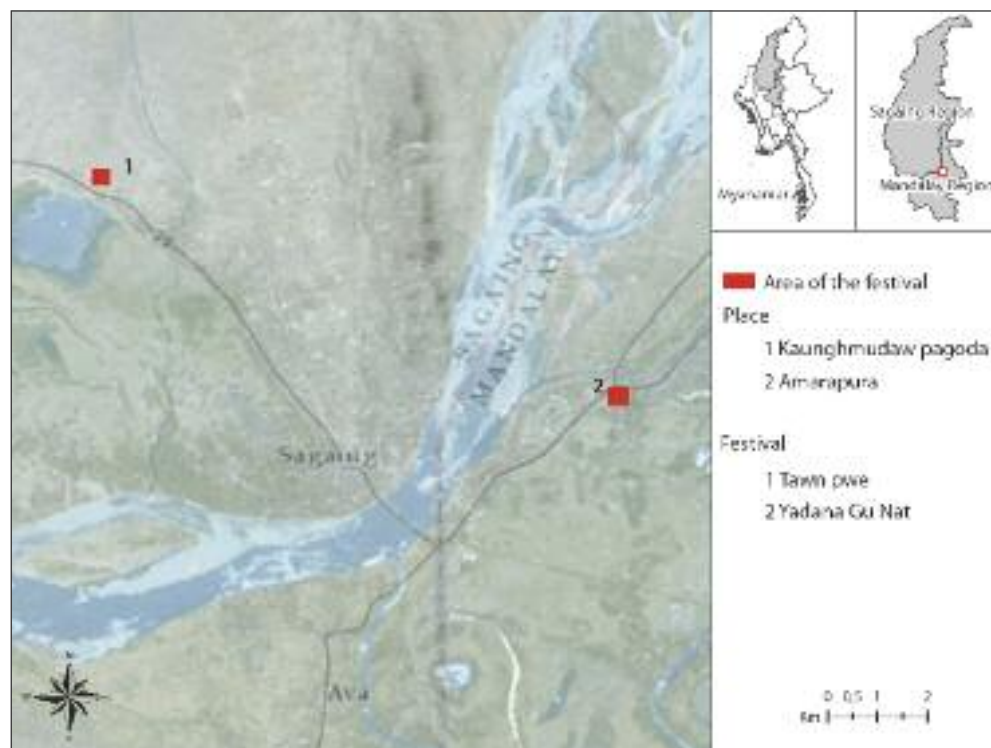
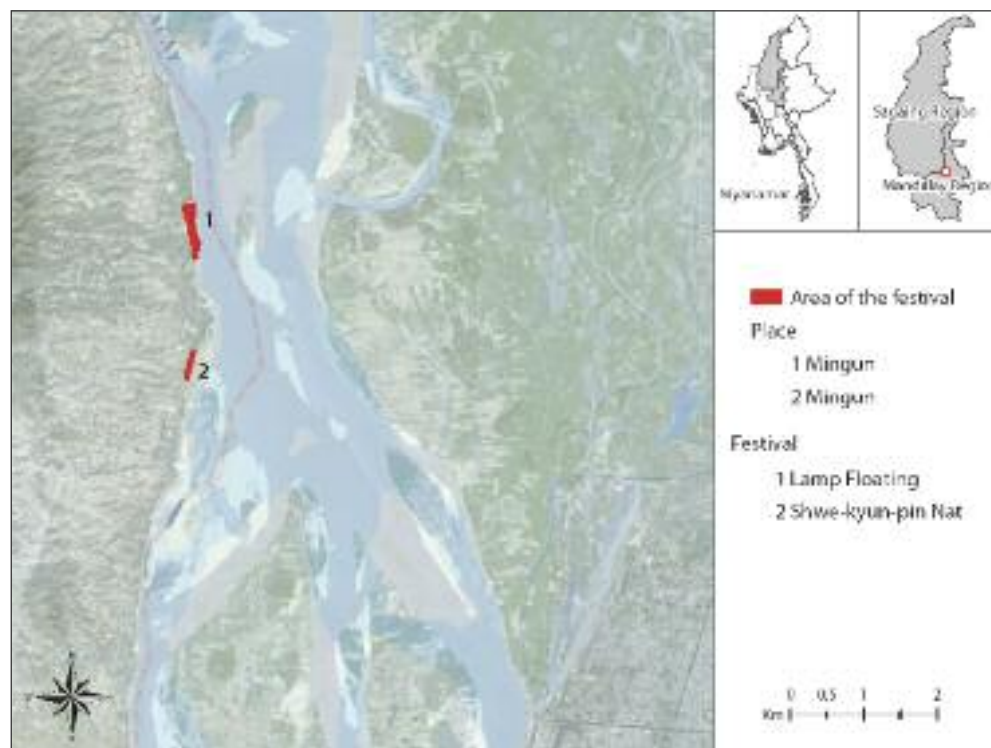


Fig. 4.3.3.16 Festivals and celebrations in the Mingun area.

Source: author. Background map from ESRI Imagery Baemaps.



any case, the Nat festivals are really unique features of Myanmar tradition, whose importance for tourism interest can, in our view, hardly be overestimated.

On the whole, there is quite a dense spatial distribution of recurrent festivities and celebrations, as well as a packed calendar, especially in Mandalay itself, that allows the interested tourist to attend some events during the whole year, and in almost every part of our research area.

4.3.3.4 CULTURAL ASSOCIATIONS

4.3.3.4.1 RELIGIOUS ASSOCIATIONS

It is hardly possible to overestimate the impact of religion in daily life in Myanmar. Since the most responsible sector of the tourism, at least, seeks a deeper involvement in the local community, it seems feasible in the future to integrate tourists in the charitable or welfare activities of religious associations, perhaps at the expense of some financial support.

Myanmar's socio-cultural as well as charitable activities are fundamentally organized around its pagodas, which are managed by Pagoda Trustee Boards, composed of local, regional or national notables (Seekins, 2011, 46f). These Trustee Boards supervise the physical and financial maintenance of the building, administer the offertories, and hold much decision-making power²⁰. The Trustee Board for the Mandalay Hill Pagoda, for example, has powers to establish the entrance and photograph fee. Government institutions have, therefore, repeatedly attempted to establish guidelines for such Trustee Boards. In May 2015, for example, U Nyo Myint Tun, director of the Department of Archaeology and National Museum, felt himself obliged to send directives concerning the conservation of historical pagodas to Trustee Boards throughout the country.

At a lower level, around the Trustee Boards, and under their control, are grouped numerous volunteer organizations such as Meal Donating Associations (*Swantawgy Athing*), Youth Alms Offering Groups (*Ayon-soon-laung-Aphwe*), and various Supporting Groups for more general welfare tasks (*Ahtaunk-akhyyu-aphwe*, for young people, in particular the *Naryae-athin-lungae-Aphwe*) that form a tightly-knit network incorporating all of Myanmar's society, especially outside the big cities and on their outskirts.

Contemporary Myanmar tourism possesses a rather high percentage of tourists travelling for religious or broader spiritual motives (cf. ch. 9.1.5). This portion of tourists would certainly be happy to become integrated somehow into the religious-cum-social activities of such associations, that simultaneously promise a swift integration of the visitor into the local context.

4.3.3.4.2 SECULAR ASSOCIATIONS

The religious-secular dichotomy is clearly derived from European history, and does not fit the Myanmar context very well. We therefore adopt this distinction for merely heuristic purposes.

In the field of figurative arts, Mandalay seems to suffer from the overwhelming competition of Yangon, where even some international art galleries (like the *River Gallery*) have opened (Patterson 2014, 266-277). Certainly, there are painters, sculptors etc. active in the Mandalay region, but we have not been able to identify an association which could articulate their interests, organize art fairs, and the like.

The situation of literature appears to be somewhat more favourable, especially since censorship was finally dropped in January 2013 (Gärtner, 2014, 247). The city of



Fig. 4.3.3.17 Youth communal alms-food offering association, Daitaw ward, Mandalay.

Photo: Zin Latt (2015).

²⁰ The Shwe Dagon Pagoda in Yangon, the country's most prominent pagoda, is governed by a Board of Trustees of 11 members, three government-nominated and six elected, that has about 850 employees on its payroll.



Fig. 4.3.3.18 Marionettes against the background of Mandalay royal city wall, 1920.

Photo: Google images.

Mandalay has quite a lively literary milieu, with poetry reciting festivals and contests, and it is quite easy to find photocopied booklets or leaflets of local poetry in the local bookshops. But, according to our information, there is no Poetry Association or Writers School or other forms of spontaneous organization extant in Mandalay.

Responsible tourists are, of course, interested in the country's literary traditions. However, without a knowledge of the Bamar language, it will be difficult to get a considerable number of tourists involved. Their engagement will necessarily be confined to buying poetry booklets as souvenirs.

4.3.3.5 PERFORMING ARTS, MARIONETTE THEATRE AND MUSIC

4.3.3.5.1 MARIONETTE ART

Marionette theatre (*Youq-the-pwe*) has been a very prominent tradition in Myanmar even before the beginning of the 19th century, when the Konbaung dynasty had at least four marionette puppet stages at its court (Bruns, 1999). But marionette shows, relatively low-cost and mobile, have also been a very widespread mass entertainment, though on a declining scale. In 1968, 27 marionette troupes were reported in Myanmar, while in 1979 there were only 20 left (Yin-Pleyer, 2014, 257).

Traditional marionette performances lasted a whole night, and featured 28 different figures.

The performance was regularly opened by the appearance of a Nat-wife (*Nat kadaw*) announcing the piece, and invoking the benevolence of the spirit world. Then followed a kind of world-genesis, with the creation of the animals (in particular the horse, ape, tiger and grey elephant), and of man, up to the foundation of the first kingdom. After the king and queen have appeared, a couple of hours later, children are sent to bed. Only at this point is the story proper, involving a prince and his beloved, sometimes quite lascivious, allowed to start. The storyline is normally drawn from the former lives of the Buddha (*Jatakas*), from pagoda legends, national history, or from the *Ramayana* epics, known all over south-east Asia. The performances involved four puppeteers, three singers, seven musicians plus some technical staff.

Fig. 4.3.3.19 Marionettes on sale near Mandalay.

Photo: M. Hinz, 2013.



Such elaborate and time-consuming marionette performances, having to compete with electronic mass entertainment, are clearly on the retreat in modern Myanmar. Mandalay still has two marionette theatres, the *Mandalay Marionettes* on 66th street and the *Mintha Theatre* just opposite, that offer very reduced marionette shows lasting about one hour and a half, apparently only for tourist consumption. The puppet shows are still accompanied by live music, but not by a full-scale *Hsaing-waing* drum orchestra, as tradition would require.

On a still lower level are located the marionette shows offered by many higher-class hotels and tourist restaurants every evening at dinner time, which normally feature two or three traditional marionettes together with dances and other amusements. Naturally, the expertise of these shows differs greatly, sometimes they are accompanied by live music, sometimes by playback. On the whole, these tourist entertainments might, perhaps, give a faint idea of what Myanmar's marionette art once was, but often they are only a rather dismal commercial display.

4.3.3.5.2 Music

Traditional music is in a similar situation as marionette art (Garfias, 1985, 1 – 28). The wooden drum circle *Hsaing waing*, often richly ornamented, containing 21 carefully tuned drums that cover more than three octaves, constituted the core instrument of music in Myanmar.

It was accompanied by a circle of 18 attuned gongs (*Kyi waing*) also tied to a circular wooden frame, plus string instruments and wind instruments.

Some traditional Myanmar music can still be heard either on the occasion of some of the festivities described above (but not on the *Thingyan* Water Festival) or at the dinner shows in tourist hotels and restaurants. However, in general, electronically produced music now dominates the scene.

In order to bring tourists closer to both traditional Myanmar music and marionette art, much more careful preparation would be required, along with a higher concentration than can possibly be expected during evening dinners. To prevent the tourist evening shows from descending into meaningless entertainments, and to preserve some traditional skills among performers, one could suggest a live music accompaniment, and the avoidance of electronic playback, which always suggests something of a modern pop performance.



Fig. 4.3.3.20 The Hsaing waing drum circle.

Photo: www.jpof.org.vn

5. The tourist system

5.1 TOURISM SUPPLY

5.1.1 ACCOMODATION FACILITIES

The system of tourist accommodation in Myanmar is currently expanding a lot, especially owing to the contribution of foreign investors who, as of 2013-14, entered a market previously dominated almost exclusively by small, locally-owned facilities.

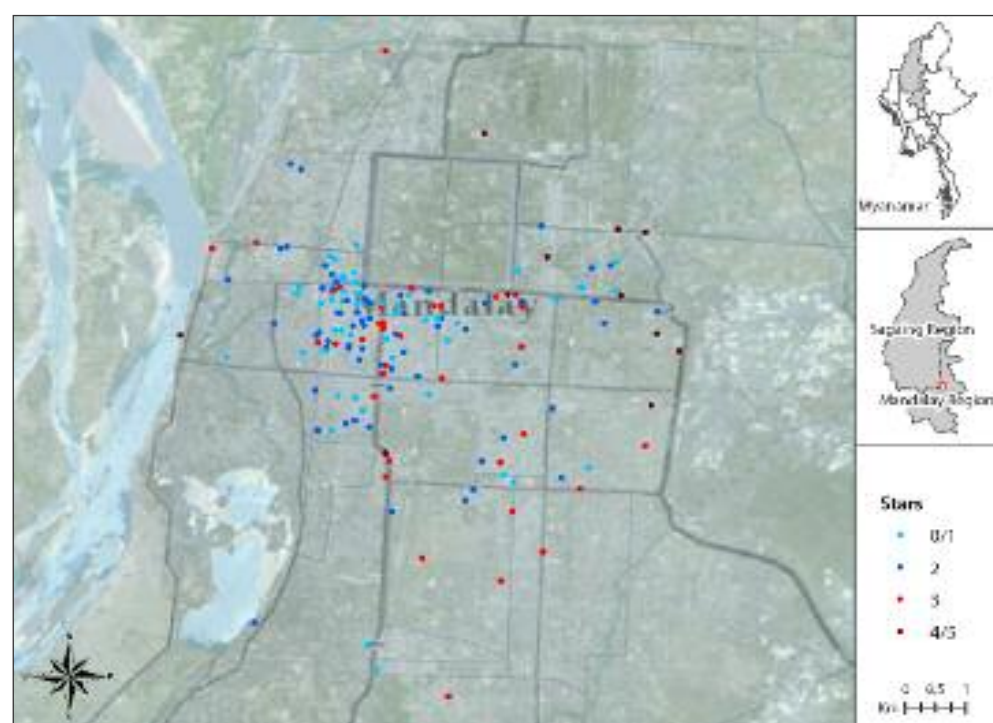
Between 2009 and 2015, the total number of accommodation facilities present in the country (hotels, motels and guest houses) doubled, as did the number of rooms, increasing the total space to 1,279 facilities, and 49,946 rooms.

In Mandalay the rate of expansion of tourist accommodation has been higher than the national average; indeed, the percentage absorbed by the city, out of the total space available nationwide, in the same period, rose from 10% to 13%.

The facilities present in the city in 2015 (the year for which data on incoming visitors are available) number 168 in total, with 6,788 rooms. However, according to the information supplied by the MOHT – the Mandalay office – in five months, in 2016, 10 more facilities were built, with 374 rooms, some of which operate as part of large hotel chains, such as Best Western. In addition there is reportedly a proposal for the construction of 58 more facilities, with 5,806 rooms. This increase will soon raise the total number of accommodation facilities to 236, increasing the number of rooms by 12,968¹.

Fig. 5.1.1.1 Localization of hotels in Mandalay City (March 2016).

Source: MOHT, Booking.com, agoda.com, data, processed by the author. Background map from ESRI Imagery Basemaps.



¹ In addition to the accommodation facilities mentioned, in the project area there are four more hotels, located in Sagaing City (with 98 rooms in all).

Of the hotels, 131 are members of the Hotelier Association².

As can be seen in Fig. 5.1.1.1³, almost all accommodation facilities are found south of the Mandalay's royal city, with particular concentrations south-west of the city, and near the rail station, between 78th and 84th street. There is a lack of accommodation facilities in other parts of the city, and also in the other centres of the project area, with the sole exception of 4 hotels in Sagaing.

In the majority of cases, these are hotels, with only a small number of guest houses (19 in 2014, with 315 rooms). In just under half of all cases, the facilities are very small in size (fewer than 30 rooms), and only 13% of them are hotels with 60 rooms or more (Fig. 5.1.1.2). The percentage of facilities with a high number of rooms doubles, however, among recently-built hotels.

As regards the distribution of comfort-class facilities, at present only a rough analysis can be conducted, since there is still no consolidated system of classification in Myanmar. The Ministry of Hotels and Tourism has issued Orders that implement aspects of the 1993 Law, including: Order for Licensing of Hotel and Lodging-House Business (2011) which provides for the licencing of hotels, and also sets out, in an appendix, the minimum standard requirements for hotel businesses. As of 2011, at the initiative of the Union Minister, U Tint Sann, ministerial inspections were undertaken. These made it possible to classify around 320 facilities, on six levels (5, 4, 3, 2, 1 star, and no star). Subsequently, after a request to revise the criteria for classification, put forward by the Hotelier Association, the new Union Minister, U Htay Aung (Autumn 2012), decided to abandon the ministerial system of attribution, preferring classifications based on assessments by outside agencies. However, at the moment, the new official procedure of classification has not yet been completed, and so the only reference point is represented by the classification of the accommodation facilities that can be inferred from specialist websites (Booking and Agoda⁴), cf. Fig. 5.1.1.3. From this classification, we learn that over 70% of the facilities have fewer than three stars, while, of the hotels belonging to a higher category, only two have 5 stars⁵.

Prices vary roughly from 10\$ to 200\$ for a standard room.

The little availability of 4 and 5 stars hotel represent a problem because, according to the information provided by the UMTA-Mandalay Branch⁶, 25% of the demand is for the low category, 50% for the middle category, but 25% for the high category.

In line with national average figures, the rate of occupation of the accommodation facilities in Mandalay is put by the Hotelier Association⁷ at 80% for high-category hotels (4 and 5 stars), and far lower values (30%) for medium- to low-category facilities.

Despite the recent expansion, the available tourist accommodation in the city still seems marked by partially inadequate standards of quality.

In the context of an assessment that is unfavourable overall in terms of the ratio of price to quality, the UMTA-Mandalay Branch identifies the main problem in the local accommodation system as being an insufficient supply of high-end facilities, and this has an impact especially in peak season months.

However, the direct survey conducted in the context of this plan (cf. ch. 1.4) makes it possible to explain, and especially to add details to, the UMTA's assessment. First and foremost, our survey highlights the fact that 2/3 of the sample believe that the price/quality ratio of the accommodation is good or very good, while only 10% give a firmly negative verdict. In this respect, Mandalay is consid-

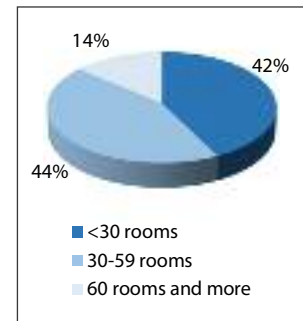


Fig. 5.1.1.2 Mandalay hotels by number of rooms, 2015.

Source: MOHT data, processed by the author.

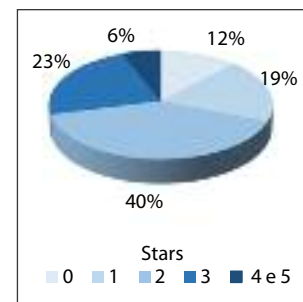


Fig. 5.1.1.3 Mandalay Hotels according to category.

Source: author's processing; data from Booking.com and Agoda.com, 2016.

² cf. <http://www.myanmarhotelier.org/index.php/en/member/mandalay-zone>.

³ The illustration shows 155 of the 178 facilities indicated by the MOHT, since the location of 23 facilities is not currently identifiable. Also shown are 7 facilities not present on the official MOHT list, which are present and bookable online (websites Booking.com and Agoda.com)

⁴ The allocation of the number of stars on the two sites was found to coincide perfectly.

⁵ The Mandalay Hill Resort, and the Sedona.

⁶ Interview dated 15.3.2016 with the Association's chairman, U Myo Yee.

⁷ The figure was supplied by the Hotelier Association of Mandalay, in an interview on

Tab. 5.1.1.1 Quality/price ratio for accommodation, according to hotel category.

Source: data from own survey on tourism demand (2015)

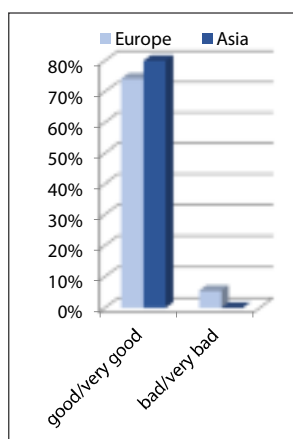
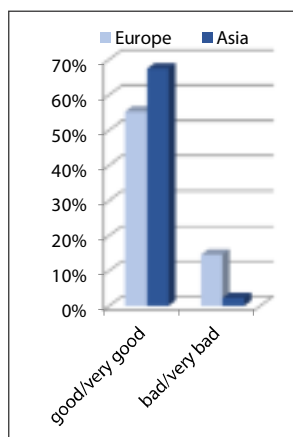


Fig. 5.1.1.4 Value for money according to the origin of visitors.

- a) 1 and 2 star hotels (no. = 438).
b) 4 and 5 star hotels (no. = 74).

Source: data from own survey on tourism demand (2015).

12.3.2016 with its chairman, U Myint Aung.

⁸ The national figure nevertheless refers to 2012, and so it probably does not reflect the general improvement in standards of quality which has unquestionably taken place in very recent years, also in other parts of the country.

	Good/very good	Average	Bad/very bad	no.
1 and 2 stars	56.2%	30.2%	13.6%	514
3 stars	70.4%	22.3%	7.2%	443
4 and 5 stars	78.7%	17.0%	4.3%	94
total	64.2%	25.7%	10.1%	1051

erably different from the average for the country overall, for which it has been calculated that no less than one third of visitors say they are dissatisfied (cf. MOHT, 2013, p. 8)⁸.

Predictably, the overall opinion of the quality/price ratio expressed by interviewees differs, however, depending on the kind of facility. Distinguishing on the basis of the category of hotel, one notes that the percentage of satisfaction increases as the category increases (Tab. 5.1.1.1), confirming the view expressed by the UMTA; in more than half of all cases, even humble facilities, with 1 or 2 stars, nevertheless offer services regarded as adequate for the price.

As well as the features and characteristics of the facility itself, several other factors also have an impact on people's opinion, such as their expectations right from the outset, which in turn are influenced by the habits and lifestyle of the visitors. Thus, given an equal number of stars, we note for example a certain difference in the opinions expressed by visitors of European provenance and those from Asian countries, with criticisms more frequent in the former group (Fig. 5.1.1.4a and Fig. 5.1.1.4b):

To recapitulate, in opinions on the quality/price ratio, accommodation facilities get verdicts that are better overall than in the rest of the country; however there is an insufficient number of available facilities in the higher bracket in peak season, and room for improvement in performance especially in the medium-to-low categories, with particular reference to the demands of customers from European countries.

A separate problem is represented by the marked rigidity of types of tourist accommodation in the ACUM area, and especially the absence of scattered accommodation, given that it is forbidden to stay in private accommodation in the country. As recently stressed by the Myanmar Centre for Responsible Business (MCRB, 2015, pp. 64-65), the obstacles to the development of B&B and homestay tourism – the reasons for which are officially given as the cultural and linguistic distance between visitors and the local populace – conflict with the goal of involving the local community in tourism development, and maximizing the economic repercussions on the local system. As well as this aspect, which is very important for the economic sustainability of tourism development, it should be stressed that the absence of scattered accommodation has a negative impact on the possibility of expanding the range of areas that can profit from the development of tourism, and diversifying tourist products beyond the canonical range of attractions.

In the case of Mandalay, B&B solutions could for example help to divert some of the available accommodation options to parts of the city which do not currently have any (as, for example, the north-east quadrant, cf. Fig. 5.1.1.1), reducing the concentration of visitor numbers. The ban on establishing forms of homestay tourism hinders the integration in the supply of services for tourism of the rural villages (cf. ch. 4.2), present around Mandalay and Sagaing, with extremely interesting

types of options, especially as regards experience-based tourism, and adventure tourism.

It is thus to be hoped that the efforts to tackle this problem will be stepped up, and will produce effective policies, as soon as possible, to support widespread accommodation facilities⁹.

To complete the picture of the available accommodation facilities, it should be remembered that the project area is due to play host to one of the 16 hotel investment zones decided on by the MOHT, jointly with the MTF, in 2012, to boost the country's accommodation system¹⁰. The area, known as Tada U Hotel Zone, is situated 14.27 miles south-west of Mandalay City, and 5.46 miles from Sagaing City, and 8.6 miles north of Tada U International Airport. It is also very near the archeological area of Innwa. According to the official information, the planned hotel zone covers an area of around 5,488 acres (2,195 ha) of farmland along the Ayeyarwady, which will be developed on the basis of a project, managed by the "Myanmar Tourism Development Co., Ltd.", a business arm of the Myanmar Tourism Federation. The project envisions investments of around 560 million USD, and the creation of an integrated complex (tourist, commercial, financial and residential). As regards the accommodation facilities, the plan envisions the construction of 300 hotels (for a total of 10,000 rooms), allocating one third of the construction to foreign investors, and two thirds to local investors. The construction is scheduled in three phases, each lasting three years, but at the current time (spring 2016) construction work has not yet started.

It does not seem that the project – with strong backing by the local Hotelier Association¹¹ – has been the subject of debate with a wider range of stakeholders. It has therefore prompted much perplexity and concern¹², mainly due to the danger that it could lead to a speculation operation, and to the doubt that any revenue may benefit the external investors, without having a significant impact on the local economy, and finally to the concern that the type of development planned may have a ruinous impact on the precious but very delicate archeological and territorial system of Innwa.

5.1.2 TOURISM AGENCIES

Hand in hand with the increase in the tourist influx and in accommodation facilities, there is also a rise in the number of tourism agencies and tour guides, especially owing to the high demand for organized tours. In 2015 there were 1,943 tour operators in Myanmar¹³ (with a 328% increase compared to 2009), of whom around half are members of the Union of Myanmar Travel Association (UMTA)¹⁴, created in 2002. There are basically five types of tourism which operators promote in Myanmar: 1. Cultural and creative tourism; 2. Nature-based tourism; 3. Adventure and experiential tourism; 4. Cruise and yachting tourism; and 5. Meetings, incentive conferences and exhibitions (MICE) Tourism.

In Mandalay 81 tour operators have their offices (64 agencies and 16 travel agents)¹⁵, 29 units more compared to the previous year. For 85-90% of the total, their activities consist in offering package visit formulas, especially in the field of cultural tourism. These normally include three overnight stays in Mandalay and two in the region (mostly in Bagan), with possible slight changes to the standard programme (in 20% of cases). This type of offer meets demand from people travelling on organized tours, as well as demand from many visitors from China, who add a tourism programme into a business trip. Meanwhile 10-15% of demand comes from

⁹ "The government ... recognizes the potential economic benefits of both homestay tourism and B&B, including as a result of increased income in villages, and the potential educational and cultural-exchange benefits. The Policy on Community Involvement in Tourism annexes the draft Myanmar Bed & Breakfast Service Standards. The draft Standards, which are currently being discussed by the Ministry of Hotels and Tourism, the Myanmar Tourism Federation and the Hanns Seidel Foundation, envisage a decentralized licensing process, so that communities can register their own B&Bs at the municipal level. The Myanmar Tourism Federation has proposed that a B&B pilot project be undertaken in select rural areas" (MCRB, 2015, pp. 64-65). The regulation of B&B businesses, and the start of pilot schemes, is at the centre of discussion events between stakeholders, at the initiative of the Hanns Seidel Stiftung.

¹⁰ In this connection, see also ch. 2.3.

¹¹ Cf. the contents of the interview mentioned in note 5.

¹² Major reservations and concerns were recorded in numerous conversations at the UMTA-Mandalay Branch, at the Myanmar Tourist Guide Association-Mandalay Branch, and at Mandalay University.

¹³ Of which 39 are joint ventures, and one is foreign-owned.

¹⁴ The estimate is formulated on the basis of the figure given for 2013, cf. MCRB (2015), p. 75.

¹⁵ At time of writing, the 2014 figures for Mandalay are available.

individual tourists; these are mainly European tourists, interested in the various different manifestations of local culture, which usually require a significant customization of the package, both in the field of cultural tourism and in the field of cruise tours, and also in experiential and adventure tourism¹⁶.

5.1.3 TOUR GUIDES

The number of official guides in Myanmar rose from 3,660 in 2013 to 5,630 in 2015¹⁷, around 1/3 of whom are members of the Myanmar Tourist Guide Association, founded in 2011.

The training course for the guides, which lasts 10 weeks and costs around a thousand USD, is conducted centrally by the Tourism Training School in Yangon, on behalf of the MOHT.

In Mandalay there are 532 official guides¹⁸, up 132 compared to the previous year. Three hundred guides are members of the MTGA. The members of the MTGA-Mandalay Branch have also established themselves as the MTGS (Mandalay Tourist Guide Society), and as such they are members of the SEATGA (South-East Asia Tourist Guide Association)¹⁹.

The Association guides, who are contacted directly by tour operators (not via the Association), work mainly with European tourists. At the meetings held to draw up the plan, the guides raised the question of skill level, above all. They believe that the official training course is inadequate, and that getting a licence does not necessarily involve training that is adequate to carry out the profession of tourist guide²⁰. They complained of insufficient linguistic training, and shortcomings in the subject-based training. At the moment, the guides are trying to make up for this with individual initiatives, but these are judged to be insufficient for bridging the lacunas in the official training.

As regards language training, emphasis is laid on the urgent need to expand the skill set to include languages other than English, but which are required by demand, such as Chinese, for example, as well as Italian. As regards subject-specific training, the need is repeated to create knowledge that makes it possible to meet a tourist demand that is more and more differentiated, and progressively projected beyond a canonical visit centred on pagodas, and motivated by the desire to “do something special”. The Association’s guides try to meet this demand by specializing in particular subject areas, taking an interest for example in bird-watching, trekking, or bike and run formulas, although they still make use of individual initiatives and personal resources.

This situation, together with the low level of skill in handling groups, and weak relations with other organizations linked to the chain of tourism value (restaurants, the craft sector etc.) means that the guides’ role as a link between visitors and the local community, and their role as a stimulus for the overall tourism system, is still well below its full potential.

The particularly intense experience which guides have with the European sector of demand certainly increases their sensitivity towards forms of sustainable tourism, making them a particularly interesting interlocutor for drawing up ways to enrich and diversify the offer.

However, this potential could only be explicated fully in the context of a determined policy of opening up to diffuse forms of tourist accommodation (homestay tourism), and promoting a community-based tourism that involves the most representative elements of the close network of rural villages, present in the area, in the tourism offer.

¹⁶ The information was provided by the UMTA-Mandalay Branch, in an interview on 15.3.2016 with U Myo Yee, chairman, and with Tin Aung Mynt, station manager at Asian Trails.

¹⁷ In this connection, the official MOHT figures look apparently hard to interpret, since they show, for the more recent years, a number of guides that is significantly lower than in 2009 and 2010, with figures of 4,527 and 4,077, respectively. These figures fell to 3,160 on 2011, probably because the 2009 and 2010 figures included regional guides.

¹⁸ 2014 figures.

¹⁹ Ye Myat Tun, chairman of the MTGA-Mandalay Branch, is a member of the central committee of SEATGA.

²⁰ The opinions summed up in this paragraph were collected at a series of meetings with Ye Myat Tin and with numerous other members of the Association, between 13.3. and 21.3.2016. The inadequacy of the official training course is also stressed by numerous independent observers (cf. MCRB, 2015, p.75).

5.1.4 RESTAURANTS AND EATERIES

No official figures for the number of businesses are available for the restaurant sector. However, the offer is very wide-ranging and diversified also in the ACUM area, as in all of the country. As regards variety, as well as Burmese cooking, Chinese cuisine and Thai cuisine are also very widespread. As regards the form of the offer, as well as restaurants in higher-category hotels, visitors have very numerous restaurants available and a very wide range of street food available.

Restaurants work with a municipal licence, and are under the control of the Food and Drug Administration. They are organized in the MRA-Myanmar Restaurant Association, although only a very small percentage of operators are members.

The MRA-Mandalay Branch only has 40 associate members, representing around 10% of the total²¹. The work for restaurants in Mandalay is divided between 60% on domestic tourism and 40% on international tourism.



Fig. 5.1.4.1 Advertised Mandalay restaurants.

Source: Data from travel guides (Lonely Planet, Rough Guide, Insight Guides Myanmar) and internet (Open street map, Trip Advisor). Background map from ESRI Imagery Basemaps.

Only 3 restaurants have international tourism as their main target²². Indeed, the area's main English-language guide books²³ also report a very small number of restaurants, and almost solely in the area of greatest concentration of accommodation facilities (Fig. 5.1.4.1). This representation of the restaurant offer does not properly cover the numerousness and ubiquity of available eateries, which the public ought to be informed of more effectively.

Moreover, other aspects clearly limit the ability of the rich local range of dining options to become a significant moment in the tourist experience. Indeed, in analyzing the demand, one notes that restaurants only score highly in terms of satisfaction among a small percentage of visitors (less than 1/3, cf. Fig.5.1.4.2).

This situation is probably due to various factors, involving both quality and organization. An initial problem is represented by health and hygiene conditions, which are currently very precarious owing to the inadequacy of structures and

²¹ The statistic, and the following information, was provided by Daw Khin Saw Oo, chairman of the Association, in the interview on 14.3.2016.

²² The Green Elephant, and the two premises of Unic Myanmar Food.

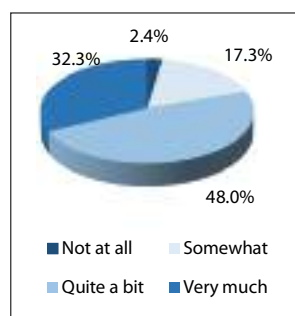


Fig. 5.1.4.2 Evaluation of local restaurants (no. = 1,215).

Source: data from own survey on tourism demand (2015).

infrastructure (for example an insufficient control of the cold food chain), but also owing to the increasingly common tendency to use food imports of low quality, or even adulterated²⁴. A second problem consists in the ways in which products are made available, which are often unsuited to reaching visitors who are unfamiliar with local customs and the local cuisine, for example owing to the difficulty in getting information in English (written or verbal) on the dishes.

Therefore strategies are needed to promote the local restaurant offer with a view to tourism, both in terms of improving health and hygiene conditions, and by offering information as to the composition of the various dishes, and also, finally, by associating the provision of other products (local crafts) and cultural events to the available restaurants and dining options, in line with a formula which as yet has only been tried and tested in a very simplified form by the “tourist” restaurants that stage puppet shows and traditional dances.

As well as being founded on the large number of restaurants, the local system of eateries also relies on a very large-scale and pervasive offer of street food, for a discussion of which readers may refer to ch. 4.3.2.

Finally, mention should be made of the offer of the so-called “Family Dinner” in private homes, which partly helps to get around the ban on staying at private homes. This type of initiative – interesting both because it expands the local impact of proceeds from tourism, and because it responds to the demand of tourists who want to experience different and original ways of encountering the local populace – are currently offered by only a few operators²⁵.

5.1.5 TOURISM PRODUCTS

Tourists stay in Mandalay for an average of 2.5²⁶ days. Standard visitor packages offered by travel agencies include two to four nights, and cover a very limited number of attractions, coinciding with the most famous episodes in the artistic and cultural heritage (cf. Tab. 5.1.5.1 and Fig.5.1.5.1).

Tab. 5.1.5.1 Standard visitor packages offered by travel agencies.

Source: Tin Tin Nwe et al. (2016), processed by the author

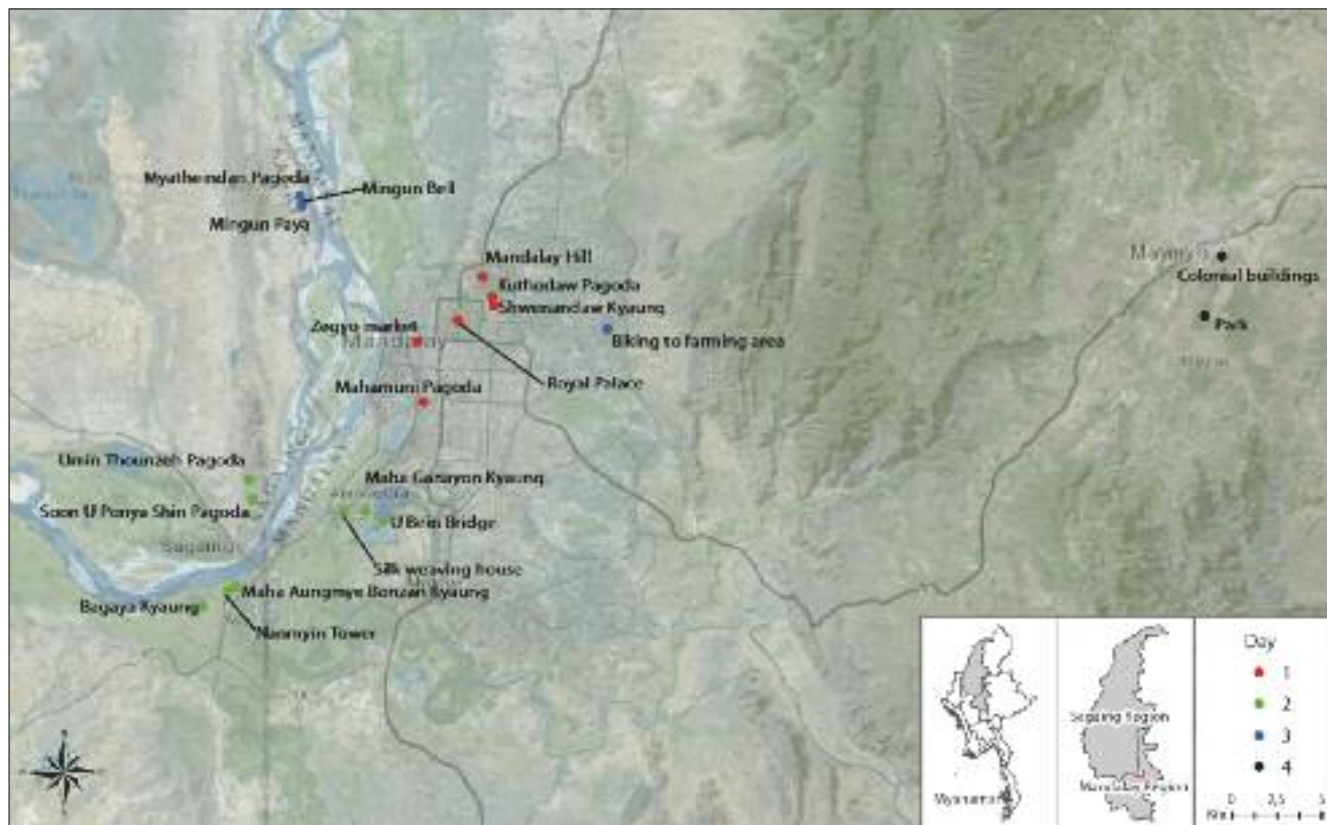
Day	Place	Attractions
1	Mandalay	<ul style="list-style-type: none"> • Mandalay hill • Kuthodaw Pagoda • Shwenandaw Kyanung • Royal Palace • Zegyo market • Mahamuni Pagoda
2	Sagaing	<ul style="list-style-type: none"> • Umin Thounzeh Pagoda • Soon U Ponya Shin Pagoda
	Innwa	<ul style="list-style-type: none"> • Bagaya Kyanung • Maha Aungmye Bonzan Kyaung • Nanmyin Tower
	Amarapura	<ul style="list-style-type: none"> • Silk weaving house • Maha Ganayon Kyaung • U Bein Bridge
3	Mingun	<ul style="list-style-type: none"> • Mingun Paya (Unfinished Pagoda) • Mingun Bell • Myatheindan Pagoda
	or Mandalay	<ul style="list-style-type: none"> • Biking to farming area east of the city
4	Pyin Oo Lwin/Maymyo hill station (outside the project area)	<ul style="list-style-type: none"> • Park • Colonial buildings

²³ The following guide books were consulted: Lonely Planet, Rough Guide, Insight Guides.

²⁴ In this connection, see the complaints by the Consumer Protection Association (cf. Kyaw Hsu Mon, 2014).

²⁵ From MIB Travel and Tours, and from OAT Travel and Tours.

²⁶ Source: MOHT-Mandalay Branche.



A central importance in classic attractions is held by religious architecture (pagodas and monasteries). The project area is full of very interesting examples from the point of view of history and art (see ch. 4.2.), as well as places of a very high symbolic value for Buddhist worship, which large numbers of pilgrims from all of south-east Asia flock to, for example the Mahamuni Pagoda (Fig. 5.1.5.2).

The location of some of these episodes in a panoramic position, at a certain altitude, makes them especially attractive (Fig. 5.1.5.3 to Fig. 5.1.5.6), but this also makes them subject to tourist pressure which, at some times of day, especially at sunset, reaches extremely high peaks. This is true of the pagodas distributed on the Sagaing Range, a ribbon-like range of hills winding its way, 140 km long, along the Ayeyarwady, and in particular of the Pon Nya Shin Pagoda and the Umin Thounzeh Pagoda, around 150 mt above sea level. This is also true of the Hsutaung Pagoda, situated 230 mt above sea level, at the top of Mandalay Hill.

Fig.5.1.5.1 Places proposed in standard visitor packages.

Source: Data from Tin Tin Nwe et al. (2016), processed by the author. Background map from ESRI Imagery Basemaps.

Fig. 5.1.5.2 Worshippers at the Mahamuni Pagoda (Mandalay).

Photo: M. Loda, 2015.

Fig. 5.1.5.3 Worshippers at the Pon Nya Shin Pagoda (Sagaing).

Photo: C. Lo Presti, 2015.





Fig. 5.1.5.4 Sunset from Mandalay Hill in the rainy season.

Photo: M. Loda, 2015.



Fig. 5.1.5.5 Mandalay seen from Mandalay Hill.

Photo: M. Loda, 2015.



Fig. 5.1.5.6 Sagaing Hill in the dry season.

Photo: M. Loda, 2015.

Another classic destination for tourist visits is the royal city of Mandalay. This site, closely connected to the city's tourist image, is a very satisfying attraction owing to the majesty of the outer walls surrounding the royal city, further set off by the moat that runs along the perimeter²⁷, and the royal palace buildings, and also the rich vegetation, particularly welcome in the high temperatures encountered at all times of the year. Since 1988 the royal city has been subsumed within military precincts. Visitors, both foreign and local, only have access to a very small part of the section of the quadrilateral that leads from the eastern entrance gate to the royal city to the buildings of the royal palace; the remaining parts of the space of the old royal city are excluded, as is all of the large walkway that winds its way between the external part of the walls and the ditch (Fig. 5.1.5.7). Generally, therefore, this urban space, a quadrilateral of 435 ha, right in the heart of the city, appears very under-used when compared to its potential, if tourist products were to be expanded and diversified.

²⁷ The waters of the moat, coming directly from the Sedawgyi Dam via Mandalay Canal, are also some of the least contaminated in the city (cf. ch. 3.1).



Fig. 5.1.5.7 The walkway along the moat of the royal city.

Photo: M. Loda, 2016.

Sagaing, situated 21 km south-west of Mandalay, on the west bank of the Ayeyarwady, conserves important episodes in the cultural heritage of the ancient Burmese kingdoms, but it is known above all as a place of pilgrimage, and a very important centre of Theravada Buddhism. Despite the fact there are more than 600 monasteries in Sagaing Hill, tourism is largely concentrated to Pon Nya Shin Pagoda and Umin Thounzeh Pagoda, whose interiors are often over-crowded, and where the spaces outside them are chaotic, and inadequate for the needs of the vehicles carrying visitors, which seek to pass through and stop off here. The rest of the city is only marginally affected by the presence of tourists, which is surprising if one considers the wealth of the artistic heritage, and the variety of the city's urban spaces, which could be included as part of a visitor programme less improvised and superficial than is normally the case. One example is the subterranean frescoes of Tilawkgaguru, currently difficult to access.



Fig. 5.1.5.8 Tilawkgaguru Cave Monastery.

Photo: M. Loda, 2015.



Fig. 5.1.5.9 Tilawkaguru Cave Monastery.

Photo: M. Loda, 2015.



Fig. 5.1.5.10 Tilawkaguru Cave Monastery.

Photo: M. Loda, 2015.

Fig. 5.1.5.11 Ava bridge and, in the background, Yadanarbon bridge.

Photo: M. Loda, 2015.



With reference to the large spaces of the river, one tourist attraction could potentially be the large bridges, Yadanarbon bridge and Ava bridge, the latter connected to Thapyaytan fortress (cf. ch. 3.3) by way of a very pleasant urban route.

Innwa (Ava), which is a fully-fledged feature on a list of Myanmar's biggest tourist attractions, is situated around 20 km south of Mandalay. It appears to the visitor as a monumental complex rich in elaborate architectural features (cf. ch. 4.2), and also as a delightful rural microcosm whose archaic features are almost intact. However, the combination of elements that are the origin of Innwa's uniqueness is based on a delicate balance that is highly fragile when exposed to the negative consequences of uncontrolled tourist pressure, an issue to be urgently taken into account, especially in the context of the planned Hotel Zone di Tada U, which would stand adjacent to it. Moreover, a visit to Innwa normally envisions only a half day of stop-offs, and is concentrated in the eastern part of the site. By contrast, if suitably adapted, it could offer numerous other aspects and spots of interest, and which are pleasant to visit and discover, such as the 2.5 km-long tree-lined route going from the Great Victory bridge (Maha Zay Ya That ba) to the south side of the



Fig. 5.1.5.12 Tree-lined way at Great Victory bridge.

Photo: M. Loda, 2016.

walls, which is suitable for strolling along even in the hottest hours of the day (Tin Tin Nwe et al., 2016).

Amarapura is situated in the boggy lands which have formed at the confluence of the Myitnge and the Ayeyarwady. The bodies of water which have formed locally – known as “In” (lake) – are sometimes very large, such as Taung Tha Man In, Thet Thay In, Wunbe In, and Myit Sut In (Thet Khaing, Hlaing Myo Myo Htay, 2016). Recently these have become quite a popular tourist destination, for those interested in bird-watching, because in the winter season numerous species of migratory birds come here from the north.

Furthermore, Taung Tha Man In is spanned by the famous U Bein Bridge, one of Myanmar’s tourism icons. Especially on holidays and at night when there is a full moon, it draws a great many visitors, tourists and locals, and the pressure of numbers becomes such as to seriously endanger the stability of the ancient teak-built construction.



Fig. 5.1.5.13 Bird-watching area on Taung Tha Man In.

Photo: M. Loda, 2016.



Fig. 5.1.5.14 Car park area at Taung Tha Man In, and visitor pressure on U Bein bridge.

Photo: M. Loda, 2015.

Fig. 5.1.5.15 Tourists waiting to get to bird-watching area.

Photo: M. Loda, 2015.

Fig. 5.1.5.16 Refreshment on shores of Taung Tha Man In.

Photo: M. Loda, 2015.

Fig. 5.1.5.17 Refreshment on shores of Taung Tha Man In.

Photo: M. Loda, 2015.

The high number of visitors is accompanied by a thriving range of small-scale activities typically associated with tourism, involving retail trade and refreshment, which are set up in the dry season all the way down to the lake-shore. The refuse and effluent produced by these activities runs off straight into the lake. Also flowing into the lake is the outflow of the manufacturing activities which the Payandaw Chaung collects, skirting the new industrial zone of Mandalay (cf. ch. 3.1). As a result, there are worrying phenomena of pollution, and frequently large numbers of fish are found dead in the water (Tin Tin Nwe et al., 2016).

Mingun, situated around 11 km north of Mandalay on the right bank of the Ayeyarwady, is visited especially for the impressive Pahtodawgyi Pagoda (known as the Unfinished Pagoda), and for a bell which is considered to be the largest bell in the world. Mingun offers a context which, like Innwa, is also attractive on account of its singularly traditional rural characteristics. Access is mainly by the river, a fact which helps to increase the attractiveness of the place. Once on shore, the short journey to the monuments can be made aboard a delightful animal-drawn vehicle.

As at Innwa, large-scale tourist pressure constitutes a threat to the conservation of the monuments, with the aggravating feature that here the precarious state of the Unfinished Pagoda represents a threat to the safety of visitors. Also in this case, the site has resources which potentially lend themselves to sustainable development and promotion. For example, there is the very fine riverside way between Mingun and Sagaing, or the small nat temples at Mingun, which are the object of great veneration (cf. ch. 4.2.3) (Fig. 5.1.5.20 and Fig. 5.1.5.21).



Finally, among the list of tourist products currently offered in the project area, mention must be made of cycling excursions, the production of local craft goods, and a visit to Mandalay's Zegyo Market.

Of cycling excursions, the most frequent formula is a route of around 10 km leading to an interesting farming area, where rice is grown, east of the city (cf. Fig. 5.1.5.1). A second type of offer are the tours, organized especially by the Grasshopper Adventures agency, which follow a route mainly from Inle Lake to Bagan, in which the ACCU area represents only one stop-off. New proposals in this sector have been drawn up independently by some tourist guides from the MTGA-Mandalay Branch. These routes, put together in order to meet a growing demand for "slow" tourism, seem particularly interesting because they are formulated on the basis of a thorough knowledge of the places. However, up until today they have had to contend with very weak local infrastructure, and with a low level of coordination with the needs of this specific segment of tourist demand²⁸.

Fig. 5.1.5.18 Traditional means of transport at Mingun.

Photo: M. Loda, 2015.

Fig. 5.1.5.19 The climb up to the Unfinished Pagoda at Mingun.

Photo: M. Loda, 2015.



Fig. 5.1.5.20 The "Siblings of the Teak Tree" cult at Mingun: Kywan Pin Maung.

Photo: M. Loda, 2016.

²⁸ We thank the MTGA-Mandalay Branch, in particular its chairman, Mr. Ye Myat Tin, and Mr. Mg Nyo, for their detailed information.

Fig. 5.1.5.21 Myinwun Market in Mandalay.

Photo: M. Loda, 2015.



Local craft production is one kind of tourist product, but is limited to just a few kinds of product (silk-weaving and silver-working) and to a very limited number of activities. As shown in ch. 4.3.1, craft production is much more variegated, and could constitute an important factor of attraction.

Finally, Mandalay's Zegyo Market represents the place where tourists are typically taken for the customary shopping trip, since one can find a very great variety of products. The market is also interesting for giving a glimpse of daily life in the city. In this respect, the city however offers several different places which are equally interesting, although they are not yet included within the tourism circuit, such as the Myinwun Market, stretching 500 mt north of the Mahamuni Pagoda, as far as Shwe Ta Chaung Canal.

Furthermore, there is a plan to transfer the jade workshops and markets from Sagaing to the Kyauk-taw-gyi Pagoda area, from 2016 onwards. Since the Kyauk-taw-gyi Pagoda is part of a cluster of religious historical monuments on the north-eastern corner of Mandalay Palace (the Babo-kyi-Nat entrance to Mandalay Hill, Sanda Muni Paya, Kuthodaw Paya, the Atumashi Kyaung-daw-gyi assembly hall, and, especially, the Shwenandaw Kyaung monastery, plus numerous minor buildings), the transferral of the jade market with workshops would thus form a very strong pole of tourist attraction in this area.

On reconsidering the attractions included in the standard visitor package, we can conclude that they represent an extremely reductive selection compared with the attractions present in the area.

This observation applies to all the places of worship that have been mentioned, but especially for Mandalay itself. Its historical and artistic heritage is much richer than the heritage features which have been exploited for tourism: a good example is the Myinwun monastic complex, north of the Mahamuni Pagoda (cf. ch. 4.2). Within the urban agglomeration there are also, in addition, very enjoyable open-air recreational spaces, although they are unknown to most visitors, such as Kandawgyi Lake, a large lake (around 320 ha) with several areas furnished with particular equipment, undoubtedly attractive also for tourism, especially if the waters were cleansed of the household outflow which enters it via Thingazar Creek (cf. ch. 3.1). Finally, the city has spaces which, with small-scale interventions, could helpfully



supplement and diversify the range of tourist attractions on offer: one example is views over the river.

The current tourism offer is also very much concentrated on the historical and artistic heritage, and in religious architecture, while natural resources, and resources connected with the intangible culture of the place, are completely under-exploited, although the most distinctive sectors of tourism are inclined to take an interest in them.

Fig. 5.1.5.22 Kandawgyi Lake at Mandalay.

Photo: M. Loda, 2016.

Fig. 5.1.5.23 Kandawgyi Lake at Mandalay.

Photo: M. Loda, 2016.

5.2 TOURISM DEMAND

5.2.1 NUMBERS OF INCOMING TOURISTS

Following the decision to open the country up internationally, a decision made by the government as of 2011²⁹, Myanmar has seen an extremely rapid and intense tourism development, more than quadrupling the number of arrivals between 2012 and 2015.

In this evolution, Myanmar has certainly been able to benefit from the good economic performance of international tourism, which has seen a growing trend in excess of forecasts: 2014 – with 1,133 million international arrivals worldwide, and a 4.3% increase compared with the previous year – was the fifth consecutive year of robust growth after the financial crisis of 2009, well above forecast levels, which, for the period 2010-2020, predicted an average growth trend of 3.3%³⁰.

The intensity of Myanmar's tourist development has been such as to place the country in top position in terms of the dynamism of growth among countries in south-east Asia. This figure is particularly significant if one considers that south-east Asian countries have, in turn, recorded an important growth in the tourism sector, increasing by 35.6% the number of international arrivals between 2009 and 2014³¹. Although in 2014 Europe is still the area that leads, in absolute terms, the table of areas of destination for tourists (with more than 582 million arrivals), in terms of percentage variations the role of leader rests with south-east Asia, which manages to absorb 8.5% of international demand.

In this context of expansion, in 2014 Myanmar increased the number of arrivals by 50% compared with the previous year, managing to increase the share it absorbed out of all arrivals in the ASEAN group from 1.2% to 3.0% (cf. Tab. 5.2.1.1), and in 2015 it reached the figure of 4,681,020 international arrivals (Fig. 5.2.1.1).

²⁹ The tourism sector has been included as a priority area for implementation of the forthcoming National Export Strategy, cf. MOHT (2013a), p. 9.

³⁰ UNWTO data (2015).

³¹ Here we shall only consider figures up until 2014, since 2015 UNWTO figures were not available at time of writing (spring 2016).

Tab. 5.2.1.1 ASEAN International visitor arrivals, 2009-2014.

Source: ASEAN Secretariat and MOHT 2013 data (for 2014), processed by the author.

	2009	2010	2011	2012	2013	2014
ASEAN countries	65,680,630	73,740,988	81,335,563	89,571,552	99,200,000	102,012,000
Myanmar/ASEAN	1.2%	1.1%	1.0%	1.2%	2.0%	3.0%

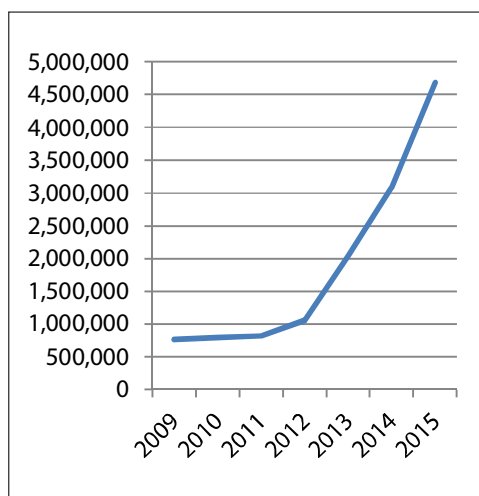


Fig. 5.2.1.1 Myanmar international arrivals, 2009-2015.

Source: MOHT data, processed by the author.

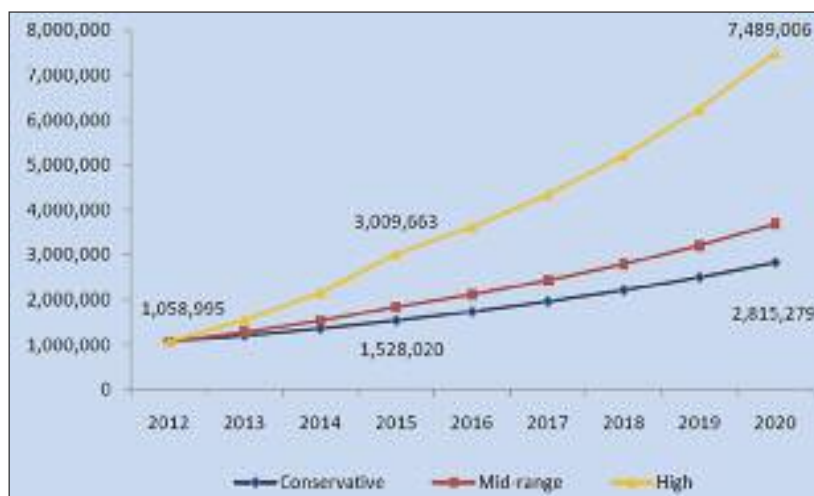


Fig. 5.2.1.2 Myanmar visitors forecast, 2013-2020.

Source: MOHT (2013a), p. 19.

These statistics even put Myanmar above the most expansive scenario for growth in tourist demand, among all scenarios hypothesized in 2012 by the Asian Development Bank (cf. MOHT, 2013, p. 189):

An important component (estimated as being two thirds) of arrivals are probably made up of day-trippers from neighbouring countries for business trips and other kinds of visit requiring a tourist visa, who could not therefore be computed as tourists in the strict sense, according to the World Tourism Organization (WTO) and the Pacific Asia Travel Association (PATA), defined as those who stay in the country for more than 24 hours.

However, the trend for incoming visitor numbers undoubtedly reflects the image of a country which is rapidly recovering, compared with a past marked by an accentuated closure towards the outside world, and which is gradually matching other countries in the area in terms of dynamism. An integral part of this dynamism is the expansion of international relations, which is affecting many different areas of economic activity, and which is also reflected in the tourism sector. As we will see in detail in ch. 5.2, part of the tourism demand is generated in association with business travels.

As well as the constant increase in arrivals, the aggregate figures describe a variation in the type of trip. While business trips maintain a stable percentage, on around 1/5 of the total, the percentage of independent foreign travelers shows a marked contraction, precisely owing to the sharp increase in absolute values of those who travel on organized trips, a sign that the country has entered the package deals offered by international tour operators (Fig. 5.2.1.3).

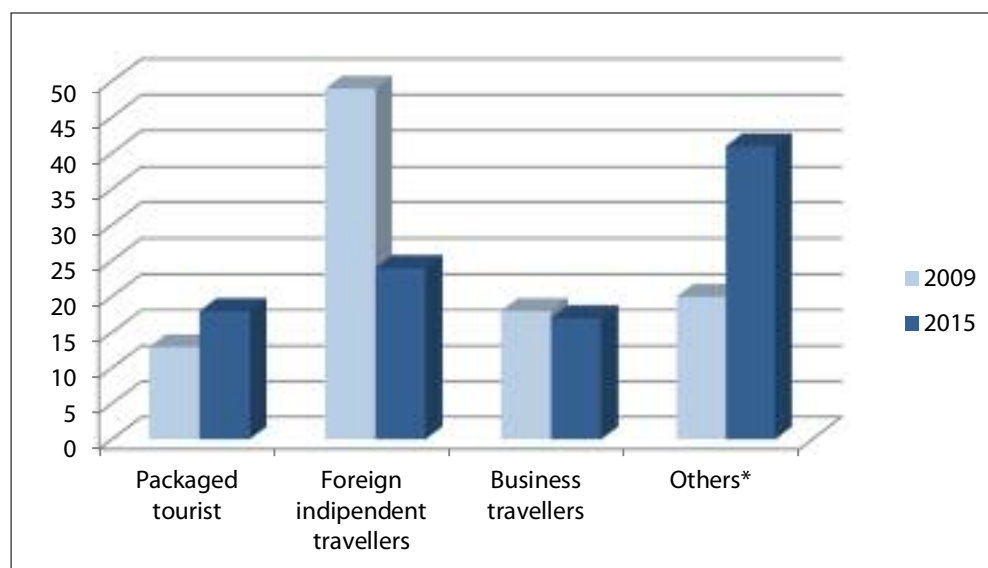


Fig. 5.2.1.3 Myanmar - Type of tourists, 2009 and 2015.

Source: MOHT data, processed by the author.

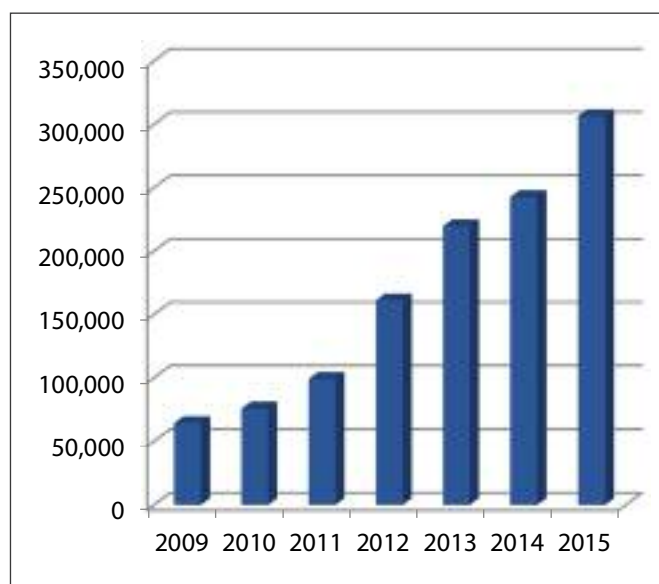
As the second largest city in the country, and home to an international airport, Mandalay takes a full part in this intensive tourism development, featuring among the six main tourist destinations in the country, together with Yangon, Bagan, Inle Lake, Kyaikhtiyo (Golden Rock) and Ngapali Beach. International arrivals in the city quadrupled in the space of five years, numbering 306,432 persons in 2015 (Fig. 5.2.1.4).

The great majority of foreign visitors travelled to the city by plane, followed by those who travelled there by land, and finally, trailing some distance behind, by water: in 2015 the proportions were respectively 63%, 35% and 1%. Compared to the previous years, one notes a fall in the percentage of those arriving by plane, and a corresponding sharp rise in those coming by car, whose number doubled in absolute terms between 2014 and 2015. The phenomenon is probably to be attributed largely to tourism from neighbouring countries (China and Thailand).

As regards provenance, just under half of all foreign visitors come from other Asian countries, especially Thailand and above all China, which, in 2015, represented respectively 18% and 28%. A number of Chinese visitors that is certainly high, although not precisely quantifiable, do not form part of incoming tourist numbers in the strict sense; their trips are more likely to be connected to the intense economic and personal relations which the city has with its larger neighbour, also owing to the large size of the Chinese community, currently representing around 1/5 of the city's population (Steinberg, 2013, p. 122). The presence of visitors from other Asian countries is limited. By contrast, the percentage of visitors from Europe is much higher than in Myanmar (37% of the total). In this case, they are almost only, actual tourists, coming from countries in western Europe, led by France (9%), followed by Germany (5%), and the UK (4%). Finally, tourism from North America has a certain importance (7%).

Fig. 5.2.1.4 Mandalay - International Arrivals, 2009-2015.

Source: MOHT data, processed by the author.



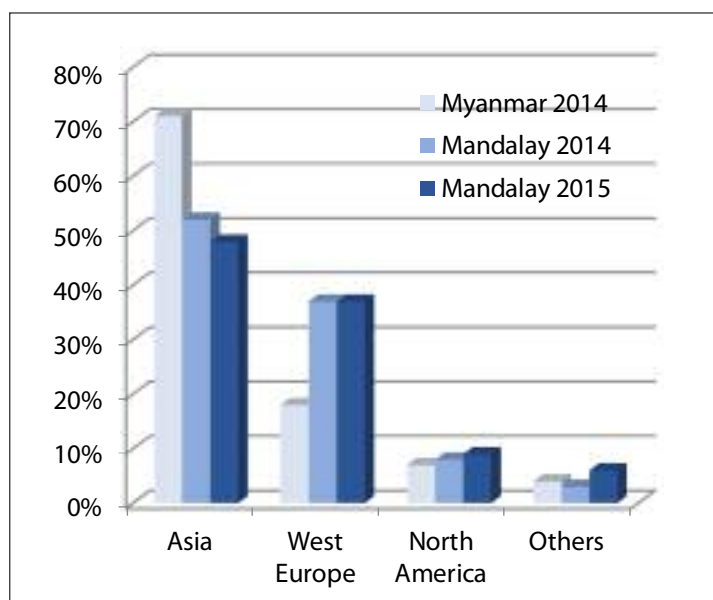


Fig. 5.2.1.5 International arrivals by origin in Myanmar and Mandalay.

Source: MOHT data, processed by the author.

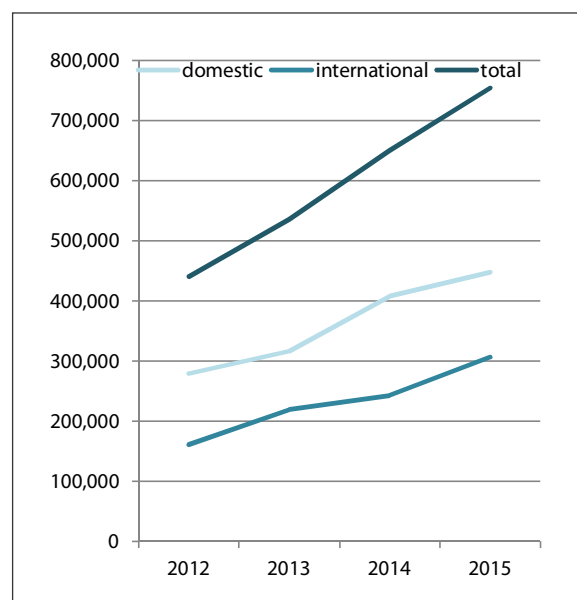


Fig. 5.2.1.6 International and domestic tourists in Mandalay, 2012-15.

Source: MOHT data, processed by the author.

Over the last two years, one has seen a decline, in percentage terms, in visitors from other Asian countries, as against an increase in the percentage of visitors from North America; the percentage from western Europe appears stable (Fig. 5.2.1.5):

When compared with the country taken overall (a comparison that is possible for 2014), Mandalay displays a much lower percentage of visitors from other Asian countries, and a much higher presence in the component of visitors from Europe, probably because the tourist component, out of the total of foreign visitors, is higher here.

On the basis of the information compiled on the occasion of the focus group with students enrolled on the Degree course in Tourism Studies at the University of Mandalay³², 90% of tourism from China consists in package tourism, while the percentage is 60% among Europeans.

In order to assess the total scale of tourism movements in the city, it is necessary to add domestic tourism numbers to the figures for international arrivals. In the case of Mandalay, these are very large, both owing to the city's demographic and economic importance, since it remains the destination of many business trips, and because Mandalay's hospitality facilities are still today the only reference point for religious tourism bound for Sagaing, which, with its Buddhist monasteries, represents an important monastic centre, and a pilgrimage destination. As shown in Fig. 5.2.1.6, the overall improvement in living conditions (cf. ch. 3.2), and the transformation in lifestyle, are leading to large and growing levels of internal tourism, which brought 447,994 Burmese to Mandalay in 2015. This figure, added to the figure for international arrivals, raises tourist arrivals in the city to 754,246.

Considering that the average stay is 2.5 days³³, daily presences on an average day can be calculated as being 5,166. However, in Mandalay (as in Myanmar generally) the tourist phenomenon is subject to very seasonal changes, at least as regards international tourism. The months of highest numbers of incoming international

³² The focus group, which took place on 21.09.2015, involved 14 people, including the coordinator, prof. Tin Tin Nwe, almost all of them already active in the tourism sector as guides, for agencies or freelance, or as the owners of hotels or construction firms.

³³ Source: MOHT-Mandalay Branche.

arrivals last from October to February, with a peak of over 40,000 arrivals in December, corresponding to Christmas holidays in European and North American countries. By contrast, international arrivals fall sharply from April to September, corresponding to the rainy season. As shown by Fig. 5.2.1.7, seasonal patterns do not affect domestic tourism.

5.2.2 VISITORS' PROFILE

5.2.2.1 THE SAMPLE

Through the analysis of statistical data on incoming numbers we could quantify the growing number of tourists present in the city, and the areas they come from. Meanwhile, to identify the components of the demand, and to determine the profile of visitors, we used a sample survey, in the form of a standardized questionnaire, carried out directly among tourists (cf. ch. 1.4).

The sample is composed of a total of 1,395 tourists, of whom 690 (49.5%) were interviewed directly at their hotel (selected in advance, randomly), and 705 (50.5%) were contacted at typical visitor sites (Mandalay Hill and Royal Palace).

The sample consists of 52% women and 48% men; the average age is 33.8 years, and around 43% are younger than 30 (Fig. 5.2.2.1):

In the sample, there is a prevalence of people belonging to medium to high social classes, and more than 4/5 of the respondents had received a university-level education (cf. Fig. 5.2.2.2).

As regards profession, just under 1/3 of the total comprises managers, businessmen or freelance professionals; they are followed by the group of salaried workers, but students also represent a very large group (Fig. 5.2.2.3). We are therefore dealing with an international tourism composed predominantly of medium to high social ranks.

Of the tourists interviewed, 18.4% are travelling on an organized tour, while 81.6% is made up of individual travellers (Fig. 5.2.2.4). This composition of the sample, which is unevenly weighted compared to the official statistics (cf. Fig. 5.2.1.3),

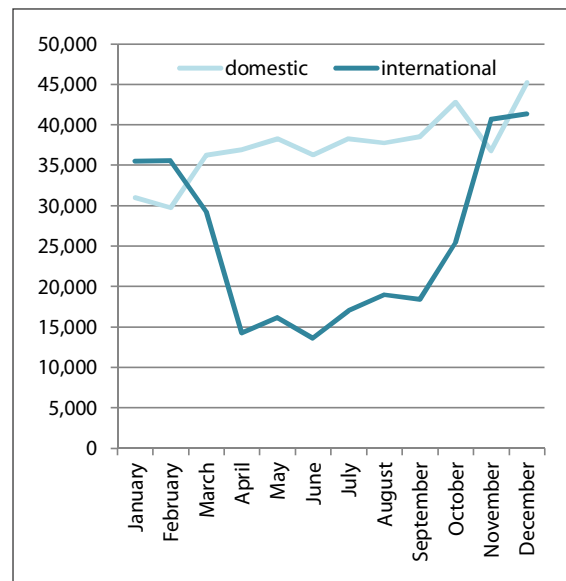


Fig. 5.2.1.7 Domestic and International Visitors by month in Mandalay, 2015.

Source: MOHT data, processed by the author.

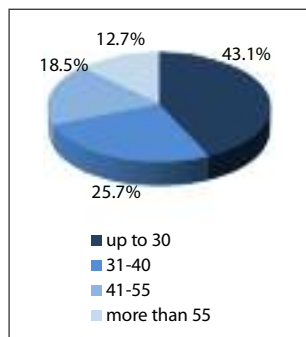


Fig. 5.2.2.1. Respondents by age.

Source: Survey data, processed by the author.

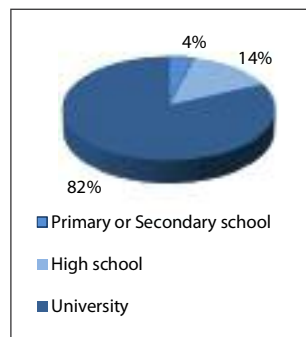


Fig. 5.2.2.2. Respondents by level of education.

Source: Survey data, processed by the author.



Fig. 5.2.2.4 Respondents by type of tourism.

Source: Survey data, processed by the author.

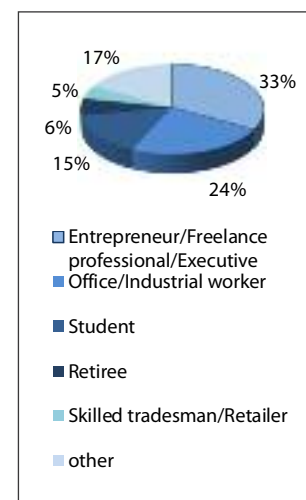


Fig. 5.2.2.3 Respondents by profession.

Source: Survey data, processed by the author.

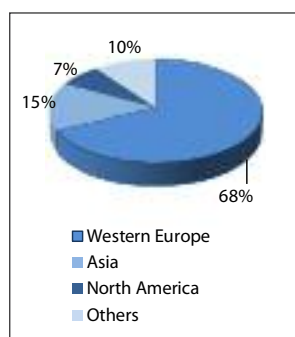


Fig. 5.2.2.5 Respondents by provenance.

Source: Survey data, processed by the author.

is the result of a certain reluctance on the part of travellers on organized tours to agree to fill out the questionnaire, especially if contacted at tourist sites.

In almost all cases (96%), the interviewees are visiting this region for the first time.

As can be seen from Fig.5.2.2.5, the sample is clearly dominated by the group from western European countries, followed, at a clear distance, by the group of other Asian countries³⁴.

This composition also differs from the statistical figure for international arrivals: the European component in the field survey is more than 2/3, while it accounts for 37% of incoming international tourists; by contrast, the Asian component, equal to 48% of incoming numbers, does not rise above 15% in the field survey (Fig. 5.2.2.6).

In this instance, however, the difference is explained by the fact that – as regards provenance from Asian countries – the figure for international arrivals recorded at the airport does not only measure purely tourism-related phenomena.

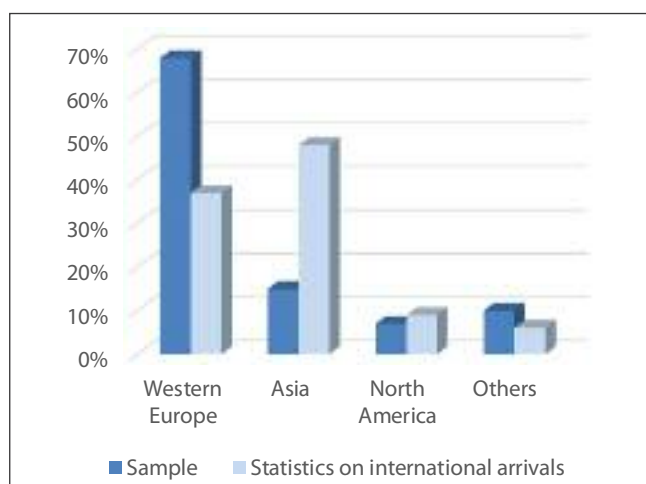


Fig. 5.2.2.6 Provenance: sample and international arrivals in Mandalay, 2015.

Source: MOHT and Survey data, processed by the author.

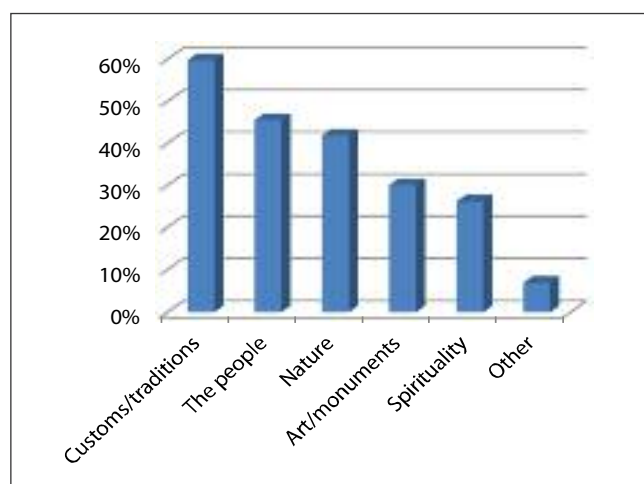


Fig. 5.2.2.7 Attractions before the trip.

Source: Survey data, processed by the author.

Tab. 5.2.2.1 Percentage of respondents according to reason for travelling

Source: Survey data, processed by the author.

Tourism	Others	No.	West Europa
95.9	4.1	942	Asia
74.5	25.5	208	North America
87.0	13.0	92	Others
88.7	11.3	142	

³⁴ The "Others" group includes countries in South America, eastern Europe, the Middle East and Oceania; the last of these constitutes the largest sub-group in this category: 3.5% of the tourists interviewed come from Australia alone.

As we noted earlier, in ch. 5.2.1, the Asian component of international arrivals can be almost wholly ascribed to Chinese and Thai citizens who come to Mandalay for business purposes, or for visits to friends and relatives, and for whom the tourism programme is only an accessory to the main reasons for their trip. At the same time, our sample picks up above all on foreigners who are in the city for typically tourist-related purposes; also in our sample the Asian sub-group features a relatively high-

er presence (¼ of the sub-group) of people whose reason for travelling was mainly not related to tourism.

5.2.2.2 EXPECTATIONS AND BEHAVIOURS

The reason which led the tourists to make a trip to Upper Myanmar can be seen from the answers to a specific question in the questionnaire on the attractions which they associated with the place prior to making their trip. Among the six proposed options, the ones which were most selected are “Customs/traditions” and “The people”, selected by 60% and 45% of the interviewees, respectively.

In this result we see a reflection of the country’s tourist image, centred around the idea of a fascinating and mysterious cultural identity, which it is believed the country’s long isolation from the outside world kept intact. The words which introduce the official MOHT tourist map is emblematic in this connection (Fig. 5.2.2.8).



In third place among attraction factors, we find the heading “Nature”, while the historical and artistic heritage only constituted a factor of attraction for ¼ of all visitors.

The hierarchy of factors of attraction does not vary if we break the sample down between actual tourists³⁵ and visitors travelling for reasons other than tourism, although of course the latter group has initial grounds for interest that are a lot less marked than the former, and despite the fact that the percentage of those who name specific factors of attraction falls to around half for all the options listed³⁶. In this, we see a certain rigidity of the tourist image over the described dimension, and the scant appeal of other dimensions which are potentially of interest, especially to this sector of demand (eg. the variety and comforts of the hospitality system, or the efficiency of internal transport connections).

We also note low initial interests in the group coming from Asian countries, with percentages of factor selection lower than those of visitors from other geographical areas (western Europe, North America, other countries) for all listed options. This is probably due to the fact that the tourism phenomenon has only spread in these countries in recent years: most visitors still have limited travel experiences, and they tend to rely on travel agencies for the choice of destination and for the organization. For these reasons, travel agencies may become an interesting talking-partner to inform and guide the sector of Asian demand.

Restricting our analysis just to tourists in the strict sense of the term, and comparing the two biggest sub-groups (western Europe and Asia), one also notes a

Fig. 5.2.2.8 Tourist Maps of Myanmar - Official Publication of the Ministry of Hotels and Tourism.

Source: MOHT.

³⁵ Those who state that they are travelling for tourism.

³⁶ Among non-tourist travellers, “Customs/traditions” is indicated as a factor of attraction by 36%; “The people” and “Nature” by 26%.

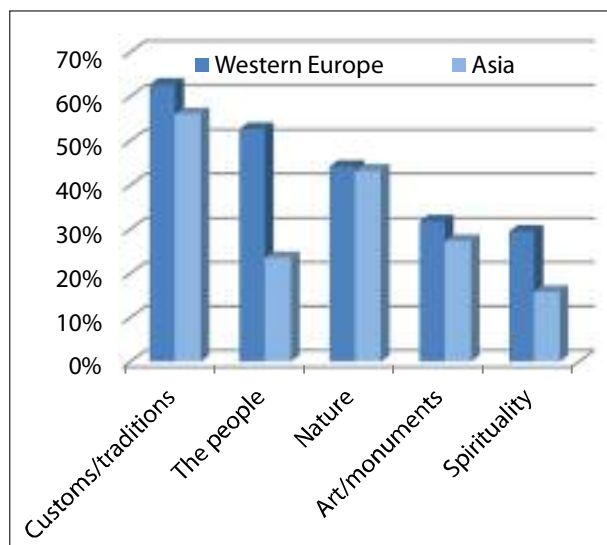


Fig. 5.2.2.9 Attractions before the trip, by provenance: Western Europe (no. = 938) and Asia (no. = 208).

Source: Survey data, processed by the author.

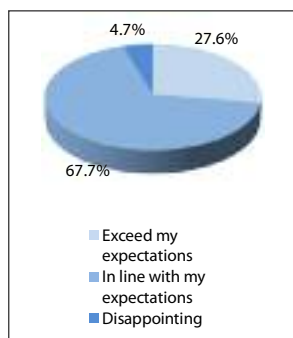


Fig. 5.2.2.10 Satisfaction degree (no. = 1,317).

Source: Survey data, processed by the author.

Tab. 5.2.2.2 Satisfaction degree by season.

Source: Survey data, processed by the author

	exceed	In line	disappointing	No.
Low season	29.9%	66.1%	4.0%	602
High season	25.65%	69.1%	5.3%	715
Chi2: .14				

significant variation in the hierarchy of attractions. While, in both cases, “Customs/traditions” represents a factor of attraction for the largest number of visitors, the heading “The people”, almost as important as “Customs/traditions” for the European group, falls to fourth place among Asians (Fig. 5.2.2.9). This difference is indicative of a different conception of travel: in the former case, one notes a set of motives which, via direct interaction with the local people, seeks original travel experiences, and “authentic” situations³⁷; in the latter case, one glimpses a vision of travel that adheres more closely to codified tourist attractions (nature-related, or historical and artistic), and that is basically mediated by the tourism industry.

To recapitulate, the tourist image of Myanmar hinges very much on the idea of an original cultural universe that is still intact. In this form, it manages to

establish a particular hold on Western tourists, who see a direct relationship with the populace as a way to achieve an “authentic” encounter with it. By contrast, Asian visitors seem to subscribe more to a conventional vision of tourism as a visit to codified attractions, in which the tourist industry plays an important mediation role.

Moving from attractions prior to the trip to the actual organization of the stay, and activities actually engaged in after arrival, it must be stressed first and foremost that the two categories can only ever overlap with each other to a partial extent.

Indeed, the travel experience takes place on a terrain which cannot be precisely determined in advance, being circumscribed on the one hand by the attractions and the visitor’s initial motives, and on the other hand by the opportunities which actually offer themselves to the tourism experience, depending on the way in which the destination is offered in concrete terms.

Analyzing the tourist experience in the ACUM area, we can start by setting out from the consideration that – according to the findings of our sample – it is positive overall, and that, for over ¼ of visitors, it exceeds their expectations (Fig. 5.2.2.10).

It is interesting to note that the degree of satisfaction does not vary with the season when the visit is made (Tab. 5.2.2.2), an indicator of the fact that there are margins for reducing the decline in visits in the rainy season:

However, one notes a difference, a small but significant one, when we compare those who visit the region as part of an organized trip, and those who travel independently. In the latter group, there is a lower percentage of people who judge the location to exceed their expectations, and a higher percentage of disappointed travellers. In this, we see a limit in the structure of the tourism offer, to

³⁷ On the concept of “authenticity”, see ch. 4.1.

which independent travellers are particularly sensitive. On the basis of the responses given by tourists to the open question, “What has made a negative impression on you?”, and also on the basis of the numerous informal conversations conducted with tourists in the course of their stays in the research area, these limits may also include, primarily, shortcomings as regards services and transportation infrastructure, making it difficult, and expensive, to travel around independently in the area. Another aspect which emerges with particular frequency is connected to the layout of the places: the absence or fragmentary state of pavements makes it very hard to walk around urban agglomerates, while the neglect to which large parts of the area (for example the otherwise beautiful riverside area in Mandalay, cf ch. 5.1.5) are abandoned makes it very hard for tourists to access them and appreciate them.

	Exceed my expectations	In line with my expectations	Disappointing	No.
Packaged tourists	32.0%	65.5%	2.6%	194
Independent travellers	24.7%	70.0%	5.4%	653
Chi2: 0.05				

Tab. 5.2.2.3 Satisfaction degree by type of travel

Source: Survey data, processed by the author

Regarding the activities which proved to be the most significant in the economy of the stay, and which had the most positive impact on the tourism experience, their hierarchy predictably reconfirms only in part the order of motives on departure. Arranging the various activities in order, on the basis of the percentage of tourists who give them the maximum score for approval³⁸, we note that direct contact with the local population continues to have a high position, and indeed is in first place, being cited by 70% of interviewees (Fig. 5.2.2.11). In second place, only just behind the top spot, we find visits to pagodas and monuments, followed by activities connected to enjoyment of the natural heritage, and, some distance behind, by participation in cultural shows and events.

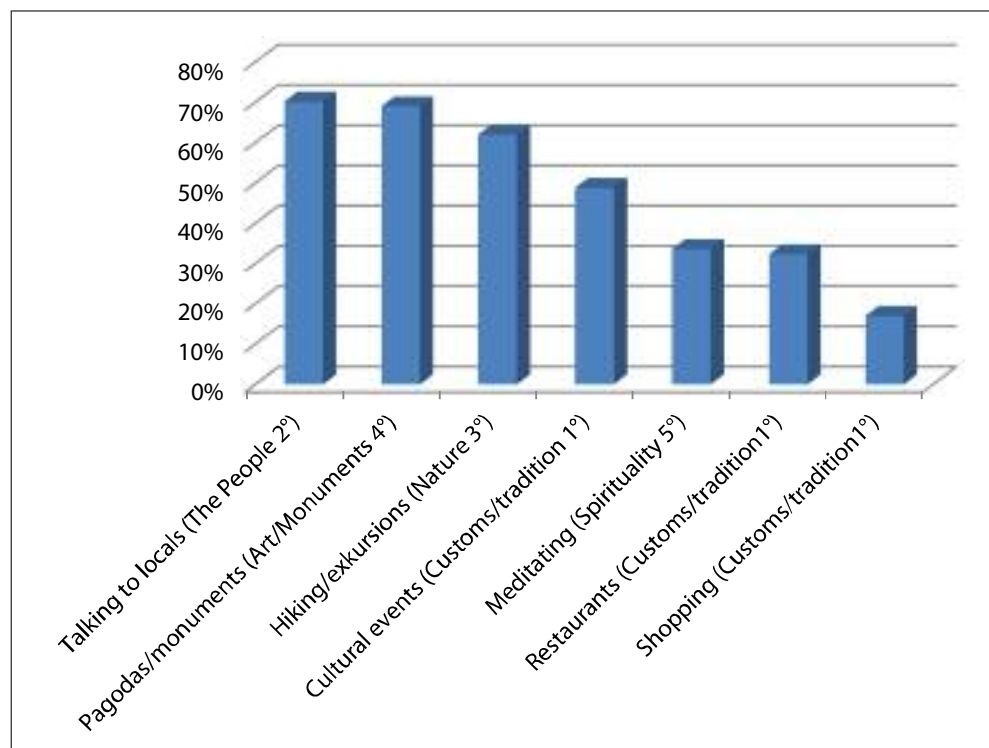
A comparison between the order of appreciation of the activities conducted, and the order of attractions prior to travel, gives us a clue as to the fact that it is the structure of the offer which helps to determine the travel experience, more than the visitors' initial expectations. In Fig. 5.2.2.11 we draw this comparison, showing in brackets, alongside each activity, the hierarchical position of the attraction, before the trip, to which the activity can be ascribed.

In general, the findings show that the various forms of direct interaction with the local populace – with tourist guides, with service staff at hotels and restaurants, and at simple chance encounters – are a central ingredient of the tourist experience. However, similar importance attaches to experiencing the historical and artistic heritage, despite the fact that, in the hierarchy of attractions prior to the trip, this dimension was only in fourth place, being a motive for less than ¼ of visitors. In third place among preferred activities, we find the experience of the natural heritage, which is fairly in line with initial motives, but which is probably harder to experience in a direct and active way compared to the artistic heritage. By contrast, activities related to the “Customs/traditions” dimension prove to be much less significant than expected, despite the fact that this was in top place for attractions before the trip. This situation shows, on the one hand, that

³⁸ In other words, a score of 3 in response to the question, “How much have you enjoyed...”, along the following scale: 0 = not at all; 1 = somewhat; 2 = quite a bit; 3 = very much; 9 = not experienced.

Fig. 5.2.2.11 Evaluation of individual experience dimensions (no. = 1,317).

Source: Survey data, processed by the author.



the potential represented by the artistic heritage is far higher than expectations, and therefore is perhaps insufficiently conveyed by means of the tourist image; on the other hand, it provides suggestions for thinking about the low level of tourist accessibility of important aspects of local life, daily culture, and intangible heritage: indeed, attending cultural events, and the encounter with local cuisine and with local craft products, are at the moment only a weak vehicle for tourists to encounter local customs and traditions.

The situation becomes even more clear by analyzing the various sub-groups which make up tourist demand.

First and foremost, the figures show that, in the direct experience of the trip, the local context makes a positive impact also in the perception of the visitors who come to the ACUM area for purposes other than tourism: for this group, a significance that is far greater than their initial expectations becomes attached to a direct relationship with local people, and also with the artistic heritage and the natural environment, elements which, as we have seen, are currently fairly marginal in the tourist image, and which could be conveyed better. Non-tourist visitors also mark themselves out for the relatively high percentage which values local products (28%, as against 16% of tourists), a sign that they manage to satisfy a clientele of businessmen more than they intercept the attention of tourists.

As regards actual tourists, again we see significant differentiations depending on provenance (Fig. 5.2.2.12).

Tourists from western Europe are the group which links their tourist experience most intensively with interaction with the local population (74% give this their top score). In the concrete experience of travelling to Upper Myanmar, importance is acquired also by dimensions over which expectations were fairly

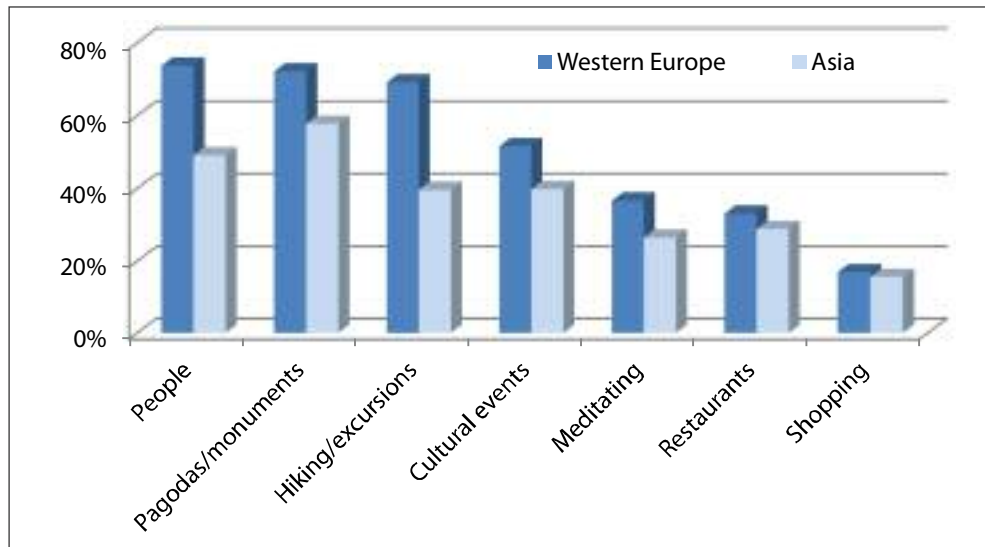


Fig. 5.2.2.12 Evaluation of experience dimensions by provenance: Western Europe (no. = 915) and Asia (no. = 180).

Source: Survey data,
processed by the author.

limited before the trip: a particular impression in the perception of many European visitors is made by the artistic and natural heritage (the latter being experienced in the active forms of trekking and excursions), even in the absence of specific expectations.

Among tourists from Asian countries (and let us remember that these are mainly Chinese nationals, and Thais to a lesser extent), the element to which the largest number of interviewees gives the highest score is the artistic heritage, with a percentage which, however, stops at 58%. Appreciation for direct contact with the local population, although less high than in the European group (49% of interviewees), stands in second place in the hierarchy of the activities most appreciated by the group, an interesting statistic, especially compared to the low initial expectations which the group had for this aspect. Meanwhile, the inverse dynamic is seen for the natural heritage, which catalyzed much attention before the trip, but which, in the concrete experience of the place, proves to be significant only for 39% of tourists in this group.

These facts configure a structural difference in the tourist experience for the group from western Europe compared to the Asian group, and this is further con-

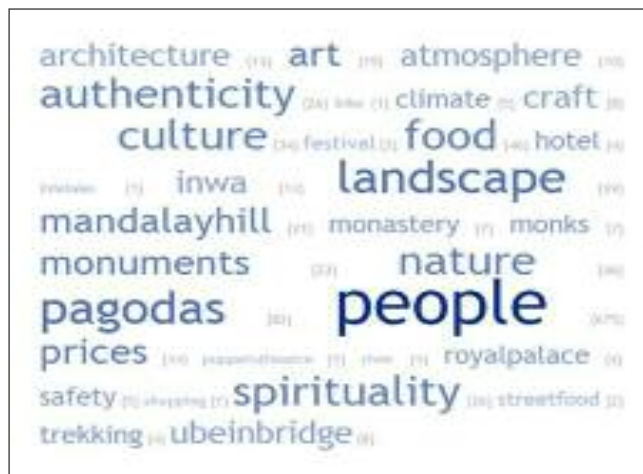
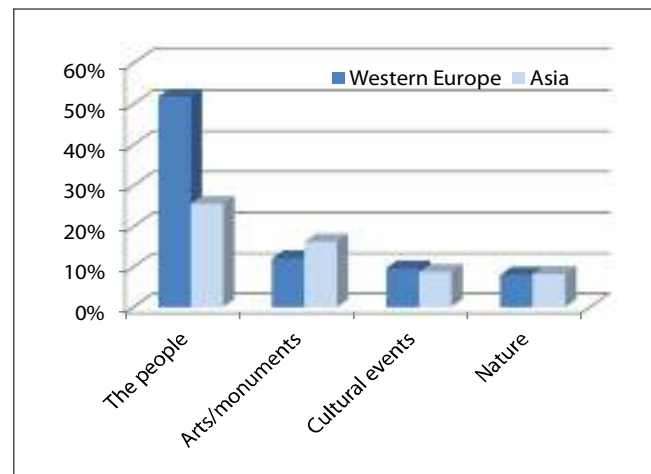


Fig. 5.2.2.13 What has had the most positive impression.

Source: Tweets data,
processed by Ester Macrì.

Fig. 5.2.2.14 What has had a positive impression on you (no. = 1,166).

Source: Survey data, processed by the author.



firmed by the answers which the interviewees give to the open question on what impressed them positively.

For the sample, overall, it is the encounter with local people that plays a central role in the travel experience (Fig. 5.2.2.13), but in this connection the difference between the two groups is marked, with more than half the European tourists indicating, unprompted, this factor as a central one in the direct experience of the place, compared with only ¼ of Asian tourists (Fig. 5.2.2.14).

Finally, a particularly accentuated inclination towards interacting with the local population is a characteristic of tourists who organize their trip independently, as shown by the comparison between this sub-group and those who take part in an organized trip, obtained by keeping the other potential variables constant:

Tab. 5.2.2.4 Answer to the open question: What has had a positive impression on you? (selected: only visitors from Western Europe, only travellers for tourism).

Source: Survey data, processed by the author

	The People		
	Yes	No	No.
Packaged tourists	56.0%	44.0%	210
Independent travelers	38.1%	61.9%	688
Chi ² : 0.00			

In answers to the open question on what made a positive impression, only very rarely do tourists cite the names of specific places, probably also owing to the difficulty in memorizing them. However, of these names, the most frequent are the most often-mentioned destinations: Mandalay Hill, Innwa and U Bein Bridge, mentioned respectively 21, 13 and 8 times throughout the sample.

The travel experience in Upper Myanmar is such as to lead 28% of the sample to plan a new trip to the region, and more than half to say that this is a possibility, with above average percentages, naturally, for visitors who come from neighbouring countries (Asia, 52%), and lower percentages for visitors coming from far away (Europe, 22%).

To recapitulate, opinions expressed by visitors regarding the experience of their trip make it possible to judge the tourist offer of the ACUM area positively overall. However, margins of dissatisfaction are found in the most motivated sectors (independent travellers), owing to shortcomings in services and infrastructure, and also owing to the difficulty in taking advantage of that intangible cultural heritage which constitutes the central component of the country's tourist image. Thus, while measures are desirable which make the sphere of the intangible cultural heritage more accessible, at the same time it is to be hoped that the tourist image of the country is boosted with elements which are currently conveyed insufficiently, in particular as regards the codified artistic heritage.

Concerning the activities practiced by tourists, and the concrete organization of the stay in ACUM area, these confirm what was glimpsed on the basis of the travel expectations: we see that there are significant differences depending on the area of provenance of the visitors, with one segment especially inclined to seek "authentic" experiences that is very present especially among tourists from western Europe, and in particular among those who organize the trip independently, and a more conventional segment that is especially present in the Asian group. Paragraph 5.2.2.4 is devoted to further discussion of this point in relation to the issue of sustainability, and specifically to the concept of "responsible tourism".

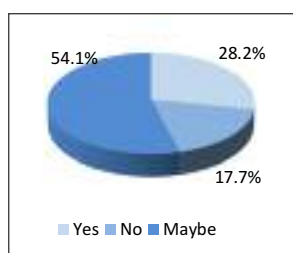


Fig. 5.2.2.15 Planning a new trip to Upper Myanmar (no. = 1,331).

Source: Survey data, processed by the author.

5.2.2.3 SENTIMENT ANALYSIS

New technology, and social media, are acquiring increasing importance for the tourism sector. By means of social networks such as Facebook, Twitter and Instagram, tourists are able to socialize and share, in real time or on returning from their holidays, their travel experiences, publishing messages and images, and sharing with the web the emotions and the moments they experienced, what they liked and what they did not like. Online blogs, review sites and booking portals are tools that are increasingly used to share and obtain information about a potentially infinite range of experiences: from hotels to restaurants, from museums to the main attractions and tourist sites, and including the holiday as a whole (Xiang, Gretzel, 2010). According to a recent study compiled by Four Pillars Hotels³⁹, 52% of Facebook users say that they allow themselves to be inspired by photos that are shared by their contacts in choosing a tourist destination; of those who use social media to get information on their travel plans, only 48% said they stuck to their original intentions, while many said that they changed their hotel (33%) or resort (10%), airline (5%) or even their final destination (7%).

Although the use of data on social media presents some serious limits as regards methodology (Loda, Tartaglia, forthcoming), and despite the fact that there are as yet no consolidated methodologies to analyze data from social media (Kharde, Sonawane, 2016), it was thought advisable to formulate a specific research to understand the way in which the ACUM area is perceived and “represented” on the web. Accordingly a Sentiment Analysis was conducted on the basis of data from Twitter. By Sentiment Analysis, we mean a study on the texts and images posted on Twitter, with the aim of deriving qualitative and subjective information on the tourist experience: it was not just a case of reconstructing what places were visited and photographed, and with what comments, but rather grasping the more general emotional inclinations of the people who shared social content on the subject of their stay in the research area.

Using purpose-designed software, made for the exclusive use of the research team, from 1 February to 16 May 2016, 2,696 tweets were extracted that were issued from the research area. From the tweets that were collected, only those posted by tourists, and actually referring to the research area, were selected⁴⁰, arriving at an overall total of 319 tweets, all associated with a photograph (some images were posted directly on Twitter, but most had been shared on Instagram and linked to the tweet via a link).

From the point of the text content, most of the tweets give information in an extremely brief form and, in most cases, limited to a list of descriptive hashtags of the photo posted. However, one notes the repetition of adjectives such as “beautiful” or “wonderful”, as well as the word “love”, to stress a strong emotional involvement on the part of the tourists, as well as a sense of wellbeing and pleasure felt during the visit. The hashtags and tweets contain fairly numerous but generic references to pagodas and the Buddha, monasteries and monks (fig.5.2.2.16). Meanwhile, some hashtags and tweets are associated with specific sites of interest, including the U Bein Bridge, Mandalay Hill, Mingun, the botanical garden of Pyin Oo Lwin and Sagaing, which attracted most approval and appreciative adjectives from tourists. It is no surprise that this geography reflects very accurately the geography of the destinations proposed by standard visitor programmes (cf. ch. 5.1.5), and that many of the area’s potential attractions are excluded from it.

³⁹ Source: Bennet (2012).

⁴⁰ Of the total number of 2,696 tweets, 1,980 were selected in languages considered by the research, which could be analyzed by the research team (English, German, French, Spanish, Italian). From these 1,980 tweets all tweets were eliminated that had a hashtag not relating to the interest of the project (for example, weather information, news, spam), leaving 598 tweets. Of these, 243 tweets were sent from Mandalay, but they contained photos and comments on places not included in the research area (especially relating to the area of Bagan), and therefore they were eliminated. The remaining 355 tweets were analyzed individually, taking into consideration both the words and the pictures, which, in all cases, without exception, accompany the text. In this phase of the analysis, it was thought best to eliminate a further 36 tweets, because they were not thought to be pertinent to the object of the research.



Fig. 5.2.2.16 The most frequent words in tourist tweets (no.=319).

Source: Twitter data,
processed by the author.

Among the photos posted, many were taken at sunset, and this proves to be one of the experiences most valued by tourists, and typically associated with hilltop sites (on Mandalay Hill and Sagaing Hill).

An analysis of the photos posted proves that they are in line with the open answers provided by tourists interviewed in the field survey (cf. fig. 5.2.2.11). There is a prevalence of photos of people, especially of Burmese children, shown in close-up to capture their facial expressions. A large number of the pictures show monks, either posing for the photo or in moments of daily life, inside or outside their monastery. Some photos show the tourist together with local people in traditional dress, others immortalize individuals as they carry out their work (for exam-

ple, shop-owners or craftspeople) or, again, details of traditional Burmese make-up.

All these pictures document the great interest of tourists in the daily dimension of local life, rendered effectively by accompanying comments such as: “Like a local. Getting the tanaka!”, or else “Our hearts go out to the people of Myanmar”, “Kids are so happy in Myanmar”, “Beautiful people”. In line with the findings of our survey, they also document the fact that a tourist image has taken hold that is centred on the idea of a fascinating and mysterious cultural identity, which the country’s long isolation from the outside world is thought to have kept intact (cf. ch. 5.2.2.2): “The airplane I flew with from Bangkok to here was like a time machine. Myanmar took me back”.

The most photographed places are naturally those that are most frequently described in tweets: U Bein Bridge more than any other, Mandalay Hill, Mingun, and also Mandalay Royal Palace and Innwa.

Most of the photos showing pagodas were taken from outside, and show the pagoda almost in its entirety, or else seen from above (from Mandalay Hill, for example). Only in a few cases do the pictures give greater detail of some architectural elements, such as a particular example of carved inlay, and the stupa, or the bells inside the pagoda. In addition, there are several photos showing Buddha statues, taken inside a pagoda.

Among the photos showing naturalistic aspects or landscapes, many are taken during trekking sessions, at small streams or waterfalls, and a fair number are of rivers, emphasizing the force of water as a factor able to characterize the tourist experience. Many photos focus on flowers, photographed in detail (individual bud) or together (a whole plant, a bunch of flowers etc). Photos of nature are accompanied by adjectives such as “wonderful”, “nice”, “beautiful”, and by hashtags such as “colours” and “no filter”. This element points up a sphere of interest whose potential has so far not been developed (except at Pyin Oo Lwin), but which has significant potential as an attraction.

The interest of tourists who share their experience on social media is also directed towards local culinary culture, but to a lesser extent than the previous aspects. Most of the photos depict typical Burmese dishes, and are accompanied by text containing the words “tradition” and “typical”, confirming the importance of this factor as a vehicle for the intangible cultural heritage (cf. ch. 1.3.2).

In particular, photos were taken of dishes of rice with various kinds of curry (mutton or fish), served in the traditional Burmese style, with small bowls and

spoons. Other photos show the traditional noodles cooked in the shan style, tea leaf salad, and other salads of spaghetti and peanuts. In general, the most popular dishes in guide-books, and on websites, are the very ones that are photographed by tourists.

In some cases, the preparation of the dishes is photographed, while in exceptional cases there are photos of international food (Thai food, sushi, ice cream and cappuccino). However, there are no pictures of street food.

Finally, there are only a few pictures showing local crafts, a further sign of the very low level of development, for tourism, of this aspect of local life (cf. ch. 4.3.1). The few pictures taken show the production of gold-leaf, weaving on hand-loom, and the production of wooden umbrellas, wooden puppets, and terracotta pottery.

In short, the Sentiment Analysis confirms what emerged from our survey, overall. The factors which most mark the experience of visitors are aspects of daily life, which are acknowledged as having features of “authenticity” and originality (clothing, make-up), followed by the monumental and natural heritage. In comparison, food attracts the attention of a small number of tourists, and it does not constitute an element of particular experience for most visitors. Moreover, worth mentioning is the fact that there are not many tweets or pictures dedicated to specific tourist facilities such as restaurants and hotels (just 4 tweets with photos of hotel rooms, and just 1 tweet with a photo of a tourist restaurant). While this low number is partly to be ascribed to the type of social media consulted (which is not expressly dedicated to reviewing tourist facilities), at the same time it can indicate low attentiveness, on the part of local operators, to their social “reputation”. This aspect ought to be carefully taken into account for the purposes of tourist promotion.

5.2.2.4 RESPONSIBLE TOURISM

As seen in ch. 1.2, the issue of sustainability includes a sphere which has to do with the stance which the visitor subjectively adopts with regard to the tourist destination, and which we define in terms of “responsibility”: it expresses the set of individual behaviours and concrete choices by means of which visitors take advantage of the opportunities put in place by the tourism offer system.

Choices and behaviours are determined in part by the specific characteristics of the host location, but also in part by the cultural inclinations of the individual person, who directs the ways in which these adapt to the context. Together, these choices and behaviours determine the scale and the nature of the impact which the tourism presence has on the destination; in other words, they make it possible to measure the “degree of responsibility” with which the visitor relates to the location. The higher his awareness of the possible negative implications of tourism development, and the greater the tendency to translate this awareness into actual choices, the higher one can rate his degree of responsibility.

If compared with the structure of the offer, this fact also makes it possible to discuss the “potential degree of responsibility” of visitors, in other words how responsible their actions would be if the tourism offer were structured in a suitable way. With a view to a sustainable tourism development plan, it is vital to identify the sectors of demand that are most geared towards responsibility, and analyze its structure of motives, and organize the offer in such a way as to develop the responsibility potential to the fullest.

⁴¹ For bibliographical references, see Goodwin's useful summary (2012).

⁴² Knowledge of local customs was measured by means of questions based on the handbook *Do's and Don'ts*, distributed by the MOH and offered in the form of reading copies in many Burmese hotel rooms.

⁴³ As indicators of conceptual adherence, we used the answers to two pairs of opposing items (forced choice): "(tourism) will be a source of progress and wellbeing", versus "(it) is an opportunity, but it involves risks" and "the tourist must have complete freedom of movement in the country", versus "out of respect, some areas may remain inaccessible to tourists". Also tested was the theoretical preference for types of hospitality facilities that have either a low or a high impact on the landscape, asking for choices to be made between a pair of contrasting photos. The instrument used is a self-anchoring scale, with forced choice, and it consists in inviting interviewees to choose between contrasting elements presented with very radical formulas. In the view of the people who devised it, this type of scale constitutes an effective simulation of the choices which are made in daily life (Os-good et al, 1957).

⁴⁴ Used as indicators of conceptual adherence were the theoretical preference for street food or for international-style restaurants, asking interviewees to choose between a pair of contrasting photos.

⁴⁵ Purchases of local craft products were regarded as an indicator of behaviour.

⁴⁶ The relationship with food is typically seen as a sensitive area, in which the individ-

Going by the findings of the sample survey in the context of the plan, we thus developed a concise index for measuring the degree of responsibility, on the basis of which we could draw up a profile of the various components of tourism demand in the ACUM area.

5.2.2.4.1 THE DIMENSIONS OF RESPONSIBLE TOURISM

The concept of responsible tourism, despite being intuitively effective, is very complex to render in operational terms, and to detect in the field. It was thus necessary to break it up into individual dimensions. According to the literature on this subject, there are basically six dimensions which fall within the concept⁴¹:

- 1) information on travel logistics and organization;
- 2) knowledge of local customs;
- 3) respect for the natural and cultural heritage;
- 4) interaction with local people;
- 5) consumption of local products;
- 6) an open and curious approach to the host context.

On the basis of the findings of our survey, the overall picture is as follows.

- 1) Information: tourists find out information before their departure, also by means of different sources; only 4% say that they did not seek information. The most-used means is the Internet, but European tourists also use (guide) books and magazines a lot.
- 2) Knowledge of local customs: knowledge of local customs⁴² is fairly high, in particular of customs linked to religion.
- 3) Respect for natural and cultural heritage: regarding this dimension, use was made of indicators of conceptual inclination, and indicators of behaviour. Regarding the former⁴³ the sample is divided drastically, with half of tourists choosing respect in preference to freedom of movement, and the other half making the opposite choice. Regarding the latter, one sees that responsible responses are reduced to around ¼ of the sample, as an effect of the usual gap between principles and their application, and also owing to structural weaknesses in the offer, which is not geared towards responsible tourism.
- 4) Interaction with local people: this dimension definitely represents a strong point in the research area, given the appreciation which direct contact with the local people has earned among tourists (cf. ch. 5.2.2.2). However, one notes a problem relating to the very low level of use of a local guide by visitors (declared only by 42%).
- 5) Consumption of local products: on this dimension, too, both indicators of conceptual inclination and indicators of behaviour were used, and in this case, too, one notes a gap between the former⁴⁴, with which half of the sample identifies, and the latter⁴⁵, from which one deduces that sustainable behaviours are practised by a smaller portion of visitors. One deduces from this a problem area in the ability of the local craft sector to make an impact in tourists' interests.
- 6) Open and curious approach to host context: this dimension, detected by observing the attitude of visitors towards street food⁴⁶, shows that half of the sample displays an open and curious approach towards the context.

5.2.2.4.2 AN INDEX OF RESPONSIBLE TOURISM

In the individual experience, however, the dimensions examined are found to be in variable combinations. The index of responsible tourism simplifies the interpretation of them and, if we disregard the differing constellations with which the dimensions feature in individual cases, provides an overall measurement of the degree of responsibility.

The index was constructed by identifying, for each of the dimensions illustrated above, one or more indicators, which in turn are made operational by questions in the questionnaire. A score was assigned to each indicator, bearing in mind the need to distinguish between the conceptual adherence to the principles of responsible tourism, and the actual adoption of responsible modes of behaviour, and allocating a higher score to the latter category. The inclusion of indicators relating to behaviour also made it possible to strip the index of the risk of responses marred by social desirability⁴⁷.

The index of responsibility is the simple result of adding up the individual scores, and it measures the degree of responsibility of each visitor⁴⁸.

Indicator	Score	
Information on logistics and organization of the trip	Sources of information consulted before departure	0.5 – one source 1 – several sources -1 – no source
Knowledge of local traditions	Number of correct responses on Do's and Don'ts ⁴⁹ (items with true/false answer)	0.5 for every correct answer
Respect for natural and cultural heritage	Use of bicycle	1 if bicycle used
Respect for environmental and cultural heritage	Use of rickshaw	1 if rickshaw used
Respect for environmental and cultural heritage	Attitude towards heritage (semantic differential ⁵⁰ with item)	1.5 for every decision in favour of respect
Respect for environmental and cultural heritage	Choice of alternatives between hospitality facilities (photos ⁵¹)	1 – low-impact facility -1 – high-impact facility
Respect for environmental and cultural heritage	Choice between alternatives over means of transport (photos)	1 if bicycle/rickshaw
Interazione con la popolazione locale	Contacts with local people	1 if conversations have taken place
Interaction with local people	Hiring a local guide	1 if local guide hired
Consumption of local products	Purchasing local craft goods	0.5 – purchase of one product 1 – purchase of more than one product -1 – no product purchased
Openness and curiosity towards the host context	Choice of alternatives for meals (photos)	1 - street food
Openness and curiosity towards host context	Consumption of street food	2 – if tried (eaten) 0.5 – if subject would try it -1 – if subject would not try it

Tab. 5.2.2.5 The index of responsibility.

Source: Processed by the author.

ual's most instinctive and deepest tendencies manifest themselves. It is therefore useful for testing the visitor's immediate relationship with the visited place.

⁴⁷ By social desirability, we mean the tendency of interviewees to provide answers in line with what is socially acceptable, cf. Corbetta (1999).

⁴⁸ All the indicators which make up the index have a positive sign with regard to the concept of responsible tourism. Therefore a high score on the index corresponds to a high propensity on the part of the tourist to adopt responsible decisions.

⁴⁹ Cf. nota 43.

⁵⁰ Cf. note 42.

⁵¹ Cf. note 42.

Tab. 5.2.2.5 reproduces schematically the logic pursued, and explains the criteria of weighting adopted.

The index obtained in this way has a normal distribution, and varies from -0.5 to 16. In order to facilitate the interpretation of the results obtained, the index was divided into three categories in line with the percentiles method: low, medium and high degree of responsibility⁵².

The three levels of the index will now be explored by means of a combination with other variables that serve to draw up the profile of a responsible tourist in the ACUM context.

Fig. 5.2.2.17 Respondents by degree of responsibility

Source: Survey data, processed by the author

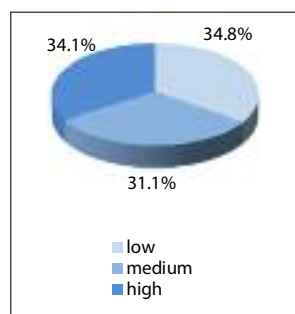
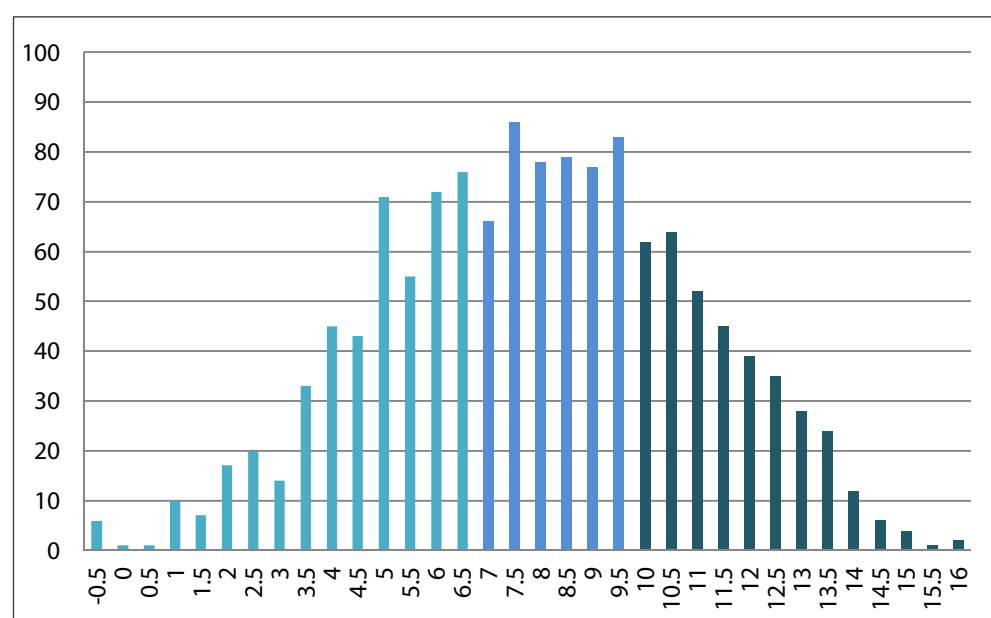


Fig. 5.2.2.18 Tourists by degree of responsibility.

Source: Survey data, processed by the author.



5.2.2.4.3 PROFILE OF RESPONSIBLE TOURIST IN UPPER MYANMAR

On the basis of the index used, the visitors in our sample are thus divided fairly equally between the three groups having a low, medium and high degree of responsibility, with around 1/3 of the sample in each group (Fig. 5.2.2.17):

As well as by level of responsibility, the visitors in the three groups differ significantly by area of provenance, age, and type of trip⁵³.

As regards provenance, visitors from western Europe are the group most present, in percentage terms, in the group with a high degree of responsibility. Meanwhile, the component from Asian countries is prominent not only because its percentage of very responsible tourists falls to 18%, as against just under 40% among Europeans, but above all because there is a particularly large presence in it of tourists with the lowest degree of responsibility: 58%, as against 29% among Europeans (Fig. 5.2.2.2.18). This difference is probably to be ascribed to the fact that in Asian countries tourism is a relatively recent phenomenon, and travellers have limited previous experience of making trips, and the debate over tourism's implications for the destination is still restricted to fairly small circles.

A second factor which strongly correlates with the degree of responsibility is age, in accordance with an inversely proportional relationship between the two variables. The impact of the age factor can be appreciated especially clearly when the area of provenance is kept constant. If, for example, we isolate the group of tourists from

⁵² In accordance with the following calculation: low degree up to 33rd percentile (scores from -0.5 to 6.5), medium degree from 33rd to 66th percentile (scores from 7 to 9.5), and high degree above 66th percentile (scores from 10 to 16).

⁵³ It was not possible to examine in detail the incidence of the education factor, since our sample contains a very low number of people with a low level of education (4%).

western Europe, and we divide them up on the basis of age, and the degree of responsibility, we note that the probability of coming across responsible tourists is double among younger tourists compared with the group above the age of 55 (Tab. 5.2.2.6).

A third factor which correlates with the degree of responsibility is the type of trip: a high degree of responsibility is proportionally more frequent among tourists who organize their trip independently compared with those who travel on an organized trip. The incidence of this factor – although not as strong as that of age – can be appreciated by keeping constant both the area of provenance and age. For example, taking tourists from western Europe and aged between 31 and 55 alone, and dividing them up on the basis of the type of trip and the degree of responsibility, one notes that the probability of meeting very responsible tourists among those who arrive on an organized tour is 15% lower than in the group of independent travellers (Tab. 5.2.2.7).

If we keep the type of trip constant, and age, we can, finally, determine fully the high correlation between provenance and degree of responsibility. If, for example, we consider only independent travellers under the age of 30, we see that the probability of encountering very responsible tourists in the group from western Europe is almost 30% higher than in the group from Asian countries (Tab. 5.2.2.8).

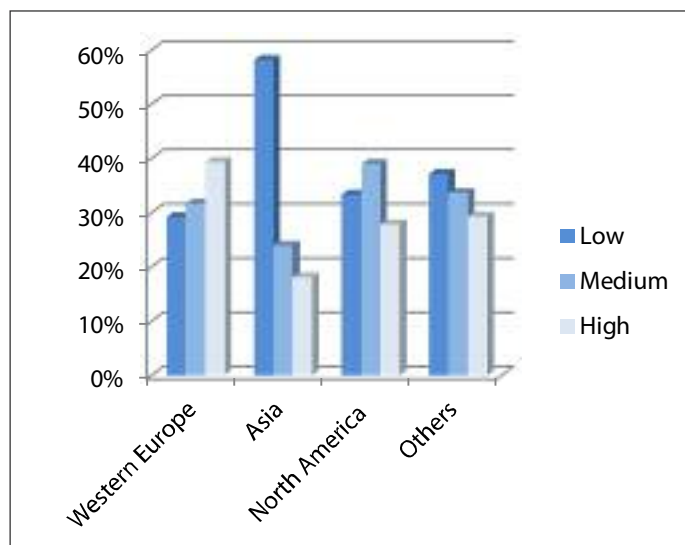


Fig. 5.2.2.2.19 Tourists by provenance and responsibility (no. = 1,357).

Source: Survey data, processed by the author.

	Low	High	No.
< 30	31.6%	68.4%	275
31-55	46.0%	54.0%	237
>55	65.4%	34.6%	78
Chi ² : .00			

Tab. 5.2.2.6 Tourism by age.

Source: Survey data, processed by the author.

	Low	High	No.
Packaged tourists	55.2%	44.8%	67
Independent travelers	41.0%	59.0%	166
Chi ² : .00			

Tab. 5.2.2.7 Sustainable Tourism by type of trip.

Source: Survey data, processed by the author.

	Low	High	N
West Europe	29.2%	70.8%	253
Asia	57.1%	42.9%	49
Chi ² : .00			

Tab. 5.2.2.8 Sustainable Tourism by provenance.

Source: Survey data, processed by the author.

Tab. 5.2.2.9 Daily spending for food and beverages per person.

Source: Survey data, processed by the author.

	Average expense	N	Sig.
Low	13.2 USD	68	.908
High	12.3 USD	172	

In ACUM area, the profile of the tourist who tends to express responsible forms of behaviour is that of a young person, with good travel experience, who independently organizes his/her visit, and who comes from western Europe.

It is important to stress that specific characteristics are not associated with this profile as regards spending capacity, and thus responsible tourism does not equate with poor tourism⁵⁴. If, for example, one only takes tourists from Western Europe under the age of 30 who travel independently, and we compare the average daily spending for food and drinks (beverages) by travellers with a high and a low degree of responsibility, we note that there is no difference between the two groups, and that the variables of spending and degree of responsibility do not correlate (Tab. 5.2.2.9).

The set of motives of this traveller-type, who is demanding from the point of view of the quality of tourist experience, but fairly elastic as regards the comfort level, ought to represent the main reference point for a sustainable development policy in ACUM area, since it is a forerunner of a type of demand which will tend to become more consolidated in the near future in European countries⁵⁵, and to spread also to countries which came later to the practice of tourism.

As regards the less responsible components of tourist demand, it is certainly necessary not to provide support for habits which have the biggest impact (eg. a tendency to use the tourist bus for any distance, or else a low regard for the sacred nature of places of worship), but it would also be opportune to try to guide the actions of less responsible tourists in the direction of greater responsibility. In this respect, one important nodal point could be represented by travel agencies: if adequately informed and involved, they could rethink the packages they offer with a view to responsibility, and play a useful role of mediation between the destination and visitors. This idea appears promising, especially with reference to tourist demand from China, which, as we have seen, is a quantitatively important component of demand (28% of foreign visitors to the area), and which, in 90% of cases, visits Upper Myanmar on organized trips (cf. ch. 5.2.1), but which features a low degree of responsibility, and tends to develop actions and behaviour which has a high impact, both in terms of ecology and culture.

⁵⁴ Being able to exclude biases deriving from an identification between responsible tourism and poor tourism reinforces the methodological interest of the index.

⁵⁵ Cs. Dondona, Mela, Perino (2013).

6. The economic impact of tourism, and development scenarios

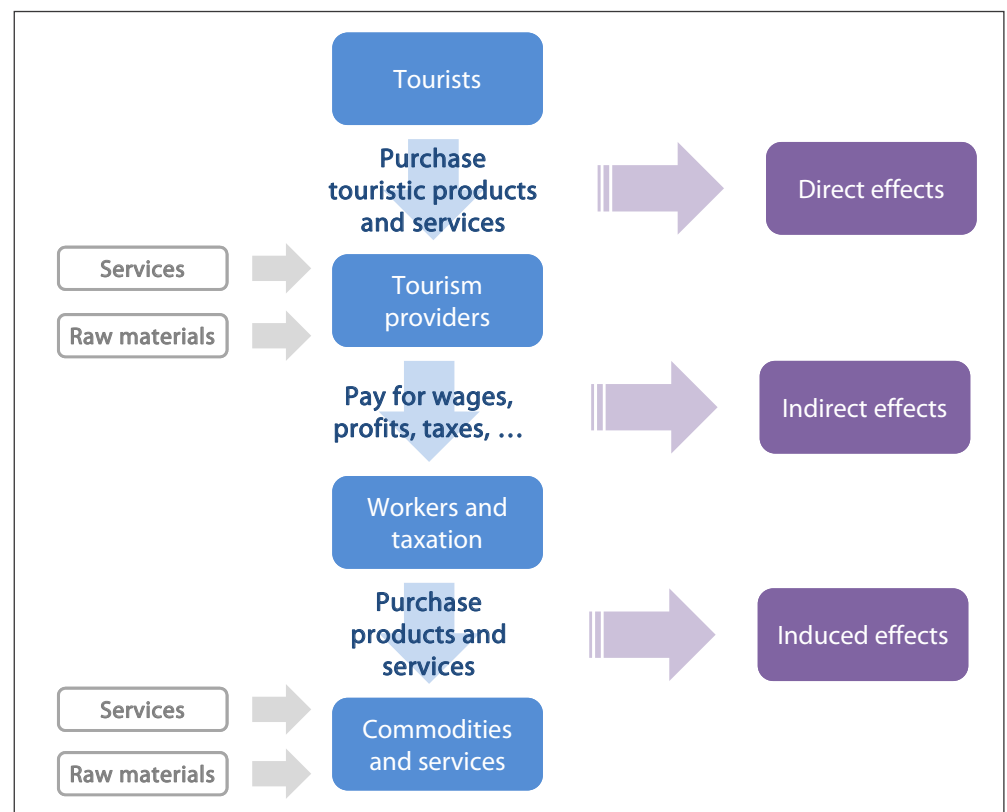
6.1 METHODOLOGICAL CONTEXT

As is well known, the tourism system produces important repercussions of an economic nature – as well as environmental and socio-cultural – on the host territory, whether this is considered at the local scale or in broader terms, as for example the national context (Mason, 2015, pp. 35-55). The primary cause of these repercussions, which are usually estimated in monetary terms, is the spending made by visitors (“demand”) during their tourist experience. In this sense, by tourist demand we mean the set of all individuals who have a tourist experience, whether or not they are residents in the territory visited, and whether their reasons for travel are for leisure or business.

In line with a classic vision which is widely accepted (Stynes, 1997), the main economic effects produced by tourism on the host territory can be classified as direct, indirect, and induced economic effects (Fig. 6.1.1). Direct effects are those due to spending (expenditure) made directly by tourist demand to purchase goods and services in the territory that is visited¹. The immediate beneficiaries of this spending are all those providers of goods and services which operate for the tourism demand, for example in the sectors of accommodation, transportation, food and beverages, retail and services (some examples are shown in Fig. 6.1.2). The indirect effects

Fig. 6.1.1 Chart showing economic effects of tourism.

Source: processed by the author.



¹ In some cases, e.g. in the analyses made by the World Travel & Tourism Council, also calculated in direct spending is spending by the institutions for services directly linked to the tourism experience of visitors, such as cultural or recreational services such as museums, parks etc (Oxford Economics, 2016).

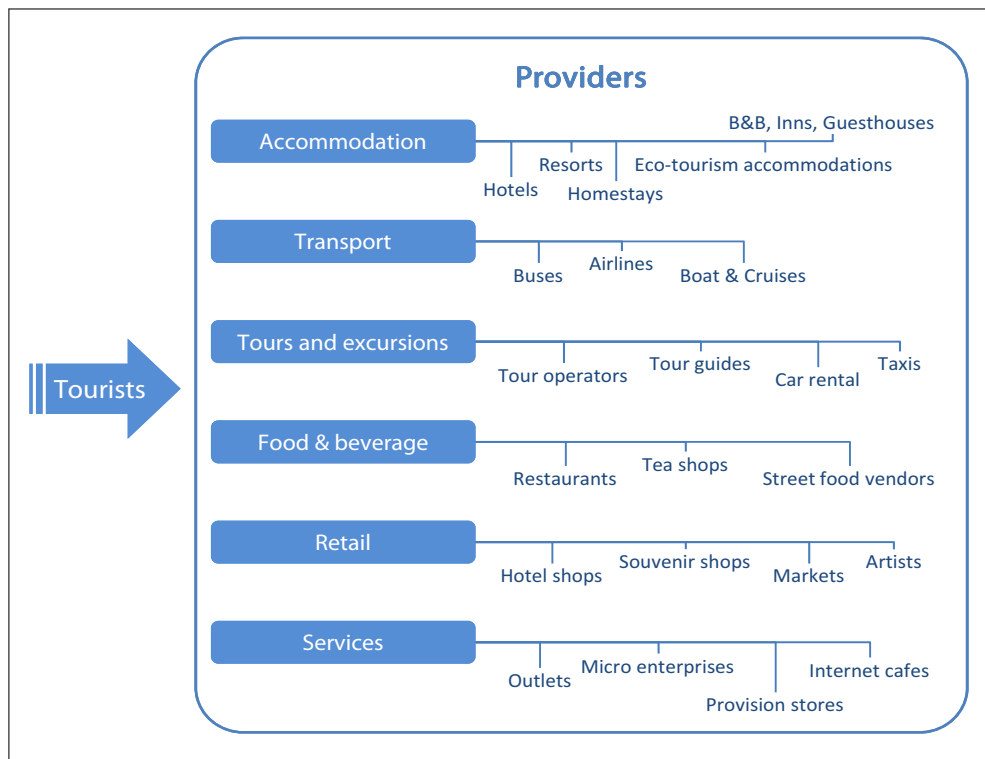


Fig. 6.1.2 Providers are the principal direct beneficiaries of the tourism value chain.

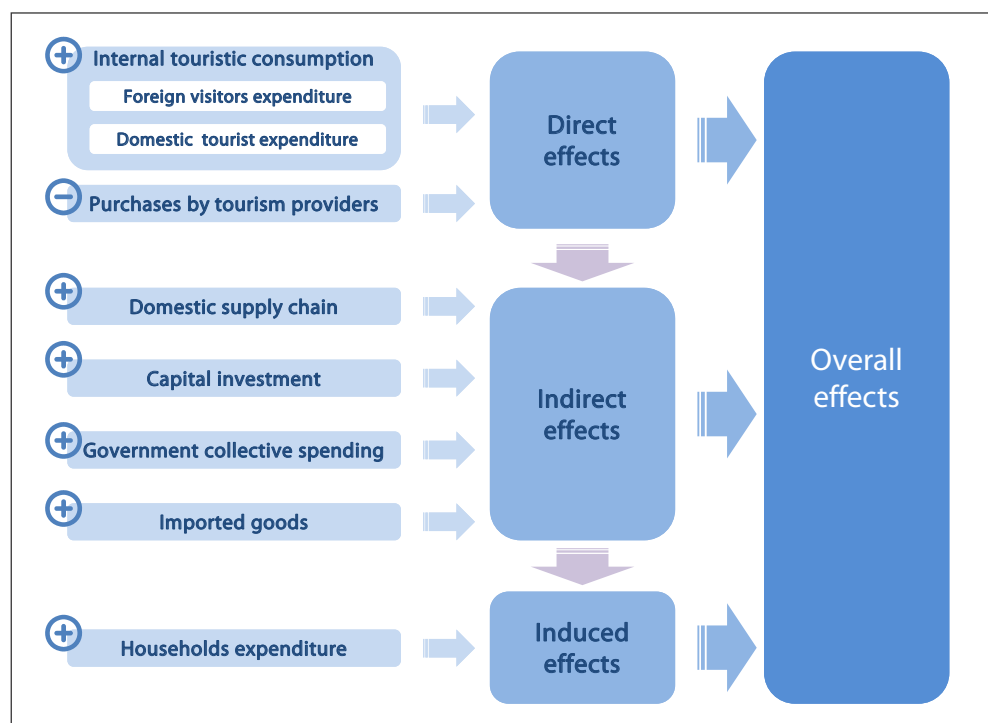
Source: processed by the author, based on MCRB, 2015.

(after Leontief) are those due to spending for intermediate services or goods made by the businesses which provide the tourism offer. Considered within the context of this spending is spending made by the private individuals who operate in supplying the tourism offer (for example, the purchase of foodstuffs by hotels, and of fuel by the operators who transport tourists), and the investments by firms which operate in the tourism sector (e.g. the construction of resorts, and the purchase of means of transport), and, finally, spending by institutions, aimed at supporting the tourism system (e.g. spending on tourism promotion, investments in transportation, security, and utilities at tourist sites). The induced effects (or Keynesian effects) are, finally, those facilitated by the increase in the incomes of families (namely the people who are directly or indirectly engaged in the tourism sector) which is produced by the two previous effects, income which, in turn, is spent, leading to a further increase in the demand for goods and services. To sum up, therefore, tourism spending immediately creates some direct effects, which, in turn, create a multiplier effect, due to the reuse of the spending itself on the part of the direct beneficiaries.

Assessing the economic impact of tourism is the subject of a fairly recent area of research, which developed systematically, in the context of the economy and economic geography, only as of the 1980s (Sinclair and Stabler, 1997). The methodologies for assessing the economic effects of tourism can adopt both a microeconomic approach, which analyzes in detail the quantity and the value of the basic goods and services used by the tourism phenomenon, and a more aggregate macroeconomic approach, concentrating on the analysis of the total values of goods and services required by the tourism demand in a certain time horizon, and in a given economic system (Candela and Figini, 2012; p. 74). A summary of the main tools of analysis present in the literature was recently proposed by Kumar and Hussain (2014), who classify models of assessment in various different categories: the analysis of the economic multipliers, and input-output

Fig. 6.1.3 Contributions to the economic effects of tourism, according to the approach of satellite economic finances.

Source: processed by the author.



models, Keynesian models, EBM models (Export-Base Models), CGE (Computable General Equilibrium) models, MGM models (Money Generation Model), and finally purpose-designed models. Input-output models traditionally represent the most used technique. Devised by the economist Leontief (1966), they can be used to indirectly assess the economic impact of tourism demand, determining the amount of economic production necessary to meet the demand itself, as well as its distribution in the various productive sectors (Fletcher, 1989; Briassoulis, 1991; Fletcher, 1994).

The prime source of figures for estimating the economic effects of tourism is generally constituted by national economic figures, but unfortunately the structure of these does not enable the identification of an economic sector that corresponds to the tourism sector. This leads to considerable difficulties in estimating the economic parameters connected to tourism (Candela and Figini, 2012). The theoretical approach of the input-output analysis has, however, inspired the United Nations World Tourism Organization (UNWTO) to create, in collaboration with Eurostat² and the Organisation for Economic Cooperation and Development (OECD), an international system of economic sub-sectors which are satellites of tourism, namely a coherent system of finances that is integrated with the national finances, but able to resolve the difficulties of the latter in calculating the economic variables of tourism (UN, 2010). Thus, adhering to the concept of satellite economic sub-sectors (Oxford Economics, 2016), the different contributions to the economic effects of tourism can be presented in schematic form, as shown in Fig. 6.1.3. Tourism spending produced by demand consists in two contributions, spending by foreign tourists – which can be seen as an economic item under exports – and spending by domestic tourists – which, as mentioned above, also includes the share of government spending for tourism services directly linked to visitors. These two contributions, added together, constitute the internal touristic consumption. The estimate of the direct economic effects of tourism is then conducted by subtracting from internal touristic consumption

² Eurostat is the statistical office of the European Union.

tion that spending which is effected by tourism providers for the purchase of the goods and services necessary to conduct their activities. Meanwhile, the indirect effects generated by the tourism phenomenon are calculated by adding together the four contributions given by the domestic supply chain, by capital investments, by government spending for collective services, and finally by spending on imports of goods from indirect spending. The induced economic effects are those due to general spending by families, to the extent to which this spending is generated by the indirect economic movements of money, in turn produced by the direct effects of tourism.

6.2 THE ECONOMIC REPERCUSSIONS OF TOURISM IN MYANMAR

As mentioned earlier, by using the national accounts of a country, it is possible to come up with an aggregate estimate of the economic effects of tourism. A homogeneous and complete source of data which can be used for this purpose is that made available by the World Travel & Tourism Council (WTTC, 2016a), which annually draws up estimates for the impact of tourism³ for many countries worldwide, including Myanmar (WTTC, 2016b). Hereinafter, an analysis is thus put forward of the data provided by this source.

The value of the direct economic effects of Myanmar's tourism sector is shown in the 2015 real prices⁴ in Fig. 6.2.1. As can be seen, this annual value stayed almost constant up until 2003, before then growing moderately until 2012, and increasing in a more pronounced way in the last three years, standing at almost 1.7 billion USD in 2015. A similar trend was followed by the aggregate total economic effects, in other words the sum of the direct, indirect and induced effects. However, the size of the total effects started to grow always more than the direct component as of the 2000s, and increasingly in the last few years, achieving the annual value of almost 3.8 billion USD in 2015. In a parallel development, the ratio between the economic effects of tourism and national GDP was seen to fall as of the mid-1990s, before then picking up, as of 2012, up to the value of around 2.6% for direct effects, and 5.9% for the total effects, in 2015. The WTTC

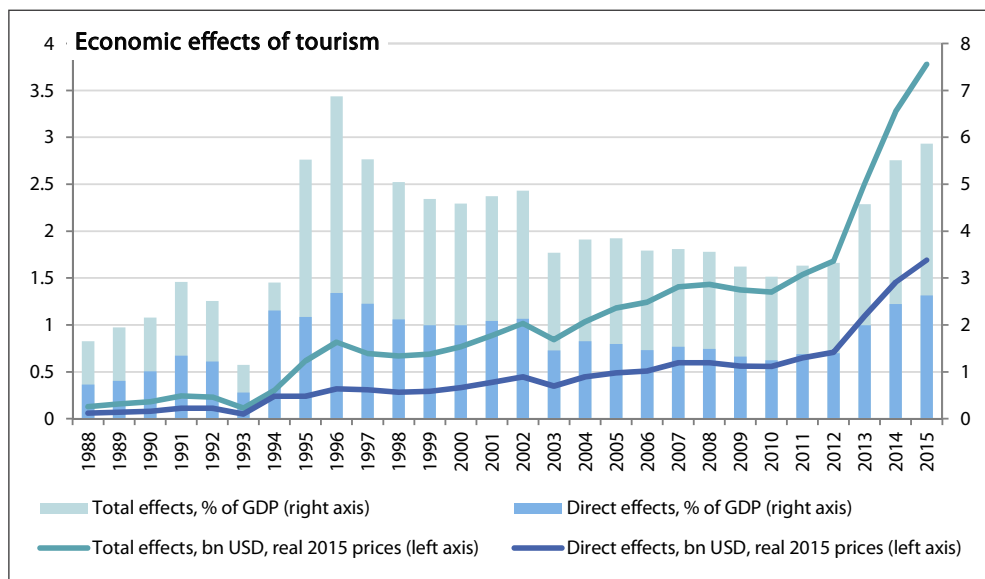


Fig. 6.2.1 Economic effects of tourism in Myanmar.

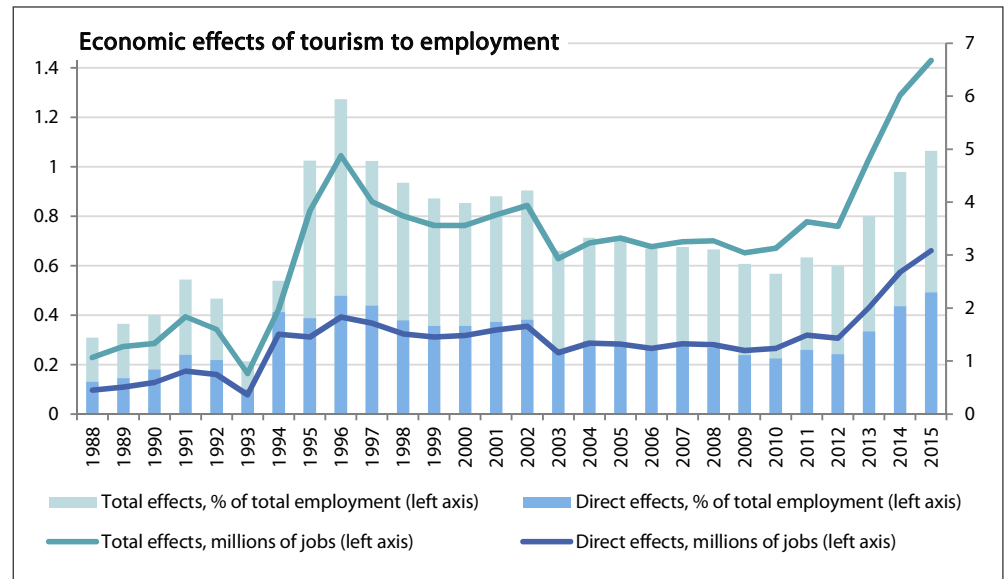
Source: processed by the author; data from WTTC, 2016a.

³ Hereinafter, in reference to WTTC figures, the term “tourism” will be used to indicate the range of activities of travel and tourism, as emerges from satellite national finances (Oxford Economics, 2016).

⁴ Below, where not otherwise specified, monetary values will be expressed in 2015 USD real prices.

Fig. 6.2.2 Contribution of tourism to Myanmar's employment.

Source: processed by the author; data from WTTC, 2016a.

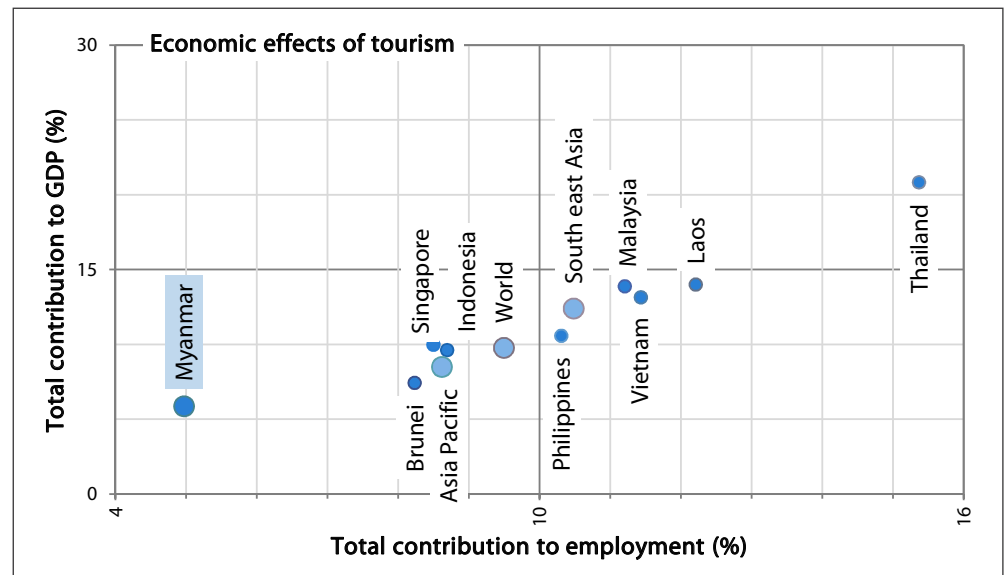


forecasts for the next 10 years are for pronounced growth, both for the direct effects and the total effects of tourism, with a ratio to GDP which, however, would remain fairly constant in the next decade, on around 2.8% for the direct effects, and between 5.5% and 6.5% for the total effects. In this way, by the year 2026 there would be a direct economic impact of 4.7 billion USD, and a total impact of 10.7 billion USD.

Another way to measure the economic effects of tourism is to measure its repercussions on employment levels. In Fig. 6.2.2 we see that tourism's effects on employment in Myanmar, unlike the economic quantities looked at above, did not see upward trends, but actually fell slightly until 2012. However, the number of jobs activated annually by tourism saw rapid growth from 2012 until 2015. The WTTC predicts that jobs activated by direct spending by tourism will increase again, from the approximately 660,000 in 2015 to more than a million in 2026, and total jobs will rise from 1.4 million in 2015 to more than 2 million in 2026, in parallel with the

Fig. 6.2.3 Comparison of the economic effects of tourism in ASEAN region.

Source: processed by the author; data from WTTC, 2016a.



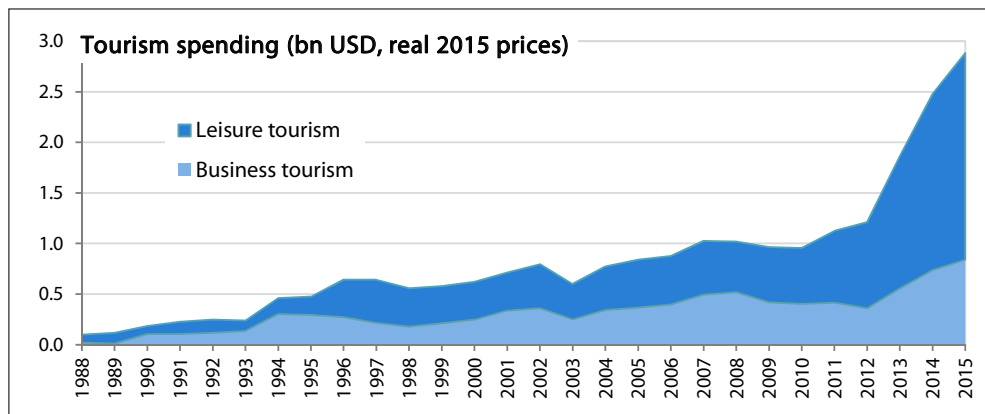


Fig. 6.2.4 The leisure and business components of Myanmar's internal touristic consumption.

Source: processed by the author; data from WTTC, 2016a.

increase in their impact on national employment figures, which, in the decade in question, would rise from 2.3% to 3.4% for jobs created by direct spending, and from almost 5% to almost 6.5% for jobs created by total spending.

Considering both the value of the total economic effects of the tourism sector, and the impact of this sector on jobs, it is possible to compare Myanmar's ranking with that of other countries. As can be seen from Fig. 6.2.3, Myanmar is the ASEAN country with the lowest percentages of tourism's contribution both to the national GDP and to employment. These values are also lower than those of the Asia and Pacific region, South-East Asia and the global average, indicating the possibility of a large margin of growth in the economic effects of tourism in Myanmar.

In Myanmar, internal touristic consumption has grown fairly constantly from 1988 to 2010 at a rate of around 0.5 billion USD per decade. Between 2010 and 2012, it stood at around 1 billion USD per annum, before then seeing a very rapid increase between 2013 and 2015, when it reached the annual value of almost 2.9 billion USD (Fig. 6.2.4). According to WTTC forecasts, internal touristic consumption ought to more than double in the space of the next decade (WTTC, 2016b).

The portion of internal touristic consumption due to leisure tourism currently stands at 70% of the total amount, while the remaining 30% relates to business tourism; in monetary terms, in 2015 the two respective portions amount to just over 2 and 0.8 billion USD. Nevertheless, one should note that, in the early 1990s, spending by leisure tourism in Myanmar was less than spending by business tourism, and that, ever since the mid-1990s, the two contributions were divided almost equally until 2011, when spending by the leisure sector began to see a sharp, and constant, rise (Fig. 6.2.4). The division of internal touristic consumption between domestic tourists and foreign tourists is visible in Fig. 6.2.5, in which one notes that the contribution from extra-national tourism was significant only in the decade 1993-2003, and then in the last four years, from 2012 to 2015, when spending by foreign tourists rapidly rose to two thirds, compared to one third by domestic tourists.

Capital investments by the country in the tourism sector have seen moderate but fairly constant growth as of the early 2000s, after a peak achieved around the mid-1990s (Fig. 6.2.6). However, although growing, investments in tourism appear fairly limited in value and – as can be seen from Fig. 6.2.6 – constitute an increasingly small percentage of national exports, also as a result of the gradual economic opening-up of Myanmar, which recently increased export levels themselves. This fact highlights the urgent need for these investments to be increased, if there is a desire to make the most of one of the country's main resources: tourism. Indeed, the value of investments

Fig. 6.2.5 The foreign and domestic components of Myanmar's internal touristic consumption.

Source: processed by the author; data from WTTC, 2016a.

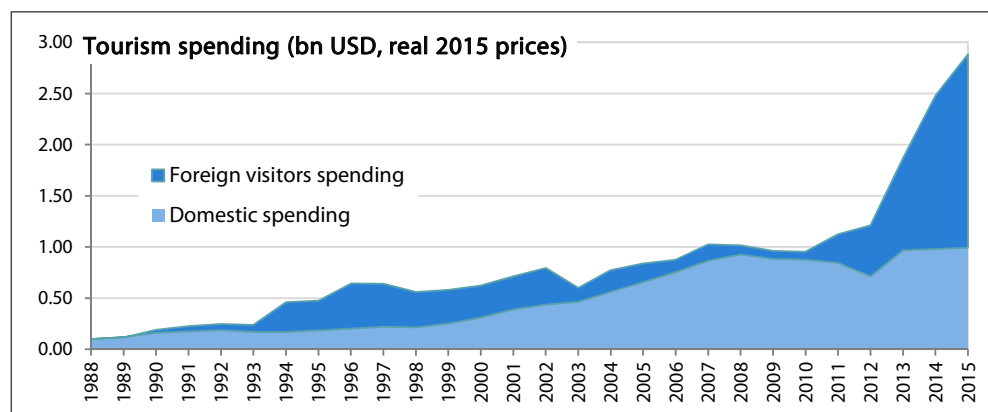
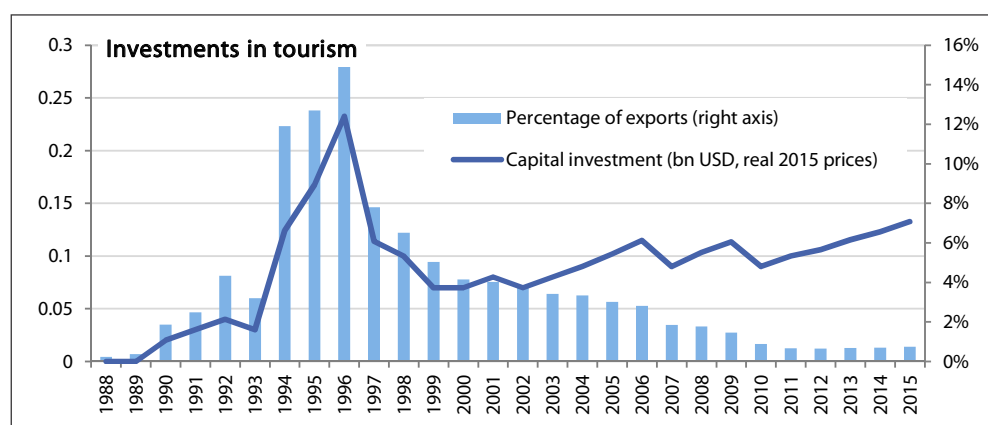


Fig. 6.2.6 Capital investments for tourism in Myanmar.

Source: processed by the author; data from WTTC, 2016a.



in 2015 was around 0.13 billion USD, equivalent to 0.75% of the nation's GDP, and, according to the WTTC's forecasts, it could triple over the next decade, up to around 0.4 billion USD (WTTC, 2016b). By way of comparison, one may consider the fact that foreign investments in tourism in Myanmar in 2015 were worth 5.4 billion USD, in other words more than 40 times the size of government investments (MOHT, 2016).

Finally, attention is drawn to the existence of a tourist component leaving the country (outbound tourism), which contributes in an inverse way to Myanmar's economy, producing an annual expenditure in favour of other countries which are seeing a growth trend, but of limited value, which in 2015 amounted to around 0.04 billion USD.

6.3 EVOLUTIONARY SCENARIOS AND ECONOMIC EFFECTS OF TOURISM IN THE ACUM AREA

Even if sufficient statistics were available for estimating with a good level of approximation the economic effects of tourism in Myanmar, similarly detailed information is not available concerning the ACUM area for this plan. In order to calculate the economic effects of tourism in the ACUM area, we thus propose below an approximate method based on the approach involving satellite economic sectors, illustrated earlier. The method makes as much use as possible of the information found in situ, by means of the LaGeS Survey (cf. Chapter 1.3.2), and it extrapolates the missing figures by using indexes inferred from the available set of information for the national level, and in particular from material published by WTTC (2016a).

First, the LaGeS Survey makes possible an estimate of how the touristic expenditure is divided up between the various different kinds of tourism (Fig. 6.3.1), which shows that the leisure component absorbs a portion (from 85% to 88%, if one also regards the “visiting” and “other” categories as being included within it) that is far larger than that seen at the national level (70%), while the business tourism portion (around 11%) is, by the same token, much lower than the national figure (30%). In addition, it is possible to estimate the categories of spending under the main headings: from Fig. 6.3.2 we see that the predominant item of spending is accommodation, and that the main differences between leisure tourism and business tourism basically lie in the latter’s lower relative spending percentages on accommodation and food, compensated by higher spending on shopping. Average daily spending by international tourism as found by the LaGeS Survey is around 50 USD⁵, while the average length of stay is around 2.5 days.

At this point, it is interesting to compare these values with national average values, which can be deduced by dividing the estimates shown in Fig. 6.2.1 by the number of tourist arrivals by type and by the average number of days stayed, as given in official statistics. In particular, here we have used the absolute values of international tourist arrivals per year, recorded in MOHT (2013, Fig. 2, p 6), while the annual percentage of domestic tourism is extrapolated from the proportion between domestic and international tourism, recorded in 2012 (MOHT, 2013; Fig. 3, p 9). One must also consider that the average number of days spent in Myanmar for international tourists is 9 days, as shown by MOHT (2016) for the year 2015, while it is assumed that, for domestic tourism, the average number of days visited is two thirds of the figure for international tourism⁶, and thus 6 days. On the basis of these hypotheses, the average national value for daily spending is this around 36 USD, corresponding to 27 USD for domestic tourism, and 44 USD for international tourism, and thus the latter value is fairly similar to the value found by the LaGeS Survey.

In view of the information cited thus far, and following the input-output approach which lies at the foundation of the concept of satellite economic sub-sectors, the direct economic effects of tourism in the research area can be calculated in a simplified way using the formula:

$$DE = Exp_f + Exp_d - P_p$$

Where DE indicates the value of the direct economic effects of tourism, Exp_f represents foreign visitors’ expenditure, P_p is domestic tourist expenditure, and P_p is expenditure for purchases made by tourism providers. To estimate the first two parameters, in the absence of further information, we have used the unified value for daily spending as measured in the ACUM area for international tourists (50 USD), and we estimate the similar value for domestic tourists on the basis of the proportion of the former, as inferred above for the national level (62%), obtaining a value of 31 USD a day per head. Meanwhile, to calculate the P_p spending, we assume that this is, also at the local level, equal to the the portion of internal tourism consumption measured at the national level, which, moreover, has stayed practically constant in the last decade, on around 40% (WTTC, 2016a).

Before applying the unified indexes, thus far described, to the ACUM area, it is necessary to estimate tourist arrivals in the ACUM area itself for the reference year, 2015, and for the planning period (2016-2021). Regarding current tourist arrivals, it will be assumed that they coincide with the arrivals of international and domestic tourists in the city of Mandalay (MOHT figures, cf. Fig. 5.2.1.6). This

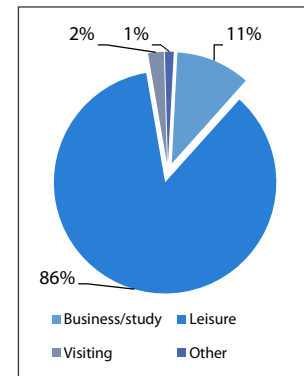


Fig. 6.3.1 Components of touristic expenditure according to tourism type in the ACUM area.

Source: processed by the author; data from LaGeS Survey, 2015.

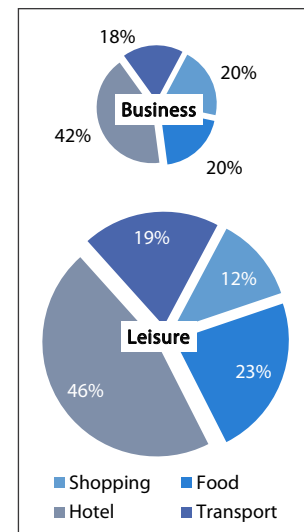


Fig. 6.3.2 Touristic expenditure according to target and reason in the ACUM area. Pie area proportional to the share by type, where business tourism accounts for 11% and leisure tourism for 86%.

Source: processed by the author; data from LaGeS Survey, 2015.

⁵ The survey did not include tourists who are nationals of Myanmar (cf. Section 1.3.2), and therefore it cannot be used to infer statistics for spending by domestic tourism.

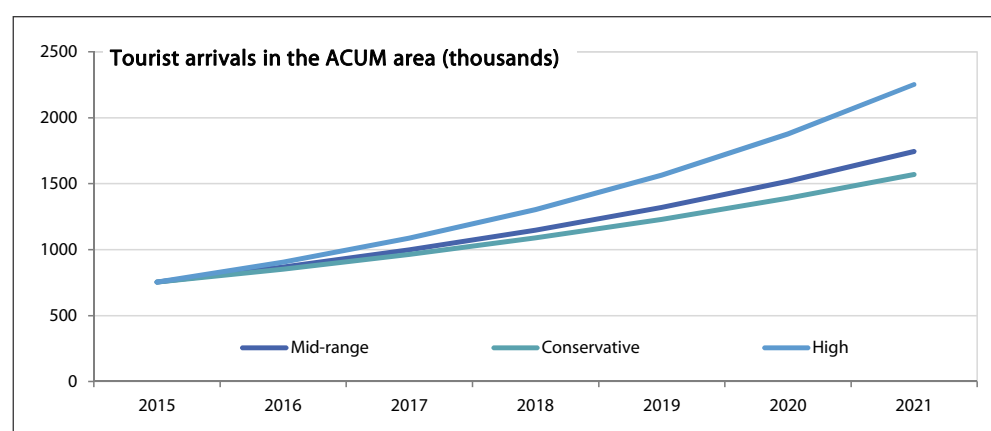
⁶ Authoris hypothesis.

hypothesis is reasonable if one considers that the city of Mandalay, which is where the long-distance road, rail and river transport networks converge, and which is the location for the only airport in the zone (cf. Section 3.5) is, in de facto terms, the only gateway for access to the ACUM area. As regards the future evolution of the tourism phenomenon, the growth rates are considered equal to the ones proposed by the Myanmar Tourism Master Plan 2013-2020 (MOHT, 2013, pp 19-20), extending the growth trend until 2021 and obtaining the values shown in Fig. 6.3.3. The scenarios considered are:

- conservative, with low growth;
- mid-range, with intermediate growth;
- high, with high growth.

Fig. 6.3.3 Annual tourist arrivals forecast in the ACUM area, according to the scenarios defined by MOHT, 2013a.

Source: processed by the author.



Of these, the high growth scenario is perhaps the most probable, if one takes into account the fact that the areas of potential for attraction suggest an immediate and important development and that the number of tourist arrivals recorded in 2015 at the national level are compliant with the high scenario forecasts (cf. Section 5).

It is necessary at this point to hypothesize the value of the duration of average stay of tourists in the ACUM area. An initial hypothesis, of the inertia type, is that the average length of stay remains as it is now, namely, as stated above, 2.5 days for international tourism. As regards national tourism, it is suggested that the average length of stay of visitors is four-fifths the length of stay of the international tourist, thus corresponding to 2 days, also corresponding to a visit concentrated in a weekend. A second hypothesis will be formulated here by bearing in mind the approach of sustainability inherent in this plan (cf. Section 12.1, Action 12.1.1). The latter requires that the actions of intervention and plan promotion are aimed not so much at increasing the number of tourists, but rather at increasing the average length of stay of international tourism in the time plan horizon. This hypothesis will later be made to correspond to a further scenario (High + Promotion), which adds to all the hypotheses considered thus far for the High scenario also the adoption of opportune promotional actions for tourist sustainability, which it is supposed will lead to a rise from the current 2.5 days to 3 days for the average length of stay of international tourists. In this scenario, it is not thought that there are reasons why the average length of stay of domestic tourists ought to vary, and thus this remains two days, i.e. the equivalent of a weekend.

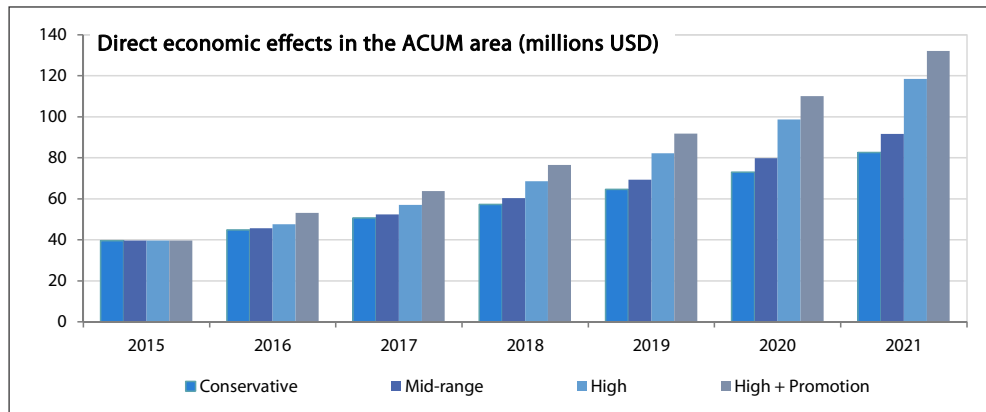


Fig. 6.3.4 Estimated direct annual economic effects in the ACUM area for the considered scenarios.

Source: processed by the author.

With the hypotheses adopted so far, it is thus possible to estimate the direct economic effects of tourism in the ACUM area (Fig. 6.3.4), obtaining their value for the year 2015 as around 40 million USD, most of which (23 million USD) is due to international tourism. According to the growth scenarios proposed by MOHT (2013) and the hypotheses adopted in defining the “High+Promotion” scenario, this value would arrive at around 82, 92, 118 and 132 million USD a year up until 2021, in the Conservative, Mid-range, High and High+Promotion scenarios, respectively. In the six years of the plan, namely from 2016 until 2021, this would lead to aggregate direct effects of around 370, 400, 470 and 530 million USD respectively, in the four scenarios cited.

However, in addition to the direct effects there are also indirect and induced effects. To estimate the latter, since detailed figures are not available in the ACUM area, we have adopted the methodology of expenditure multipliers (Kumar and Hussain, 2014), in other words we apply the relationship:

$$OE = DE \cdot (1 + M_{Indirect} + M_{Induced})$$

Where OE indicates the value of the overall economic effects of tourism, while $M_{Indirect}$ and $M_{Induced}$ are the expenditure multipliers relating to the indirect and direct categories, respectively. Considering as multipliers those found at the national level, which in 2015 were 77% for the indirect portion, and 47% for the induced portion, it is found that the total economic effects of tourism in the ACUM area are just under 90 million USD in 2015, of which just over 50 million USD are due to the international component.

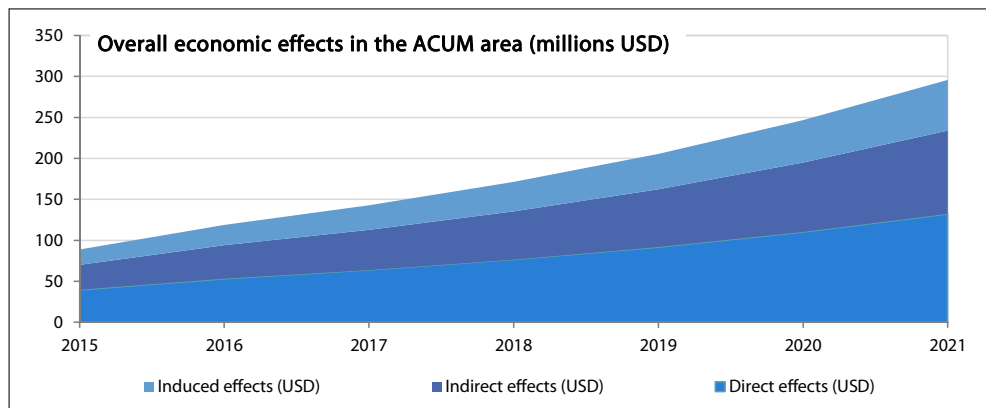
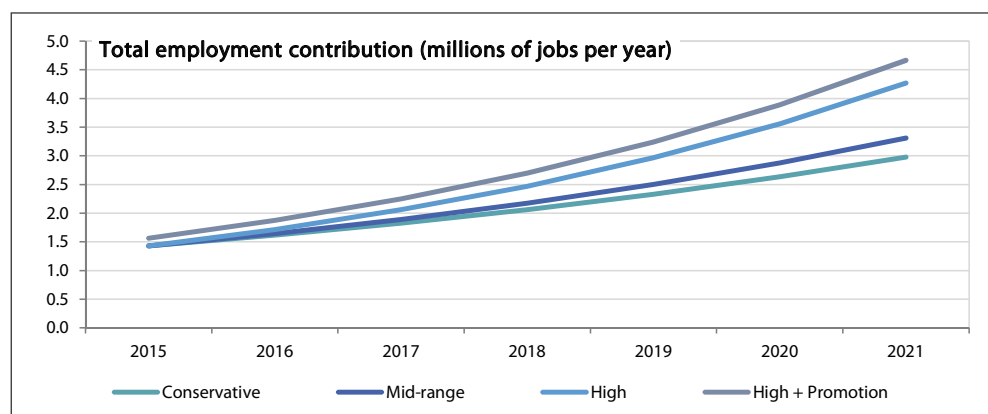


Fig. 6.3.5 Estimated overall annual economic effects in the ACUM area, high scenario.

Source: processed by the author.

Fig. 6.3.6 Estimated annual jobs created by tourism in the ACUM area, according to different scenarios.

Source: processed by the author.



With a view to the future, and once again looking at the hypotheses for growth scenarios, the total effects up until 2021 have been estimated as being around 185, 205, 265 and 296 million USD in the Conservative, Mid-range, High and High+Promotion scenarios, respectively. This would correspond to an accumulated effect in the years from 2016 to 2021 by around 835, 894, 1000 and 1,180 million USD in the four cases cited. The evolution of the economic impact in the High+Promotion scenario is shown in Fig. 6.3.5. Also, we must not overlook the benefit which tourism can give to the employment sector. This can be cautiously estimated by assuming a constant ratio, as found in 2015 (WTTC, 2016a), between the total number of days stayed by all tourists in the year, and jobs created in the tourism sector. Under this hypothesis, in 2021 the tourism sector would make an annual contribution to jobs of between 3 million and more than 4.5 million, in the various scenarios, which would correspond to a total contribution, from 2016 until 2021, of between 14 and 20 million jobs (Fig. 6.3.6).

6.4 AN OVERALL ANALYSIS OF TOURISM DEMAND AND SUPPLY

After focusing on the various possible growth scenarios, and characterizing them in terms of the economic impact on the local area, it is important, at this point, to arrive at an overview between the two macro-components of the tourism phenomenon: on the one hand, the hospitality offer, and on the other the demand expressed by tourists. Indeed, this will allow an assessment of the degree to which the local hospitality system is able to guarantee sufficient space to satisfy the influx of visitors. This assessment, although aggregate, must however be conducted separately, at least from the category of hospitality facility, so as to take into account the differing levels of quality sought by different clusters into which the total group of tourists can be broken down. A simplified analysis for tourism demand and the tourism offer in the ACUM area is summarized in Fig. 6.4.1, which considers two current scenarios and two future scenarios, and to which reference is made here below.

Of the current scenarios, the first (Present-Desired) is fictional, since – as we shall see – it represents the imbalanced situation which emerges between the solutions desired by tourists and those proposed by the current hospitality offer. The second (Present-Equilibrium) is a schematic representation of the equilibrium between demand and supply, which is being created by force to reconcile the two respective needs. The amount and type of tourism demand and supply are common

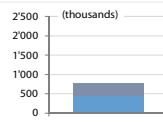
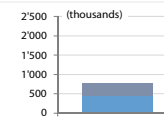
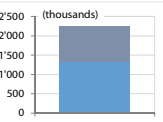
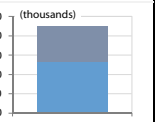

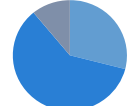
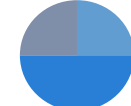
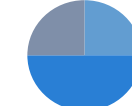
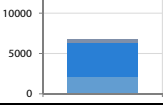
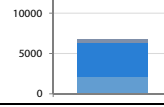

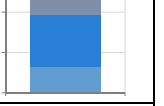
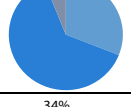
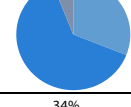
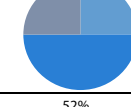
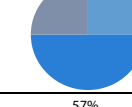
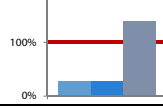
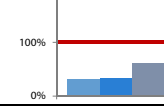
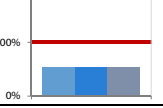
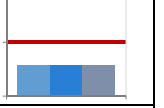
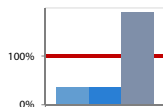
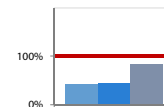


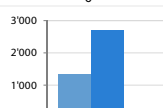
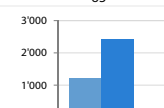
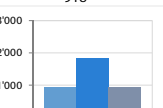

	Indicator	Legend	SCENARIOS			
			2015 - Desired	2015 - Equilibrium	2021 - High	2021 - High+Promotion
DEMAND	Tourist arrivals	Foreign Domestic Total	306'432 447'994 754'426 	306'432 447'994 754'426 	915'001 1'337'703 2'252'704 	915'001 1'337'703 2'252'704 
	Average days of stay	Foreign Domestic	2.5 2	2.5 2	2.5 2	3 2
	Tourists*days	Foreign Domestic Total	766'080 895'988 1'662'068	766'080 895'988 1'662'068	2'287'503 2'675'406 4'962'908	2'745'003 2'675'406 5'420'409
	Peak concentration rate (December)	Foreign Domestic	13.5% 10.0%	13.5% 10.0%	13.5% 10.0%	12.5% 10.0%
	Demand distribution by hotel type (%)	0-1 stars 2-3 stars 4-5 stars	25.0% 50.0% 25.0% 	29.0% 60.0% 11.0% 	25.0% 50.0% 25.0% 	25.0% 50.0% 25.0% 
SUPPLY	Supply: number of hotel rooms	Total 0-1 stars 2-3 stars 4-5 stars	6'788 2104 4276 407 	6'788 2104 4276 407 	12'968 3242 6484 3242 	12'968 3242 6484 3242 
	Average Beds per Room	Beds	2	2	2	2
	Supply: distribution of hotel rooms (%)	0-1 stars 2-3 stars 4-5 stars	31% 63% 6% 	31% 63% 6% 	25% 50% 25% 	25% 50% 25% 
BALANCE	Average daily occupancy rate (%)	All hotels 0-1 stars 2-3 stars 4-5 stars	34% 27% 27% 140% 	34% 31% 32% 61% 	52% 52% 52% 52% 	57% 57% 57% 57% 
	Peak occupancy rate in December (%)	All hotels 0-1 stars 2-3 stars 4-5 stars	46% 37% 36% 191% 	46% 43% 44% 84% 	72% 72% 72% 72% 	76% 76% 76% 76% 
	Empty rooms during peak period (December)	All hotels 0-1 stars 2-3 stars 4-5 stars	4'046 1'326 2'720 0 	3'675 1'201 2'409 65 	3'672 918 1'836 918 	3'119 780 1'559 780 
	Rooms needed during peak period	All hotels 0-1 stars 2-3 stars 4-5 stars	742 0 0 742	0 0 0 0	0 0 0 0	0 0 0 0

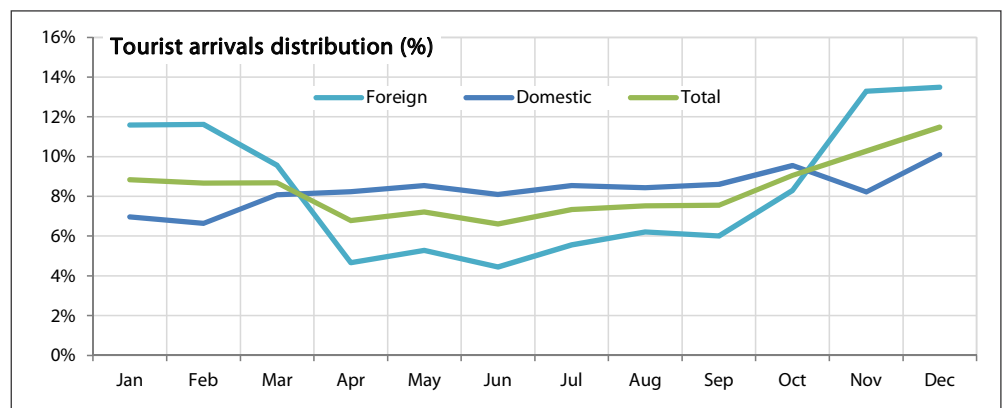
Fig. 6.4.1 Analysis of tourism demand and supply in the ACUM area, according to different scenarios.

Source: processed by the author.

to the two scenarios under consideration. In 2015 there were just over 750,000 tourism arrivals per year, 60% international and 40% national, with average lengths of stay of 2.5 and 2 days respectively. This leads to an overall number of days spent by all tourists in the ACUM area of almost 1.7 million. However, the time distribution of the arrivals is not uniform during the months of the year: international tourists are concentrated in the period between November and January, with a peak in December of 13.5%, while domestic tourists are distributed fairly homogeneously during the year, although also with a peak, albeit a small one, of 10% in December. (Fig. 6.4.2) It follows that in December there is the highest concentration of tourists in the ACUM area. The number of hotel rooms available in the area is currently 6,788 (year 2015, cf. Section 5.1.1) which, assuming an average of two beds per room, corresponds to almost 13,600 beds. The distribution of this offer in the various categories of hotel is very weighted towards the intermediate category (2-3 stars), constituting more than 60%, while only 6% of the rooms belongs to the high category of 4-5 stars (cf. Fig. 5.1.1.3). For that matter, the distribution between the various categories of hotel desired by visitors has a completely different physiognomy from that of the offer, given that half of them seek accommodation in the intermediate category (3-4 stars), a quarter in the low category (1-2 stars), and a quarter in the high category (4-5 stars). The breakdown is thus imbalanced, with a very low desired rate of occupation for the first two categories (around 27% on average across the year, and 36-37% in the busiest period, in December), and above the accommodation capacity for the high-quality category (4-5 stars), which would need 40% more rooms offered on average over the year, and almost double the number of rooms at the peak time, in December (cf. Present-Desired scenario in Fig. 6.4.1). In particular, in the peak month, there would thus an excess of around 4,000 unoccupied rooms in the lower categories (0-3 stars), while almost 750 more rooms would be needed in the 4-5 star category. This distribution is obviously not achievable in actual practice, and thus the phenomenon of equilibrium between demand and supply probably leads to a situation similar to that shown in the Present-Equilibrium scenario in Fig. 6.4.1, with demand being concentrated in the high category (4-5 stars), but not as much as desired. This corresponds, in the peak month, to coefficients of occupation of around 80% for the high bracket, and over 40% in the other brackets, which is fairly in line with the picture reported by the Hoteliers Association (cf. Section 5.1.1). In this hypothetical situation of equilibrium, the number of unused rooms would fall to fewer than 3,700, as a result of the redistribution of demand.

Fig. 6.4.2 Time distribution of tourist arrivals.

Source: processed by the author; data supplied by MOHT, 2016.



In outlining future scenarios by setting out from all of the above, reference is made to the forecasts for tourist numbers up until 2021 in the High and High+Promotion scenarios defined in Section 6.3, overlooking the Mid-range and Conservative scenarios. The reason for this hypothesis lies in the fact that, as shown in Section 5.2.1, incoming tourist numbers in 2015 already put Myanmar in the situation corresponding to the highest forecasts considered in the Myanmar Tourism Master Plan 2013-2020 (MOHT, 2013a). In both scenarios, “High” and “High+Promotion”, it is assumed that the monthly distribution in tourism demand remains similar to the current situation, with December as peak month, and that demand has a distribution in the categories of hotel equal to the distribution desired today. The difference between the two scenarios, deriving from the hypothesis that average stays by international tourists in the “High+Promotion” scenario rises from the current level of 2.5 days to 3, lies in the number of annual presences-per-day, 20% higher than the “High” scenario. Moreover, also with a view to a tourism development which is marked by sustainability, it is assumed that promotional activities will see to it that in the future the concentration of international tourists in the peak month (December) will be less pronounced, and will fall from 13.5% to 12.5%. In both future scenarios, also, it is thought that there will be a rise in the number of available rooms equal to the rise predicted already today, in the short term, in the ACUM area, owing to the construction of a number of hotels (almost 6,200 rooms, cf. Section 5.1.1), increasing the availability of rooms to almost 13,000. Finally, it is thought that, taking advantage of this rise, the offer of rooms will become redistributed in the various categories, in line with the current desires of the demand (25% in 0-1 star hotels, 50% in 2-3 star hotels, and 25% in 4-5 star hotels). This hope is also in line with the formulation of this plan, which is geared towards the sustainability of the tourism system. The results of the simulation reported in Fig. 6.4.1 show, with the assumptions made, that the ratio between tourism demand and offer is rebalanced by means of the homogenization of occupancy rates in the various categories of hotel. These occupancy rates vary between 52% and 57% over the year, and between 72% and 76% in the peak month of December. Although this rates are not so high, one can think – in order to achieve a more solid system – a further supplement to the physical amount of the hospitality offer. However, this extra supplement seems necessary only to a small extent: for instance, an increase in the offer of around 1,000 extra rooms (compared to the almost 13,000 already available in the short term) would lead to occupation coefficients of 53% over the year, and to 71% in the busiest month. Aiming for a development on this scale appears completely reasonable, as well as in line with the principles of sustainability and responsibility which lie at the foundation of this plan, without the need for large interventions that have a major impact on the local area. Rather, it would be important for the planning of the future accommodation offer to take into account a number of requirements which emerge from an analysis of the current situation, such as for example the development of a widespread category of offer which is integrated within the local culture, e.g. homestays, B&Bs, community tourism, youth hostels (cf. Section 5.1.1), and boosting high-quality accommodation, which today, as we have just shown, is found to be insufficient.

7. Identifying sensitive areas

■ Description of strategy: producing detailed cartographic information relating to the location of sensitive areas to be subjected to specific recommended protection, and areas that are candidates for valorization for tourism.

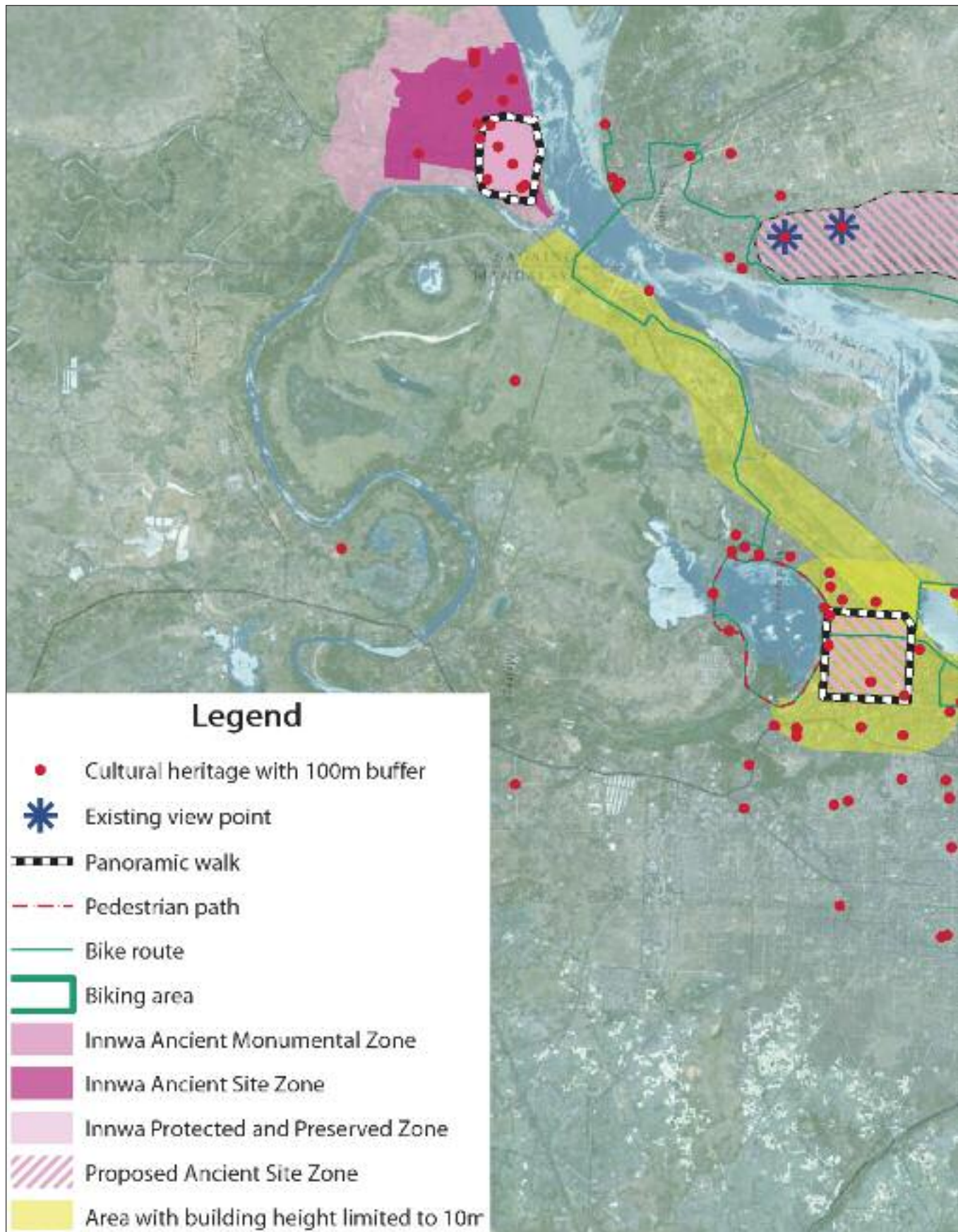
■ 7.1 PROTECTING THE SENSITIVE AREAS

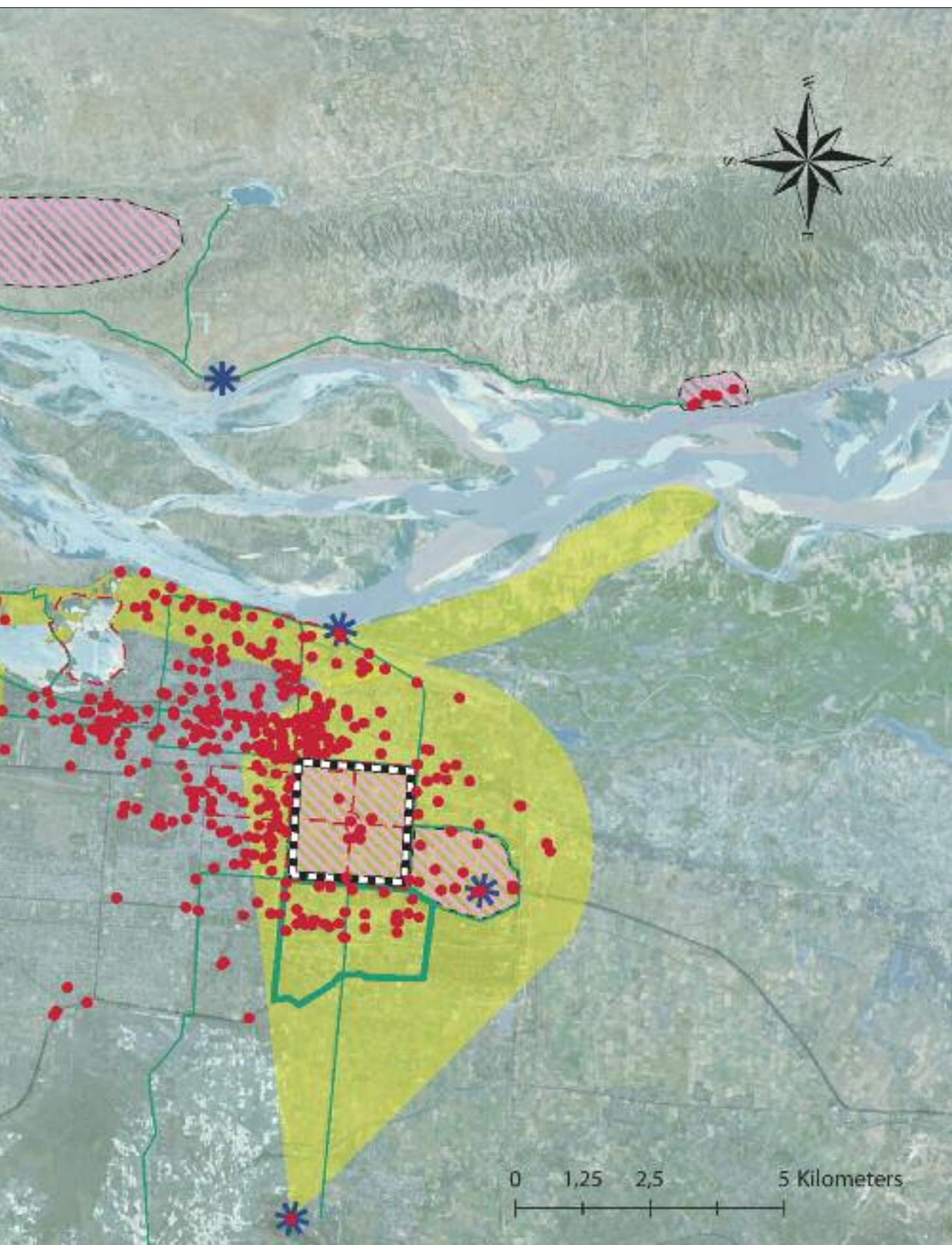
This basically involves collating all those sites which, in various ways, currently constitute destinations of interest for at least one of the various forms of tourism, and areas which are connected in one way or another with the exercise of tourism activities, both in direct form and in indirect form.

Fig. 7.1 Map of sensitive areas.
Detail: HsinByume Paya at
Mingun and overview (next
page).

Source: data from Imagery
© GeoEye-1; 2015; Distributed by
e-GEOS. Processed by the author.







The areas connected directly with tourism also include those traversed by active tourism (ie excluding transferrals): areas frequented by pedestrians; itineraries for panoramic observation; and cycling routes.

Included among areas connected indirectly to tourism are those traversed by the primary fields of vision for viewing the most important monuments and complexes for the enjoyment of panoramic views.

7.1.1 ADOPTING THE ZONING MAP OF SENSITIVE AREAS

Produce a detailed cartography of the sensitive areas (monumental areas, views, spaces which are significant for the daily practices of residents) and of the areas to be valorized, as per objective 7.2 and chapter 9. The action consists in compiling an open digital cartography, able to be implemented, added to, and corrected along the way, both in terms of the number of records (individual place-names or areas), and in terms of the quality of the information acquired (*database* connected to each record).

■ 7.2 IDENTIFYING AREAS TO BE VALORIZED

As will be outlined in more detail in chapter 9, one of the characteristics of the research area is to offer a significant quantity of sites which are open to being developed for tourism, on condition that adequate work is undertaken to highlight them, and valorize them.

Of these sites, the sites of the three royal cities of Ava (Innwa), Amarapura and Mandalay occupy a position of special importance, and therefore they are mentioned in advance, in this paragraph. Owing to their geographical contiguity, and their continuity of importance in the history of Myanmar (spanning almost five centuries), these three sites constitute a group whose interest, thanks to the singularity of the historical events which have generated them, and to the quality of the sites produced, and later ruined, could have worldwide appeal.

The state in which these three sites have come down to us could lead to them being justly classified as three “archeological” sites, despite the historical period in which they flourished (a period which historians classified as “modern” for Ava (1535-1783), and even what historians classified as “contemporary” for Amarapura (1783-1859) and for Mandalay (1857-1885).

Indeed, the activity which must be undertaken in order to bring to light these sites and make them accessible for visits by everyone, in their extraordinary originality, is certainly “archeological” in nature; for various reasons they appear today as disfigured (and certainly degraded), and reduced to shadows of their respective original appearance (cf. ch. 3.3.2).

They already constitute a destination of tourist interest today, but for reasons which represent only a fraction of all the reasons which, with adequate valorization, could increase their status very much, making them become one of the main attractions in the project area.

7.2.1 VALORIZING THE ARCHEOLOGICAL SITE OF THE ROYAL CITY OF AVA

The plan of Ava, drawn up by Montmorency in 1827 (*Plan of the Fortress and City of Ava, surveyed by Lieut de Montmorency Q.M.Gle Departt*), published in London in 1829 in the *Journal of an Embassy from the Governor General of*

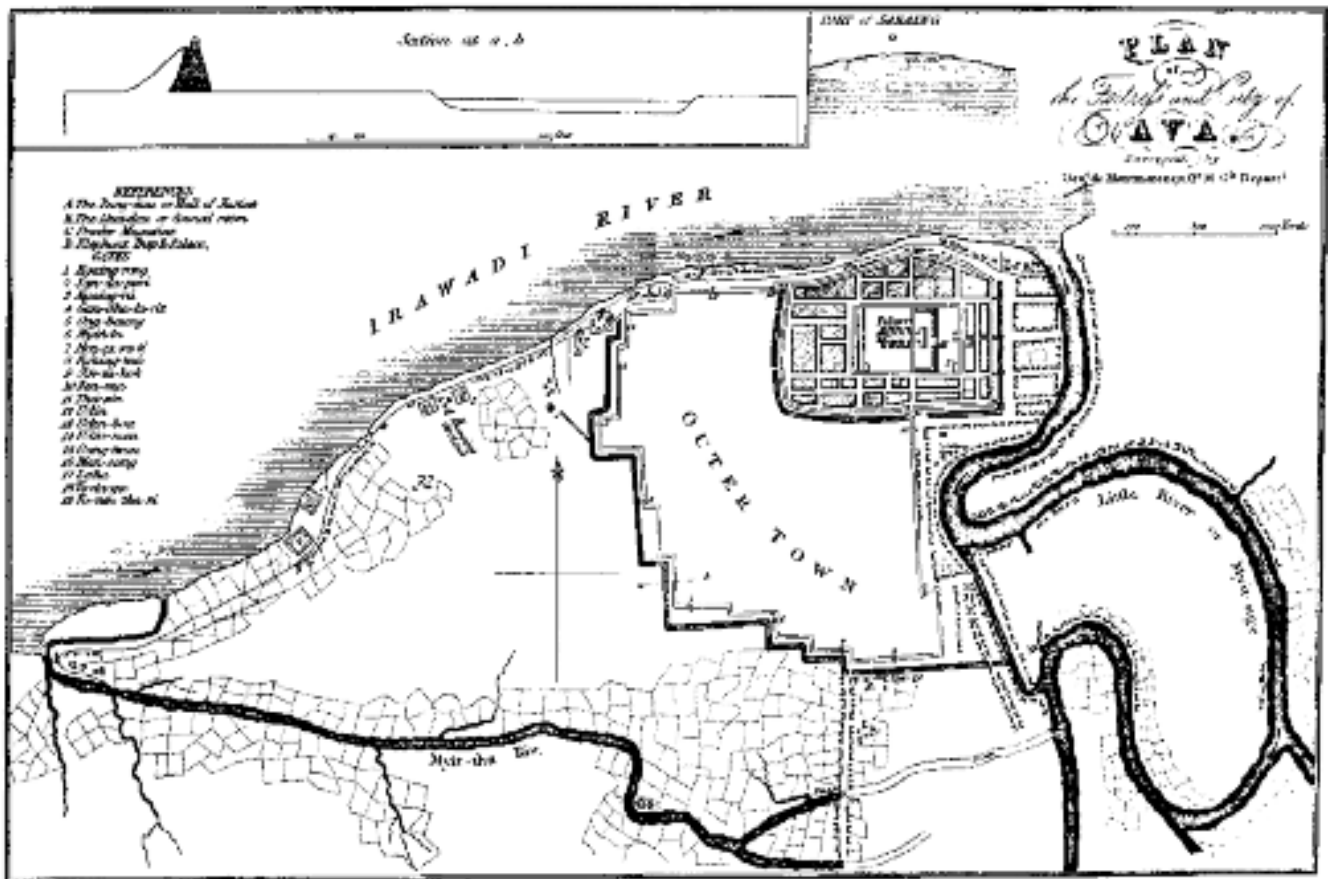


Fig. 7.2 Montmorency's Plan of Ava, 1827.

India to the Court of Ava in the year 1827, tells us, in broad terms, what the structure of the city was, and its relationship with the surrounding area. It is worth stressing that the period when this plan was produced coincides with the last short period of royal status for Ava, corresponding to the time when King Bagyidaw went back on plans for the foundation of Amarapura by his grandfather, Bodawpaya, and the temporary return of the court to the former capital (1821-1839). It also corresponds to the historical moment that followed the first Anglo-Burmese war (1824-1826), when the defeated kingdom of Burma had only lost the Indian territories which it had occupied previously, but still had almost all its national borders intact.

Standing at the confluence of the river Myit-nge and the Ayeyarwady (*Irawadi river*), Ava occupied an artificial island created by the construction, from the penultimate bend in the Myit-nge, of a canal which still reaches the Ayeyarwady today, around six kilometers downriver.

The city only occupied half of the island upriver, while the other half appears to have been organized into cultivated plots of land.

In turn, the city comprised two parts:

- the royal city, arranged longitudinally along the bank of the Ayeyarwady, covering around 84 hectares (one third the size of the future royal city of Amarapura, and one fifth of the royal city of Mandalay), surrounded by its own outer walls, and by a moat, and organized around the Royal Palace in accordance with a grid of streets forming rectangular blocks;



- the Outer Town, covering around 262 hectares, protected by a further set of outer walls, which follow an irregular course, in which there were 19 gates (the names of each of which are given in the Plan), and which was protected by a moat around 30 mt wide. The plan does not give any indication of the internal organization of the Outer Town, but the remaining parts of the layout tell us that it also had an orthogonal street plan.

Fig. 7.3 The site of the royal city of Ava today.

Source: Google Earth Pro, 2016.

As well as the sites already mentioned, the plan also shows the *Rung-dau* or *Hall of Justice*, the *Lhut-dau* or *Council room*, and the *Powder Magazine* (all within the royal palace), and the *Elephant Trap and Palace*, inside the royal city, but outside the palace.

The plan is accompanied by a valuable schematic cross-section of the outer walls, allowing us to estimate both their height and thickness (at the base) as being around 6 mt, in both cases.

The irregular layout of the royal city, and especially of the *Outer Town*, suggests that, unlike the subsequent capitals, Ava was not the result of a planned foundation, however remote, but that it developed in several phases, one after the other.

Today, of this complex urban organization, which has taken on a totally rural appearance in the last 180 years, there remain above all evident traces in the ground, while surviving monumental features are very few. The main responsibility for this decimation probably lies with the devastating earthquake which, in 1839, forced the king to return the capital to Amarapura.

Only the line of the walls of the royal city can still be seen, while large sections have been conserved of the broken outer walls which delimited the outer town. The defensive moat around the royal city is reduced to a number of sections which are still full of water, while large sections have been filled in, but without being occupied by any buildings that would conceal the original appearance.

The ruins and the few surviving monuments are concentrated in the westernmost part of the outer town, and their alignment makes it possible to identify, better than the faint rural paths still active in the area, the former grid pattern of streets set at right-angles which must have formed the site's organizational basis.

The archeological site of the royal city of Ava is today identified as an *Ancient Site Zone*, in accordance with Art. 13 of the 1998 *Protection and Preservation of Cultural Heritage Regions Law*. However, this classification, which makes provision for future excavations and actions to bring back to light elements which are concealed today, in order to re-establish the overall layout of the lost site, does not currently constitute a greater tourist attraction than the attraction of the existing collection of ruins and surviving monuments, scattered across the artificial island of Innwa.

One way to make the royal city area recognizable in advance, and to give it the status of archeological interest, which it currently lacks, could be to rebuild the defensive moat in its entirety. This intervention, which would also have the advantage of certifying, on the ground, a perimeter of the Ancient Site Zone which today exists only on maps, would introduce an initial element of identifiability to the site in terms of its actual scale.

A further element of great impact for tourism could be the formation of an earth-work (ie a reversible, non-destructive feature) along the entire route of the outer walls, with a continuous trapezoid section, based on the section given in Montmorency's plan. This would have the dual advantage of giving a three-dimensional perception of the space occupied by the royal city in the landscape, and of forming the base for a raised walkway which would allow an all-round view of the entire site from above (regarding the importance of views from above, see paragraph 9.1.4 below).

Finally, restoring the former river port, immediately to the west of the outer town, would have a great effect for tourists. As well as offering an unusual way of arriving at the site of the royal city, this would convey to visitors the sense of Ava's original functional relationship with the river. The reactivation of this port would also have the advantage of increasing river links generally, increasing the offer of alternative panoramic itineraries.

7.2.2 VALORIZING THE ARCHEOLOGICAL SITE OF THE ROYAL CITY OF AMARAPURA

The scant elements still standing in the city which was the capital of Burma for almost 56 years, between 1783 and 1821, and again from 1842 until the removal of the court to Mandalay in 1859, give us an idea of a grandiose urban foundation, with a very important dynastic and national meaning.

The place chosen by King Bodawpaya, almost 10 km north of Ava, was (and still is) characterized by extraordinary scenery. This is the large isthmus situated between Lake Thaungthaman to the south and the Mandalay Kantawgyi lake to the north, in the small plain on the left bank of the Ayeyarwady.

In this strip of land, suspended between two bodies of water, the king imagined a perfectly square royal city, standing on the isthmus, across its whole length, and almost for all of its depth, thereby giving a new formal, almost metaphysical coherence to a very large portion of land, which expanded to include the two bodies of water and the lands by the side of the river.

With its abstract geometrical layout, the walled city came to form a dual, central point of intersection between differing geomorphological systems: from north to south, compared to the system of bodies of water; and from east to west, compared to the system of Outer Towns and the countryside.



Indeed, in Amarapura the Outer Town of Burmese tradition, obeying the narrow confines of the sites, was doubled: to the west, an outer city developed, between the royal city, Lake Thaungthaman and the great river; to the east, the other outer city grew, standing between the royal city, the two lakes, and the hinterland, and this would later merge with the conurbation of Mandalay.

The royal city was on an impressive scale: the side of the original square site was 1,550 mt, and it thus covered an area of around 240 hectares, in other words almost three times the area of the royal city of Ava.

Of this city, what survives is almost all of the land originally intended to be kept free of other buildings, which, as at Ava, consisted of the area adjacent to the walls and the defensive moat. Large sections of this moat have been conserved on the eastern, western and southern sides, but its volume, in the form of plots of land which have retained its shape and size, can be seen along almost its entire perimeter. The topographical plan of 1911-14 (*Environs of Mandalay 1:150.000*) shows that, at that time, the moat was still conserved intact on all of the eastern side, and for the eastern half on the northern and southern sides, as well as for intermittent sections of its remaining course.

Unfortunately we do not know a lot about the internal organization of the royal city, because the dismantling of almost all the built features (starting with the royal palace, and down to the walls), ordered by King Mindon in 1857, in order to move them to Mandalay, or so as not to offer shelter to the British, has led to a loss of site heritage which is even greater than in the case of Ava. However, many surviving sections show the site was divided up into blocks of buildings, as defined by a grid of streets set at right-angles.

Inside the royal city there now runs a rail line, cutting diagonally across the site, and dividing it into two unequal parts. This runs between Mandalay and Sagaing, and was built by the British between 1885 and 1910. The section of the royal city

Fig. 7.4 The site of Amarapura.

Source: Google Earth Pro, 2016.



Fig. 7.5 The royal city of Amarapura in the 1911-14 plan.



Fig. 7.6 The site of Shwebo today.

Source: Google Earth Pro, 2016.

north-west of the rail line has, over time, maintained the characteristics of an urban site, although in the lesser forms of a peripheral suburb. The other section, south-east of the rail road, has regressed to an almost rural appearance, although it is graced by dense tree vegetation. In this part, the only modern buildings are military facilities.

In the western Outer Town the surviving temples are concentrated. Of these, worth mentioning are the *Chinese Joss Temple* (confirming the secular and cosmopolitan nature of the capital, when founded) and the modern town of Amarapura.

It remains to be clarified what was the origin of this extraordinary urban foundation.

Thirty years earlier, in 1752, Bodawpaya's father, the great King Alaungpaya, the founder of the Konbaung dynasty, having unified Myanmar and taken it away from the Toungoo dynasty, had established the village which his family had come from, Moksobo, as the new capital of the kingdom of Burma, turning it into a new great city, Shwebo.

Alaungpaya probably only went as far as to draw out the immense quadrangular confines of Shwebo, which has survived down to our times with all its exceptional size almost entirely visible: 3,500 mt along each side, and an urban area planned to be 1,225 hectares in size, designed to accommodate all the central functions of what was due to be the "Burmese Empire".

The absence of an Outer Town suggests that, regardless of size, the founder was concerned to protect the whole settlement, and not just the royal functions, as in the other royal cities, with a single circuit of walls, also in view of its geographical position, being much closer to the northern borders, and thus more exposed to raids from China or India than the other capitals.

Alaungpaya's death, in 1760, nipped his construction adventure in the bud; the first two sons who succeeded him, Naungdawgyi and Hsinbyushin, transferred the

royal seat first to Sagaing and then to Ava, suspending investments in the construction of the immense new city, which was, indeed, non-sustainable. Only the fourth son, Bodawpaya, set his hand to his father's dream, but elsewhere, with less megalomania and with an exceptional choice of location.

The foundation of the royal city of Amarapura has many points of similarity with contemporary products of the culture of the Enlightenment (the work of Claude Nicolas Ledoux, for example, comes to mind). The capital is longer placed under the aegis of the sanctuaries: It is a secular foundation, which stands as a symbol of the overall reorganization of the local area, on a site which is exceptional not for reasons of worship, but owing to its own topographical and landscape characteristics.

At the same time, its size is calibrated towards the real needs of the court and of the kingdom: Bodawpaya learnt from the failure of Shwebo, which started out on an exaggerated scale that meant it was inexorably condemned to be left unfinished, and he made a sober decision about size, balanced by the magnificence of the scenery.

Finally, the king founded the whole of the urban layout on the basis of a square plan, which at Shwebo was only approximate, while at Amarapura it is rigorous, and reinforced from the conceptual and figurative point of view by the presence of four large stupas, still perfectly preserved, at the four corners of the walls (at Shwebo only the stupa in the north-east corner is present today).

The square plan is here adopted as a symbol, probably expressing the fact that the nation identified, but not in a bigoted way, with the Buddhist tradition of the *mehdi*, the square terrace which the *stupa* stands above, and which in holy buildings in Myanmar conforms to itself the organization of all of the area immediately surrounding it, whether in the case of a temple or a monastery.

The archeological site of the royal city of Amarapura is today identified as an *Ancient Site Zone*, as per Art. 13 of the 1998 *Protection and Preservation of Cultural Heritage Regions Law*. However, this classification, which allows for future excavations, and for measures to reveal elements which are currently hidden, to recompose the overall plan of the lost site, does not mean that the site currently constitutes an independent attraction for tourists. Indeed, the elements that draw tourism to Amarapura are very different: the great pagodas of the western outer town, the *U Bein bridge*, etc. Moreover, the presence of the royal city in the landscape of the two lakes cannot be perceived today at all.

An initial way to give back to the area of the royal city the recognizability and status of archeological and landscape interest which it currently lacks, in advance of excavations which could bring its remains back to light again, would be to reconstruct the defensive moat in its entirety. This intervention, which would also have the advantage of certifying on the ground the perimeter of the Ancient Site Zone, which merely exists on maps today, would introduce an initial element of identifiability to the site as regards its real scale.

A further element of great impact for tourism could be the creation of an earthwork along the entire route of the outer walls, with a continuous trapezoid section, similar to the one suggested for Ava. This would have the dual advantage of giving a three-dimensional perception of the space occupied by the royal city in the landscape, and of forming the base for a raised walkway which would allow an all-round, itinerant view of the entire site from above. This intervention would be reversible, and would create a new viewing point also over the two lakes (cf paragraph 9.1.4).

7.2.3 VALORIZING THE ARCHEOLOGICAL SITE OF THE ROYAL CITY OF MANDALAY

The history of the royal city of Mandalay is entirely contained within the last 160 years. Indeed, the city was founded in 1857 by King Mindon as the new capital, to replace Amarapura, as a proud response to the unsuccessful outcome of the Second Anglo-Burmese war, which had led to the loss of all of southern Myanmar, and as a way of restoring regality under the aegis of the sacred.

This is the reason why the site at the foot of Mandalay Hill was chosen. The site was also connected monumentally to Yankin Hill, both places being famous throughout Myanmar for their numerous sanctuaries.

The creation of the new city reproduced the criteria already tried out by the Konbaung dynasty in Shwebo and in Amarapura, with a further correction of scale, this time upwards. The royal city is a square formation measuring 2,032 mt along its side (for an area of 413 hectares), surrounded by crenellated brick walls around 7 mt high, 3 mt thick at the base, and 1.47 mt thick at the top, and by a wide, navigable moat 64 mt wide and 4.5 mt deep.

Each side of the walls has 13 towers (48 towers in all), 3 of which coincide with the gateways (in all 12 gateways, each marked by a sign of the zodiac, and having a defensive feature preventing it from being attacked with battering-rams).

Only 5 gates (the middle ones on each side, and the southern gate on the west side) are connected to a bridge over the moat.

The plan of the royal city reproduced the now traditional design for the Konbaung dynasty. In the middle stands the royal palace, built between 1857 and 23 May 1859 using many components of the royal palace of Amarapura transported here with the help of elephants, and forming a walled complex with a square plan (667 mt on each side; and an overall area of 46 hectares), dotted with pavilions and monuments, inside a large-scale garden with canals flowing through it.

Fig. 7.7 The site of the foundation of Mandalay, at the foot of the hill of the same name.

Source: Google Earth Pro, 2016.



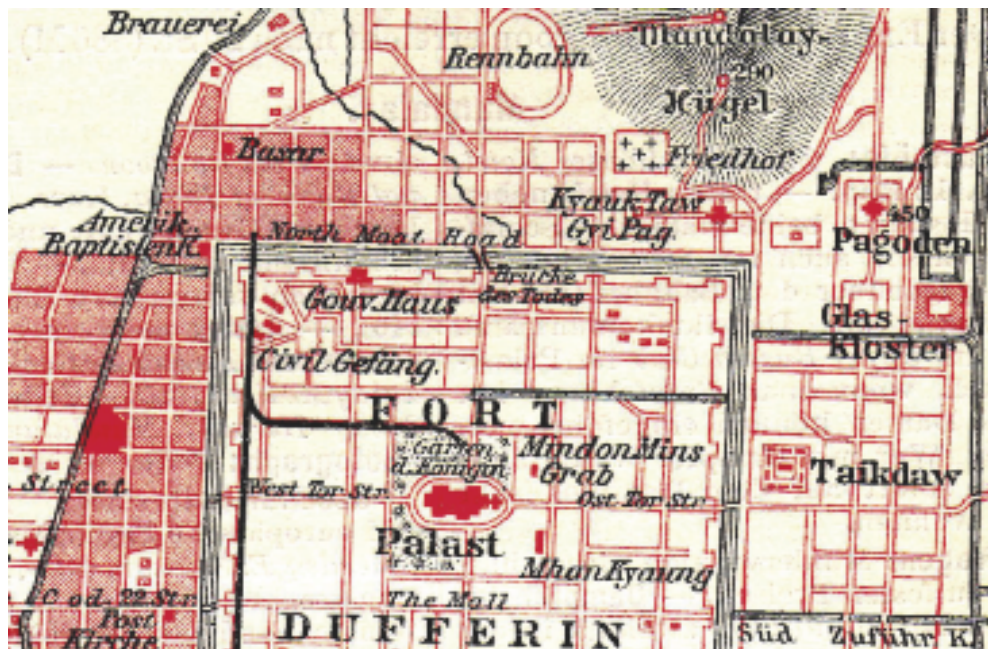


Fig. 7.8 The royal city of Mandalay in the 1911-14 plan (Mandalay 1:50.000).

In 1885, at the end of the third Anglo-Burmese war, the British occupied Mandalay. They deported the last king, Thibaw, to India, and took down much of the royal palace, taking all the valuable fixtures to the Victoria and Albert Museum, and they installed the headquarters of the colonial garrison to the royal city, renamed Fort Dufferin (after the viceroy in India at the time).

From this point on, the fate of Mandalay was that of most Indian cities under British dominion: the royal city was emptied, while its walls were maintained as a British fortification (see the Red Fort of Agra, or the Fort of Old Delhi).

The urban fabric within the royal city was completely dismantled. To the east of the royal palace the British infantry was stationed, and the colonial infantry to the west. In the north-western sector the seat of the colonial government was established, and in the corresponding corner of the walls the prison was built (in the form of an open *panopticon*); in the north-eastern sector the military hospital was set up. The great esplanade in the middle of the southern sector, where the golf course currently stands, was the parade ground for the royal parade.

Finally, the railway line from Rangoon continued north of the central station and penetrated inside the royal city, running (internally) alongside the whole western side of the wall, before coming to an end on the external bank of the northern moat.

After the destructive events of the Second World War, and the reconstitution of an independent Myanmar, all the space corresponding to the royal city remained military property, and thus access was prohibited. The exception to this, a recent exception, was access to the royal palace, which was restored and opened to visitors.

The site of the royal city of Mandalay has not yet been classed as an *Ancient Site Zone*, as per Art. 13 of the 1998 *Protection and Preservation of Cultural Heritage Regions Law*. However, its nature as a fossile urban site, on whose ruins colonial and later accretions came to be added, is completely similar to those of Ava and Amarapura.

The first step for its valorization is thus for it to be classified as an *Ancient Site Zone*, a recognition which may open the way to research, and possibly excavations.

The second step is the gradual demilitarization of the site, such as to make all of it open to visitors, not just approximately one tenth of its size, as happens today just for the area of the royal palace, and above all such as to improve its accessibility, which is currently limited to the Yankin Gate (cf. paragraph 9.1.1). Demilitarization would also pave the way for the actual use of the royal city as a park (ie an archeological park), in accordance with the recommendations of the Urban Plan and Structure of the metropolitan area of Mandalay.

A third step could be the initiative of making accessible to visitors the walkway along the top of the walls, which would allow an itinerant view over the whole site, from above (cf. paragraph 9.1.4), and a completely new view of Mandalay Hill and of Yankin Hill.

8. Bringing accommodation facilities into line with the evolution in the tourist demand

■ As we saw in Chapters 5 and 6, the system of the accommodation offer in Myanmar, and especially in the ACUM area, has been rapidly developing in recent years, prompted by a soaring tourism demand. The development seen between 2009 and 2015 in Mandalay, or rather in the whole ACUM area, was in the order of 125%, and raised the accommodation offer to just under 6,800 rooms (around 13,600 equivalent bedspaces, given that the average size is a two-bed room according to the Mandalay Hoteliers Association data).

This made it possible to deal, one way or another, with a sharp rise in demand from abroad, which in the same period increased by 376% (almost 64,400 arrivals in 2009, and just over 306,400 in 2015; which, with an average stay of 2.5 nights, is the equivalent of around 161,000 overnight stays in 2009, as against no fewer than 766,000 in 2015).

In addition to these figures, there are those for internal movements, which saw a less sharp rise, but a rise which was still significant in this period, arriving in 2015 at almost 448,000 arrivals. Since the average length of stay for internal visitors is shorter (2 nights), the number of overnight stays amounted to around 896,000.

In all, therefore, the accommodation offer in the ACUM area in 2015 faced a demand from about 754,400 arrivals, and 1,662,000 overnight stays.

The increase in the offer (supply), although significant, was not, however, able to provide structural responses to a number of bottlenecks which are characteristic of the tourism dynamic in the area.

The first of these is the dramatically low size of the high-end offer (4-5 stars), which, in 2015, still had only 407 rooms (814 equivalent bedspaces), in other words around 6% of the total offer, while the corresponding demand for accommodation was around 25% of total demand (cf. Chapter 5.1.1).

The second is the characteristic concentration of a significant percentage of arrivals in the month of December, which is the best period for local climatic conditions and for ability to travel in the calendar of countries of provenance (end-of-year festivities). This concentration in the demand, which represents 13.5% of annual arrivals for foreign provenance, and 10% for internal provenance, equivalent to $103,421 + 89,600 = 193,021$ night-stays in the month (around 6,226 a day), produces a ratio of average occupation of bedspaces in December of 46%, but with a shortage in the high bracket offer of no less than 742 bedspaces a day (23,033 overnight stays not satisfied in the space of the month).

With accommodation facilities known to be activated during the early months of 2016 (10, for a total of 374 rooms), and above all with the new initiatives started (additional 58 new facilities for a total number of 5,806 rooms, cf Chapter 5.1), these bottlenecks in the ratio of offer-to-demand ought to fall significantly, also because the average size of the new hotel units, having more than 91 rooms, is indicative of a tendency to give priority to meeting the shortcomings in the high-end bracket.

The scenario in the year 2021, considering the options indicated in Chapter 6.4, thus seems to be as follows.

The predicted scenario for accommodation demand refers to the “High” prediction contained in the 2013-2020 ministerial Masterplan (the estimate closest to the figures for arrivals recorded in 2015, compared to which it is actually below the required level, cf. Chapter 6). This scenario quantifies annual arrivals in Myanmar in 2020 as being 7,489,006. We have projected, for the year 2021, an increase proportionate to that hypothesized by the Myanmar Tourism Master Plan (2013-2020) (MTMP) for each of the years between 2013 and 2020.

At this point, it was a case of formulating an estimate of the percentage of these arrivals who will converge on the ACUM area. In this connection, one should remember that, in the historical series of arrivals between 2009 and 2015, the incidence of the Mandalay area compared to the total number of arrivals in Myanmar oscillated between 7% and 15%. Accordingly, it was decided that an intermediate incidence, of 10%, was the most prudent estimate for deciding the projection on the research area of the growth scenario proposed by the MTMP for all of Myanmar.

Thus, in 2021, an estimate was arrived at of 915,001 arrivals from abroad in the research area (cfr fig. 6.4.1)

As regards internal arrivals, it was estimated that the increase will follow the same rate as hypothesized by the MTMP for arrivals from abroad. Thus, in 2021, the figure of 1,337,703 internal arrivals was arrived at.

Assuming equal average length of stays compared to 2015 (2.5 days for arrivals from abroad, and 2 days for internal arrivals), these figures would lead to 4,962,908 total overnight stays over the course of the year.

However, taken together, the indications contained in this Plan justify the hypothesis that, when fully up and running, the average length of stay in the ACUM area for tourists from abroad may rise from 2.5 to 3 days, while the average length of stay for domestic tourists is set to remain unchanged. Therefore, overnight stays will total 5,420,409, corresponding to an average demand of 14,850 bedspaces per day.

The increase in the offer which has been considered, totalling a further 1,000 rooms (2,000 further equivalent bedspaces, reserved strictly for non hotel accommodation) compared to the 2015 figure, and boosted by the accommodation facilities known to be under construction, leads to a total number of about 14,000 rooms, and 28,000 equivalent bedspaces (12,968 rooms and 25,936 beds in the hotel accommodation sector). This number seems able to deal not only with the increased demand as estimated (with an annual average rate of occupation of 53% (57% if one considers only the hotel accommodation), which seems to be a prudent estimate), but also with the diversification in the accommodation offer which this Plan supports, spread between hotel accommodation and non-hotel accommodation (homestays, B&Bs, Community Tourism, youth hostels).

The peak in December, which the hypothesis of the Plan estimates may be limited to 12.5% (as against the current 13.5%) of annual overnight stays for foreigners, remaining at 10% for domestic tourists, would correspond to 19,699 overnight stays per day, and would see the rate of occupation remain within the limit of 70% (76% if you consider only the hotel accommodation), in other words it would not, under any circumstances, lead to a shortage in the offer, or of overnight stays not met.

■ 8.1 BRINGING THE ACCOMMODATION SYSTEM IN LINE WITH THE HIGH SCENARIO OF EVOLUTION IN THE TOURISM DEMAND

The prediction which formulates the plan for the accommodation offer, when fully up and running in 2021, thus involves a total of 14,000 rooms (28,000 equivalent bedspaces). This can be broken down into 12,968 rooms (25,936 equivalent bedspaces) in the hotel accommodation sector, and about 1,000 rooms (2,000 equivalent bedspaces) in the non-hotel accommodation sector.

This prediction is able to form an adequate basis not only for coping with the foreseeable demand without the reported bottlenecks being reproduced, but also to get a process under way of gradual diversification of the accommodation offer, one that takes into account the trends revealed by one section of the demand, corresponding to a more curious and more responsible tourism (cf. Chapter 5.2).

It is advisable to specify that non-hotel accommodation does not correspond to a seventh category, which is lower than the others, or intermediate compared to them. On the contrary, it represents a differing conception of accommodation, which can contain within it all the different grades of quality, also as regards prices, of the six hotel categories, but with differing approaches to hospitality, which are not merely functional, but aimed at specific personal needs, and which are more open to contact with Burmese society.

8.1.1 CALIBRATING TOURISM ACCOMMODATION TO THE EXPECTED INCREASE IN DEMAND

It is expected that the breakdown of the accommodation offer in 2021 will correspond to the following outlook.

Hotel accommodation: 12,968 rooms (25,936 equivalent bedspaces), subdivided into:

- low-level hotel accommodation (0-1 stars): 3,242 rooms (6,484 equivalent bedspaces);
- mid-range hotel accommodation (2-3 stars): 6,484 rooms (12,968 equivalent bedspaces);
- high-level hotel accommodation (4-5 stars): 3,242 rooms (6,484 equivalent bedspaces).

Non-hotel accommodation (homestays, B&Bs, Community Tourism, youth hostels): 1,000 rooms (2,000 equivalent bedspaces). Compared to the current situation, the expected developments involve the following:

- for the hotel accommodation sector, the existing facilities and those under construction fully cover the planned supply. The supply by category shall be verified to make sure that it is really in line with the above mentioned distribution;
- for non-hotel accommodation, the creation of a pilot scheme of 1,000 rooms (2,000 equivalent bedspaces).

The amount of the non-hotel accommodation offer may appear very small compared to the development which has been a feature of this sector in the West in the last few years. However, it was decided that the corresponding sector in Myanmar

still has to resolve a number of regulatory obstacles before being practiced, and that, in the initial phase, no few organizational difficulties must be allowed for. On the other hand, however, we must note that, except for sporadic cases, non-hotel accommodation does not require prior building activity, and therefore, after resolving the aforementioned problems and difficulties, the start-up time is relatively short.

In view of all this, it was decided that it is unlikely that the figure which may be achieved by this sector in 2021 will be higher than 1,000 rooms, i.e. much more than double the size which the high-end hotel accommodation offer still had in 2015 in the research area.

8.1.2 DIVERSIFYING THE TYPES OF TOURIST ACCOMMODATION IN TERMS OF QUALITY OF THE SERVICES OFFERED

The diversification proposed with Action 8.1.1 also corresponds to the formalization of various types of tourism accommodation, which are today not sufficiently recognized in terms of regulations and also in commercial terms.

Even though the percentage increase predicted by the plan is just 7.2% of the total accommodation offer, it is nevertheless clearly strategic for the location of this percentage on the ground to correspond to criteria that do not conflict with the general goals of sustainable tourist development.

Although it was not possible to know the exact location of all the hotel facilities under construction, one may say that most of them confirm the supply trend to locate in the central part of Mandalay city, preferring the context of the township of Chanayethazan, as a further reinforcement of the existing accommodation system, and using to the full the system of complementary and support infrastructure for tourism already developed there (rail station, river port, commercial enterprises, restaurants, entertainment facilities etc).

The prediction for non-hotel accommodation (homestays, Bed and Breakfasts, Community Tourism, youth hostels, equal to 1,000 new rooms) can be located in all the existing urban centres in the research area, with the exception of production zones and services zones, and also in the villages in which Community Tourism programmes have got under way.

■ 8.2 BRINGING THE ACCOMMODATION SYSTEM IN LINE WITH STANDARDS OF ENVIRONMENTAL SUSTAINABILITY

The problem of the accommodation offer gradually matching standards of environmental sustainability is only in part a problem of “internal” adaptation of the existing accommodation facilities (or facilities already under construction), which, as we have seen, correspond to about 93% of the total offer estimated by the Plan. It is also, and above all, a problem involving an overall improvement of urban centres of which the accommodation facilities are an integral part (cf. ch. 13), which is the only element which can reduce the soil, water and atmospheric pollution, making urban centres sustainable (naturally, this aspect is part of a wider range of actions).

What can be done, in hard and fast terms, is, on the one hand, to impose characteristics of low environmental impact on newly-created accommodation facilities,

and, on the other hand, to provide incentives, with special levels of qualitative certification, for existing facilities to be brought into line with pre-established standards of environmental sustainability (with reference to atmospheric emissions, waste water entering sewers, energy consumption).

8.2.1 ESTABLISHING FORMS OF CERTIFICATION FOR THE ENVIRONMENTAL QUALITY OF ACCOMMODATION FACILITIES

It is advisable for the central government to set out the minimum requisites of environmental sustainability that new accommodation facilities must meet for them to receive authorization to be opened.

It is also opportune for the central government to create forms of recognition (such as certifications of quality standards) for existing accommodation facilities that agree to fall into step with these same requisites, or the minimums which will be established for the facilities already in operation.

9. Product development

■ As we saw in ch. 5.1.5, the ACUM area offers such a quantity and quality of attractions as to make it the country's fourth biggest tourism destination. Often, however, these attractions are insufficiently or inadequately valorized, and a large portion of the cultural and natural heritage remains unknown to visitors, since it does not enter the offer system in any way. The ACUM area thus manages to stand as an obligatory destination for tourists visiting Myanmar, but the average length of stay by visitors (2.5 days) does not reflect the richness and variety of the resources potentially available.

Accordingly, especially in view of the growing worldwide competition between tourist destinations, it is necessary to valorize all the resources potentially available in the area.

The Myanmar Tourism Masterplan (2013-2020) lists, among the strategic policies to be pursued (Strategic Program nr. 4), the development of quality products and services, to be drawn up by studying the available potential (Key Objective 4.1.1) and by analyzing visitors' motives and actions (Key Objective 4.1.2).

In line with these recommendations, and with the findings of the preliminary surveys illustrated in the diagnostic part of this volume, this plan identifies one of the strategic actions as increasing, diversifying, creating and valorizing products and tourism resources present in the area with a view to sustainability and integration.

This strategy is pursued via two main objectives:

- improving the use of existing tourist products;
- creating new tourist products in relation to tourism demand, and with a view to sustainability.

The way to achieve these objectives is via a series of actions of varying degrees of complexity. In some cases the actions can be wholly achieved in the space of time of this plan, and are described here with a fair level of detail and operational recommendations; in other cases, they can only be formulated, and in that event we will give a more general description of them.

■ 9.1 IMPROVING THE USE OF EXISTING TOURISM PRODUCTS

9.1.1 FACILITATING PEDESTRIAN MOBILITY AMONG THE MAIN ATTRACTIONS

Studies on tourist behaviour, and on the perception of places have shown that a slow visit of places impacts more forcefully on one's perception than so-called "three-minute tourism", and that it has a positive influence on the tourist experience¹. It makes it possible to fix one's attention on places of interest for longer, and to focus on details (spaces on the fringes of tourist routes, the architectural details of a building etc.) which, from the tourist's point of view, are the equivalent of strategies of person-

¹ See Dickinson, Lumsdon (2010), Dickinson, Lumsdon, Robbins (2010), Lumsdon, McGrath (2011).

al appropriation of the trip. Such strategies take on the taste of a unique “discovery”, especially appealing for responsible tourists (Popp, 2010). Slow visits also offer an opportunity to get closer to the way life is lived in the places concerned: one perceives people, sounds, words, smells etc., in short a collection of elements of that daily dimension which top the list when it comes to factors of attraction².

In this respect, the ACUM area presents some critical aspects. The fact that the attractions are spread over a large area, the absence of an efficient transportation network, and the often congested traffic mean that, in the overwhelming majority of cases, visitors must travel by taxi or bus.

In this context, setting up forms of support for elementary mobility would very much help towards improving the use and enjoyment of places, especially in the city of Mandalay, in which the tourism offer is bound up with the functions of the metropolis, and its pace of life, with the inevitable related effects of congestion.

The first form of support for elementary mobility ought to facilitate movement on foot. Pedestrian mobility, the most basic form of travel, exists in all urban contexts, and is still of vital importance. Nevertheless, pressures from individual motorized transport are putting pedestrians at a disadvantage, especially in the central areas of the city and in high-density shopping areas. In addition, architectural barriers create frequent obstacles, since they drastically reduce the negotiability of the space available, particularly for weaker social groups (older people, and the disabled).

Incentivizing pedestrian mobility and making it safer are the key points of this action, as a way of improving the tourism experience for visitors.

Given the present situation, reorganizing the entire system to favour pedestrian mobility would demand political and cultural decisions which are beyond the scope of this plan. What we can do, however, is suggest the creation of a number of protected pedestrian paths along routes of special importance for tourism.

The aim is to create corridors linking tourist attractions, and quality public spaces, as well as improve pedestrian access to high-density shopping streets, as a way of improving the tourist experience.

Protected pedestrian paths are suggested for the central part of the city of Mandalay, but also for leisure areas outside of the centre.

As regards technical aspects, protected pedestrian paths will be achieved through the widening of existing pavements, or the creation of new ones, so as to form a continuous line with a minimum width of 1.80 mt (or 1.50 mt in the case of narrow streets); kerb ramps at intersections will allow the routes to be used by the disabled and by wheelchair users.

Adequate lighting will guarantee the safety of the routes also during the evening hours. To increase the sustainability of the system there will be solar-powered street lamps.

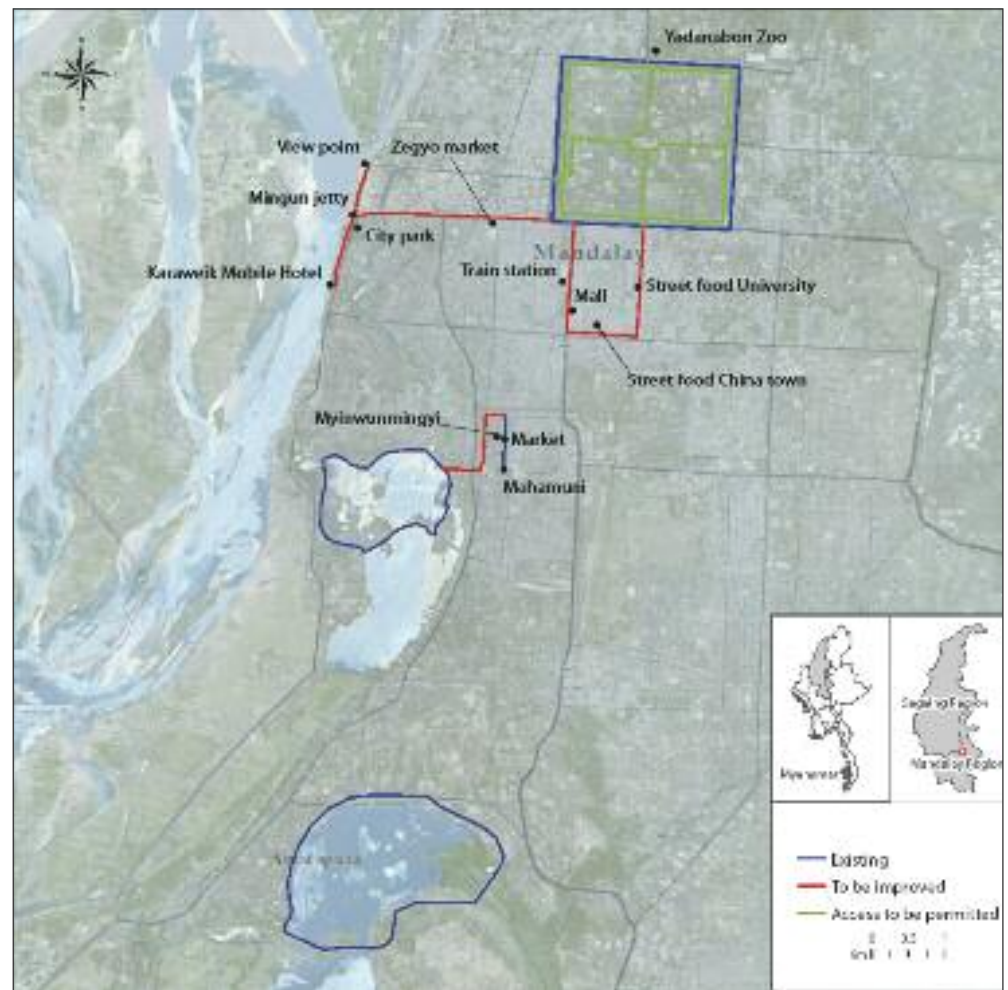
Depending on individual cases, the interventions will have the following aims:

- widening or creating pedestrian pavements along very busy routes which do not have these. This kind of intervention includes works at the following locations: 26th street, to connect the south-west side of the royal city with the City Park, and the view point over the river; 78th, 35th and 73rd streets, to facilitate frequentation along the main shopping thoroughfares of the city, and street food areas; 83rd, 42nd, and 86th streets to connect the *Mahamuni Pagoda*, via Myin Wun Market, with Kandawgyi Lake; and, finally, to complete the ring around Taung Tha Man In;
- making accessible quality areas where there is currently a ban on access (total,

² See ch. 5.2.2, and especially fig. 5.2.2.11.

Fig. 9.1 Interventions to facilitate pedestrian mobility.

Source: author; background map from ESRI Imagery Basemaps.



or at given times of day). This is true above all in the case of the royal city, of which only a small part is open to the public, limited to daytime hours (cf. ch. 5.1.5). Here a plan is urgently needed which combines protection of the place and its valorization, to allow the full use of these quality spaces. Indeed, in internal parts, these are ideal for strolling in the green space, in the shade and away from the heat, also during the daytime. In the outer parts, including between the walls and the moat, the royal city offers pleasant opportunities for strolling, and appealing scenery also in the evening hours;

- restoring and/or intensifying connections between sections of the city. This type of intervention, too, would involve the royal city, above all. Since the royal city is currently accessible only from the eastern entrance, the vast scale of the walled city (a quadrilateral whose sides are each 2.2 km long) reduces connections between the various parts of the city. To avoid the problem, the north gate could be opened, towards Yadanarpon Zoo, and the gate in the west, towards City Park on the river and the current viewing point.

All of these interventions, taken together, could create an initial grid of integrated routes which can be traversed on foot also in the most dense urban fabric in the ACUM area, for a total of 48 km (Fig. 9.1).

The creation of protected pedestrian routes in areas of natural beauty, such as Kandawgyi Lake and Taung Tha Man In, would also have the virtue of valorizing tourism resources which currently have only a partial place in the tourism experience (e.g. Taung Tha Man In), or no place at all in it (Kandawgyi Lake).

9.1.2 CREATING VISITOR ROUTES THROUGH CRAFT DISTRICTS

The wealth of skills which has led to the rich craft tradition in the research area represents a tourism resource not only from the point of view of quality craft products (cf. ch. 4.3.1) and in terms of the revenue that can filter into the local economy. Indeed, craft production activities are located in territorial and sectorial clusters such as to take the form of full-scale, village-based productive specializations. A visit to them becomes a kind of journey through settlement systems, and production systems, that can be of great interest to tourists.

It would thus be extremely advisable to develop visitor programmes to be included in the packages offered by tourist agencies, possibly with the support of easy-to-access information material on the origin of the specific craft tradition of the villages visited, and production techniques etc., to hand out to visitors even before their visit.

9.1.3 CREATING VISITOR ROUTES IN RURAL VILLAGES

The ACUM area has important examples of vernacular architecture, widely present in several villages located in the immediate vicinity of Mandalay, and along the banks of the Ayeyarwady (cf. ch. 4.2.5). These examples constitute an important component of the tangible cultural heritage in the area, owing to the systematic use of local natural, renewable and very low-impact resources, that make them intrinsically sustainable as regards the environment

The policies outlined in the *Policy on Community Involvement in Tourism* (MOHT, 2013b) offer an important reference point for the valorization of this resource for tourism purposes. Indeed, the aforementioned villages could constitute a tourism product also with a view to the promotion of a community-based tourism, since they offer the possibility of having a visitor experience in close contact with the people who live there, and with local daily practices which are carried out there, and which are still characterized by a high degree of “authenticity” work linked to the rural reality (such as crop-farming and animal farming) carried out using traditional methods; craft activities; rituals of daily life; festivities and religious practices, and so on.

The plan proposes the development of visitor routes in rural villages, organized both on the basis of day-visits to one or more villages, and – in the future – on the basis of longer stays, also in homestay facilities (cf. ch. 12). The implementation of this action involves both tourism agencies, which would need to include the visits among the activities they propose in the area, and tourist guides, who ought to identify the routes that are most suited, depending on the varying needs and interests of tourists. In this regard, it should be mentioned that the Myanmar Tourist Guide Association has already commenced initiatives in this direction, identifying some possible destinations to be included in visitor routes.

9.1.4 DEVELOPING VIEW POINTS

The meaning of view points for tourist perception and experience descends directly from the tradition of travel by elite Europeans at the end of the 18th and the early 19th centuries. Just as those travellers used to bring back from their travels paintings showing views of cities and landscapes (sometimes purchased, in other cases painted

by themselves), or to devote themselves to descriptions of the landscapes of places, so, in the years of mass tourism, the “tourist gaze” (Urry, 2006) seeks to reproduce similar overall views using the camera. Perceiving a landscape, in other words grasping some elements of places as a unified whole, isolating them from the intricate context in which they actually have their place, constitutes an aesthetic experience of vital importance for tourists. It allows them to create a distance between themselves and the places concerned, and in a certain sense to “dominate” their tiring and inscrutable complexity, as is seen, in paradigmatic form, in the city as panorama (Keller, 1983).

The higher the view point, the more the “view”, approaching the concept of a map, plays its aesthetic and cognitive role. It is no coincidence that the first thing that Johan Wolfgang von Goethe, one of the best-informed and intellectually equipped 18th century travellers, did on his arrival in a village or a new town, on his travels in Italy, was to climb up the church bell-tower. A similar experience – albeit in a very different context – is described by De Certau (1985) when he observed Manhattan from the 110th floor of the World Trade Center. A very satisfying experience is still afforded to us, however, every time we are able to cast our gaze over large spaces from which we can enjoy (i.e. mentally construct) a panorama.

The research area currently offers only two, albeit spectacular, raised positions (the top of Mandalay Hill and the top of Sagaing Hill). However, there is great tourist pressure at these positions, especially at sunset. The only other existing view point, the left bank of the Ayeyarwady north of the Mingun jetty, is unfortunately neglected and not very appealing.

For the valorization of the great resources of the ACUM area in terms of views, it is thus necessary to identify and install a larger number of view points, to be conceived also in relation to pedestrian routes and cycling routes as possible destinations.

9.1.5 DEVELOPING MEDITATION TOURISM

Myanmar is the cradle of the most orthodox form of Buddhism, Theravada Buddhism. In particular, the research area includes the city of Sagaing, a famous centre of Theravada Buddhism, and one of the important pilgrimage destinations in south-east Asia. While pilgrims add to a large influx of internal tourism, or tourism from other Buddhist countries, the religious and spiritual dimension has so far played only a modest role for the other components of tourism demand.

In view of the recent rebirth of interest in the so-called Meditation of the Interior Vision (Vipassana Meditation), which is also taught outside the walls of monasteries, there are still margins for promoting the ACUM district also as a destination for a non-religious public that is interested in such meditation practices.

9.1.6 DEVELOPING AQUATIC TOURISM

Water represents a dominant element in the landscape of the ACUM area: the mighty Ayeyarwady, the calmness of the lakes, the winding bends of the Myitnge, and also, in the rainy season, the flooded plains make a major impact on the perception of places, and on the tourist experience. Currently tourist demand almost only intersects with the element of water in the form of cruises along the river, on crossings from Mandalay to Mingun, or when walking across U Bein bridge, which is often crowded. More harbour, river and lake touring activities can be developed that connect visitors with the waterside and riverscape. These may include the following examples:

- establishing more river links between the centres in the area;
- expanding the offer of tours on the Ayeyarwady, possibly including stop-offs to visit the agricultural systems of the islands (cf. Action 9.1.3), the small nat temples (e.g. the “Siblings of the Teak Tree”, cf. ch. 4.3.3.3) etc.;
- setting up short tours on Taung Tha Man Lake and Kandawgyi Lake;
- setting up tours which enable tourists to sail up the Myitnge;
- facilitating the opening of refreshment businesses on the riverbank and/or on boats permanently anchored (the success of the Mandalay Karaweik Mobile Hotel is indicative of the attraction of restaurants in direct contact with water).

9.1.7 CREATING A HUB FOR VISITING THE AREA OF BAMAR CULTURE

As is known, the ACUM area can be considered the heart of the region of the Bamar cultural tradition. Also outside the research area, but within a radius of 100 km around it, the region is rich in places of great interest in terms of culture and/or the landscape.



Fig. 9.2 The Ta Moke Shwe Gu Gyi Pagoda.

Photo: M. Loda, 2015.



Fig. 9.3 The Shin Pin Set Thwar Pagoda

Photo: M. Loda, 2015.

One thinks primarily of Kyaukse, situated 65 km south of Mandalay, which is home to an important archeological complex. The excavations, begun in 1994, have also brought to light pagodas built in the era of the Bagan dynasty, including *Ta Moke Shwe Gu Gyi Pagoda* and *Shin Pin Set Thwar Pagoda*, which hold concentric statues of the Buddha (Fig. 9.2 and Fig. 9.3).

As regards the landscape heritage, we can mention Pyin Oo Lwin, a colonial town built in 1915-1917, 65 km east of Mandalay, and 1,070 mt above sea level. In the town, known for its pleasant climate and the fact the places are well looked after, one finds the wonderful National Kandawgyi Gardens and admire pansies and tulips, bamboo and exotic orchards, as well as a butterfly museum. Every year in December the garden hosts a flower festival (Fig. 9.4). Moreover, the town is already included in an offer package for longer stays of 4 days, but it is above all the destination of local tourism, while the presence of international tourism is very reduced.

Around 20 km south of Mandalay there stands Paleik, famous for its Snake Temple (Hmwe Paya).

Fig. 9.4 National Kandawgyi Garden at Pyin Oo Lwin.

Photo: M. Loda, 2015.



Fig. 9.5 National Kandawgyi Garden at Pyin Oo Lwin.

Photo: M. Loda, 2015.



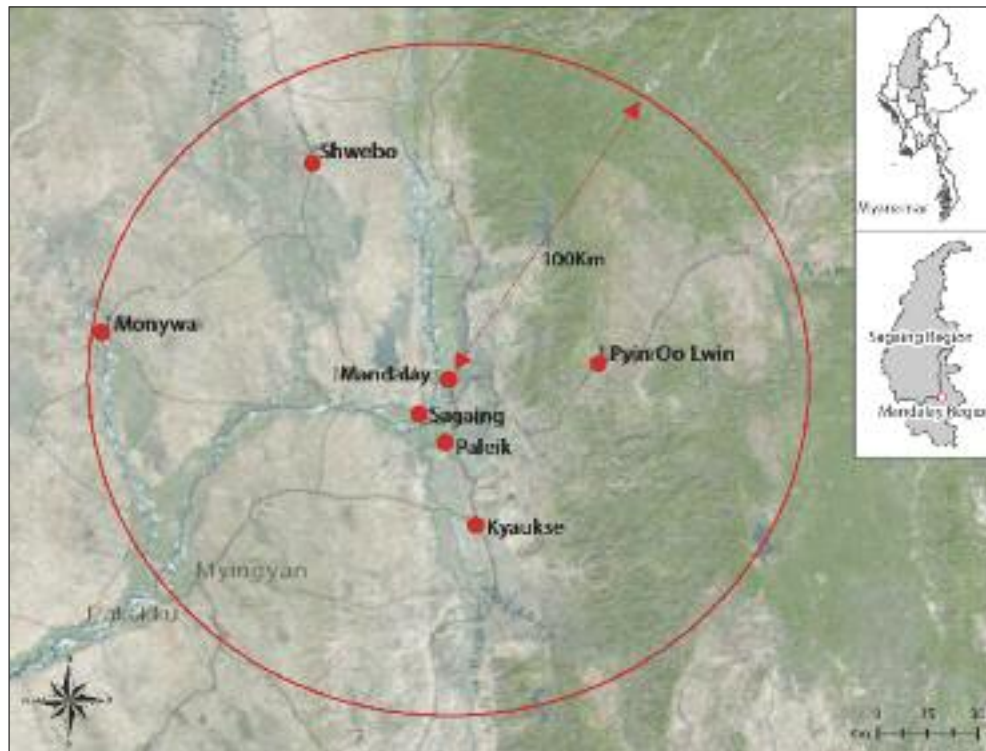


Fig. 9.6 Tourist attractions which could be integrated within the tourism offer in the ACUM district.

Source: author; background map from ESRI Imagery Basemaps.

Further away, but still within the radius of a day's travel, we find Shwebo, 80 km north-west of Sagaing, the Burmese capital in the mid-18th century, which retains traces of the fortified city.

Finally, we can mention Monywa, 130 km north-west of Sagaing by road, on the eastern bank of the river Chindwin, where the Laykyun Setkyar stands, a huge statue of Buddha no less than 116 mt tall.

All these locations do not have their own, separate power to attract tourists. They are hard to reach from the main tourist centres, and they do not have hospitality facilities suitable for accommodating visitors (except Pyin Oo Lwin, partially). While these conditions hinder real development for tourism, interesting prospects could be opened up by organizing visitor packages which connect them to the hospitality offer in the ACUM area.

With targeted interventions to improve the existing road network, the research area could put itself forward as a hub for visiting locations situated within the radius of a day-trip, returning in the evening (Fig. 9.6), with advantages both for the research area, which would benefit from an extension to the duration of visitor stays, and for the main locations in the region, which would thereby be included in the tourist circuit.

9.1.8 PROMOTING CELEBRATIONS, FESTIVITIES AND TRADITIONAL SHOWS

Attending celebrations, festivities and traditional shows is an important part of that contact with the “living” culture which is central in the travel motives of responsible tourists. In this field, too, the ACUM area is able to offer a lot more than what currently forms part of visitor programmes.

As regards celebrations, the programmes offered at the moment by tour operators concentrate on the *Thingyan Water Festival* and, to a lesser degree, on the

Taungbyon- and *Yadana Gu*-Nat festivals. In particular, there is intensive promotion of the *Thingyan Water Festival*, despite the fact that the event is not typically Burmese, and indeed is celebrated in similar ways in neighbouring countries, e.g. Thailand. The festival is also the subject of tourism promotion without informing tourists adequately that the pervasive form of the event – which is in some respects also invasive – could be unsuitable for older tourists.

By contrast, no promotion is undertaken of events which have a potential interest for tourism. This is the case, especially, with the *National Independence Day*, celebrated yearly on January 4th, in the peak tourist season. In its official part, the festive day consists mainly of military parades and political speeches; however the ceremonial events are accompanied by funfairs, popular gatherings, sports contests, and all sorts of other entertainments involving large parts of the population. The occasion is a chance for the population to display their traditional, ethnic clothes and costumes, which originated in remote parts of the country. Therefore, the *National Independence Day* celebrations offer tourists an interesting opportunity to observe the country's ethnic multiplicity.

Very much the same holds for the *Union Day* celebrations on February 12, that usually take place in the stadium area south of the city centre. Since the *Union Day* celebrates the first agreement of peripheral ethnic groups with the central Bamar group, this occasion is used by minorities living in the ACUM area to celebrate their own festivities with their own music, food etc. For example the Shan people become active in their quarter, on 35th street, between 66th and 67th street, with an ethnic market and traditional dance shows, performed for three days before February 12 (cf. ch. 4.3.3).

Both *Independence* and *Union Day* occur in the high tourist season, and the less official parts of the celebrations could be an interesting attraction for many tourists, to complement visits to pagodas and monuments. Promotion could take the form of short leaflets to be distributed at all international hotels and restaurants, and also to tourist agencies and tour guides.

A major factor of attraction for visitors interested in living culture could be the celebrations that take place at the *Mahamuni Pagoda*. This large complex, which is home to the most venerated Buddha shrine in the ACUM area, hosts many religious as well as non-religious activities and feasts, taking place on a daily or annual basis (for a list, see ch. 4.3.3). The *Mahamuni Pagoda* is frequented constantly by locals, and there is no better place for observing Buddhist worshipping practices and rituals. These practices occur both daily (striking the bell, cleaning the Buddha, preparing the *thanaka*-wood etc.) and in yearly festivities, but not many tourists know about them.

It would therefore be opportune to publicize the calendar of celebrations, and to promote visits to pagodas to coincide with them (naturally with the necessary discretion and respect, cf. ch. 11.1.1).

A typically Burmese form of worship that is decidedly unique is the worship of Nats, whose shrines are present everywhere throughout the country. In this respect, the attractions in the ACUM area are not as great perhaps as the attraction of Mount Poppa, but they are still of great interest. Despite this, only the most famous Nat-festivals, the *Taungbyon* and *Yadana Gu*, are proposed as tourist destinations, and only then by a small number of travel agencies, while for example the shrines of the *Kywan Pin Maung* and *Hna Ma* brothers (just south of Mingun), less prominent and of more recent origin but very interesting, are entirely unknown to tourists.

The weak level of tourist promotion of *nat* worship is probably due to a sort of embarrassment by tour operators in presenting to visitors this “archaic” belief which conflicts so much with the Buddhist religion. However, since this worship is without doubt a major feature of daily life for many Burmese, it is necessary to develop forms of communication which allow tourists to understand the phenomenon, while preventing turning it into mere folklore. The issue should thus be addressed specifically in training courses for guides, and in the information material produced for tourists.

Burmese puppet theatre, dance, and music are elements of extraordinary importance for local cultural tradition, but cannot be transmitted immediately to the tourist public. For example, the traditional marionette theatre lasting an entire night is certainly not fitting for tourist use. For this reason, we are seeing a gradual banalization of shows designed for tourists: it is hard to find nowadays the display of the whole number of marionettes in any marionette show, and in the shows staged in hotels and restaurants there are only three or four puppets at most, often with variations in the artistic level depending on the hotel's price bracket. The same is more or less true of Bamar music. It seems nearly impossible nowadays to hear a performance of the entire Bamar *Hsaing waing* drum circle with accompanying instruments, since hotel performances are regularly reduced to four or five attuned drums. The whole drum circle of 21 drums might be too costly and laborious for a show for relatively few tourists.

An active protection of these forms of artistic expression, integral part of a sustainable tourism development plan, could find valuable support by stimulating forms of links between hotels on the one hand and artistic schools on the other. This would allow the development of forms of art which are accessible to a public of non-specialists. It would stimulate the creativity of the artists, it would guarantee the level of the performance, and, in parallel, it would create a financial return for the institutions involved.

■ 9.2 CREATING NEW TOURIST PRODUCTS

9.2.1 CREATING CYCLING TOURISM ROUTES

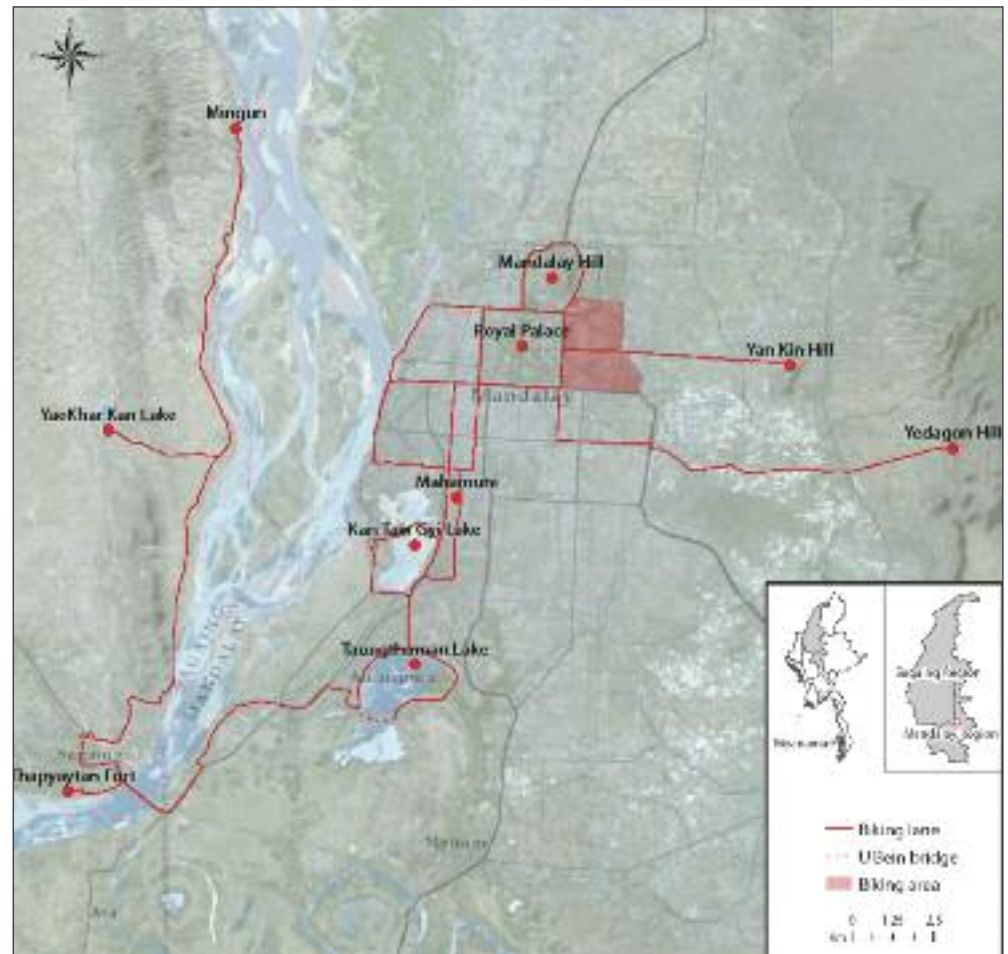
An important support for basic mobility, with the positive effects on the tourist experience described at the start of this chapter, will be provided by establishing an integrated network of cycling routes. Although the flat morphology of the local area encourages this type of mobility, and although numerous hotels make a small number of bicycles available for their guests, the situation in the ACUM area in this field is currently highly critical: many of the main tourist attractions are in the centre of areas with a lot of traffic, which discourages the use of bicycles.

Exceptions to this are the area west of the royal city of Mandalay, where the density of tourist attractions and good traffic conditions make cycling mobility already pleasant today, and the royal city itself, which, however, is only partially accessible.

The map in fig. 9.7 shows a network which, with some simple interventions, would allow visitors to get to the areas of greatest tourist interest, and at the same time to valorize the areas of natural beauty and interesting views. The network covers a total distance of 114.5 km (without considering the area to the west of the royal city)

Fig. 9.7 Network of cycling routes in the research area.

Source: author; background map from ESRI Imagery Basemaps.



The planned cycling network fulfils, to a great extent, the requirements which are considered essential to ensure its effective functioning:

- connectivity: the network interconnects important tourist attractions;
- safety: minimizing the number of conflicting points or intersections with roads that have high traffic volume;
- comfort: ease of finding and selecting routes, and minimum nuisance such as noise, fumes, congestion;
- attractiveness: degree of visual and spatial experience along the way, during the user's journey.

From a technical point of view, the plan aims to keep to a minimum the investments necessary to create cycle lanes.

The plan does not envisage paths which are completely separate from car traffic. The paths run on routes which are little used by motorized traffic, and which are already safe for cyclists. They need only a few adjustments to signage or the surface.

In some sections, there is provision for a mixed use, in which the cycle route coincides with protected pedestrian paths, as for example around the outer perimeter of the royal city of Mandalay, and around Kandawgyi Lake and Taung Tha Man In; in all, it measures 19 km.

Only in some sections (in particular on 26th street, between the south-west corner of the royal city and the river) are more large-scale interventions necessary, such as, for example, protection from traffic with unobtrusive physical separators.

However, systematic mapping of streets with little traffic will be advisable, in order to extend the network to be proposed as cycling routes.

10. Conservation and valorization of the tangible cultural heritage

■ Today, policies concerning the conservation and valorization of the cultural heritage are near the top of many governments' political agendas. Their importance became particularly accentuated in the second half of the last century, hand-in-hand with certain epoch-making transformations which have affected the whole world: the transition, in an increasing number of countries, from an economy producing tangible goods to a service economy and a knowledge-based economy, an expansion of the sphere of intangible consumption (culture, entertainment, leisure activities, free time etc.), and, above all, the global establishment of tourism as one of the prime engines for economic development. This range of transformations has meant that heritage policies no longer have the marginal role that they had in the past; instead, they now have an unquestionable strategic importance.

Political authorities do not always show a full awareness of the change that has taken place, and they tend to dwell on a sector-specific vision of their cultural heritage, without grasping the potential for economic and social development that can come from it, or the risks of irreversible loss to which it is dramatically exposed.

However, there is more and more scientific evidence, and converging evidence, to show that, owing to the profound interconnections which cultural heritage has with tourism, and with tourist facilities, trade, the whole range of personal services, transportation, associated cultural activities (e.g. maintenance, restoration), professional training etc., it can be one of the most powerful factors driving economic growth, and one of the most effective agents for modernizing the social system in general.

If one manages to grasp this formidable centrality of cultural heritage, one also has to recognize that a cultural heritage policy is not an easy thing, and that it demands efforts on several fronts. Indeed, while its mission can be summed up in a few words, "the transmission of cultural properties, with its significant values intact and accessible to the greatest degree possible" (Letellier, 2007), seeing this policy through requires the ability to manage a challenging process (heritage conservational process), broken down into phases, and which sees the involvement of a highly variegated range of actors. The complexity of the heritage conservational process is shown by the following:

- the interdisciplinary approach which is part and parcel of it: the variety of skills required is limitless: art history, archaeology, geography, restoration, archival studies, planning, the management of artistic and monumental assets, the economy of culture, tourism science etc.);
- the inter-sectorial and transversal nature of the induced effects of cultural policies: a unit of investment in heritage acts as a multiplier of investments in other, related sectors (services, transport, tourist facilities etc.);
- the multi-target nature of heritage policies: not only the conservation of monuments and sites, but also the creation of new "social capital" by cultural enrich-

ment, benefiting residents and visitors individually, and reinforcing the inter-relational fabric of the social system.

The wide range of partnerships involved: heritage policies are less and less conceivable in line with the top-down model. Instead, they are increasingly the result of an expanded participation, involving not just the institutional actors responsible for protecting sites and monuments but also associations, economic categories, and opinion groups with which it is unthinkable not to share a common vision of the future of the heritage, the most effective ways to protect it, and the ways in which it can be adapted for greater public enjoyment.

The fact that cultural heritage is a form of “public property” necessarily means that the “community” must be acknowledged as the body that has full rights to the heritage. If this is true, it is also true that the conservational process cannot fail to be a process open to the widest possible participation. Only in this way can the cultural heritage fulfil the only mission it can be called on to fulfil: to instil pride in the community which possesses it, and increase the sentiments of social cohesion, and create a sense of identity even for new arrivals. On the basis of these premises, four Key Objectives in the heritage conservation process have been listed in the Planning Strategy *Conservation and Valorization of the Tangible Cultural Heritage*. These objectives are to be pursued sequentially, in the sense that each *key objective* assumes that the previous *key objective* has been attained (Tab 10.01):

- Documenting the Cultural Properties;
- Risk Assessment and Mitigation Measures;
- Tangible Heritage Conservation;
- Tangible Heritage Valorization.

For each *key objective* (sometimes split in *sub-objectives*), the following were identified:

- the *Actions* to be developed in order to achieve the *key objectives*;
- the *Lead Agencies* (i.e. the main stakeholders) engaged in the listed *Actions*;
- the *Performance Indicators*, i.e. the deliverable of each *Action* (for this methodology, see MOHT, 2013).

STRATEGIC PROGRAM	KEY-OBJECTIVES and SUB-OBJECTIVES	
10 Conservation and Valorization of the Tangible Cultural Heritage	10.1 Documenting the Cultural Properties	
	10.2 Risk Assessment and Mitigation Measures	10.2.1 Climate Change
		10.2.2 Seismic Risk
		10.2.3 Anthropic Risk
		10.2.4 Illegal Export
	10.3 Tangible Heritage Conservation	
	10.4 Tangible Heritage Valorization	

Tab. 10.01 Strategic Programs and Key-objectives for the Conservation and Valorization of the Tangible Cultural Heritage.

■ 10.1 DOCUMENTING THE CULTURAL PROPERTIES

No conservation policy can be carried out without prior knowledge of what one wishes to conserve. An accurate census of the properties to which the community bestows cultural meaning is a vital pre-necessity in modern heritage policies. Without this knowledge, sharing out resources (which are almost always scant) set aside for conservation is either:

- arbitrary, because without knowledge it is not possible to back up any criterion for using the resources in line with principles of priority in the interventions to be carried out; or
- dictated by emergency logics in response to the risks which, from time to time, threaten the integrity of the properties to be conserved.

Pursuing the *Key Objective: Documenting the Cultural Properties* involves two Activities, which are normally undertaken together, but which, for great conceptual clarity, we distinguish here: a survey, and an inventory of the cultural properties (Tab 10.02).

KEY-OBJECTIVES	ACTIONS	LEAD AGENCIES	PERFORMANCE INDICATORS
10.1 Documenting the Cultural Properties	10.1.1 Heritage Survey	Department of Archaeology	GIS of Monuments and Sites of the Ancient Cities of Upper Myanmar
	10.1.2 Heritage Inventory	Department of Archaeology	Heritage Inventory

Tab. 10.02 Key-objectives and Actions for Documenting the Cultural Properties.

10.1.1 HERITAGE SURVEY

A survey is vital to establish the exact location of all the properties which make up the heritage. Normally these are identified by having recourse to various different sources: from historical documentary research, from field investigations, and from community engagement to explore the survey area and identify monuments and sites of heritage significance. There are numerous kinds of technology involving the Geographic Information System (GIS) which are available for heritage surveys: in chapter 4.2 an initial geo-referenced map was provided of the tangible heritage in the ACUM area. This map was drawn up by LaGeS (2016), setting out from various sources of documentation: academic works, tourist guide books, and digital archives such as *open streets* etc. It constitutes, despite the great heterogeneity of the sources used, the first representation of the distribution of the sites and monuments which comprise the tangible cultural heritage of the ACUM area. Albeit within the aforementioned limits, it forms a useful departure point to create an exhaustive map (performance indicator), coordinated and managed by the Department of Archaeology of Myanmar.

10.1.2 HERITAGE INVENTORY

The survey provides the numerical size and location of the heritage; however, in these terms it is not yet a sufficient tool for the purpose of decision-making. It is vital for all the information which describes the physical configuration, condition and use of monuments and sites to be associated with the geo-localized property. To this end, the recommendations made by ICOMOS (1996) are a useful reminder not to forget the essential purposes of the recording of the cultural heritage:

- To acquire knowledge in order to advance the understanding of cultural heritage, its values and its evolution;
- To promote the interest and involvement of the people in the preservation of the heritage;
- To permit informed management and control of construction works, and of all changes to the cultural heritage;
- To ensure that the maintenance and conservation of the heritage is sensitive to its physical form, its materials, construction, and its historical and cultural significance.

As already seen in chapter 4.2 some partial inventories have already been compiled by the Department of Archaeology in Mandalay: the list of 50 monuments in Mandalay is a set of records of the monuments of Innwa. Both constitute very valuable, high-quality instruments of knowledge; each monument record is accompanied by photos, plans and sections of the documented monuments. There are basically two drawbacks to these inventories: the non-uniformity of the survey forms used, which prevents them from being integrated in one of the two separately produced inventories; and the fact that the inventories have not yet been transposed from hard-copy format to digital format, which makes it harder for them to be consulted and used for statistical analysis.

There are therefore at least two recommendations that must be made:

- the first involves the need to take steps to draw up a standardized survey record form, for the five cities. The reference model for the new, unified record card could be the “Content of records” published at the end of the ICOMOS document;
- the second recommendation involves the need to extend the survey and the inventory process to the entire range of heritage, and not just to the designated (or declared) properties; indeed, it is important to document minor properties too. Although these are not classified as properties deserving protection by the authorities responsible for heritage conservation, they nevertheless offer a significant historical and documentary value, and, by their survival, they help to maintain the integrity of the physical context to which the more important monuments belong.

The lack of an inventory of all the heritage has been a great source of regret on the occasion of catastrophic events (such as earthquakes, floods, wars etc.); since only designated cultural properties were considered targets for preservation, no trace has been left of the undesignated cultural properties, which have been lost either as a result of natural disasters, or following increasingly numerous thefts, encouraged by the illegal trade in movable tangible heritage (sculptures, carved timber panels etc.). The performance indicator of this action will therefore be the realization of a heritage inventory which makes possible the “comparison of sites, aiding in categorization, appraisal of authenticity and integrity, and determination of relative significance assessments that can assist in prioritizing management interventions” (Myers, Avramides, Dalgity, 2013).

■ 10.2 RISK ASSESSMENT AND MITIGATION MEASURES

The assessment of the vulnerability of cultural heritage, and the risks facing it, is the primary issue of conservation policies. Catastrophic events such as earthquakes,

wars and floods have demanded a radical rethink of our cultural heritage conservation practices: there are more and more heritage agencies, and experts, demanding conservation strategies focused on prevention, rather than interventions aimed to repair damage that has already occurred. In recent years debate has revolved around the notion of “heritage preparedness”, which comprises both planning efforts to reduce the risk and consequences of disaster, and planning efforts to prepare for response and recovery (Stovel, 1998). The development of an effective “heritage preparedness approach” requires the prior identification of the main risk factors, also called hazards, i.e. all the particular threats or sources of potential damage for the conservation of the cultural heritage. Below we examine, for each individual hazard, the potential negative effects and the preventive remedies that could be adopted.

10.2.1 MITIGATE CLIMATE CHANGE RISK

Myanmar is facing progressive climate changes in rainfall distribution and quantity, and rises in temperature. The results show a significant increase of rainfall depths in the period 1997-2012 compared to the period 1949-1981. Particularly in Mandalay extensive rainfall, and the lack of urban drainage facilities, cause flooding in the low and flat areas of the city. Moreover, large-scale flooding may occur south-west of the city, and in the Amarapura area, caused by backwater flow when the water levels of both the Ayeyarwady and Dokthawady rivers are high at the same time (Myanmar Earthquake Committee, 2015). These changes can affect the cultural heritage in many ways (Tab 10.03).

KEY-OBJECTIVES	ACTIONS	LEAD AGENCIES	PERFORMANCE INDICATORS
10.2.1 Climate Change Mitigation	10.2.1.1 Soil Drainage	Department of Archaeology Planning Municipal Departments	Plans for water drainage of heritage sites
	10.2.1.2 Regular Maintenance and Repair	Department of Archaeology University of Mandalay	Handbook for the Maintenance of Heritage Properties

Tab. 10.03 Key-objectives and Actions for the Climate Change Mitigation.

10.2.1.1 SOIL DRAINAGE

In response to the intensification of cases of flooding, it would be necessary to adopt serious measures to protect wooden architecture, especially to protect monasteries and the vernacular habitat, by means of measures designed to speed up soil drainage, and combat damage due to rising damp: the lack of any moisture barrier above foundation level in this very humid environment causes widespread damage, because it weakens the anchorage to the soil of vertical wooden structures such as stakes and pilasters, and endangers the stability of structures. The performance indicator of this action is the setting in place of effective works for the drainage of the soil of heritage sites.

10.2.1.2 REGULAR MAINTENANCE AND REPAIR

The intensification of rains has, moreover, the effect of multiplying the leakage of water from the roof of monasteries and other religious monuments. It has been calculated that “rainfall during the first five minutes of a storm in the Mandalay region can measure as much as seven millimetres. In the case of the Shwe Nandaw monastery, rainfall at this rate means the roof has to evacuate 1,400 litres of water in that same

short space of time. With the present gutters, a great deal of water leaks into the wooden structure” (Dumarçay, 1983). Generally the typical damage patterns of water infiltration are the following:

- roofs: rain from the heavy monsoon downpours easily finds its way past dislodged roof tiles into the mud bed, causing wet rot of the roof structure, particularly in those parts of the beams affected;
- damage due to rising damp: the lack of any moisture barrier above foundation level in this very humid environment causes widespread damage of the brickwork and associated timber elements;
- delamination of the multi-layered walls: masonry wall structures were always built in mud mortar with three layers. The quality of the bricks was always good on the exterior surface, but normally for interior walls inferior bricks were used. The lack of a sufficient bond between the outer layer and the rubble infill often causes degradation of the walls;
- water infiltration is responsible for damage to mural paintings.

The only way to prevent such damage is by regular maintenance of superstructures (roofs, terraces, wall heads), repairs to cracks, the eradication of parasitic vegetation, and the pointing of brick joints with lime mortar.

The performance indicator of this action is the setting in place of a handbook which specifies, for the various types of tangible heritage, the interventions to be carried out to ensure regular maintenance of monuments.

10.2.2 MITIGATE SEISMIC RISK

Myanmar is exposed to major earthquakes, as a result of the large number of areas of interaction between tectonic plates. There are a number of fault lines across Myanmar, some of which are active. Among them, Sagaing Fault is the most active, and previous earthquakes recorded in Myanmar have occurred along this fault line. Royal capitals were incidentally located along the Sagaing fault zone, which is the principal source of seismic hazards in Myanmar. According to historical records, ancient capitals of Myanmar around the Mandalay area, Amarapura, Ava (Innwa), and Sagaing, were severely devastated by major earthquakes (UN HABITAT, 2009).

Among these, the most distinct event was the Innwa earthquake, which struck on July 16, 1839. In the following days new earthquakes destroyed the Innwa Old Palace and many buildings (March 21), and Innwa Pagodas and city walls (March 23); on the same day, Mingun Pagoda was totally destroyed.

However, the biggest earthquake in the Mandalay Region, with a magnitude of 7, occurred in 1956. The devastation was greater in Sagaing region than in Mandalay region, and it came to be known as the Great Sagaing Quake. Several pagodas were severely damaged in the event. The last earthquake happened on 11 November 2012: 181 houses, 58 pagodas, 79 monasteries, and 9 government buildings totally collapsed. In addition, 2,315 houses, 605 pagodas, 527 monasteries and 126 government buildings were damaged.

The probability of seismicity in Mandalay Region is high: “The highest seismic zone comprises the western part of Mahaaungmye Township, and the second-highest zone consists of the western part of Amarapura, Chanmyathazi and Chanayethazan townships, the westernmost part of Patheingyi Township” (Myanmar Earthquake Committee, 2015).

Depending on the intensity of the event, the types of damage are as follows:

minor cracks, damage (when only parts of the structure are concerned), and collapse (when all the structure is concerned). Two categories of action can be undertaken against the seismic risk (Tab 10.04).

KEY-OBJECTIVES	ACTIONS	LEAD AGENCIES	PERFORMANCE INDICATORS
10.2.2 Seismic Risk Mitigation	10.2.2.1 Preventive Measures	Department of Archaeology	Periodic Inspections
	10.2.2.2 Post Seismic Interventions	Department of Archaeology	Preparedness Plan

Tab. 10.04 Key-objectives and Actions for Seismic Risk Mitigation.

10.2.2.1 PREVENTIVE MEASURES FOR BUILDING STABILISATION

Preventive measures designed to mitigate seismic risk may be adopted, but in order for these to be effective it is vital to conduct a careful analysis of the points of weakness in Mandalay's cultural heritage. This analysis would need to be conducted with reference to the various different construction materials and structures, so as to achieve a more thorough understanding of the "local behaviour of single components of the temple structures with recourse to a global numerical model analysis, and therefore it should be separately modeled and analyzed to understand its structural vulnerability" (Shakyaa, Varuma, Vicente, Costa, 2012).

This notwithstanding, historic buildings may be protected from excessive damage in earthquakes by a carefully thought-through strategy of continuous maintenance and appropriate structural intervention. The key to a successful programme is informed risk assessment, good documentation, adequate disaster planning, and periodic inspections (performance indicator).

10.2.2.2 POST-SEISMIC INTERVENTIONS

In light of the high seismic risk to which the monumental heritage of the Ancient Cities is exposed, we cannot escape the need to attain the "target" safety via appropriate repair/strengthening interventions, while recognizing their specific static/dynamic behaviour, and respecting their intrinsic historic/artistic values (Modena, 2014).

The options for intervention can be ordered according to an increasing/decreasing scale for the two opposing objectives of safety/authenticity: the more emphasis given to the objective of safety, the weaker the objective of authenticity becomes (Ranjitkar, 2000).

Yet, however much one trusts that the reinforcement methods for cultural property buildings will harmonize the two objectives of Authenticity and Safety, no definite assessment method has been found, to date, for striking this balance. No reinforcement methods which consider the balance of these objectives are mentioned in the *Principles for the Preservation of Historic Timber Structures* by ICOMOS (ICOMOS, 1999).

At the *International Symposium on Risk Preparedness for Cultural Properties*, held in Kobe and Tokyo in January 1997, and attended by representatives from UNESCO, ICOMOS, ICCROM and other international agencies, despite the renewed support for the principle of authenticity, in line with the criteria endorsed by the Venice Charter, agreement was expressed, realistically, on the need for a regulation of the possible alterations to the existing state.

More recently, it has been proposed to select the intervention to be carried out from among the following approaches, in order of priority (Murakami, 2011):

- additions using traditional techniques and traditional materials;

- additions using traditional techniques and techniques derived from them, and traditional and modern materials;
- additions using modern techniques and modern materials;
- replacements using modern techniques and modern materials.

To sum up, it is necessary that a *Preparedness Plan* be set in place in advance (performance indicator), to avoid being caught unprepared in the event of new seismic events.

10.2.3 MITIGATE THE ANTHROPIC RISK

Urban development constitutes a serious threat to the tangible heritage, especially when monumental sites are located within or near rapidly-growing urban centres. There are several negative effects. Below we discuss the activities best suited to combat the most significant effects (Tab 10.05).

KEY-OBJECTIVES	ACTIONS	LEAD AGENCIES	PERFORMANCE INDICATORS
10.2.3 Anthropoc Risk Mitigation	10.2.3.1 Control Urban Expansion	Department of Archaeology	10.2.3.1.1 Setting up Buffer Zones 10.2.3.1.2 Setting up Conservation Zones
	10.2.3.2 Urban Traffic Risk Mitigation	Urban Municipalities Urban Planning Department	10.2.3.2.1 Setting up Limited Traffic Zones
	10.2.3.3 Tourist Pressure Mitigation	Ministry of Hotels and Tourism Ministry of Culture	10.2.3.3.1 Definition of a panel of indicators for Carrying Capacity Evaluation
	10.2.3.4 Living Heritage Risk Mitigation	Department of Archaeology University of Mandalay	10.2.3.4.1 Official Guidelines on Restoration
	10.2.3.5 Containing the Risk of Neglect	Department of Archaeology	10.2.3.5.1 Maintenance Planning
10.2.4 Illegal Export Risk Mitigation	10.2.4.1 Preventing Illegal Trade of Movable Heritage Properties	Department of Archaeology	10.2.4.1.1 Creation of a Data Base of Movable Heritage Properties

Tab. 10.05 Key-objectives and Actions for the Anthropoc Risk Mitigation and Preventing Illegal Export Risk.

10.2.3.1 CONTROL THE URBAN EXPANSION RISK

The main risks connected with building expansion relate to the effects of visual obstruction produced by new constructions:

- when (by placing themselves between the observer and the monumental property) they block fields of vision which used to allow monuments to be viewed from a distance;
- when, owing to their excessive height, they alter profiles and relations of scale between the buildings surrounding monumental sites, thereby compromising the former spatial balance;
- when, owing to their excessive proximity to monumental sites, they lead to a jarring clash between the ancient and the contemporary.

It was some time ago that the international culture of heritage conservation first issued specific recommendations for protecting the tangible heritage from these events, by means of two main instruments: setting up a zone of protection

around the monument to be protected, and expanding the ambit of conservation from the isolated monument itself to the heritage site, in the sense of an urban sector or portion of territory comprising a multiple collection of monuments, lesser buildings, set of streets etc. which needs to be protected, in its entirety.

Regarding the first instrument, the essential references are:

- “The concept of a historic monument embracing not only the single architectural work but also the urban or rural setting” (The Venice Charter, 1964, Art. 1); from this close association, it also derives that “the conservation of a monument implies preserving a setting which is not out of scale. Wherever the traditional setting exists, it must be kept. No new construction, demolition or modification which would alter the relations of mass and colour must be allowed” (Art. 6);
- the notion of the “buffer zone”, introduced by the World Heritage Convention (UNESCO, 1972) and intended to avert the effect of negative environmental or human influences, whether or not it embodies great natural or cultural value itself.

The second pillar of international conservation culture has been the idea of conserving the historic environment as opposed to a series of discrete heritage assets. The progression of heritage categories contemplated by the UNESCO convention (monuments, groups of buildings, sites, cultural landscape) is emblematic of this tendency to extend protection from the individual monument to the historic setting which contains several monuments, and which bestows a depth of meaning which, individually, they could not express. This new concept, which in Europe has been formulated differently, with reference to the regulatory frameworks in use in the various countries – *Centri storici* in Italy (ANCSA, 1960), *Secteurs sauvegardés* in France (1962), *Conservation Areas* in the UK (1990) – is today at the centre of intense debate within the major international agencies which deal with heritage (ICOMOS, UNESCO etc.).

10.2.3.1.1 SETTING UP BUFFER ZONES

The 1998 *Law amending the protection and preservation of cultural heritage* fully took on board the claims of the international heritage conservation culture, and offers valuable regulatory tools, both for the protection of individual monuments, and to expand the ambits of heritage protection on progressively increasing scales.

As regards the protection of individual monuments, the Law expressly sets out a “prohibition of laying out or building of any new structure within or near the premises of any scheduled monument” (concept 20). Specifically, the law envisages the possibility of setting up an *Ancient Monumental Zone*, i.e. the zone where the ancient monument is situated (Chapter 1, Art. 2, e), and also a *Protected and Preserved Zone* for the protection and preservation of the view of the cultural heritage, an ancient monument and an ancient site (Chapter 1, Art. 2, g). A good example of the application of a buffer zone is the protection of Innwa and of its archaeological area, with a *Monumental Zone*.

However, one is somewhat alarmed by the very recent *Heritage Buildings Protection Law* (26th August, 2015) of which, as far as we are aware at least, no full translation in English is yet available. Concerns stem from a reading of certain extracts of the new measure, in which the previous “prohibition” is replaced by the statement that, “prior approval for any project in the area designated as the heritage building from the Department of National Museum under the Ministry of Culture is required” (Chapter 7). This wording would seem not to exclude the faculty of creating exceptions, at the discretion of the Department of National Museum, from the categorical ban contemplated by the 1998 law.



It is to be hoped that, once set up, the Ancient Monumental Zones (which are the exact equivalent of Buffer Zones) cannot be revoked (barring truly exceptional cases), and that they will remain in place, without uncertainty, to protect the main monuments that could be jeopardized by very intensive processes of urban growth.

10.2.3.1.2 SETTING UP CONSERVATION ZONES

However, one also hopes to see the creation of Conservation Zones (which, in the 1998 Law, seem to correspond to the *Ancient Site Zones*, Chapter 1, Art. 2, f), with the aim of extending protection to historic city sectors which comprise several monuments, together with the building fabric that acts as a form of connecting tissue between them.

From our research, the only example of application is the Ancient Site Zone set up to protect the Maha Myat Muni complex (Phyo Wai, Shwe, 2014). However, it is our firm belief that, if no provision has yet been made, then Protected and Preserved Zones and Ancient Site Zones would need to be applied at least to the following:

- Sagaing and Mandalay hills;
- The pagodas of Mandalay north of Kingdom Palace (Fig. 10.01 and Fig. 10.02);
- The monumental system of Mingun (Fig. 10.03 and Fig. 10.04);
- The Amarapura route.

Fig. 10.01 Satellite view of some main pagodas in Mandalay.

Source: data from Imagery
© GeoEye-1; 2015; Distributed by e-GEOS. Processed by the author.

Fig. 10.02 View of Kuthodaw Paya and Atumashi Paya.

Source: F. Beato, 1887-1895.

Fig. 10.03 Satellite view of the main monuments in Mingun.

Source: data from Imagery
© GeoEye-1; 2015; Distributed by e-GEOS. Processed by the author.

Fig. 10.04 The Monuments of Mingun: A Circular Walk, from the local information display.

Photo: M. Preite, 2015.

The photos below show sufficiently clearly how much protection of these monumental complexes would gain from protection norms extended to larger heritage zones (rather than from measures drawn up for individual monuments).

10.2.3.2 MITIGATE URBAN TRAFFIC RISK

From the growth of vehicle traffic in urban centres there derives, in a domino effect, a series of multiple harmful effects for the integrity of the cultural heritage. Over the years, the vibrations contribute to the progressive deterioration of monuments. Vibration stress weakens foundations and vertical structures, and can be a contributory factor, with other factors, to the gradual break-up of the entire structure.

In recent years atmospheric pollution has proved to be one of the main factors behind the accelerated degeneration of the open-air historic heritage. Although the forms of impact differ both as a result of the kind of material and depending on the physical-chemical agent involved, the action of atmospheric pollution on inert materials, such as those of monuments, is profound and irreversible, owing to a lack of those systems of self-defence and disposal of toxins (such as heavy metals and carbonaceous particles), which are present in living organisms. We do not have adequate data as to the intensity of vehicular traffic in Mandalay and in the other cities of Upper Myanmar, and the levels of atmospheric pollution produced. However, on the basis of the “principle of precaution”, we can hypothesize here and now the damage which could derive to construction materials present in the various monuments: the stone material in pagodas could suffer aesthetic damage (blackening of surfaces), damage from physical stress and damage from biological contamination; wood in monasteries can suffer from swelling, and gold patina could become detached; and the plaster of decorative elements, as a result of corrosive chemical processes, risks breaking up and being washed away by rains.

Noise pollution leads to indirect damage; it does not have appreciable physical effects on monuments, but it irretrievably compromises the conditions in which the cultural heritage can be used and enjoyed. The conditions of silence (vital for achieving that sense of introspection, without which the experience of the sacred is denied to visitors to religious places) are irreparably compromised, when the noise of traffic exceeds tolerable thresholds.

10.2.3.2.1 SETTING UP LIMITED TRAFFIC ZONES

Among the possible remedies to the aforementioned disturbances, measures should be adopted to restrict vehicle traffic in the areas surrounding the monuments, or else the creation of actual pedestrian precincts.

10.2.3.3 MITIGATE TOURIST PRESSURE RISK

There is a lack of a full appreciation of what is involved in the expansion of tourism for the preservation of cultural heritage. In this case, too, it is necessary to distinguish between different types of impact.

First, the direct impact due to the physical presence of visitors; in order to gauge its intensity it would be necessary to ask the following question: How many visitors can a cultural site absorb without becoming degraded? The answer, however, is by no means easy, since it has to take into account an endless variety of factors:

- the deterioration that may occur as a result of the humidity created by human breathing in confined spaces: for instance, how is one to determine the maxi-

num number of daily visitors who are to be allowed to visit the wall-paintings of the *Tilawdaguru Cave Monastery* (Sagaing), or the frescoes of the *Kyauktawgyi Pagoda* (Amarapura)?;

- moreover, the impact due to the simple, constant action of visitors treading the ground must also be assessed: one must ask oneself, for example, the extent to which the continual climbing of visitors on top of the *Pahtodawgyi Paya* (Mingun) may gradually wear down those parts of the monument which were not designed as a route to reach its top (Fig. 10.05);
- monument climbing by tourists in Myanmar, especially in Bagan, has given rise to highly conflicting views: on the one hand, the Department of Archaeology and the Boards of Trustees of the temples have closed off passages to the higher levels, in order to prevent deterioration of religious monuments: on the other hand, it has been noted that “these reservations about climbing pagodas are not necessarily shared among all the Burmese, Buddhists or locals. Pilgrims and locals mingle with international tourists to enjoy the undeniably stunning views from the tops of temples. Moreover, the staff of the Department of Archaeology and temple trustees acknowledged that tourism is a key source of income for most locals and there is a degree of willingness to accommodate their demands, even if this counters some of their values” (Kraak, 2015).

Meanwhile, the indirect impact is due to the need to set up adequate infrastructure to support visitors: the congregation of cars and buses close to heritage sites increases atmospheric pollution; while adjacent car parks create visual pollution (Fig. 10.06). Facilities catering for tourists, such as toilets, food and drink, souvenir stalls (Fig. 10.07), information points, signage etc. can encumber the site when not properly planned, or they can destroy views, atmosphere and authenticity.

Finally, another form of impact linked to the intensification of tourist numbers involves changes to the nature of religious sites: pagodas, which are places of devotion, and monasteries, which are places of prayer and religious training at the same time, and sanctuaries, which are pilgrimage destinations, are today exposed to continual frequentation by crowds of visitors who are mostly unconnected with the spirituality of the places, and who, with their absent-minded demeanour, their attention to the more superficial aspects, and finally with their quest for a wholly sensorial experience which is basically “non-authentic”, take away sacredness from holy sites, reducing them to the status of mere folklore, and ephemeral attractions for tourist consumerism. This deconsacration is one of the risks most feared by studies on tourism to religious sites: “There is concern that holy places are being developed for tourism and that this is detracting from the religious significance which has made them famous” (Wall, Mathieson, 2006).

However, there are no easy remedies. Thinking of replicating at religious sites in the ACUM area the same measures introduced, for example, in places of worship in Western art historical cities risks further complicating the problem, instead of solving it. The exclusion of visitors at times when religious rituals are held only works on the basis of a consolidated distinction between the time for liturgy and secular time (for tourist visits), which is not so clearly definable in Buddhist places of worship. Indeed, one must not forget that “unlike other religions, Buddhism and its temples are more open to non-adherents”, and that “*practising meditation does not require one to be Buddhist*” (Choe, O’Regan, 2015); these characteristics of Buddhist religious sentiment – the high level of freedom given to individuals, and



Fig. 10.05 Visitors climbing the Pahtodawgyi Paya, Mingun.

Photo: M. Preite, 2016.



Fig. 10.06 Uncontrolled bus parking near U-Bein Bridge.

Photo: M. Preite, 2016.



Fig. 10.07 Souvenir stalls obstructing the view of the Pahtodawgyi Paya, Mingun.

Photo: M. Preite, 2016.

the lack of a central orthodoxy – make it very difficult to exercise that distinction between a community of prayer and the visiting public, which in the West facilitates ways in which holy places are accessed, at differing times of day.

10.2.3.3.1 CARRYING CAPACITY EVALUATION

Mitigating the differing forms of tourist impact involves adopting a great variety of measures which only a *Conservation Management Plan* can undertake and coordinate. Such a plan requires a set of indicators of “carrying capacity” to be drawn up, in advance, and these must be divided into at least three levels:

- “facility carrying capacity”, that has to do with available space, the number of beds available to overnight guests, how many cars would fill a car park, how many campers in a campground, and so on;
- “ecological carrying capacity” is the degree to which an ecosystem is able to tolerate human interference, while maintaining sustainable functioning;
- “social carrying capacity” is psychological and socio-cultural, and refers to the limit beyond which the number of people in an available space would cause a decline in the quality of the recreational experience and the users’ satisfaction; social carrying capacity means limiting tourist pressure to a compatible level with the preservation of the cultural meaning of places (Pedersen, 2002).

10.2.3.4 CONTROL LIVING HERITAGE RISK

Living monuments, which still have significant importance as centres of pilgrimage and foci of local religious life, are apt to be altered or modernized by their trustees without any allowance for historic conservation: “at the Shwezigon pagoda, for instance, most of the peripheral timber structures have been destroyed and replaced by reinforced concrete buildings, which completely spoil the setting of the ancient stupa. Other examples are numerous in Sagaing” (UNESCO, 1984).

It has been seen that a particular danger comes from the numerous interventions in the form of repairs, restoration and, in particular, “extensions” of religious buildings, financed by private donors to acquire merit. Foreign experts have pointed out that restoration activities by personal donors were not accurate from a cultural point of view, and added some modifications aimed to beautify and provide an aesthetic sense in each era. The consequences of these clumsy restorations are several: the inability to distinguish between original and new materials used in restoration has confused the periods, and makes it almost impossible for visitors to recognize, at first sight, the historical period which a building belongs to. Finally, those restora-

tions which, instead of restoring, have to all intents and purposes rebuilt monuments help to make the differences even more lamentable.

10.2.3.4.1 OFFICIAL GUIDELINES ON RESTORATION

To give restoration works even firmer scientific principles, as well as a greater control on the part of the Department of Archaeology over authorized interventions, it is necessary to set in place an official Restoration Manual, setting out correct guidelines for the planning of restoration interventions on the tangible cultural heritage in Myanmar.

10.2.3.5 CONTAINING THE RISK OF NEGLECT

Paradoxically, a threat to the survival of the cultural heritage could come from the exact opposite of anthropic pressure, namely the state of neglect and abandonment in which many monuments find themselves. The reasons for this state of affairs are several, and they have different historical roots.

Due to the shift of the capitals from one place to another, the ancient stupas were neglected, and started a process of dilapidation. This apparently followed a progressively worsening process, initiated by the cracking of the surface, followed by rain water penetration, animal infestation, vegetation growth and root penetration in cracks, later compounded by surface water erosion.

Unlike temples and stupas, which were sites of public veneration and worship, monasteries were places of residence for monks who had little or no income. Wealthy individuals often built elaborate monasteries and enclaves as personal donations to earn merit along the road to Nirvana. But the maintenance and renovation of these buildings did not carry the same weight among their descendants, who preferred to build their own new structures. Thus, many fell into disrepair and decay. Accordingly one can only agree with the recommendation that “every effort should be made to avoid arriving at extreme cases of neglect, where due to lack of maintenance on the architectural structures, it then becomes extremely difficult to recover the monument as time passes, as has happened to a number of monasteries in the Mandalay area” (Messerli, 2007).

10.2.3.5.1 MAINTENANCE PLANNING

On the back of the best proposals relating to the culture of heritage conservation (Cecchi, Gasparoli, 2011), it is very much to be recommended that scheduled maintenance plans should be got under way. Thanks to constant monitoring of the state of conservation of the architectural features, and regular maintenance activity, these plans make it possible to contain costs, sometimes to a considerable extent, compared to the costly restoration interventions which become necessary after a prolonged state of abandonment.

10.2.4 PREVENTING RISK OF ILLEGAL EXPORT

The great increase in international trade has led to a reduction in border controls, and a growing deregulation of trade. This may well make it more difficult to prevent theft and the illegal export of cultural objects from sites in which potentially movable heritage objects, such as sculptures, frescoes, and mosaics, are an integral part of the complex (Mac Lean M., 1993).

One such risk is faced by certain cultural heritage assets in Myanmar, and in the Ancient Cities in particular. Unguarded monuments, besides being difficult to maintain, are frequently looted of their decorative features. This is particularly true in the case of timber monasteries, which are often isolated, so fine pieces of wood-carving

are easy to take away. There is, of course, great demand for such artefacts in the antique markets of foreign countries.

In certain cases, a worrying phenomenon is occurring, namely the trade in certain particularly desirable sculptural decorative parts which are removed from their original settings and lost for ever; for this reason particular encouragement is forthcoming for the creation of an extremely detailed database of the architectural heritage, capable of preventing any such episodes, and permitting greater control and a more careful conservation of the same, not forgetting of course the previously constituted inventories (Messeri, 2007).

10.2.4.1 PREVENTING ILLEGAL TRADE OF MOVABLE HERITAGE PROPERTIES

The new *Heritage Buildings Conservation Law* (2015) reiterates the need to control the illegal trade of cultural heritage, and impose appropriate sentences and fines to combat the phenomenon.

However, to make this effort effective, an extremely detailed database of the architectural heritage must be created, capable of preventing any such episodes, and permitting greater control and a more careful conservation of the same, not forgetting of course the previously constituted inventories (Messeri, 2007).

10.3 TANGIBLE HERITAGE CONSERVATION

The culture of conservation has drawn up several types of intervention to ensure the protection of the tangible cultural heritage. These may be arranged in accordance with a rising scale, in terms of the relative intensity of the conservation action, which:

- begins from the lowest level of intervention, namely preservation, focused on the maintenance and repair of existing historic materials, and the retention of a property's form as it has evolved over time;
- proceeds by means of gradually more invasive categories of intervention, such as rehabilitation and restoration;
- and eventually arrives at full-scale reconstruction, i.e. the re-creation of vanished or non-surviving portions of a property (National Park Services, 2016).

The choice of the most appropriate kind depends obviously on the specific circumstances, but in the Western tradition it is not optional. Among the aforementioned types of intervention, the norm requires that the alternative be chosen which reduces the intervention to the barest minimum for the purposes of respecting the material authenticity of the property to be conserved. This principle has gradually become more and more consolidated in the most widely-respected international documents which set out the guidelines for monument restoration:

- in the 1931 the *Athens Charter*, full support is given to the general tendency to abandon restorations in toto, in favour of a regular and permanent maintenance of the monuments;
- in the 1964 the *Charter of Venice*, it is stated that “*it is essential to the conservation of monuments that they be maintained on a permanent basis*” (art. 4), while restoration is regarded as an exceptional form of intervention, and subject to no few precautions: “It must stop at the point where conjecture begins”,

- “unity of style is not the aim of a restoration”, and “replacements of missing parts must be distinguishable from the original”;
- in the 1972 the *Italian Restoration Charter* (Brandi, 1972), a precise distinction is formulated between “safeguarding” (“any conservation intervention that does not involve a direct intervention on the work”) and restoration, i.e. an intervention which must be limited solely to efficiently maintaining the properties to be conserved, renouncing completions in the same style, or analogous, removals or demolitions which erase signs of how the work has lived through time etc.

While this is the conservation philosophy which has been drawn up in Western culture over the 20th century, and which UNESCO adopted in postulating those principles of authenticity and integrity which lie at the foundation of procedures of properties of exceptional value to be inscribed in the World Heritage List (UNESCO, 1972), it is also true that the main planks of this philosophy have been thoroughly reviewed in the course of this century, and that, following this review, their role as a regulatory canon has started to be revised.

Policies for conserving the tangible heritage in Myanmar in general, and in the Ancient Cities in particular, cannot fail to take into account a series of new principles stated for the first time in the *Nara Charter* (1994), which states that the requisite of authenticity must always be interpreted in relation to the relevant cultural context (the principle of “cultural diversity”), and in the *Burra Charter* (2013 latest version) where, having stated the dual nature of the cultural heritage, both tangible and intangible, it also argues that criteria of authenticity aimed at only protecting tangible aspects (as happens in the Western tradition) are inadequate.

These two Charters only serve to register the most innovative moments in a lively debate which has directly affected south-east Asia, and which began as far back as the early 1990s, in the penetrating considerations of Sharon Sullivan: “Many non-Western cultures have a spiritual rather than material view of what of their past is valuable... The Western view focuses much more on the material aspects of place... This leads to the “freeze-frame” methodology we are presented with as an ideal in such documents as the Venice Charter, which may not accord well with a non-Western ‘sense of place’” (Sullivan, 1993).

Put briefly, while in the Venice Charter the main value of the heritage is actually architectural, and requires stabilization or restoration, in non-Western cultures the main value may be as a living spiritual or symbolic icon, which gains its significance by on-going use, change and development.

These principles lead to direct implications relating closely to the tangible heritage of Myanmar. They have been noted lucidly by Anne Laura Kraak (2015) in her review, one not preconceived, of the major renovation campaign for monuments in Bagan and elsewhere in Myanmar led by the military regime in the 1990s and 2000s: “The campaign was criticized because internationally accepted standards of architectural conservation were not taken into account and reliable archaeological evidence was lacking. However, this was not of much concern to most Buddhist devotees, supporting the renovation of Buddhist temples as an important act of merit making. These different views on the renovations reflect the relative value attached to two different stories that can be told about Bagan”, and also about Mandalay.

Further on, Kraak’s analyses lead us to reflect, with an open mind, on the validity of a number of assumptions made by Western conservation culture. Whereas on the one hand these assumptions remain unassailable when they refer to the cultural

context in which they were formulated, on the other hand they prove to be somewhat less “universal” if transferred to different contexts. If it is true, as the Australian academic notes, that “reconstructions and renovations of the pagodas by the rulers of the country, as means of merit making, have been continuous throughout the centuries”, one must deduce, from this frequent practice, an “uneasy relationship between Buddhist philosophy and heritage conservation” which places a new question mark over our most long-established principles and, above all, raises questions of a counter-intuitive nature regarding the conventional forms of heritage conservation:

- first question: is it not possible that the reconstructions carried out by the military regime in the decade 1990-2000 (and after) are to be regarded as activities that have a legitimate place within the tradition, namely in the uninterrupted practice of reconstructions, changes and adaptations which constitute the links in a centuries-long chain of continuous transformation of the tangible cultural heritage?
- second question: With the transition towards a more democratic form of government, which began in 2011, a new heritage approach on the part of the government also began to assert itself, one more geared towards international conservation standards, whereby “reconstructions and renovations without archaeological evidence are no longer allowed”. Well, might it not be the case that, “conserving the Buddhist monuments in a way that is deemed internationally appropriate could even be considered an interruption of this form of intangible heritage”? Is it not the case that, in this way, one may run the risk of losing those popular religious practices of reconstructing and renovating religious monuments as merit making activity, according to the tradition of Theravada Buddhism?

We do not claim to give a definitive answer to these questions. But one cannot deny that they confront us with a difficult dilemma. What is to be protected, on a priority basis? The physical, architectural authenticity of the monuments (immobilizing them in the latest configuration which they attained, and banning further modifications), or else the authenticity of a tradition which, if it aims to last, cannot exclude interventions involving reconstruction and improvement that are a source of essential spiritual merits, the (intangible) value of which seems very much superior to any value that one may ascribe to the physical continuity of the heritage? In light of these considerations, drafting an appropriate conservation strategy for the tangible cultural heritage of the ACUM area requires no few precautions. On the one hand, undeniable advantages can be derived from applying the principles set out in international charters on restoration: their application ensures that the interventions conform with the standards which are now an obligation among the international scientific community (significance assessment before any intervention, recording and registration procedures etc.): “their official adoption provides international prestige for the local conservation policies; it also provides a set of standards, terminology, and conservation practices that can be shared by administrative structures, experts, managers and the community”. At the same time, we must not forget that a strategy of physical conservation, in a country where Buddhist temples are rated as to be valued in terms of their spiritual vitality (most often expressed by change and development), should arise from traditional practices of use and replacements. This implies some key elements for the success of conservation planning (Sullivan, 1991):

- conservation planning must be realistically suited to the cultural and social conditions of the society;

- conservation planning must be designed with the involvement of the key players, that is conservation professionals, local staff, local interest groups, and so on;
- even if the difficulty of identifying the interests and values of a heterogeneous and internally divided community makes problematic a wide awareness of the importance of heritage conservation, it is necessary to make every effort to foster heritage conservation policies that are supported by the society as much as possible.

This long introduction is therefore designed as a warning: defining in abstract terms what the most appropriate categories are for consolidating and restoring the monumental heritage, establishing, on an a priori basis, what must not be done, and what is permissible, appears rash, to say the least, from the scientific point of view. Rather, in order to establish the appropriate interventions, it seems more advisable to set out from the recurrent problems posed by the conservation of the heritage of the ACUM area, trying to pragmatically fix the rules to be followed, on the basis of two elementary principles:

- the aim of restoration is to preserve as much of the historic fabric as possible, and – in cases where conservation is not achievable – to adopt historic construction techniques for reconstruction (Beckh, 2006);
- contemporary materials, such as structural steel or concrete reinforcement, should be chosen and used with the greatest caution, and only in cases where the durability and structural behaviour of the materials and construction techniques have been satisfactorily proven over a sufficiently long period of time.

The activities to be undertaken involve a wide range of expression of the tangible cultural heritage (Tab. 10.06).

KEY-OBJECTIVE	ACTIONS	LEAD AGENCIES	PERFORMING INDICATORS
10.3 Tangible Heritage Conservation	10.3.1 Masonry Structures Restoration	Department of Archaeology	Operational Guidelines for the Regular Maintenance and Repair of Masonry Structures
	10.3.2 Timber Monasteries Restoration	Department of Archaeology	Operational Guidelines for the Regular Maintenance and Repair of Timber Structures
	10.3.3 Timber Carving Conservation	Department of Archaeology	Developing new technologies Educational Training for Carving Art
	10.3.4 Plaster Decoratives Conservation	Department of Archaeology	Improving Restoration Techniques of Plaster decorations
	10.3.5 Mural Paintings Conservation	Department of Archaeology	Tilawkguru Cave Monastery and Kyauktawgyi Pagoda Restoration
	10.3.6 Archaeological Ruins Conservation	Department of Archaeology	Balancing Freezing and Reintegrating Approach for the Archaeological Ruins Restoration

Tab. 10.06 Key-objectives and Actions for the Conservation of the Tangible Cultural Heritage.

10.3.1 RESTORATION OF MASONRY STRUCTURES

Any intervention to restore masonry monuments, primarily stupas, must proceed to conduct a prior analysis of the factors of weakness of the main structural elements. In the structural decay of stupas, the most frequent factors are found to be as follows (Fig. 10.08):

Fig. 10.08 Abandoned Stupa, Innwa.

Photo: globeDOTtingTravel, 2013.



- the stupa dome is subject to a progressively worsening process starting by cracking of the surface, followed by rainwater penetration, animal infestation, vegetation growth and root penetration in cracks, and increased by surface water erosion;
- masonry representing 70-80% of the total mass of temple is the most vulnerable structural component to be protected from damage. Damage is caused by the impregnation of masonry by rainwater. The bricks are of sound quality, but the present mortar is merely dried mud. The original mortar was mixed with a plant-based resin that has dissolved with time;
- weak corners: since cross walls are often simply butt-jointed, with little or no interlocking, wall separation is frequent under seismic loads.

The only way to prevent such damage is to establish operational guidelines (performance indicator) for the regular maintenance of superstructures (roofs, terraces, wall heads), the repair of cracks, the eradication of parasitic vegetation, and pointing brick joints with lime mortar.

10.3.2 RESTORATION OF TIMBER MONASTERIES

As long ago as 1984, UNESCO reported that “the timber monasteries in several cities and villages of central Burma are greatly endangered and will disappear in a short time if no proper action is initiated. The greatest concentration of these monasteries being in and around Mandalay, it is recommended that conservation activities begin here”.

For the preservation of historic timber structures, the main methodological reference is the document drafted by ICOMOS in 1999. We list its main guidelines here:

- “In the case of interventions, the historic structure should be considered as a whole: all material, including structural members, in-fill panels, weather-boarding, roofs, floors, doors and windows etc., should be given equal attention”;
- “In principle, as much as possible of the existing material should be retained. The

protection should also include surface finishes such as plaster, paint, coating, wallpaper etc.”

- “If it is necessary to renew or replace surface finishes, the original materials, techniques and textures should be duplicated as far as possible” (ICOMOS, 1999).

However, in this case too it is necessary to conduct, before embarking on any intervention, a careful preliminary analysis of the points of vulnerability of the timber structures.

First, the roof: roof load has always been one of the weakest parts in traditional timber buildings. The heaviness of the huge mud bed beneath the roof tiles, supported with timber carved struts, and combined with the general looseness of the wooden peg connections, resulted frequently in the collapse of the roof structures. In order to lighten the weight of the roof, “terracotta tiles were replaced by less heavy wooden roofing. This probably took place in the late 17th century, since the new forms appear in the frescoes of the Ananda Okkaung monastery, which dates from the 18th century” (Dumarçay, 1983).

Two routes have been taken for restoring roofs. One is the route that aims to lighten their weight by reducing the mud thickness on the interior; thus it becomes possible to still keep the historic form of the exterior. This option is certainly to be recommended, if only because it is the one most suited to preserving the authenticity of the structure. The second alternative, which is the one most practiced today, is to replace the traditional roof with corrugated metal sheeting. Compared to traditional roofs, this offers the advantages of greater lightness, and fewer maintenance needs (Fig. 10.09). This practice has been the subject of no little criticism, since there is no doubt that the use of materials that are different from the original materials leads to an impoverishment of the property’s characteristics of authenticity (Messeri, 2007; Japan Consortium, 2011; Facchinetti, 2014). The Venice Charter serves as a reminder that these replacements are to be excluded, in principle, if one wants to preserve the physical authenticity of the monuments. However, one wonders whether this exclusion is equally categorical in the light of that aforementioned differing conception of conservation, which prefers the “living spiritual value” over the “material authenticity value”, and which, in protecting the monument “exactly as it was”, sometimes also adopts the conflicting principle of “use and change”. If, already in the past, the method of roof-building was varied with the replacement of the older “terracotta tiles” with “wooden roofing”, could one not admit that the recent use of corrugated sheets represents a further step in that centuries-old process of seeking an ever greater

Fig. 10.09 Corrugated zinc roof, Shwenandaw Kyaung, Mandalay.

Photo: M. Preite, 2016.

Fig. 10.10 Replacement of the base of pillars with concrete, Shwenandaw Kyaung, Mandalay.

Photo: M. Preite, 2016.

Fig. 10.11 Replacement of the base of pillars with concrete, Shwenandaw Kyaung, Mandalay.

Photo: M. Preite, 2016.



lightness of roofs? In the choice between new roofs and restoration of the old roofs, we thus feel moved to recommend a middle way: respect for the tradition in the most renowned monuments, allowing new materials in those buildings in which the needs of use prevail over the architectural value.

The second aspect relates to the conditions of stability of wood-built structures.

Wooden monastery buildings have the particularity of having earth-fast pillars directly driven into the ground, and hardly any mutually connecting beams. Accordingly, any decay in the pillar base, traditionally brick or stone bases, results directly in the entire building tilting to one side, as it lacks any kind of horizontal connection. The instability of wooden structures therefore appears as a congenital feature, an intrinsic weakness that could not be remedied even by the most careful restoration, even though carried out in line with the canons of the closest abidance by the original construction methods.

On the one hand, then, one can fully agree with the reservations expressed about interventions carried out in the past in a non-orthodox manner: “There are more than a few buildings that have been repaired in the past, but methods have been taken that undermine structural authenticity, such as the replacement of the base of pillars with concrete” (Japan Consortium, 2011, Figs. 10.10 and 10.11).

On the other hand, whilst understanding the reservations expressed over the chosen remedy, we are not aware of more appropriate forms of intervention that may be alternatives to the creation of concrete bases to prevent the oscillation of the wooden upright beams that support the whole structure. Furthermore, one must not forget that, as well as eliminating the oscillation, the preservation of the monasteries’ foundation timbers also requires a system of prompt evacuation of surface water in the event of heavy rainfall and flooding, and effective protection against termites.

Finally, as further confirmation of the congenital weakness of the structures, the stability of timber monasteries is undermined by the failure of timber joinery: the traditional loose-fitting timber peg connections are, in most conditions, unable to withstand lateral movement or horizontal forces. Failure of these connections leads to progressive collapse. The use of steel truss beams and other mixed techniques are marring the interior appearance of buildings; as noted by Messeri (2007), “the inclusion of new technologies in these edifices creates quite marked contrasts, indeed the fact that the technological systems are mainly carried out in an improvised way often disfigures the existing parts”.

In view of these conditions, the protection of this important sector of the tangible heritage requires a great ability to compromise: on the one hand, it is likely that, without the use of new techniques and new materials, a solution to structural problems is difficult to obtain; on the other hand, however, greater attention is certainly needed to the values of authenticity of the existing structures, which ought to discourage replacement interventions which are carried out hastily, and which are sometimes justified not so much by urgent consolidation needs, as by an anxiety to commodify, i.e. to convert the rashly restored property as rapidly as possible into a product that can be placed on the tourism market.

It is therefore necessary for the Department of Archaeology to set in place, soon, operational guidelines for the restoration and maintenance of wooden structures (performance indicator), and for it to establish principles of intervention that are more in line with the conditions of authenticity and integrity of monuments.

10.3.3 CONSERVATION OF TIMBER CARVINGS

In the best example of Burmese teak architecture, “there are rich ornamental carvings, wonderful serpentine dragons, lively dancing figures, mythical animals, flowers and vines on carved teak panels both on the outside and the inside... The main inspiration for much of the Burmese wood-carved handicrafts is Buddhism, as well as pre-Buddhist animistic beliefs. This philosophical outlook, together with a rich tradition of story-telling and myth, along with a highly developed appreciation of aesthetics, has been the inspiration for the creation of works of art that are uniquely Burmese” (Mitra, 2016).

Unfortunately these carved teak panels represent one of the most fragile elements of timber monasteries: their exposure to wind and rain has caused severe deterioration, so that such buildings are missing many elements today. Some recent photos (2016) document the state of deterioration of the decorative work at *Shwenandaw Kyaung Monastery*: individual panels are becoming detached from their frame, the loss of detail due to the wearing away of relief figures, the loss of sculptural elements etc. (Figs. 10.12 and 10.13).

To remedy this damage, in most cases tar has been used to protect the external wood portions. However, the use of this material should be avoided, since dust sticks to it (Dumarçay, 1983), and accordingly an alternative treatment needs to be considered. The difficulties of protecting this heritage have often led to the replacement of lost decorative elements with new elements made of wood (Fig. 10.14) or plaster.

We believe that this is not the way to proceed. Instead, action should be taken along a dual track (performance indicators):

- develop new procedures for the conservation of the external timber carvings, making use of new products and new treatments;
- and not forgetting that the best protection for Myanmar’s traditional wood carving art lies in the traditional skills of village craftsmen (Fig. 10.15).

It is therefore vital that this “implicit” knowledge is not lost, and action must be taken to ensure that people pass down the techniques and skills to future generations. Only by preserving this skill can the art of woodcarving continue to be a living heritage.

10.3.4 CONSERVATION OF PLASTER DECORATION

The outer surface of the stupa brickwork was waterproofed using a plaster layer. Some of the stupas have several layers of plaster, reaching an overall thicknesses of 9 to 10 in.

Exterior brick masonry tends to be plastered with a lime stucco, usually finely carved into mouldings and ornamented decoration on pediments, cornices and pilasters. All these decorative features have suffered heavily during earthquakes, as much of the plasterwork fell off and was definitively lost (Fig. 10.16).

For the remaining external stucco work, conservation must be coordinated with repairs of the monuments (cornices etc.). The removal of algae, and treatment against plant and grass growth, should be tried at the same time. Detached areas of stucco must be reattached either by injections of adhesive, or by the use of mechanical devices, or both (UNESCO, 1984). In this case, too, it is necessary to perfect restoration techniques for plaster decorations (performance indicator).

Fig. 10.12 Deteriorated ornamental timber carved panels.

Photo: M. Preite, 2016.



Fig. 10.13 Deteriorated ornamental timber carved panels.

Photo: M. Preite, 2016.



Fig. 10.14 New elements in substitution of deteriorated original.

Photo: M. Preite, 2016.



Fig. 10.15 Teak Wood Carver, Shanlay Kyun Village.

Photo: globeDOTtingTravel, 2013.



10.3.5 CONSERVATION OF MURAL PAINTINGS

A certain number of temples contain mural paintings, both on walls and under vaults. Infiltrations of water harm their preservation a great deal (Fig. 10.17).

Despite new, significant contributions towards the conservation of the paintings, it must be acknowledged that all protective systems in this field are more or less short-lived. The relentless action of the environment means that continuous research must be carried out to improve the methods and techniques of conservation, and it must be noted that certain advances in the field have been made in the last few years, and can be relevant to preservation problems. In the short term, the performance indicators of this action relate to the essential rescue of two important cycles of mural paintings in Upper Myanmar:

- The first cycle are the mural paintings adorning the interior parts of the *Tilawakaguru Cave Monastery* (1672): in the vault there is a decorative scheme based on a geometric motif (Fig. 10.18), while on the walls there is a more naturalistic scheme, in which human figures are alternated with animals, plants and trees (Fig. 10.19) in an interlocking design whose symbolic interpretation would require background knowledge that is not available to everyone. Unfortunately large portions have today irreparably deteriorated, but the paintings that remain are of high quality, and deserve a special effort to be kept safe from infiltrations and other damaging processes triggered by the particular microclimate of the environment;



Fig. 10.16 Yadana Hsemee Pagoda Complex, Innwa, with extensive losses of plaster cladding.

Photo: M. Preite, 2015.

- the second cycle is at the *Kyauktawgyi Pagoda* in Amarapura (1847) which, despite being of a later date than the previous cycle of frescoes, is still of extraordinary documentary value, owing to the scrupulous representation of the landscape of the time. It is certainly an idealized landscape, organized against a series of backgrounds, as can be seen from the example shown in Fig. 10.20: starting from the bottom, one sees a wooden pagoda on the left, some elephants, trees among mountains, boats, a pagoda in the middle, access to which is via some steep steps, two devotees kneeling on the left, and also, beyond, more pagodas and a broad horizon gradually merging into misty clouds from which winged beings lean out, proffering large flowers. The symbolic and the fantastic are mixed with a real element of representation, like the *pyatthat* of the *Shwe-nandaw Monastery*, today no longer extant, but recognized in another Kyauktoggi fresco at Amarapura by Dumarçay, (1984).



Fig. 10.17 Me Nu Ok Kyaung Innwa, signs of leakage in the vault of interior hallway.

Photo: unknown photographer, no date.

Fig. 10.18 Fresco in the vault of Tilawkguru Cave Monastery.

Photo: M. Preite, 2015.

Fig. 10.19 Fresco in interior hallway of Tilawthaguru Cave Monastery, Sagaing.

Photo: M. Preite, 2015.



Fig. 10.20 Fresco in interior hallway of Tilawthaguru Cave Monastery, Sagaing.

Photo: M. Preite, 2015.



10.3.6 CONSERVATION OF ARCHEOLOGICAL RUINS

Archaeological excavations are regulated by the *Protection and Preservation of Cultural Heritage Regions Law* (1998), under Chapter VI, art. 13; archaeological areas benefit from the protection regime envisaged for *Ancient Sites Zones* (“f”) and *Protected and Preserved Zones* (“g”, Chapter I). Archaeological areas covered by this protection are the Amarapura (Kingdom Palace) and Innwa areas (Fig. 10.21).

A different situation applies to archaeological ruins which are the result of ancient monuments which have been abandoned, and reduced to an incomplete state owing to the loss of architectural parts, including important elements, and now devoid of their original function.

The most emblematic examples of buildings that were previously fully functional being turned into ruins are the numerous stupas in an advanced state of decay in the areas of Innwa and Sagaing. The photos show the lamentable state in which these monuments are found:

Fig. 10.21 Concentric boundaries of the Ancient Monumental Zone, Ancient Site Zone and Protected and Preserved Zone of Innwa, from the local information display.

Photo: M. Preite, 2015.



Fig. 10.22 Complex of old pagodas, Innwa.

Photo: M. Preite, 2015.



Fig. 10.23 Yadana Hsemee Pagoda Complex, Innwa, Ruins

Photo: M. Preite, 2015.





Fig. 10.24 Daw Gyan Pagoda Complex, Innwa, Ruins.

Photo: M. Preite, 2016.



Fig. 10.25 Old pagoda, Sagaing, no remains of the old plaster cladding.

Photo: M. Preite, 2015.



Fig. 10.26 Ruins of old pagoda, Sagaing.

Photo: M. Preite, 2015.

- in the *Khæ Thin Kiaung Complex* in Innwa, the almost total detachment of the plaster lining has laid bare the underlying brick structure of the ancient pagodas (Fig. 10.22);
- also in Sagaing there are numerous pagodas reduced to ruins (Figs. 10.23 and 10.24);
- manifestations of religious devotion are still practised in the ruins of ancient stupas: in the *Daw Gyan Pagoda Complex* (Fig. 10.25) and at the *Yadana Hse-mee Pagoda* (Fig. 10.26).

In cases such as these, it is not easy to establish what is to be done, because it is over the treatment of ruins that there exists the greatest distance, over theory and operations, between the Western approach (Venice Charter, UNESCO Convention etc.) and the practices pursued in other parts of the world.

In the Western approach, a ruin is regarded as a “new work”, as a never-before-seen product of art and nature caused by the triumph of time over human activity, sublime because of its melancholy appeal (Carbonara, Fiorani, 2002). The incomplete state becomes an essential identity-defining character of the ruin, which must therefore be conserved as such, renouncing any intervention to restore the parts which have been lost. The UNESCO category of “fossil cultural landscapes”, in which an evolutionary process came to an end at some time in the past, is the most eloquent expression of this approach. The other position, on the other hand, is that which views a ruin as the final stage in a process of decline that is not only to be interrupted, but also to be redeemed, to a certain extent, by restoring the missing parts to the ruin, returning it, as far as possible, to the state it was in before it was abandoned.

It is certainly not hard to note the profound concordance between this position and the Buddhist conception of acquiring merit by improving the state of existing temples, or creating new ones (see Key Objective 10.3). However, if this latter

approach were to become more widespread, some risks must be contemplated. It is clear that stupas that are in ruins cannot be left to that process of spontaneous decay that will follow their abandonment. Therefore, to prevent their disappearance, a programme of suitable conservation interventions must be embarked upon at all costs. However, it is equally undeniable that, should there be a systematic restoral of the lost elements, and the restoration of the ancient decorative schemes (renovating all the plaster features that have become detached over the years), one would face the danger, no less insidious, of “over-restoring” ruins, bestowing on them a bogus patina of newness which would mean they would irreversibly lose their identity.

Finding a correct balance between the two approaches (performance indicator) is the hardest challenge which the authorities responsible for protecting Mandalay’s tangible heritage will be required to face in the years to come.

10.4 TANGIBLE HERITAGE VALORIZATION

The valorization of the tangible cultural heritage constitutes the final phase of that conservational process of which the first three phases have already been illustrated: documentation, risk assessment, and conservation.








Valorization involves a fairly varied range of initiatives aimed at maximizing the benefits which the various social categories can derive from careful management of the cultural heritage:

- the benefits for the local community (insiders) involve an increase in sentiments of identity and pride, deriving from a better knowledge of one’s own heritage, and also the development of a stronger sense of social cohesion around the values which that heritage expresses;
- for visitors (outsiders), there are several benefits; these involve the aesthetic enjoyment one gets from viewing monuments, the sense of interior enrichment which comes from coming into contact with a system of spiritual values that is different from one’s own, and the development which the individual personality acquires in coming back from one’s trip “different” from the way one was at the time of leaving;
- for local economic actors (stakeholders), the benefits involve the set of direct, indirect and induced effects generated by visitors spending money to purchase local products and services.

We refer readers to chapter 5.3 for a more detailed examination of these effects. Here we limit ourselves to commenting on the data relating to the use of some sites (the sites where the number of visits has been measured by the number of tickets issued at the entrance). The available figures only refer to 7 sites (of which 3 are in Mandalay, 3 in Innwa, and 1 in Amarapura), and refer to the number of people

Table 10.07 Entrances number in the main Heritage Sites, Financial years 2013-14 and 2014-2015.

Source: Ministry of Culture Department of Archaeology and National Museum (Mandalay Branch).

Financial year/Site	Shwekyaingyi and Atumashi (Mandalay)	Palace wall and Security Gate (Mandalay)	Bagaya Kyaung (Innwa)	Maha Aungmye Bonzan (Innwa)	Ba Ka Yar (Amarapura)	Archeological Museum (Innwa)	Cultural Museum and Library (Mandalay)	Total
								
2013-2014	71.642	71.598	52.212	45.369	4.190	98.041	98	343.150
2014-2015	78.030	78.895	64.567	45.541	3.932	107.911	96	378.972
Rate %	8,9	10,2	23,7	0,4	-6,2	10,1	-2,0	10,4

recorded as entering in the last two financial years (from April to March): 2013-2014 and 2014-2015. It goes without saying that the number of people entering does not coincide with the total number of visitors, since more than one visit to different sites may correspond to just one visitor. Moreover, it must not be forgotten that the 7 sites in question represent a very small sample of the sites open to visitors in the ACUM area; the figures can thus be used only to assess trends.

Very generally, one may note (Tab 10.07) that:

- from one financial year to the next, the total number of admittances rose from 343,150 to 378,972, with an annual increase of 10.4%;
- the three sites located in Mandalay account for 41.4% of the total number of recorded admittances at the 7 sample sites;
- the arrivals from January to March amount to 40.1% of the total in the 2013-2014 financial year, and 43.4% of the total in the 2014-2015 financial year;
- the monthly average of admittances at the 7 sites amounts to 31,581 in 2014-2015.

The available statistics provide a picture that is too fragmented to hazard further comments. However, one can reasonably think that, by means of a good valorization plan, these figures can increase considerably (but without violating the limits of sustainability for a “responsible” use of the resources of the tangible cultural heritage). Below, we illustrate three lines of action (Tab 10.08).

KEY-OBJECTIVE	ACTIONS	LEAD AGENCIES	PERFORMANCE INDICATORS
10.4 Tangible Heritage Valorization	10.4.1 Heritage Sites Promotion	Directorate of the Ministry of Hotel and Tourism	Promotional Plan
	10.4.2 UNESCO WHL Nomination	Department of Archaeology International Cooperation	Feasibility Study for the Inscription
	10.4.3 Institution of a cultural route	Department of Archaeology International Cooperation	Feasibility Study for the Institution of the Cultural Route of the Ancient Cities of the Upper Myanmar

Table 10.08 Key-objectives and Actions for the Valorization of the Tangible Cultural Heritage.

10.4.1 HERITAGE SITES PROMOTION

Promotion can play an important role in meeting educational and financial goals and objectives. If a site can accommodate greater numbers, and has a mechanism for retaining earnings from tourism, it can be promoted to draw in additional visitors and generate increased revenue for restoring monuments, increasing visitor services, and improving tools for interpretation. A simple and low-cost promotional plan has been suggested by the UNESCO World Heritage Centre (Pedersen, 2002):

- a portion of visitor fees should be set aside to help finance promotional activities;
- the typology of visitors to be targeted in a promotional campaign is needed;
- knowing how tourists get information about a site they wish to visit will help identify where to focus promotional efforts;
- developing a theme using a site’s central message for the promotion of a park;

- an analysis of strengths, weaknesses, opportunities and threats (SWOT) can be used to identify gaps between a site's promotion strategy and tourism trends.

A Promotional Plan for the ACUM area, launched by Directorate of the Ministry of Hotel and Tourism, must set out:

- quantitative objectives such as increasing the attractiveness of the Upper Myanmar Cultural Heritage, prolonging the average duration of visitor stays, and making the influx of tourists less tied to particular months of the year (on condition that these objectives are pursued within pre-established “carrying capacity” limits);
- and also, above all, qualitative objectives designed to improve ways in which the tangible heritage can be accessed by means of suitable restoration work and interventions to augment the tangible heritage, also by setting in place more efficient apparatuses (signs, various information materials, interactive consultation systems, developing apps dedicated to a better understanding of the sites etc.) to allow visitors maximum accessibility to the system of values and the symbolic universe which the monuments are bearers of.

10.4.2 UNESCO WHL NOMINATION

Inscription on the UNESCO World Heritage List is perhaps the most effective means for promoting global knowledge of a cultural site. As of 1972, the year when the WHL was inaugurated, the number of registered monuments and sites has grown, exceeding 1,000. Today, recognition as a UNESCO site is a much sought-after award, and explains the increasing number of applicants which put forward their candidacy every year, the more and more significant cost of drawing up presentation dossiers, and the growing amount of organizational work required by the proponents.

By comparison with the definite costs to be met in order to become a candidate, there are no studies able to provide an accurate measurement of the benefits which derive from inscription.

Among the few research studies carried out on the post-inscription phase, worthy of mention, first and foremost, is the report prepared by PriceWaterhouseCoopers LLP (2007) on a sample of 27 UK World Heritage Sites. The study identified 8 benefit areas – Partnership, Additional Funding, Conservation, Tourism, Regeneration, Civic Pride, Social Capital and Education – and, for each of these, it noted the size of the variations that took place after inscription. The range of repercussions is thus fairly wide. Not all the benefits are of a physical nature (e.g. Civic Pride, Social Capital), but now the multiplier effects which these alleged “intangibles” can have on the real economy have been thoroughly investigated.

The cultural heritage of Myanmar does not, so far, seem adequately represented: there is only one site (Pyu Ancient Cities) inscribed on the world heritage list, in 2014, while a large number of candidacies are still on the tentative list. The tangible cultural heritage of the ACUM area features on two of these:

- *The Ancient Cities of Upper Myanmar: Innwa, Amarapura, Sagaing, Mingu, Mandalay;*
- *Wooden Monasteries of Konbaung Period* (including Shwe-Kyaung in Mandalay).

Of the first of these two candidacies, which has been waiting since 1996, no real dossier can be found: the only document that can be consulted is an extreme-

ly concise text providing a summary description of the properties, primarily the royal palaces as “noteworthy instances of city planning”, as well as “numerous religious monuments, temples, stupas and monasteries”. The criteria chosen for the candidacy are three in number:

- (i): to represent a masterpiece of human creative genius;
- (v): to be an outstanding example of a traditional human settlement which is representative of a culture, or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;
- (vi): to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.

Giving new impetus to this candidacy could unquestionably help to increase the international visibility of the ACUM area, and spread knowledge and awareness of the exceptional values of this heritage among the local community, and among a large number of visitors from the various continents.

However, it is essential, for the success of the candidacy, that the presentation dossier offers solid arguments both as regards the pertinence of the chosen selection criteria, and regarding the fact that it complies with the criteria of authenticity and integrity which UNESCO demands.

As regards the selection of the justification criteria, we can say that these are certainly appropriate, and that it will be the task of the dossier to fully demonstrate, for each of these, the following:

- the dossier must, first and foremost, document the exceptional monumental nature of some properties (criterion “i”) such as, for example, the Mingun Paya, an enduring testimony of the titanic effort of erecting the world’s largest pagoda, the *Shwenandaw Monastery* and its unrivalled ornamental carvings;
- regarding criterion “v”, the dossier must above all highlight the universal significance connected with the foundational deeds of the ACUM area. Taken all together, these constitute the unique testimony of the tenacious desire of Burma’s rulers to recreate an earthly equivalent of the cosmic order, by means of the creation of a new capital for the kingdom; in a very small area of land, there exist, side by side, significant physical features of the great Kingdom Palaces founded in different periods, one after the other (at Sagaing, Ava, Amarapura and Mandalay), constituting full-scale urban nuclei, each enclosed within surrounding walls, and having 12 gateways, in an explicit allusion to the signs of the zodiac;
- the criterion “vi” is fully satisfied in Kuthodaw Paya, and its 729 marble slabs, each of them bearing a portion of the Tipitaka: the association of this wonderful piece of architecture with a “literary work of outstanding universal significance”, namely the venerable Buddhist text, constitutes a perhaps unrivalled example of close communion between the tangible and intangible heritage.

Meanwhile, as regards verifying the criteria of authenticity and integrity, it will be necessary for the dossier to adopt a yardstick that abides as closely as possible to the recommendations of the Nara Charter on cultural diversity, and of the Charter of Burra in the “cultural significance of places”, and their urgings to contextualize

the principles of authenticity and integrity in the system of values belonging to the local culture.

As a performance indicator to be achieved in the short to medium term, there is the new boost to the process of candidacy by compiling a *Feasibility study for the inscription*, under the auspices of the Department of Archaeology, with the contribution of International Cooperation.

10.4.3 INSTITUTION OF A CULTURAL ROUTE

A further form of valorization of the ACUM area, which does not stand as an alternative to their nomination for the World Heritage List, since it has a full proposal-making autonomy of its own, is promoting the heritage of the area as a unified, single unit, in the context of a *Cultural Route*.

The concept of Cultural Route was adopted by UNESCO (1992) as a new category of inscription, to be added to the original categories of monuments, groups of buildings, and sites, and to which are associated new ways of accessing and interpreting heritage sites which, once added to the route, benefit from an amplification of the effects deriving from common membership of the Route.

The distinctive features of Cultural Routes are as follows:

- based on the dynamics of movement and the idea of exchanges, with continuity in space and time;
- referring to a whole, where the route has a worth over and above the sum of the elements making it up;
- having a multi-dimensional nature, with different aspects developing and adding to its prime purpose, which may be religious, historic, artistic, crafts, environment, leisure etc.

Whereas, in an initial phase, the idea of Cultural Route rested on a “physical” concept of heritage (“a Cultural Route must necessarily be supported by tangible elements that bear witness to its cultural heritage and provide a physical confirmation of its existence” (ICOMOS, 2008), today it is thought of less as a pre-existing, physical route, the result of a long evolutionary process, and more, rather, as a new project designed to “shape a shared cultural space, and foster awareness-raising about heritage, education, networking, quality and sustainable cross-border tourism, and other related activities”. The cultural route must therefore become a lever for “the development of a sustainable tourist offer, thus contributing to the economic well-being of regions” (Council of Europe, 2010).

Setting up a *Cultural Route of the Ancient Cities of the Upper Myanmar* would, thus, involve the shaping of a shared cultural space, comprising the Ancient Cities within it not as isolated sites, but as sites connected by a network of routes along which, in travelling from one of the Ancient Cities to another, on the one hand retraces the history of Burma’s ruling dynasties, and on the other hand makes it possible to come into contact with rural villages, and visit sites of craft production, travelling through areas of naturalistic beauty, travelling along sections of the river, and taking advantage of a multiplicity of experiences which, when added together, are able to offer an integrated vision of all the possible attractions of the ACUM area.

If one considers that one of the first examples of Cultural Routes (1987) was the *Ways of Pilgrimage to Santiago de Compostela*, a network of routes which has played a highly symbolic role in the construction of Europe, and which is travelled by

the tens of thousands of pilgrims who walk to Santiago de Compostela each year, one cannot fail to reassess the ways of pilgrimage between, and to, the Ancient Cities as a network available to 21st century tourists and pilgrims for visiting Buddhist and other places of worship.

In order to work to this end, the *Cultural Route of the Ancient Cities of the Upper Myanmar* must be easily recognizable both from the point of view of infrastructure, as regards organizing the paths, stopping areas and refreshment zones etc., and from the “semantic” point of view, by setting in place an integrated system of communications, which envisages the unification of the layout and style of plaques, illustrative panels, signs, and everything else that serves to transmit, in integrated form, the most diverse information content relating to the heritage sites, the areas of naturalistic interest, zones of craft production, the centres where typical goods are marketed, local food places etc. It will be necessary to proceed first and foremost to draw up a *Feasibility Study for the Institution of the Cultural Route of the Ancient Cities of the Upper Myanmar* (performance indicator).

11. Valorizing the intangible cultural heritage

■ The valorization of the intangible cultural heritage has special importance in the vision behind the plan, since this is a sensitive terrain over which the tourism development plan distinguishes itself, as regards cultural sustainability. As seen in ch. 1.2, although the intangible cultural heritage is unanimously seen as having strategic importance in sustainable development processes, the implementation of this principle has often come up against difficulties, due to the inability to fully and promptly identify the most significant resources of the local cultural contexts.

In order to circumvent this problem, in the analytical part of this plan we devoted great attention to study the resources which can be ascribed to the intangible part of cultural heritage, and to assess possible ways to valorize it.

Specifically, two general objectives have been identified:

- protecting the rhythms and spaces dedicated to the daily practices of the local collectivity;
- recognizing, valorizing and communicating daily cultures and local practices.

■ 11.1 PROTECTING THE RHYTHMS AND SPACES OF DAILY PRACTICES

The protection of the rhythms and spaces of daily practices is aimed at preventing visitors' lifestyles from imposing themselves on local customs, and preventing tourists' needs from eroding the spaces available for the social and/or cultural practices of importance to the local collectivity. This objective takes the form of 4 actions, which are very interdependent on each other.

11.1.1 PROTECTING SILENCE IN NOCTURNAL HOURS

Respect for the rhythms of a collectivity is often pushed into the background when a given territory opens itself up to tourists from other parts of the world, bringing different habits and timetables. This contrast – which sometimes exists also within the collectivity, between different generations – occurs especially in the evening hours, when tourists seek places of amusement and entertainment. Although it is inevitable that an increase in visitors will go hand-in-hand with a transformation in local habits, and the opening of venues and facilities for entertainment and leisure, this must not happen to the detriment of night silence, and peace and quiet, which represents a distinguishing feature of the ACUM area, and which, in particular in the city of Mandalay, creates a marked contrast with the daytime traffic, sounds and mobility.

With a view to this, the plan proposes that an Regulation is issued governing the ways in which activities that have an impact on the level of noise take place. These include evening shows, concerts and music, celebrations and events, and so on. Specifically, the regulation will have to govern the places set aside for the various

types of entertainment, and the times when they take place, so as to protect the rhythms and habits of the collectivity.

11.1.2 MAINTAINING TRADITIONAL SHOP OPENING TIMES

A further area in which there is a contrast between the rhythms of tourists and the rhythms of daily life consists in the opening times of shops. Indeed, tourists often induce shop-owners to delay closing their shops, creating a significant impact on the way the local collectivity organizes its life.

In order to safeguard the lifestyles of the local collectivity and the intangible cultural heritage represented by the rhythms of daily life, the plan proposes the issuing of a Regulation governing the opening and closing times of commercial enterprises, distinguishing between the various zones within the ACUM area and between the various kinds of business, but with the objective of discouraging extensions of opening times into the evening hours.

11.1.3 SAFEGUARDING PUBLIC SPACES HABITUALLY USED FOR LEISURE

As is known, public spaces constitute crucial places for processes of socialization and cultural (re)production. The spaces used for leisure activities are also especially interesting, insofar as they are places where these processes take place in a generally spontaneous form.

The field research has revealed that, in the ACUM area (and throughout Myanmar, for that matter), among the practices that take place in these spaces, the game of caneball (chinlone) has a leading significance (cf. Fig. 11.1.1).

Caneball is a traditional and very widespread sporting practice. It is practiced both in a formalized way (in areas specially set aside, and in the context of festivals and amateur championships) and informally, by temporarily occupying various kinds of public space: squares, green areas and parks, as well as free spaces outside public sites and monuments, and including parts of actual roads, pavements, and so on. Thus, this practice belongs to the sphere of free time and play, it is expressed by means of adaptation to spaces, and the adaptation of spaces, through “low-impact” forms of appropriation: setting up a temporary net most often constitutes the only form of designating the playing area, but caneball is often also played freely, with players simply standing in a circle and passing the ball acrobatically to each other with their feet.

Observation of this practice during the field research has shown – so far – a low degree of interaction between the practice and tourists, apart from the curiosity prompted by the players, which confirms that caneball could be capable of capturing the interest of tourists, inasmuch as it is an expression of a lively, and widespread, daily intangible culture. At the same time, it is likely that the increase in tourism in the area could, in the future, put pressure on this practice, for example by the introduction of rules and norms to protect historical and cultural sites and monuments (including provision for “protected” areas near buildings), and generally for an increase in the tourist presence in urban public spaces, resulting in the need to negotiate their use. Added to this is the risk from car traffic, which is increasingly inhibiting, for longer and longer periods, the possibility of occupying temporary spaces for the game, in safe conditions.

With a view to these risks, the plan considers it a priority to safeguard caneball in order to protect its functionality as a form of use of public spaces, and leisure spaces, for residents. To this end, we propose:

- creating a map of the spaces set aside for consolidated playing practice by residents in the ACUM area;



Fig. 11.1.1 Caneball played near old pagodas.

Source: Andrew Watson Photography (andrewwatson.com.au).

- issuing a Plan to regulate and promote the practice of sport, and of caneball, identifying places and initiatives to safeguard and valorize the practice.

11.1.4 REGULATING WAYS IN WHICH TOURISTS ACCESS PLACES OF WORSHIP

Respect for religious practices, and for places of worship and prayer, represents a factor of crucial importance in the logic of promoting a sustainable and responsible form of tourism. In the case of Myanmar and the ACUM area, adopting ways of behavior which respect the uses and spaces of religion must be fostered, especially among tourists of non-Asian provenance, whose cultural distance from Buddhism could lead to improper attitudes.

Especially with a view to a considerable increase in tourist numbers at places of worship, it is important to regulate access to places of worship, and to make tourists aware of responsible forms of action. Accordingly, the Plan proposes that a Regulation be issued which sets out and regulates the clothing and activities that are permitted during visits to places of worship. This regulation must be accompanied by specific tools to inform tourists and to make them more aware (cf. ch. 15.2), so that they can learn which actions and forms of behaviour are appropriate during worship, and the reasons for this.

11.2 VALORIZING AND COMMUNICATING DAILY CULTURES

The second objective consists in promoting, for the purposes of tourism, aspects of the intangible cultural heritage which are especially significant, trying out innovative valorization solutions which are able to present daily cultures in the form of totally new tourism products.

This objective takes the form of two actions.

11.2.1 SETTING UP A VIRTUAL MUSEUM OF DAILY CULTURES

With this action, the intention is to propose a process specifically aimed at valorizing the intangible cultural heritage, in the broadest sense of cultures, spaces and rhythms of daily life. The intention is to avoid tired forms of salvaging them¹, and to put forward the issue in ways that are as innovative as possible, in which the recognition, reconstruction, and communication of the intangible cultural heritage becomes a process of (re)production of collective and local identities.

A study of the panorama of existing initiatives in this field led us to work towards valorization processes based on video art, and in particular towards the interactive multimedia installations devised by Studio Azzurro Produzioni², known by the term “Bearers of Stories”.

The “Bearers of Stories” represent a formula for encounters and (self-)recognition for local communities which was first developed by Studio Azzurro in Casablanca in 2008. The formula consists in creating interactive video-installations, in which the protagonists are places recounted in the first person by their inhabitants themselves, i.e. the “bearers of stories”. The stories told by the “bearers of stories” are collected in the actual place, and narrated by means of geo-anthropological research directly involving the local collectivity; in this way, an opportunity is created for people to hear experiences and stories in audible form, and these thereby become a shared heritage.

In this sort of virtual museum, where the aesthetics of the installation are combined with the technological research of new forms of interactivity, the visi-

¹ As outlined in ch. 1.1, it is necessary to prevent protection initiatives from being debased, and becoming ways of turning the cultural heritage into folklore. In Europe this was, for example, the fate of numerous museums of rural culture, which were carefully mounted, but which were unable to catalyze the attention of the public, and to activate new processes of cultural production.

² For an overview of activities by the group, cf. <http://www.studioazzurro.com/>



tor discovers and explores the stories of the visited place and its inhabitants by means of spontaneous actions, such as touching the virtual characters whose stories one wants to hear, as shown in the sketch in Fig. 11.2.1 and Fig. 11.2.2: the pleasing and unexpected naturalness of the actions which the installation stimulates in visitors (touching, listening), the synthesis between visual and verbal language, and the multiplication of the levels of viewing, which alter the daily perception of space and time, immerse the visitor in a dimension which stimulates the imagination, listening, and identification.

This way of offering individual narratives is now consolidated and is used also in the museums sector owing to its effectiveness in valorizing the tangible heritage, by means of pictures, and the intangible heritage by means of stories narrated in the first person. A significant example of this is the “Sensitive City” installation, created by Studio Azzurro Produzioni for the Italian Pavillion at the 2010 Shanghai EXPO, to narrate the “inhabitable cities” in Italy (Fig. 11.2.3 and Fig. 11.2.4).

Fig. 11.2.1 Outline of the installation.

Source: Studio Azzurro (2016).

Fig. 11.2.2 Outline of the installation.

Source: Studio Azzurro (2016).



The “Bearers of Stories” formula seemed especially suited to valorizing the daily cultures of the ancient cities of Upper Myanmar, because, in line with the sustainable vision of development, it gives the local community an active role of cultural (re)production: the memory and the stories which the museum will offer to the visitor will be the result of a geo-anthropological work based on listening, and research, in which the inhabitants play a lead role. Moreover the innovative character of the installation would make it an additional product with a strong tourism appeal.

Fig. 11.2.3 “Sensitive city”.

Source: Studio Azzurro (2010).

Fig. 11.2.4 “Sensitive city”.

Source: Studio Azzurro (2010).

Given the potential major repercussions of the new product in terms of tourist image, it seemed advisable to suggest that the installation is created – with the purpose of reinforcing the place and giving it a new boost – in the *Royal Palace of Mandalay*, in other words in the heart of a space that is highly symbolic for the whole local area, but which is under-used from the point of view of tourism (cf. also ch. 5.1.5). The valorization of the intangible heritage would thereby become an opportunity to re-establish the meaning of the tangible heritage itself, with a symbiotic effect between the two components of that cultural universe.

The Palace also has technical features which are suited for playing host to the installation, since it consists in a series of rooms with rows of columns having proportions which make it possible to arrange the parts of the installations in a sequence which is sufficiently complex, but completely non-invasive, and also reversible.

The installation could be subdivided into two parts.

In the first, entitled “Sensitive Environment I – Bearers of Stories: sensitive issues for a growing country”, particularly significant elements of the local collectivity are presented. The issues narrated are those of daily life: the street and its activities, craft skills, widespread attitudes, daily and annual rhythms, forms of religious sentiment, as well as seasonal places and cycles, the river and the landscape, to trace the relationship which the collectivity has established with the surrounding space, enclosed in a specific system of relationship codes, customs, and traditions. A re-reading of characterizing elements of the local context also lends itself to a reflection on the possible critical issues of the current move to a period of more openness towards the outside world, and welcoming tourism, and the encounter with different people, businesses, and mentalities.

In this section, two large transparent screens show a number of individuals walking, while two more screens behind them show scenes relating to the subject-matter of their stories (Fig. 11.2.5).

Fig. 11.2.5 Rendering of the installation at Mandalay Palace.

Source: Studio Azzurro (2016).





The visitor observes the individual character-types (the female street-seller, the stone-cutter, the monk, the female dancer etc.), and chooses which one to listen to. On being touched, the “story-bearer” turns to face the spectator, and begins his or her verbal tale, while the scenario behind displays the narration in the form of images, routes, and maps (Fig. 11.2.6, Fig. 11.2.7 and Fig. 11.2.8).

Each screen allows several interactions. Indeed, in sensitive environments, it is important for the participatory dimension to be shared in by several people, at the same time, in order to trigger the desire to find out the stories of the others, and the rooms of the Royal Palace are large enough to allow this possibility.

The second interactive video-installation, entitled “Sensitive Environment II – the Royal City: revealing the inaccessible”, is devoted to the royal cities of Ava, Amarapura and Mandalay, which for centuries were the main place of Burmese regality. In differing historical periods, and for different reasons, the extraordinary built heritage constituted by the three royal cities has been almost completely lost: Ava was razed to the ground by the 1842 earthquake, Amarapura was dismantled by King Mindon at the time of the foundation of Mandalay (1857), and finally the only remains of Mandalay are the splendid circuit of walls, with the moat, while the city contained within those walls was demolished at the time of the British occupation, and replaced with military installations. The Royal Palace, spared by the British, was later destroyed by the Japanese, and almost completely destroyed by Allied bombing during its recapture, in 1945.

A virtual 3D reconstruction of the cities will offer visitors the emotion of this extraordinary concentration of a centuries-old civilization, and its history, as well as the legends, symbolism and rituals which have accompanied it (Fig.11.2.9 and Fig. 11.2.10).

As one enters the space, one finds a large, projected portal. On being touched, the projected surfaces are reminiscent of the material present in the scenes: plaster, wood, stone. The spectator is once again invited to touch the projected images. Using both hands, they scroll through the image of the portal, until they find a way in. Only then does a vision open up before them of the interior of the city, in a sequential row which passes over the vast spaces of the gar-



Fig. 11.2.6 Rendering of the installation at Mandalay Palace.

Source: Studio Azzurro (2016).

Fig. 11.2.7 Rendering of the installation at Mandalay Palace.

Source: Studio Azzurro (2016).

Fig. 11.2.8 MRending of the installation at Mandalay Palace.

Source: Studio Azzurro (2016).



Fig. 11.2.9 Rendering of the installation at Mandalay Palace.

Source: Studio Azzurro (2016).



Fig. 11.2.10 Rendering of the installation at Mandalay Palace.

Source: Studio Azzurro (2016).

den and the pavilions which make it up. The visitor will have the impression that they are walking inside these spaces, which gradually reveal themselves to him or her.

The creation of this sort of interactive video-installations requires rooms which have certain technical characteristics. They require large spaces which can be blocked out, with a minimum height of 4 mt in the areas of the projections, and the possibility of support structures to fix the technological apparatus and screens. If it is not possible to use existing structures, for reasons of stability or conservation, made-to-measure structures will be built, which can be taken down and removed at the end of the period of display. Below, we give details of the technology, and the elements of the installation, which are essential for the two installations described above (Tab.11.2.1).

Tab. 11.2.1 Technology and equipment for the installation.

Basic installation elements		Production	
for part I - Bearers of Stories: 2 HoloPro screens (500x280cm)	part II - Royal City: 2 wooden panels (500x280)	Filming in loco	In studio (Milan)
2 rear projection screens (500x280)	2 full HD video projectors (6000 Ansilumen)	direction	video editing
4 full HD video projectors (6000 Ansilumen)	2 IR cameras	director of photography	video postproduction
2 IR cameras	2 strips of IR LEDs (500cm)	operator and video sound engineer	sound editing and postproduction
2 strips of IR LEDs (500cm)	4 audio speakers	producer	software and interactive systems
4 audio speakers	spotlights for room		technical and installation planning
spotlights for room			general production

11.2.2 DRAWING UP AN INTEGRATED PROGRAMME FOR REGULATING AND PROMOTING STREET FOOD

As described in 4.3.2, street food represents a vital component in the intangible cultural heritage within the research area, since it is the expression of local daily culture and culinary traditions. In line with other components of the intangible culture, numerous international experiences throughout all the world's five continents (Cardoso et al., 2014) show that this practice, if suitably regulated and pro-

motated, can become an important factor of tourism interest, as well as an opportunity to increase the repercussions of tourism on the local economy, by means of the spread of micro-businesses and local jobs (cf. ch. 12.1.2).

As a result, the Plan proposes the drafting of an *Integrated Programme for the Regulation and Promotion of Street Food*. The vision underlying the Programme is to make Mandalay the “capital” of street food in Myanmar, in other words a full-scale, strategic nodal point where forms of promotion, valorization and regulation of this phenomenon can be put into practice, so that it may become a reference point for the country in the international sphere.

Given the complexity and transversal nature of the dimensions – regulatory, economic, and socio-cultural – which, in one way or another, are connected to the issue of street food (cf. ch. 4.3.2), the drafting of a Programme with this ambition must necessarily involve a large group of actors and stakeholders – both public and private – at several levels, including:

- international organizations such as the FAO, WHO, NGOs and other institutional actors from partner countries which are able to provide skills and know-how, and to promote the Programme internationally;
- ministries and government agencies responsible for promoting tourism and food safety, such as the Ministry of Hotels and Tourism, the Ministry of Health and Sports, the FDA, etc.;
- local institutions directly or indirectly involved in regulating and promoting the practice, such as the Municipality of Mandalay, the MCDC and Mandalay University;
- local private-sector stakeholders such as the Myanmar Restaurant Association, the Chamber of Commerce, the Myanmar Tourist Guides Association, etc. (for a map of the stakeholders, cf. ch. 2.1).

The compiling of a specific Programme will be the outcome of the discussions with, and contributions from, the aforementioned actors. However, the analysis that serves the purpose of drafting this Plan make it possible to identify four specific issues which the Programme must deal with:

- guaranteeing adequate regulations and standards of food safety;
- identifying and organizing specific street food zones;
- implementing initiatives of information and promotion of the practice;
- putting street food to use as a means for local and regional development.

First and foremost, the Programme must guarantee adequate food safety standards. Indeed, it is as well to stress that the question of safety represents – above all, but not only, with a view to tourist promotion – a vital and preliminary condition for any valorization proposal. At the moment, in Myanmar the food sector is regulated by the National Food Law (1997), which, however, does not consider street food. Similarly, there is no government body with authority over the sector, but rather several institutions with partial responsibilities that are not clearly defined. Of these, for example, the FDA carries out inspections on food safety, but in the absence of a well-defined context of regulations and procedures. A new Food Law is currently under discussion, and – according to what it was possible to ascertain from the stakeholders consulted during field trips – this is expected to cover also street food.



Fig. 11.2.11
The Five Keys in Burmese.
Source: WHO (2016).

Despite this, international experience shows that regulation is often not enough to ensure adequate standards of safety unless it is adequately adopted and put into practice by operators. To this end, codes of practice could be useful. These would simplify – in a clear and effective way – the actions to be adopted in preparing food. An example of these codes is provided by the WHO (2006), which has drawn up a list of five keys for safer food, specially designed for developing countries, and also translated into the Burmese language (fig. 11.2.11):

- Key 1: Keep clean;
- Key 2: Separate raw and cooked;
- Key 3: Cook thoroughly;
- Key 4: Keep food at safe temperatures;
- Key 5: Use safe water and raw materials.

Accordingly, the Programme must adopt the definition and implementation of these codes of practice, with a view to guaranteeing (for local people, and also for tourists) suitable standards of food safety. Specifically, the implementation of these principles will require the following:

- introducing a system of licences, connected to a health certificate/health screening. The relevant authority can issue or renew the registration of any street food vendor who complies with all the health and food safety requirements (for example, the above-mentioned keys). This registration/identification proof, issued by the relevant authority, should be displayed on the cart or the kiosk.
- promoting training initiatives for street vendors. At present, street vendors in Mandalay do not receive any training in health and hygiene. Thus, the Programme should promote specific training initiatives on food safety; the publication of Information Education and Communication (IEC) material on food safety; the provision of liquid soap and hand sanitizers in order to promote hand washing among street food vendors, etc.

Second, the Programme must identify specific urban zones for the sale of street food, which can be further valorized in terms of use by tourists. At present, street food in Mandalay can be found in clusters around workplaces, schools, hospitals, shopping malls, universities, railway stations and bus terminals (cf. ch. 4.3.2). However, the presence of street food in these areas is currently problematic in several respects:

- it is still unclear which areas are authorized/allowed for street food, and what authorization procedures carts have to follow to operate in certain areas;
- even where the concentration of stalls is higher, there is an almost complete absence of infrastructure to ensure health and hygiene conditions that are suit-

ed to the preparation of food (a condition which, as seen in 4.3.2, represents one of the greatest limitations to the consumption of street food by tourists).

The Programme must therefore identify specific street food zones in which the practice must be adequately regulated and valorized, both for better frequentation by the local population, and for the purposes of tourism. street food zones can coincide with the streets where there is a greater concentration of stalls (cf. ch. 4.3.2) and/or coincide with the sites of greatest tourist interest, and must become poles able to catalyse cultural events linked to local culture, and not just culinary culture.

The street food zones will likewise have to be adequately organized by means of basic and experimental services and infrastructure, including:

- provision of water purification tablets for storing treated water at the vending site as a way to promote the use of drinking water in every step of the process;
- waste disposal facilities;
- in the future, a pilot scheme with the aim of promoting sustainable energy technology, for example biomass stoves (as suggested by Leonard et al., 2013);

Thirdly, the Programme will have to make provision for, coordinate, and support initiatives for information and promotion of the practices of street food and the local culinary tradition. The analysis conducted for this Plan reveals the extent to which street food is leading to a growing interest on the part of tourists, since it is associated with an image of authenticity, and a link with the local area and its cultural traditions (cf. ch. 4.3.2). However, it is not always possible for tourists to get hold of satisfactory information on the cultural aspects linked to food, the raw ingredients, and the procedures of preparation. Much can still be done to foster a greater knowledge of Burmese food, both among visiting tourists, and at the international level, drawing inspiration from the experience of neighbouring countries. For example, the Programme could promote:

- preparation of menus in English with a description of the cooked dish, to be displayed in the street food zones most frequented by tourists;
- organization of the first street food festival in Mandalay;
- organization of a special event combining Myanmar street food and internationally famous chefs;
- organization of organic/bio festivals, with the participation of street food stalls;
- organization of street food fairs during international events and conferences at the University of Mandalay;
- partnerships with the private sector for the organization of street food festivals inside supermarkets (for example, the Mingalar Mandalay), and also inside mid- and high-range hotels;
- including street food stalls during events intended to promote the culture of Myanmar (eg Marionette/puppet shows in public spaces, for both locals and tourists).

Finally, the Programme must take advantage of the increase in the consumption of street food as a lever to promote local and regional economic development in the research area. Already today, the sale of street food in Mandalay represents a market towards which vendors converge every day to offer dishes and products prepared in nearby villages, and that come from them (cf. ch. 4.3.2).

The Programme must reinforce this link between the city and the rural territory, by setting up local agro-food networks capable of putting producers of raw materials, street food vendors, and end consumers directly in contact with each other, with the dual objective of:

- supporting agricultural producers in the research area, offering new opportunities for the valorization of products;
- supporting the circuit of the preparation and sale of street food by means of local, quality raw ingredients, also with a view to tourism.

Specifically, the establishment of local agro-food production chains in the research area will require a number of fundamental steps, including:

- an analysis of the system of agricultural production at the research area level, and – in an expanded form – of the regions of Mandalay and Sagaing, with the aim of identifying the resources and raw ingredients used for the preparation of street food;
- the identification, involvement and training of operators both in the rural sphere and in the urban sphere, and the creation of the local agro-food network;
- the involvement of the local institutions within initiatives for regulation, control, quality certification, and tourism promotion.

12. Increasing the benefits of tourism on the local economy

■ For countries going through a phase of profound economic transition, such as Myanmar, tourism development can represent a vital opportunity for economic growth. However, as many studies are highlighting (Robinson, Picard, 2006), this growth does not always coincide with an increase in prosperity for the host population, but can generate a number of significant distortions, e.g.:

- decentralization of the ability to control tourism development by the national and local government, towards international markets, mainly represented by tour operators in nations where tourists come from, and by those other nations themselves;
- spatial concentration of resources and investments towards areas and sites that have a greater tourism potential, and not necessarily towards the weaker or more problematic areas which would require development interventions;
- the concentration of financial revenue from tourism in the hands of a small number of local operators who control the market;
- giving priority to meeting the needs and requirements of international tourists, to the detriment of the needs of the local population;
- generating short-term economic advantages and low-paid jobs that have low specialization and are non-permanent;
- the partial and superficial involvement of local culture, limited to the most significant examples of the tangible heritage, to the detriment of the intangible cultural heritage.

In order to deal with these negative externalities, in 2013 the MOHT brought in the *Policy on Community Involvement in Tourism* (cf. ch. 2.3). The Policy focuses mainly on the need to involve the local population in the tourism sector, and on capacity-building by means of training, and proposes six main objectives:

- strengthening the institutional environment and society at large;
- capacity-building for community-related activities in tourism;
- developing safeguards, systems and procedures to strengthen community planning and management in tourism;
- encouraging local entrepreneurship through micro- and local enterprises;
- diversifying and developing quality products and services at the community level;
- monitoring the positive and adverse impacts of community involvement in tourism.

In line with these national guidelines, this SDP recognizes the need to increase the positive effects of tourism on the local economy, by involving the local population as a fundamental strategy for the promotion of a sustainable form of tourism development. At the research area level, this strategy is pursued by means of two main objectives:

- increasing the participation of the local population in the sector of the tourism offer;
- supporting the quality of local craft production.

■ 12.1 INCREASING THE PARTICIPATION OF THE LOCAL POPULATION IN THE TOURIST ECONOMY

12.1.1 PROMOTING DIFFUSE HOSPITALITY (BED & BREAKFAST AND HOMESTAYS)

The term “diffuse hospitality” is used to mean two main forms of tourism accommodation: bed & breakfast (B&B), and homestays. Although these forms have gradually started to overlap, and it is not easy to establish a clear or absolute distinction between them, B&B is generally intended as a form of full-scale accommodation facility, albeit family-run; homestays is used to mean a residential experience – varying in duration from a few days to several weeks – with a host family with which one shares space and daily life.

Diffuse hospitality constitutes one of the main ways of redistributing the proceeds from tourism in the research area. At the same time, it also constitutes a potential tourist product (cf. ch. 9). Homestays, for example, make it possible to establish a direct contact with the cultures, practices and daily rhythms of the host families, also by means of the experience of local culinary traditions. Indeed, this form of accommodation is customarily accompanied by a diffuse offer of family-based meals. Furthermore, diffuse hospitality allows tourists to explore and stay overnight in areas – especially rural areas – where accommodation facilities are lacking or completely absent, fostering a greater spatial distribution of tourists within host countries, and the valorization of decentralized areas which nevertheless have important environmental and cultural resources.

Several studies carried out on neighbouring countries have shown the interest in developing the sector of diffuse hospitality in the area of south-east Asia: Chen et al. (2013) showed the rate of growth in the B&B sector in Taiwan, which has encouraged the development of tourism in rural areas which were previously excluded from the market; Acharya and Halpenny (2013) have shown the contribution of homestays as an alternative product for the promotion of sustainable tourism in Nepal, concentrating especially on the involvement and participation of women in managing diffuse accommodation; and Razzaq et al. (2011) document the success of the Homestay Program Development in Malaysia, a government policy for the development of the tourism sector by means of the involvement of rural communities which has now become very widespread throughout the country.

The sector of diffuse hospitality is not currently developed in Myanmar, except at an informal level. However, its importance is acknowledged by the MOHT. The *Policy on Community Involvement in Tourism* includes the documents *Myanmar Bed & Breakfast Service Standards* and *Myanmar Homestays Standards*. These present the main criteria and requisites for setting up and maintaining accommodation facilities in support of the decentralization of tourist accommodation, and its diffusion also to the village scale. The MOHT envisions a gradual development of the sector, giving priority to B&Bs: “Due to reasons related to Myanmar customs and religions, foreign visitors will be offered B&B Services or they can stay at hotels or lodging houses. In the upcoming years communities should get first-hand experiences with B&Bs which may enable them in the long term to run homestay programs, meaning that foreign

visitors stay overnight in a local family's private home" (MOHT, 2013, p. 31). In the framework of the *Destination Management Plan for the Inlay Lake Region* (2014-2020), a leading role is attributed to the homestays sector in developing trekking as a specific local tourism product. In addition, the Plan highlights the risks linked to the lacking of any planning in the sector and the subsequent possibility of diffuse accommodation facilities being promoted by foreign investors, reducing the potential positive repercussions for local actors.

In the case of this SDP, promotion of diffuse hospitality must be encouraged to achieve two potential goals:

- the development of B&Bs can represent, especially in Mandalay, an opportunity for a greater spatial distribution of accommodation facilities within the urban area, and, at the same time, for a greater division of the proceeds from tourism among the local population. The spatial diffusion of hospitality makes it possible, at the same time, to activate processes of valorization of parts of the city which are currently excluded from, or only partly affected by, the influx of tourists (cf. ch. 5.2), also by opening commercial enterprises linked to the sector (first and foremost restaurants and eateries). Moreover, the promotion of local policies in support of the diffusion of the B&B sector could stimulate the realization of interventions to convert and renovate buildings by their owners, with positive repercussions as regards the quality of life and of the urban environment as a whole;
- the diffusion of homestays – especially in the rural and non-urban context – could represent an opportunity to encourage a greater spatial distribution of the accommodation offer, as well as a financial return for the local population. With a view to this, the development of homestays could contribute significantly to an increase in the number of days tourists spend in the research area, and also to the valorization of the most decentralized tourist locations. In that sense, the ACUM area shows a significant potential in the network of rural villages (cf. chs. 4.1.5 and 9.1.3), capable of expressing various forms of vernacular architecture, and different examples of craft, agricultural and cultural activities, as manifestations of the local intangible heritage.

For the implementation of action 12.1.1, we propose the creation of a special *Commission for the promotion of diffuse accommodation in the ACUM area*, with the aim of:

- interpreting and applying Bed & Breakfasts and Homestays Service Standards in the project area;
- promoting policies to support, encourage, and back the homestays sector as part of the promotion of community tourism.

12.1.2 DEVELOPING THE SYSTEM OF DIFFUSE RESTAURANTS AND STREET FOOD

Local food and culinary traditions are a founding element of the intangible cultural heritage, as well as an important tourist resource, which is increasingly recognized, sought-after and appreciated (cf. ch. 4.3.2). At the same time, selling food represents an economic activity which involves every section of the local population, on a large scale, generating a significant contribution in terms of jobs and income.

With a view to this, the SDP considers promotion, of diffuse food outlets as a resource in three ways: on account of the involvement of local people in the tourism economy; to redistribute the proceeds from tourism; and to foster a spatial diffusion of tourists with-

in the research area, thanks to the greater availability of places where meals can be eaten. By “diffuse food outlets” we mean two differing forms of serving food, which are currently excluded – totally or in part – from the influx of tourists in the research area:

- the sector of Street Food, in its various different manifestations (cf. ch. 4.3.2);
- family-run restaurants and cafés which are frequented by local people;

Including diffuse food outlets in the tourism economy requires interventions both as regards regulation, and as regards training and promotion, already looked at in ch. 11.2.2 with reference to the protection and valorization of Street Food as an expression of the intangible cultural heritage. These interventions can be summed up as follows:

- initiatives to regulate and control aimed at ensuring respect for the necessary standards of health and hygiene to serve food, not just to tourists. Food safety and hygiene on stalls, and in places where food is sold, is a vital condition for the development of diffuse food outlets for tourism;
- initiatives to train operators, in order to ensure quality standards as regards the use of raw ingredients and the preparation of dishes able to satisfy the needs of tourists. Training would need to make operators able to convey information to tourists regarding the food prepared, both as regards the preparation process and as regards the cultural content linked to the various dishes;
- promotional initiatives aimed at including diffuse food outlets within tourist itineraries. Promotional initiatives may consist in: creating food tours by local tourist guides; and identifying and setting up pedestrian and cycling areas where culinary enterprises can be promoted (for a description of these potential areas, cf. ch. 9).

The implementation of these initiatives requires a high degree of coordination between numerous public and private actors. The SDP proposes the creation of a *Coordination office for the promotion of diffuse culinary enterprises* at the MCDC, with the participation of the FDA, the Mandalay Restaurant Association, the Union of Myanmar Travel Association, and the Myanmar Tourist Guide Association.

■ 12.2 SUPPORTING LOCAL QUALITY CRAFT PRODUCTION

A characteristic of the ACUM research area is the presence of a diffuse network of craft workshops producing high-quality goods, living testimony to a know-how handed down from one generation to the next, and, therefore, an important component in the intangible cultural heritage in the area (cf. ch. 4.3.1). The SDP considers these activities as a strategic tourism resource, to be valorized, and at the same time to be protected against the risk of a banalization of productions, induced by an increase in tourism demand (cf. ch. 9). The combination of valorization and protection represents a strategy also with a view to increasing the repercussions of tourism on the local economy, ensuring the preservation and continuation of the technical and artistic skills of craft-workers, and the high level of quality of their wares.

12.2.1 PROMOTING TRAINING INITIATIVES AIMED AT THE LOCAL CRAFT SECTOR

International experience in the field of protecting the intangible cultural heritage (ICH), incorporated in local craft production, gives a strategic role to initiatives in

the field of training and education, with a view to preserving and handing down know-how and technical and artistic skills, without entrusting them only to oral, informal transmission. The 2003 *Convention for the Safeguarding of the Intangible Cultural Heritage* (art. 14) itself calls for training and education programmes as means of promoting and protecting the ICH.

One successful example in the field of quality craft production is the programme entitled *Education and training in Indonesian Batik intangible cultural heritage in Pekalongan, Indonesia* (UNESCO, 2009). The programme involved the introduction of Batik-making on the curricula of several levels of school education, designed to make the students aware of the importance of this particular craft activity from the point of view of culture, and at the same time to transmit professional-level skills. There are several cases, worldwide, in which ICH components have been introduced onto school curricula as a safeguard measure.

In the same way, the SDP proposes the institution of a *Programme for education and training courses in traditional crafts of the ACUM*, so as to safeguard the high cultural, artistic and qualitative value of products, and the processes involved in making them. These courses are intended both for students and young people, with the intention of preparing them for craft-related activities, and for craftworkers who are already active, with the aim of reinforcing the overall value of local craft production.

12.2.2 SETTING UP SPECIAL AREAS SET ASIDE FOR COMMERCIALIZATION AND VALORIZATION OF QUALITY CRAFT GOODS

At the current time, tourists take advantage of traditional crafts in a way that lacks adequate forms of coordination and commercial valorization. Purchases by tourists are made from stalls near main visitor sites, where it is very hard to have guarantees as to the actual quality of the objects on sale, or, alternatively, from tourist shops where prices can be high, but without this leading to greater revenue for the producers. Sometimes, workshops are included as part of visitor routes in the city, but this happens mostly in a sporadic and occasional way, at the initiative of the tourist guides themselves, with the result of a strong selection between crafts, and workshops, which happen to come to the attention of tourists.

Safeguarding and valorizing the quality of craft productions is also achieved via forms of commercialization able to give guarantees to tourists and, at the same time, to involve a larger number of craft-workers in actual selling. With a view to this, the SDP proposes the institution of special areas for the commercialization of quality craft products. These areas (of which at least one ought to be inaugurated within the period of implementation of the plan) ought to be created at sites of tourist interest in several parts of the city, and play host to objects which are the expression of the various types of traditional crafts present in the ACUM area. The areas could also have the appearance of a new tourism product (cf. ch. 9), and be included in a more structured way within visitor itineraries in the area.

12.2.3 REINFORCING COORDINATION BETWEEN OPERATORS IN THE TRADITIONAL CRAFTS SECTOR

In relation to action 12.2.2, access by craft-workers to the special areas set up for them ought to take place via a system of licenses, set in place by a coordination body that liaises between the various crafts. To that end, the SDP makes provision for the creation of a *Consortium for Traditional Crafts in the ACUM area*, responsible for the commercial valorization of products, including the organization of various kinds of promotional events.

13. Improving the efficiency of networks and services

■ Tourism interacts in a rather intense way with the place being visited and with the resources which it contains. Among the resources which tourist demand consumes in the area visited are, without doubt, public utilities, that is, the networks and services essential for normal daily life in the area itself. Indeed, during their tourism experience, tourists use utilities just as local residents normally do, and they place an extra burden on said utilities. This leads to two main effects: one economically positive, given that the tourist pays for the services used, and the other negative, given that it produces an additional impact on the environment (Rutty, 2015). However, besides this, there is an inverse relationship between tourists and the territory's utilities, in that the latter goes towards establishing the level of attractiveness of the territory with regard to tourist demand. Indeed, in most cases visitors like to find effective networks and services in the places they visit, as it makes their tourist experience easier and more comfortable. This expectation generally holds true – though with different priorities from case to case – for all types of utilities, from transportation to the water supply system, from waste disposal (solid, but also sewers) to Information Technology and telecommunications networks. Therefore, a tourism development plan must adopt the necessary measures to make the levels of service of the main local utilities adequate to the needs of demand. For this reason, improving the efficiency of networks and services has now been included among the strategies of the SDP. This is not developed across the board on the entirety of utilities, but is instead focused on those considered most important for the sensibilities of tourist demand in the ACUM area, and on those which are below adequate standards. Accordingly, the strategy for improving the efficiency of networks and services can be broken down into the following goals:

- guaranteeing accessibility to sites of tourist interest;
- improving transport systems;
- ensuring an effective water supply;
- ensuring an effective system of solid waste management;
- expanding Internet and mobile phone access.

■ 13.1 GUARANTEEING ACCESSIBILITY TO SITES OF TOURIST INTEREST

As mentioned in ch. 3.5, the transport system plays a vital role in developing tourism, as being able to move around and have accessibility to places is an integral and indispensable part of the tourist experience. Currently, the ACUM area is among the most important tourist destinations in Myanmar, and includes within it a great number of very attractive elements for tourist demand, elements which the current Sustainable Development Plan intends to valorize. However, it is clear that an essential element for the purposes of this valorization process involves guaranteeing good

levels of accessibility to the sites where tourist attractions, and places of interest, are situated. Spatial access to locations can, in this sense, be categorized into two types: that which is specific to given locations, such as some locations situated at a certain distance from the main urban area; and a diffuse form of access within areas having a high density of attractions (normally coinciding with more densely populated and built-up areas, in our case the city of Mandalay). These two types of accessibility can be created or improved through two specific actions, which are described below.

13.1.1 GUARANTEEING GOOD ACCESSIBILITY TO TOURIST SITES SITUATED IN THE EXTENDED AREA

As already observed in ch. 9.1.7, the ACUM area is situated at the centre of a much more extensive area, extremely representative of the Bamar culture and traditions, and which contains many localities of notable interest from the point of view of tourism. These localities are not evenly distributed across the territory, but they are located in specific geographical positions, and generally do not have an autonomous accommodation capacity. The action of the plan described in ch. 9.1.7 is aimed at creating a specific tourist offer, consisting of visits to these localities in day-long excursions which depart from the city of Mandalay, where almost all the accommodation facilities in the zone are concentrated. However, to carry out this action, it is necessary that the connections between Mandalay and these localities are sufficiently easy and rapid to allow a return trip, as well as the actual excursion itself, within the space of a single day. Therefore, it is necessary on the one hand to take into consideration the localities of greatest interest as regards the landscape and culture, situated at a distance from Mandalay compatible with these requisites, and on the other hand to propose a complementary planned action which improves the level of service of their connections with Mandalay, should they currently appear inadequate. Current road connections from Mandalay to places of

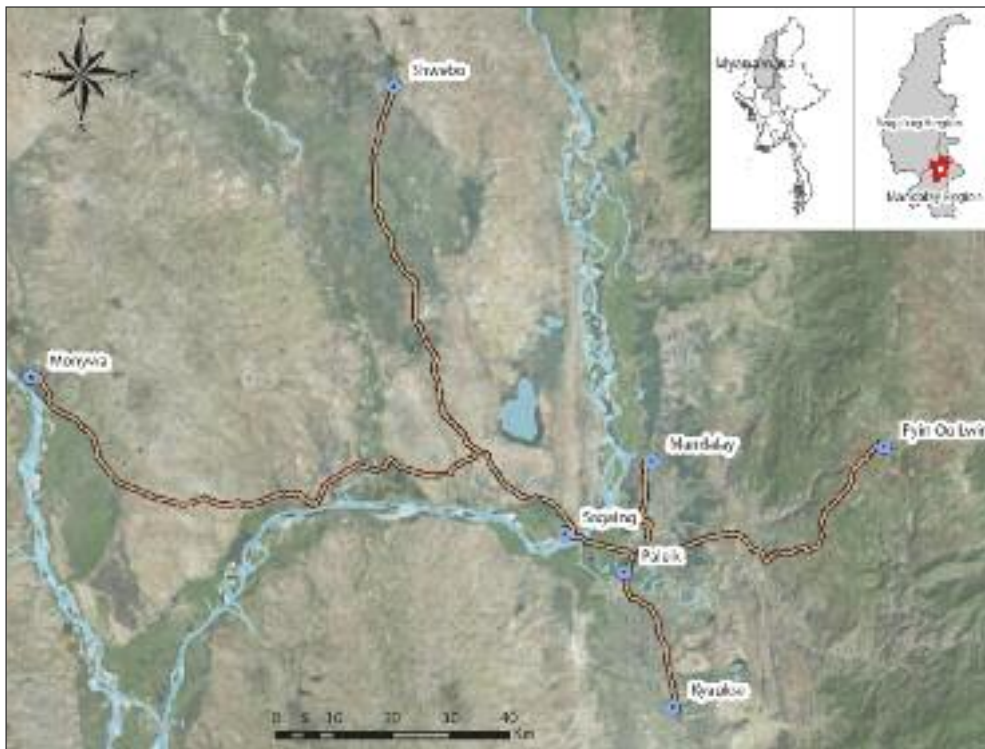


Fig. 13.1.1 Road connections between Mandalay and some sites of tourist interest within a radius of 100÷130 km.

Source: author's processing; background map from ESRI Imagery.

interest situated within a range of 100-130 km, mentioned in ch. 9.1.7, are illustrated in Fig. 13.1.1. Meanwhile, their main characteristics are shown in Tab. 13.1.1. As can be seen, almost all of the locations can be reached by road in less than an hour and a half, which makes day trips viable to a fairly comfortable extent, while still staying overnight in Mandalay, except for Shwebo and Monywa. It takes about 2.5 hours to reach these last two, which makes day-long excursions more difficult.

Tab. 13.1.1 Characteristics of road connections between Mandalay and some localities of tourist interest within a range of 100-130 km.

Source: data from MIMU, 2016a; processed by the author.

Destination	Distance (km)	Travel time	Average speed (km/h)
Paleik	17	30'	34
Kyaukse	45	1h	45
Pyin Oo Lwin	65	1h 30'	43
Shwebo	110	2h 15'	49
Monywa	130	2h 30'	52

None of the locations is connected to Mandalay by a frequent and regular scheduled bus service, while some of them are connected by train. These are Pyin Oo Lwin, Shwebo, and Paleik. However, the first two are reachable by train with extremely long travel times, respectively about four hours, and four and a half hours. Paleik can be reached in about an hour and a quarter, a much longer time than by road. In any case, currently, the frequency of the train service in many cases is limited to once a day, and is extremely uninviting.

With a view to increasing accessibility levels of the locations under consideration, the following observations can be made. First of all, improving the general road connections would be worthwhile, so as to allow more attractive average speeds and travel times for those intending to make day-long excursions. Such improvements would also benefit possible dedicated bus services created to serve the connections in question. As for rail connections, one should refer to the national-level plans (cf. Chapter 3.5), whose development programmes lead to improvements in the quality and frequency of service for locations connected to the railway network. Moreover, it is advisable that the relevant authorities create effective coordination between the different methods of transport, setting in place a plan for connections between Mandalay and the surrounding locations. Such a plan should identify the most effective method of transport for each locality served, and concentrate its investments on that. This would permit the optimization of resources and implementing more focused improvement actions for each of the connections in question, dedicating a preferred transport mode to each specific corridor to be served.

13.1.2 CREATING ROUTES DEDICATED TO SOFT MOBILITY

A second type of action aimed at the general goal of guaranteeing accessibility to sites of tourist interest is increasing accessibility in areas dense with elements of cultural or landscape appeal. Each one of these elements represents a potential allure for tourist demand, but when they are present in high concentration in specific areas, they lend those areas a particularly accentuated character of tourist interest. In the case of the ACUM area of this plan, numerous portions of territory can be identified as presenting a high density of attractive elements, or a considerable spatial extension of these: the urban areas of Sagaing and, above all, Mandalay; the zone south of central Mandalay all the way to Amarapura, which includes Kan Taw Gyi Lake and Taungthaman Lake; the banks of the Ayeyarwaddy river, in particular the urban portion west of the Royal City of Mandalay, and all of the west bank from Sagaing to Mingun.

One of the causes which limits accessibility to these places is the less-than-optimal current situation of the transport system, which, due to the absence of clear organization, the lack of collective services and the consequent chaotic traffic, almost always forces visitors to use a taxi, car or motorbike. However, as shown in ch. 9.1.1, the use of individual motorized vehicles drastically limits the quality of visits to places, which should instead be carried out better with the necessary slowness which makes the tourist experience positive. One way to achieve this result is to organize a network of protected paths along which soft mobility can be used, that is, that type of mobility which does not use motorized vehicles and is therefore principally done on foot or bicycle (La Rocca, 2010). Besides the positive effect this has on visitors' perceptions, the use of soft mobility also has the advantage of reducing to practically zero the negative effects on the environment generated by transportation, with a resulting greater sustainability and responsibility of the tourist phenomenon as a whole (Miretpastor et al., 2015).

As to the identification of paths for soft mobility in the ACUM area, see ch.s 9.1.1 and 9.2.1, which describe respectively the actions directed at:

- creating protected pedestrian paths, so as to achieve the goal of improving the use of tourist routes (cf. Fig. 9.1);
- creating tourist bicycle paths, so as to attain the creation of a new tourist product (cf. Fig. 9.7).

These two actions, whose goals are included principally in the strategy of developing the tourist offer, have, nevertheless, considerable effects on the increase of accessibility to places of interest, and connecting them to each other.

The fundamental characteristic of the pedestrian paths which will be created is that they will somehow be protected from motorized traffic, even those which pass through areas of mixed use with other forms of transport. This can be achieved in different ways, specifically:

- in areas with high volumes of motorized traffic, with the construction of pavements sufficiently wide so as to permit their safe and easy use at any level of mobility. In the case of paths that do not currently have this characteristic, as is the case for example of the paths identified in ch. 9.1.1 to the south of the Royal City and to its west, as far as the banks of the Ayeyarwaddy river; this type of intervention is very important because of the current absence, or state of disrepair, of pavements or footpaths (Fig. 13.1.2);
- in areas with little motorized traffic, through the promotion of the use and possible improvements of some paths which can already be configured as pedestrian and protected, for example those along the perimeter of Kan Taw Gyi Lake and Taungthaman Lake;
- in areas already essentially devoid of motorized traffic, with the activation of the use of paths which are already protected but not available for public use, as is the case of internal paths in the Royal City.

The lengths of these three types of route can be considered among the performance indicators of this scheduled action (cf. Tab. 16.1).

The network of bicycle paths described in Fig. 9.7 does not call for sections completely segregated from other elements of traffic, but basically two types:

Fig. 13.1.2 A pavement in a poor state of repair in the urban area of Mandalay.

Photo: C. Lo Presti, 2015.



- cycle lanes which run alongside roads whose volume of motorized traffic is not negligible, and which therefore need the implementation of a physical separation, even of only modest in scale, such as the one along 26th street south-west of the Royal City leading to the Ayeyarwaddy river;
- cycle lanes which run alongside streets not used much by motorized traffic, which can therefore already be considered fairly protected; for these, only small interventions will be necessary to make the road surface usable, and to add the necessary signage;
- cycle lanes which overlap with pedestrian paths, and which must therefore be correctly signposted, as for example the perimeter of the Royal City, and the perimeter of Kan Taw Gyi Lake and Taungthaman Lake.

The lengths of these three types of lanes can also be used among the performance indicators of this scheduled action (cf. Tab. 16.1).

A complete overview of all of the types mentioned for bicycle and pedestrian paths is illustrated in Fig. 13.1.3.

■ 13.2 IMPROVING THE TRANSPORT SYSTEM

Besides the transport infrastructure and services that make it possible to reach interesting tourist destinations, visitors turn to the transport system as a whole to move about normally during their stay in places. And so, a transport system which is attractive, effective and easy to use makes it possible for tourists not only to move about the territory with more ease, but also gives them a chance for exploration which otherwise would be more difficult. For this reason, it is essential that not just the connections to the main tourist attractions, but all the transport system in the ACUM area are in good condition, and are effective, allowing the widest accessibility possible to all the places which can be visited.

In ch. 3.5 the limited level of development of the transport infrastructure and services in the Mandalay area was highlighted. Although these services are not

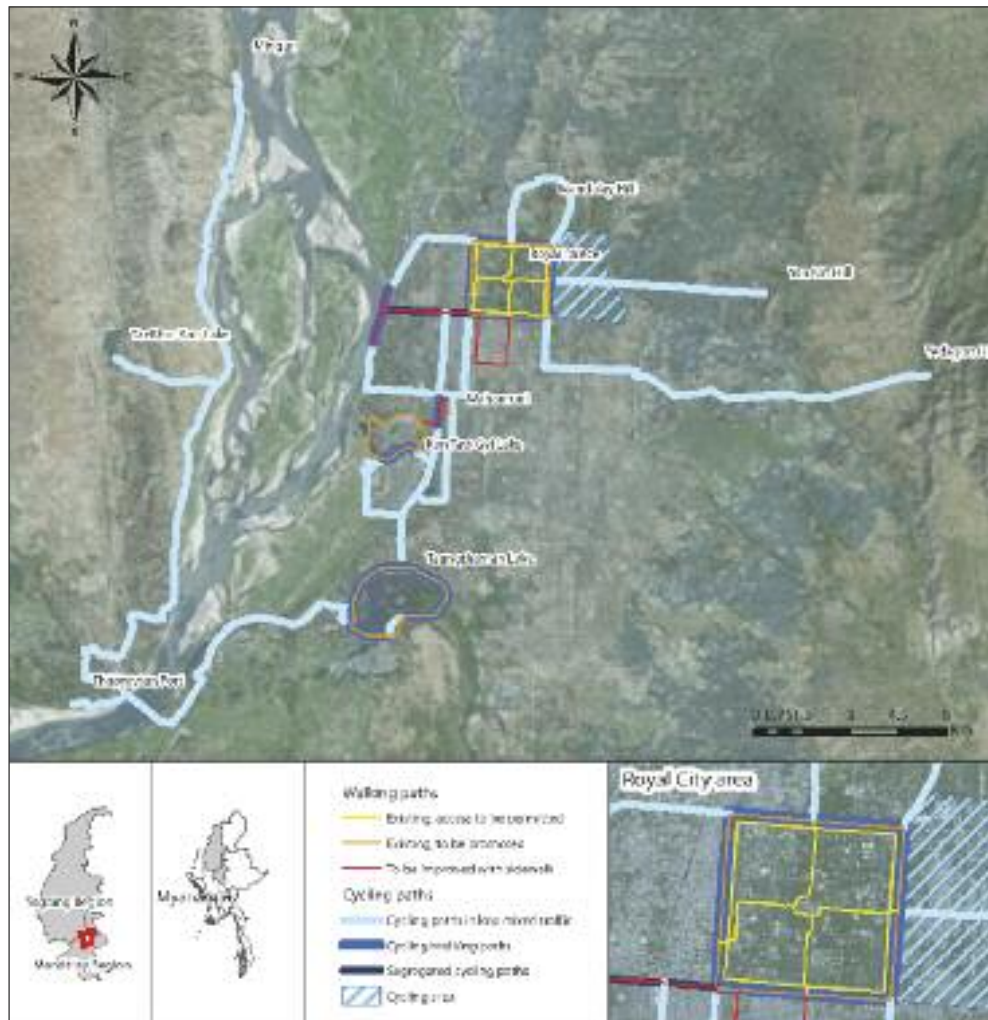


Fig. 13.1.3 Walking connections and cycle paths proposed in the ACUM area, separated by type.

Source: author's processing;
background map from ESRI Imagery.

hugely underdeveloped, they do not appear completely adequate to the outlook for tourist development expected in the next five years (cf. ch. 6.3). Specifically, ch. 3.5.2 pointed out that, even if the majority of tourists interviewed in the LaGeS Survey (cf. ch. 1.4.2) was satisfied with the quality/price ratio of transport in the Mandalay area, they did, however, stress various reasons for dissatisfaction over the transport system, whether regarding its general situation, the problems due to traffic, or the ineffectiveness of collective means of transport and taxis.

In view of this, and in order to achieve the goal of general improvement of the transport system in the ACUM area, first of all it is considered essential to create the conditions for the realization of an adequate capability for governance and planning of the entire mobility system. At the same time, a number of more urgent interventions should be implemented, such as improving the state of the road system, and developing the system of collective transportation, currently used very little. The actions put forward here are therefore:

- setting in place a plan for sustainable mobility;
- improving the state of the road network;
- developing collective transport, and limiting less sustainable transport.

Moreover, the fact should not be ignored that these actions lead to substantial benefits not only for the visiting public, but also for all the inhabitants of the area, who will be able to permanently benefit from the positive effects.

13.2.1 SETTING IN PLACE A PLAN FOR SUSTAINABLE MOBILITY

In order to create an efficient and accessible transport system, an effective and informed governance is needed, based on explicit and agreed planning. Such planning must also take into account some important elements of a general nature. First of all, the fact that the operation of a transport system involves a certain number of negative effects on the environment, and hence on the residential community. The most important effects are congestion, noise and air pollution, contributing to the greenhouse effect, accidents, soil and water pollution, and the disruption caused to biodiversity. In economic terms, these effects translate into monetary costs (also called external costs) which are often not clearly perceived by citizens and stakeholders, but which the community ends up having to pay for (Friedrich and Bickel, 2001). One example are the healthcare service costs for treating health problems produced by pollution or road accidents, or the costs for restoring soil conditions or damage to the historical-cultural heritage from polluting factors. The risk of negative impacts on budgets, involving transportation and the environment, is generally higher in socio-economic systems which are developing rapidly, such as the one which is part of the area covered by this plan. This happens because of the high growth rates of urban, infrastructure and technological development, which can cause high levels of impact on the environment. Secondly, it is necessary to bear in mind the requirement for the transport system to be available equally for all members of society. This characteristic, besides favouring social inclusion and cohesion, is necessary to ensure that the transport networks can effectively serve all of the demand for mobility, of whatever income level, social position, age and gender, with positive consequences for the optimization of the habitation system and for its cost-effectiveness. A third very important aspect is the economic balance of the investments and the management of transport systems. From international experiences, it emerges clearly that urban and suburban transport systems are generally not capable of being financially self-sufficient, in the absence of a contribution from institutions. For that matter, the effects of an efficient transport system on the collective economy are normally able to fully compensate for imbalances in financial investments and management, if the strategy adopted transcends the short-sightedness of a short-term approach.

The considerations expressed above suggest the adoption of a sustainable development approach, where the sustainability of interventions on the transport system is based on the three pillars of social development, economic development and environmental protection (UN, 2005). Such an approach is expressed through the creation of a Sustainable Mobility Plan (SMP) for the ACUM area, that is, a sector-based plan designed to satisfy mobility needs by improving the quality of life as much as possible (Wefering et al., 2014). This plan must be developed as soon as possible – at the latest by the end of the first two years covered in the plan, in other words, by the end of 2018 – to be able to strengthen the transport sector in relation to tourist development, but also for daily mobility for the resident population.

The mobility plan will have to address a rather wide-ranging and complex range of issues, involving all the territorial, economic and social aspects of the ACUM area. For this area, mobility represents the expression of the rhythm of life and of social rela-

tions, and is the result of the interaction between demand for transport – which in turn is chiefly determined by economic and social factors – and the system of transport supply, made up of infrastructure components and services. In this case, it represents that which provides the opportunity to move around, but at the same time it is a factor which shapes the structure of the human environment itself (Neal, 2013).

Moreover, the canons for the development of a mobility plan are not uniformly defined in the panorama of international literature, which therefore allows a wide variety of approaches. The traditional techniques of transport planning, mainly based on US experiences, and already drawn up in the first developmental years of motorization (Weiner, 2013), were essentially based on a “predict-and-provide” approach. In other words, the goal of planning was mainly to estimate the growth of mobility, generally through the use of mathematic models, and to identify the increase in infrastructure necessary to absorb this growth (Meyer and Miller, 2001). In more recent times, planners’ attention has instead shifted towards an approach to planning based on sustainability¹. The primary goal for a mobility plan has thus become to create a transport system capable of ensuring that local people and visitors have adequate levels of accessibility and social inclusion, improving the efficiency and effectiveness of transport, reducing environmental impacts, improving security and safety, valorizing places, and, in short, increasing the quality of life (Wefering et al., 2014). This broader approach – certainly preferable as regards the sustainability in this Sustainable Development Plan – requires a shift in the focus of planning, from traffic to the people who benefit from the plan’s actions. Greater attention is paid to more sustainable forms of transport from a social, economic and environmental point of view: pedestrian mobility, bicycles and collective transport (UITP, 2014). Finally, fundamental importance is given to the pursuit of planning in which the stakeholders and those who benefit from the planned actions participate (Auwerx et al., 2011), i.e. in our case, the institutions, the associations, economic players and ordinary people, because the sustainability of a transport system cannot exclude the peculiarities of the economic, social and cultural context in which it is situated.

13.2.2 IMPROVING THE GENERAL STATE OF THE ROAD NETWORK

The urban road networks of Mandalay and Sagaing, and the extra-urban road networks of the adjacent areas, play a fundamental role in guaranteeing efficient mobility which makes accessibility possible for all the places which represent a potential attraction for tourism. For this reason, the actions put forward by this development plan include creating a general improvement in the state of roads, with a view to making travelling by road easy throughout the ACUM area, and allowing the whole area to be experienced by visitors.

This action will be the result of specific interventions, and these may also be adopted as performance indicators of the action itself, in particular:

- preparing a plan for the improvement of the physical conditions of urban and extra-urban roads, with interventions on surfaces, pavements and footpaths, drainage systems for rainwater, lighting, geometrical characteristics, and street furniture. This plan will have to make the road system efficient for transport but also – in the case of urban streets – welcoming for people and pedestrians;
- proceeding to improve the functional efficiency of the road network by identifying an adequate strategy for functionality capable of guaranteeing the optimization of its use. The overlapping of various types of traffic on the same routes is, in this

¹ On sustainable transport planning in an international context, see Böhler-Baedeker et al. (2014); for aspects related to the Asian context, see Ieda (2010).

Fig. 13.2.1 A traffic jam in the urban area of Mandalay.

Photo: C. Lo Presti, 2015.



sense, a strongly penalising element, which often causes – especially in urban environments – traffic jams and congestion (Fig. 13.2.1). We recommend improving the traffic layout, especially in the greater urban area of Mandalay, through separation of, and a new hierarchy of, traffic flows. In this way it will be possible, for example, to protect the more tourist-related and residential areas from through traffic which has no relation with them, to distribute long-distance traffic into specific channels, to save the weakest traffic components such as pedestrian and cycle traffic (elements generally used by tourists), to valorize the urban heritage of the city by reducing the burden of motor traffic in areas of historical and cultural merit, and finally to increase accessibility and ease of movement, minimizing the negative effects of road traffic on the life of the community and visitors. To achieve this result, a hierarchy of various categories will need to be imposed on road networks, with differing access policies for the various modes of transport (heavy traffic, motor vehicles, collective transport, pedestrians and bicycles);

- identifying the areas of special historical, social, cultural and environmental value, of greatest appeal for the phenomenon of tourism, which need to be protected from the presence of motorized traffic. In these zones, a set of regulations could be adopted for traffic to be partially or completely dedicated to methods of transport with less impact, such as people on foot or cyclists, as long as they are adequately served by collective transport;
- identifying a network of cycling paths which supplements and completes the paths to be developed chiefly as tourist products, so as to encourage non-motorized mobility, which is found to be more virtuous as regards energy use and the environment;
- the adoption of suitable policies for traffic regulation aimed at limiting road congestion which, despite the extremely low number of motorized vehicles, occurs frequently in urban zones of the ACUM area. To this end, we wish to stress that the use of smart technologies and of Intelligent Transport Systems for

traffic management would be advantageous. Moreover, the introduction of these would be facilitated, given the current absence of technological systems with which they may come into conflict.

The specific interventions mentioned thus far can be better defined within the Sustainable Mobility Plan (cf. ch. 13.2.1), and put into effect in the timeframe of the last three years of the time horizon of this plan, ie by the end of 2021.

13.2.3 DEVELOPING COLLECTIVE TRANSPORT AND LIMITING LESS SUSTAINABLE TRANSPORT

Collective transport is the most efficient method of motorized transport as regards energy use and the environment. In the city of Mandalay and the surrounding areas, the rate of use of collective means (bus, rickshaw) by the population is extremely low, equal to about 2.5% of all movement, and tourists also use very little collective means, less than other alternatives available to them (cf. ch. 3.5). A situation similar to this generally corresponds to a level of service offered by the transport system which is also proportionally low. The high percentage of journeys (almost 80%) which currently use individual motorized means, almost exclusively on motorcycles for the local population, with the tourist population using mainly taxis, could potentially be transferred to a system of collective transport. This is on condition that collective transport proves to be attractive in terms of the level of service, compatible with the culture of the city, and economically accessible. To achieve this last requisite, it has to also be functionally efficient, a goal which can be greatly encouraged by creating a functional hierarchy, both for collective transport over individual transport, and by various services within the category of collective transport itself, so as to minimize any form of interference and competition between the various systems of mobility. To best fulfill its task, collective transport could be effectively organized along primary routes, on routes where demand is high, and with feeder networks heading towards those routes. It will also be necessary to foster, as much as possible, conditions which increase the level of service of collective transport in terms of the quality of the vehicles, and the regularity and speed of service. Indeed, the level of service offered is the main element capable of increasing transport demand.

The development action for collective transport, and the consequent limitation of more polluting and less sustainable modes of transport such as motorcycles and cars, seems, moreover, in a certain sense as urgent, given the outlook for the growing development of Myanmar's economy, which could, by virtue of higher levels of income in the medium term, favour a rapid shift away from today's prevailing motorbike-based mobility to one using cars, with a drastic deterioration of the levels of transport sustainability in the ACUM area. This action could be put into effect through specific interventions which could be adopted as performance indicators of the action itself. These include:

- planning a primary network for collective transport, which could comprise a system of Light Rapid Transit (LRT)² (e.g. light rail) for high-demand routes, and a Bus Rapid Transit (BRT)³ network for lower-level connections. The primary network could for example use some sections of the existing railway lines within the urban area of Mandalay, and provide a connection to the airport, and perhaps even to Sagaing. The technical characteristics of these systems will have to come from appropriate planning which takes into account both the local geographical fabric, and the demand for transport;

² By Light Rapid Transit (LRT), we mean a system which uses a dedicated track, mainly or entirely separate from road traffic.

³ By Bus Rapid Transit (LRT), we mean a bus system whose routes run along preferential road lanes, separate from the general traffic.

- reorganizing collective road transport, complementary to the primary rapid transit routes. Such a reorganization appears necessary both from the point of view of management and functionality. In the first case, many benefits could derive from a single administrative institution, or at least a regulatory body which makes possible continuous and effective planning of the transport supply. From the functional standpoint, wheel-based public transport on the open road must not overlap with the rapid transit lines on any part of the route, but instead must supply a feeder service, of medium-to-high frequency, along routes of limited length. This way, the means of transport used (bus, rickshaw, etc) can be of reduced size, so as to make better use of their capacity. The identification of service routes and their characteristics will have to originate from careful planning based on transport demand. Moreover, in the presence of a mechanism to regulate collective transport, helping the establishment of transport cooperatives will undoubtedly bring benefits, also in terms of the participation of the local population;
- creating an integrated ticketing system will undoubtedly be able to improve the flow of traffic and vehicles, and make the economic management of the transport system possible. The ticketing system can use computer technology to increase its own efficiency, and contain costs. A requisite which appears essential is the use of the same travel credentials on the various subsystems of public transport, a measure which would make it more attractive to users.

Also in this case, the specific interventions mentioned so far can be better defined within the *Sustainable Mobility Plan* (cf. ch. 13.2.1), and put into effect in the timeframe of the last three years of the time horizon of this plan, i.e. by the end of 2021.

■ 13.3 ENSURING AN ADEQUATE WATER SUPPLY

The availability of an adequate quantity and quality of water is undoubtedly an important condition for a territorial system to prove attractive as regards tourist demand. Indeed, all visiting tourists require the availability of a certain quantity of drinking water not just for direct consumption, but also for indirect use in the production of food, building materials, energy, and so on (Gössling et al., 2012). In the ACUM area, however, the availability and the quality level of drinking water are not completely adequate for the expected economic and tourist development. Even though the general statistics (calculated at the national level, cf. UN, 2012) indicate high percentages of access to “improved water” (more than 90% of the population in urban areas, and almost 80% in rural areas), the water provision service is below acceptable levels even in the urban portions of the territory (ADB, 2013).

In the city of Mandalay, for example, although average water quality is good for domestic uses, as is the case for that matter also in other large urban areas of the country (Sakai et al., 2013), the problems existing in the water supply process for domestic use are not negligible. Water used for domestic purposes comes from various sources (MCDC, 2015a). Besides the urban water supply system managed by Mandalay City Development Committee (MCDC), which obtains it from both surface and ground water resources, there are many private wells, public wells and taps; and also the ancient habit of using moat water around the Royal City for washing has not

been completely abandoned. In zones not reached by the water supply system, water is obtained from wells and taps, and often transported in containers which do not satisfy hygiene requirements (Muirhead, 2015). The water supply system, built between the 1980s and 1990s, which gathers water from the Ayeyarwady river principally through numerous deep tube wells, and secondarily from surface water, has some treatment plants and distributes water in the urban area through a network of pipes. The water supply system serves an area of about 58 km² and a population of around 550,000 citizens, with a production capacity of 96,000 m³ per day. However, this network only works between 2 and 10 hours per day, and it is characterized by low energy efficiency and the absence of disinfection. Even though some water storage systems are present (ground reservoirs and towers), their capacity is only enough to cover half the current level of daily water production, which is, moreover, insufficient for the needs of the population present in the area.

For these reasons, various projects for improving the water system of Mandalay and the surrounding areas are being looked into, and are being tendered. Ongoing projects relate to the construction of a new pumping station in the Dokhtawaddy River (10 km south of Mandalay) and a new water treatment plant dedicated to the Pyi Gyi Dagon township (MCDC, 2015a, p. 20). Moreover, other projects are under way to extend the water supply system to the Amarapura township, build new water supply facilities in the township of Pyigidagun, arrange for the disinfection of the facilities in Kitakyushu, and increase the productive capacity at one of the water treatment plants on the bank of the Ayeyarwady river immediately to the west of the Royal City (MCDC, 2015a, p. 72).

So in essence, the main problems afflicting the ACUM area as regards water supply are:

- the fact that water is insalubrious, which is noticeable above all when it is obtained from wells and taps, and when it is transported in containers, but also when the mains water treatment plants are not adequate;
- the insufficient quantity of systems for storing water;
- the insufficient size of the mains water supply, its poor state of maintenance, the absence of monitoring systems, and inadequate knowledge of the characteristics of the network.

To make the water supply system for the urban area compatible with the needs of the resident population, and also with the expected development of tourism, we propose two main actions: improving the water supply in the area, and producing a water management plan.

13.3.1 IMPROVING THE AREA'S WATER SUPPLY SYSTEM

Given the situation of insufficient quality and quantity in the water supply in the ACUM area, we believe it is necessary to plan improvements to the water supply system in the timeframe of the current Sustainable Development Plan, that is, by the end of the year 2021. This improvement can be achieved through various types of interventions (MCDC, 2015a). Firstly, the improvement of existing water treatment plants and their extension, which we can estimate would bring additional water production of about 38,000 m³ per day. Moreover, a reduction in the current enormous losses from the water supply system, both physical and commercial (i.e. consumption that is not paid for), which we estimate at about 52,000

m³ per day, and which could be reduced by half by replacing pipelines, and with commercial valves. Finally, the renovation and extension of the distribution network, which could include laying new pipes, installing technology to control and monitor water flow, and the renovation of reservoirs and pumps. According to the Mandalay City Development Committee, all of these interventions together will increase the number of families who have access to uninterrupted water service, from the current 19,000 to 124,000, with evident benefits also for the tourist population, who could finally have the real possibility of having available accommodation in the form of homestays, as well as hotels.

13.3.2 PRODUCING A WATER MANAGEMENT PLAN

Another necessary action as regards the goal of ensuring an efficient water supply in the ACUM area is drawing up and adopting a *Water Management Plan* (WMP), such as to permit complete knowledge of the current situation, continuous monitoring of its evolution and overall planning, and organizing and optimizing the various projects and existing initiatives. Such WMP will need to be finalized and adopted sufficiently rapidly for it to become operative within the timeframe of this plan, at the latest by the end of 2018. The methodology for drawing up the plan will have to be based on international-level best practices⁴. The plan must contain a complete description of the current situation, an analysis of domestic and other water needs, a forecast for demand in future scenarios, and finally the planning of the use of water resources, and water distribution, in the area of interest.

13.4 ENSURING AN ADEQUATE SYSTEM OF SOLID WASTE MANAGEMENT

When a geographical area does not have an effective system of waste management, its environmental context is found to be degraded. Since the quality of a place is without doubt one of the main drivers of attraction of tourist demand, it is clear that an adequate ability to manage waste is fundamentally important with a view to a development of the tourism system. This becomes even truer if one considers that the very presence of visitors constitutes an additional cause of the production of waste, thereby itself becoming a factor of impact on the local environment (Pirani and Arafat, 2014).

In the urban area of Mandalay, solid waste production increased considerably as of 2010 (Fig. 13.4.1) owing to the rise in the population, growing urbanization, and gradual economic development, rising in 2014 to around 850 tons per day, corresponding to 0.4~0.45 kg per capita per day (MCDC, 2015b). According to a survey carried out in 2013, most solid waste consists in vegetal matter and kitchen scraps (55%), while plastics comprise around 15%, and soil and mud almost 10%. Other types of waste, such as paper, wood, metal, glass, and textiles each account for around 5% or less (MCDC, 2015b). As regards the origin of waste, most comes from kitchens (60%), 15% from markets, 10% from commercial enterprises, 5% from gardens, 2% from hotels, and the remainder from other sources (Republic of the Union of Myanmar, 2010). The management of the waste collection system is the responsibility of the Mandalay City Development Committee, specifically the Cleansing Department, which uses various kinds of vehicle provided by the Department of

⁴ As an example, one can refer to the report of the State of California (2010).

Motor Transport and Workshop (push-carts, tri-bikes, trucks) as well as 7 m³ containers. In 2014, almost 2,000 people were employed in the collection of solid waste. The prime collection system is organized in the form of door-to-door collection. Under the door-to-door collection technique, small vehicles (tricycles, push-carts) travel up and down the city streets, stopping at street corners and calling residents with audible alerts in order to proceed to collect their waste. The service operates every day, from 6:30 am to 12:30 pm. The refuse is then taken to a collection point (there are 15 of these in the urban area) where it is transferred to containers, which are in turn transported by truck to one of the 2 existing dumpsites. The first is situated to the north (Kyar Ni Kan), it has a capacity of 450 tons per day, and it serves the northern townships; near it there is a site where hospital waste is collected and burnt. The second is situated to the south (Thaung Inn Myount Inn), it has a capacity of 350 tons per day, and it serves the southern townships. Near the latter there is an incinerator with a capacity of 30 tons per day, although this is not used owing to the high operating costs, and the high pollution which it produces. Some materials which can be recycled are manually selected from the waste deposited at dumpsites, before being compacted by bulldozers. In 2014, the solid waste collection system in Mandalay covered around 85% of the refuse produced in the urban area; however, the remaining 15% was thrown into canals, drainage systems and illegal dumping sites. The refuse collection system does not handle building materials, which are managed directly by building firms. The biggest problems connected with the solid waste collection system in Mandalay are thus:

- the lack of checks on pollution caused by the open-air presence of refuse at dumpsites;
- the presence of waste abandoned in large open-air areas, both in urban and rural contexts, canals and drains;
- the custom of burning some kinds of waste, such as rubber;
- the use of waste to fill in land to make it level, a cheaper alternative to the use of soil and earth;
- the lack of a real system of separate waste collection for recycling.

In order to make the management of waste in the ACUM area compatible with the needs of the anticipated tourist development, as well as the needs of the resident population, we propose one main action: drawing up a *Solid Waste Management Plan*.

13.4.1 PRODUCING A SOLID WASTE MANAGEMENT PLAN

The aim of a *Solid Waste Management Plan* (SWMP) is to provide the administration with an effective instrument for managing in a better way the collection and disposal of solid urban waste. The SWMP must be completed and adopted sufficiently rapidly to allow it to be put into effect within the time horizon of this plan, namely by the end of 2018 at the latest. The method for drawing up the plan must be based on international best practices⁵. As well as a complete analysis of the current situation, the plan will have to contain a model for waste generation that provides an estimate of the annual volume of waste, and its projection in the years to come, a composition analysis, namely a classification of waste per category, collection plans, namely the systems for refuse collection, and disposal plans, namely methods for storing and disposing of solid urban waste.

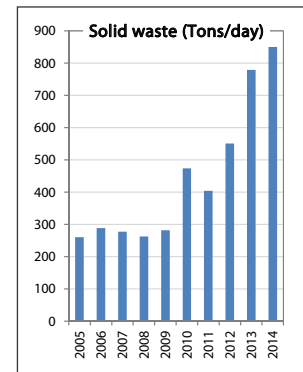


Fig. 13.4.1 Trend for total production of solid waste in the city of Mandalay.

Source: data from MCDC, 2015b; processed by the author.

⁵ By way of example, one may refer to World Bank (2012).

13.5 EXPANDING ACCESS TO INTERNET AND MOBILE PHONE CONNECTIONS

As now happens worldwide almost without exception, also in the context of the tourist population the use of telecommunications is becoming more and more pervasive in daily life, as technology becomes more available and inexpensive. Internet, and access to the web via mobile networks especially, are now an integral part of every trip (Lalicic and Weismayer, 2016).

Accessing the web, especially from a mobile network, during a visitor experience is, for tourists, a way to continue their normal daily experiences of technological communication in an uninterrupted form, a way to continue to acquire information that helps the planning of their travels while they are in situ⁶, and a way to enhance their travel experiences by means of the multitude of travel-related apps, free WI-FI spots, QR codes and augmented reality applications which are available today. For tourist providers, meanwhile, the web and mobile communications represent a very effective way to make their business more efficient (Bernè et al., 2015).

However, in this respect, Myanmar still suffers from major technological underdevelopment. According to the World Development Indicators database (World Bank, 2016c), in 2014 the number of internet users per 100 people (fixed line) in Myanmar was only 2.1, as against a global average of 41, 47 in the East Asia & Pacific region, and 91 in Japan (Fig. 13.5.1). The same disparity can be seen as regards the number of fixed telephone subscriptions per 100 people, amounting to just under 1 for Myanmar, a worldwide average of 15, 18 for the East Asia & Pacific area, and 50 for Japan; for the number of fixed broadband subscriptions (per 100 people), amounting to 0.3 for Myanmar, a global average figure of 11, 14 for East Asia & Pacific, and 29 for Japan; and finally for the number of secure internet servers per 1 million people, which in 2015 was 0.7 for Myanmar, an average of 208 worldwide, 143 for East Asia & Pacific, and 971 for Japan. Only as regards the number of mobile cellular subscriptions per 100 people does the figure for Myanmar, 54, come close to half of the global average, which is 97, while for East Asia & Pacific and Japan the figures are 103 and 120, respectively (Fig. 13.5.2). Given this situation, involving an almost total absence of infrastructure for fixed line communications networks, and given the fact that the very recent evolution of technology is focusing more and more on mobile networks, the government of Myanmar is focusing very much on the latter, without intervening in an appreciable way on fixed-line technology. Indeed, whereas in the past the only provider of access to mobile networks was the state operator, Myanmar Post and Telecommunications (MPT), in August 2014 the market was deregulated, and it was joined by two more operators, first Ooredoo and then Telenor. In mid-2015 the diffusion of the use of mobile phone networks, amounting, as stated, to around 54% of the population, was divided between these three operators, as follows: 56% for MPT, 23% for Telenor and 12% for Ooredoo (Thant, 2015). The use of internet via mobile networks, which in 2012 was a privilege restricted to just 1.75% of the population, has rapidly grown, rising in September 2015 to 32% of the population, where the prime reason why people access the internet is to use Facebook (MMRD, 2015b). In the region of Mandalay, in 2015 the MPT erected more than 500 communications towers for mobile networks, increasing coverage of the area from 77% in 2014 to around 98%, while the 3G network is due to be upgraded to the faster HSPA+ in 2016 (TeleGeography, 2015). Considering the current situation, then, the action which could be imple-

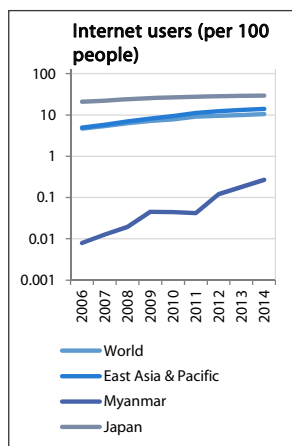


Fig. 13.5.1 Number of Internet users per 100 people in some parts of the world.

Source: data from World Bank, 2016c; processed by the author.

⁶ For further discussion of the increasing tendency to use the internet and social networks in travel planning, see, respectively, Xiang et al. (2015) and Chung and Koo (2015).

mented in the framework of this Sustainable Development Plan is to further extend coverage for mobile networks, and to raise fixed network coverage to acceptable levels.

13.5.1 EXTENDING NETWORK COVERAGE FOR MOBILE AND FIXED-LINE TELEPHONY FOR INTERNET ACCESS

A low coverage of mobile networks, and an insufficient availability of fixed networks for access to internet, has an impact on both consumers and the tourism value chain. Indeed, the availability of the mobile network for phone calls allows communications between the tourist demand and the tourist offer, it gives tourists greater social activity in situ, and also allows them to stay in touch with their country of origin, increasing the level of comfort of their stay. The availability of an internet connection, both mobile and fixed, allows tourists to conduct activities such as online air ticket and hotel bookings, while making information readily available, and lets them use internet banking. Internet access is equally important for supply-side operators, since it represents a very effective means for business activities. From the analysis above, one can say that, in much of the ACUM area, basic infrastructure and mobile network coverage is now available, and the level of quality is also in the process of being upgraded. By contrast, in the absence of specific data, one may assume that that internet accessibility from a fixed network is fairly low, in line with the rest of the country. One of the objectives forming part of the strategy to improve networks and services is – in tune with the objectives of the Myanmar Tourism Master Plan (MOHT, 2013a) – to expand internet access to mobile telephony, ensuring access for both local businesses and tourists to efficient and reliable internet services in all tourist destinations, which in turn will also benefit communities. To this end, we recommend the action of extending network coverage for mobile and fixed line telephony for internet access in a very short time, referring to the following indicators:

- coverage with the HSPA+ mobile network ought to be practically total throughout the ACUM area by the end of the year 2017, at the latest, so as to give complete availability of access to the tourist population;
- internet access from the fixed network ought to increase at least to figures around the global average by the end of 2018, so as to give partial availability of access to the tourist population, and, at the same time, encourage its use by local operators. The levers to be used to achieve this result involve both technology and promotion.

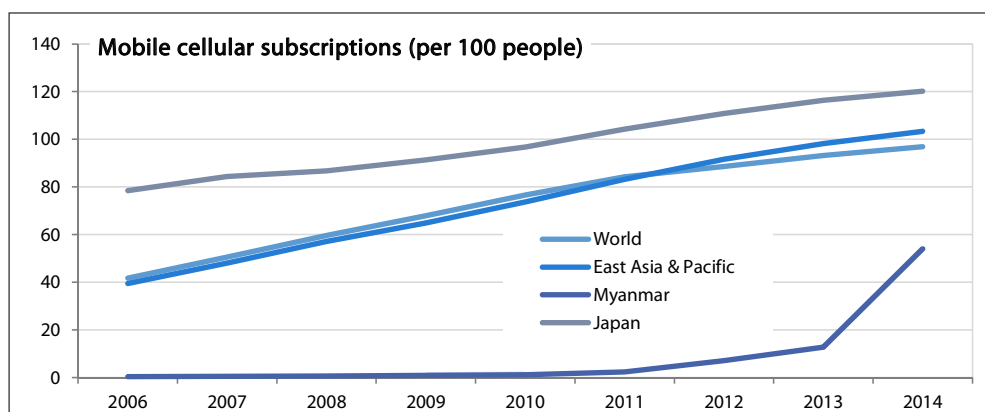


Fig. 13.5.2 Number of mobile phone subscriptions per 100 people in some parts of the world.

Source: data from World Bank, 2016c; processed by the author.

14. Promoting an effective system of governance and management of sustainable tourism

■ The international literature has amply illustrated that an effective system of governance is a vital requisite for the promotion and management of sustainable tourism (Bramwell, Lane, 2011). The effectiveness of the system of governance is based on an ability to be representative of the interests at stake, while being inclusive and multi-level, all at the same time. In other words, it must be able to involve – at the various scales of territorial organization, from the national scale down to the local scale – the entities and groups which are the bearers of interests and, potentially, of planning ideas and management skills in the field of tourism: primary actors, intermediaries, and primary stakeholders (for a map of the main stakeholders in Myanmar, cf. ch. 2.1). An effective governance operates in inclusive terms, producing strategic visions, plans and interventions that are, as far as possible, the outcome of processes involving participation, and open to all the actors potentially affected by the repercussions of the tourism system, both in positive terms (e.g. as regards the opportunities for economic development deriving from an increase in visitors), and negative terms (e.g. as regards the environmental, social and cultural impacts which this increase can lead to).

Within the *Myanmar Tourism Master Plan (2013-2020)* (MOHT, 2013) particular attention is paid to the issue of governance. Indeed, *Strategic Programme 1: Strengthening the institutional environment* specifies that: “(...) Myanmar needs a wide range of measures to strengthen its institutional environment, ensure effective coordination of tourism planning and development, and achieve wider development goals”. Specifically, the *Tourism Master Plan* sets out to create those contextual institutional conditions on the basis of which an effective system of governance can be exercised and implemented. A leading role amongst these is played by the following key objectives:

- Establishing a Tourism Executive Coordination Board;
- Developing a tourism planning framework to support the Tourism Executive Coordination Board;
- Strengthening a legal and regulatory environment for tourism;
- Building human resource skills, and promoting service quality.

Similarly, the *Responsible Tourism Policy* (MOHT, 2012) identifies institutional strengthening as the seventh objective for the promotion of responsible tourism. Specifically, the Policy introduces the priority of connecting the national government scale to the local government scale, as a necessary condition for an effective coordination of initiatives and projects in the field of tourism.

Following the same line of reasoning, this Plan states that a priority strategy is the promotion of an effective system of governance for sustainable tourism. In the case of the project area, the implementation of this system requires that, in addition to the vertical coordination between actors operating at the national level and local actors, there should also be horizontal coordination between actors belonging to

administrative contexts that are different, but spatially adjacent (cf. ch. 1.3). Furthermore, it requires the consolidation of skills and know-how in the field of tourism management also outside the institutional context.

The strategy is pursued via two main objectives:

- supporting coordination between stakeholders in the tourism sector;
- consolidating tourism management skills.

■ 14.1 SUPPORTING COORDINATION BETWEEN STAKEHOLDERS IN THE TOURISM SECTOR

14.1.1 CREATING AN INTEGRATED MANAGEMENT BOARD FOR SUSTAINABLE TOURISM

In line with the objectives enshrined in the *Myanmar Tourism Master Plan* and the *Responsible Tourism Policy*, tourism management at the local level requires the creation of a body to coordinate and liaise between the various actors – public and private – who work in the tourism sector. The SDP proposes the creation of an *Integrated Management Board* (IMB) for sustainable tourism.

In Myanmar, the creation of *Destination Management Organizations* (DMO) at the local scale has already been proposed in the context of the *Destination Management Plan for the Inlay Lake Region* (MOHT, 2014) and represents – also internationally – a consolidated custom in managing and promoting tourism. In the case of the ACUM area, the Plan proposes that the IMB makes explicit reference, also in terms of official terminology, to the issue of sustainable tourism, in line with the vision and objectives of this plan, and the peculiar aspects of the local areas as regards the cultural heritage and environmental features.

The organizational structure and the bodies that make up the IMB will have to be identified following consultation with local stakeholders. In any event, its members must include, in addition to local institutional entities, also the main bearers of private-sector interests, e.g. – to cite some examples – the Myanmar Hotelier Association, the Myanmar Restaurant Association, the Chamber of Commerce, the Myanmar Tourist Guides Association, and so on (for a map of the stakeholders, cf. ch. 2.1). In addition, depending on specific needs, the IMB can be opened up to include the participation of third-party players, both institutional – such as the University of Mandalay – and non-institutional (such as the local population in the event that participatory processes are activated). With a view to setting up an inclusive body that is open to various different sensibilities and interests, the Plan suggests that a prominent role within the IMB is played by the Myanmar Tourist Guide Association, a body that is able to come up with innovative proposals in the research area, and to promote the practice of responsible tourism.

The IMB must be able to rely on its own staff, specially trained in the field of tourism management, and if possible, at least to some extent, having international experience. Although the objectives and specific responsibilities of the IMB must be defined in the context of its creation, these must include the activities which require strong coordination, and an overall vision and management, including:

- strategic planning and organization;
- promoting and managing valorization and/or conservation projects;

- education and training (cf. action 4.2.1; 4.1.2);
- support for investments in the tourism sector;
- promotion and marketing;
- research, documentation and market analysis in the tourism sector.

The IMB will also be the body responsible for implementing this SDP, and monitoring its implementation.

14.1.2 CREATING AN INTER-INSTITUTIONAL COORDINATION AND DISCUSSION BODY FOR MANAGING THE CULTURAL HERITAGE

As we have seen (cf. ch. 4), the ACUM area features a large-scale tangible and intangible cultural heritage, which constitutes not only a resource in terms of tourism, but also a “public asset” for the collectivity that is of inestimable value. The conservation and valorization of this heritage depends on a highly complex range of activities (cf. ch. 10), which are the responsibility of differing players, such as the Ministry of Culture, the Ministry of Hotels and Tourism, university departments, urban municipalities, and urban planning departments. Although each of these bodies has specific responsibilities (the allocation of which is specified in ch. 10), management of the heritage as a whole also requires a transversal and constant coordination between the various institutions.

With a view to this, the Plan proposes the promotion of an *Inter-Institutional Coordination and Discussion Body* for the management of the cultural heritage in the ACUM area, composed of representatives of the lead agencies involved in the activities of conserving and valorizing heritage. Although the specific responsibilities of the *Coordination and Discussion Body* are to be identified at the time when it is actually set up, as a product of collective discussions between the various stakeholders, some vital responsibilities are mentioned here:

- coordination of the interventions to manage and valorize the tangible and intangible cultural heritage;
- defining the priorities for intervention on heritage as a whole, and on its specific components;
- updating information and data on the current state of heritage;
- sharing information on projects and programmes involving the management and valorization of the cultural heritage.

A representative of the *Inter-Institutional Coordination and Discussion Body* will attend the IMB, so as to ensure liaison between the two bodies.

■ 14.2 CONSOLIDATING EXPERTISE IN TOURISM MANAGEMENT

14.2.1 CREATING TRAINING PROGRAMMES FOR TOURIST GUIDES ON SUSTAINABLE TOURISM ISSUES

One of the fundamental issues for promoting sustainable and responsible tourism is the training of the players who work most in direct contact with tourists, first and foremost tourist guides. We have already seen (cf. ch. 5.1.3) that the Myanmar Tourist Guide Association has reported that the training course is insufficient for adequately training future tourist guides. Accordingly, the Plan

envisages the creation of three specific training programmes for guides active in the ACUM area, focusing especially on the issues of sustainable and responsible tourism.

These programmes are to be regarded as vital also with a view to creating a diffuse network of skills with positive repercussions as regards governance of the system, and active participation by the guides in the coordination activities in the field of tourism. Responsibility for this action can be attributed to the IMB.

14.2.2 PROMOTING ADVANCED TRAINING PROGRAMMES FOR MINISTERIAL OFFICIALS

With a view to reinforcing the skills and know-how of the players involved in the tourism sector, the Plan makes provision for the creation of three advanced-level training programmes for ministerial officials on issues relating to the promotion of sustainable tourism and the management of the cultural heritage. The objective of the action is to train highly specialized managers, able to take on a coordination role at the institutional level.

To this end, a good practice is represented by the *Project for the training of professionals specializing in the analysis and planning of territorial and tourism development on behalf of Myanmar*, sponsored in 2015 by the Italian Ministry of Foreign Affairs, and conducted in cooperation with the University of Florence. The project saw the participation of 10 young representatives of the Ministry of Culture, the Ministry of Hotels and Tourism, and the Ministry of Education, who took part in the 5th cycle of the Master's degree in Urban Analysis and Management at the University of Florence. The Master's course was focused on methodologies for analysing tourism, urban planning, and managing the tangible and intangible cultural heritage, with a view to transferring know-how and skills, both theoretical and methodological, in the sector of tourism analysis and tourism planning, and in the management of the cultural heritage.

15. Promoting the ACUM area as a destination for sustainable tourism

■ In an ever more competitive and globalised market, communications, promotion and marketing are crucially important strategies for any tourist destination (Janes, 2006). This is even truer for territories which intend to establish themselves on the basis of their cultural and environmental values, as in the case of the ACUM area. Past experience in the sector from around the world demonstrates that marketing, sustainability and tourism are intrinsically interconnected (Tsiotsou, Ratten, 2010):

- on one hand, the “authenticity” of the cultural heritage (cf. ch. 10), and sustainability, represents a draw for more and more tourists, whether they be organised groups or independent (Timothy, Boyd, 2006). Therefore, good promotion aimed at enhancing the aspects of territorial and cultural sustainability makes it possible to position tourist destinations in a share of the market which is becoming increasingly significant, as well as growing;
- on the other hand, effective promotion of and communication about the tourist products a territory can offer allows tourists to be properly informed regarding the travel experience they are embarking on, with positive results in terms of tourists’ awareness and their behaving more responsibly, and – at the same time – safeguarding the local cultural and environmental heritage (Yeoman et al., 2007).

It is therefore important that the promotion of a tourist destination does not happen exclusively for the purpose of economic development, but that instead it sets the dual goals of:

- intercepting the “responsible” component of international tourism, that is, the market quota of those already predisposed towards the practice of sustainable tourism;
- making tourists who visit the host area more aware of a responsible behavioural profile, independent from their original profile and motivations.

A marketing strategy along these lines should include a well-structured mix of initiatives (Pomering et al., 2011), capable of establishing a communicative relationship with potential visitors, and, at the same time, promoting the area as a sustainable tourist destination.

Among the many possible definitions of marketing, Chhabra (2010, p. 8) proposes one which is explicitly aimed at capturing the interactions between marketing, tourism, sustainability and the cultural heritage: marketing is “a process sought to exchange ideas, relations, and products with the organization’s various publics and stakeholders with objectives to enhance attendance, revenue, education, and interactive engagement with the consumers while promoting sustainable

environments and society interests at large for the enjoyment of both the current and future generations”.

The strategic and multi-dimensional value of promotion is a central element also within the *Myanmar Tourism Master Plan (2013-2020)* (MOHT, 2013), which calls the *Strategic Program 6: Building the image, position, and brand of Myanmar Tourism*. Indeed, the Master Plan “recognizes that marketing involves much more than advertising, promotion, and selling. Rather, it is a strategy that embraces market research, product development, market development, competitor analysis, pricing strategies, public relations, customer service, promotions, brand development, and effective management of Myanmar's identity in the global market place” (p. 35). Such a strategy is pursued by means of four key objectives:

- determining the supply, demand and gap characteristics of Myanmar's travel and tourism system;
- creating a strategic marketing map for Myanmar;
- raising internal awareness of responsible tourism;
- effectively managing the image, position, and brand of the destination in the collective mind of the international marketplace.

At the local scale, a similarly well-structured vision of marketing and promotion is detailed in the *Management Destination Plan for the Inlay Lake Region* (MOHT, 2014), with the stated goal to “attract visitors that wish to celebrate the beauty and diversity of the Inlay Lake region's cultural and natural heritage and contribute to the region's visitor economy” (p. 82).

Positioning itself within this outlook, the SDP believes it is strategic to promote the area as a sustainable tourist destination, based on a tangible and intangible cultural heritage, and on an environmental heritage, that is unique in all of Myanmar, characterized by:

- the sites of the three royal cities of Ava, Amarapura and Mandalay, whose geographical proximity and continuing importance in Myanmar's history represents a rarity of global interest (cf. chs. 1.3 and 7);
- an extraordinary network of rural villages concentrated in a homogeneous area and intrinsically linked to the natural riverine landscape of the Ayeyarwady river (cf. ch. 4.2.5);
- a mosaic of sites of historic, cultural and architectural historic interest from different periods with different styles (cf. ch. 4.2 and 10);
- a “living” culture, expressed in the form of daily practice involving religion, crafts, food and so on, which it is easy to come into contact with (cf. ch. 4.3 and 11).

The main goals in which this strategy is expressed are:

- effectively communicating the cultural and environmental values of the ACUM area;
- informing tourists and making them aware of responsible behaviour;
- promoting and rewarding virtuous behaviour.

■ 15.1 EFFECTIVELY COMMUNICATING CULTURAL AND ENVIRONMENTAL VALUES

15.1.1 DEVELOPING A SUSTAINABLE PROMOTION PLAN

In line with what has already been expressed by the *Management Destination Plan for the Inlay Lake Region* (MOHT, 2014), the SDP for the ACUM area proposes developing a marketing plan up until 2021. The marketing plan should be extremely specialized, and it should put forward a communications and promotion strategy for the territory which is very much centred around the concepts of sustainability and responsibility, and aimed at promoting the unique qualities, diversity and specificity of the ACUM area, when compared to other tourist destinations in Myanmar.

The drafting of the promotion plan – commissioned and coordinated by the IMB for the ACUM area (cf. ch. 14.1.1) – should be entrusted to specialists in the sector who will define the goals and the logical structure. Broadly speaking, the marketing plan must be made up of three main sections:

- the construction and characterization of the vision of the ACUM area as a sustainable destination. This section will develop (besides the plan's general vision): a logo, a brand, and a set of images of the area capable of effectively communicating the characteristics of the destination, and attracting tourists to the local context;
- the different market targets which the plan addresses, starting with the type of products offered by the area, and the type of responsible tourism expressed in the plan's vision;
- the goals and actions designed to intercept the various reference targets, including all budget estimates and systems for the verification and monitoring of the completion of these actions.

15.1.2 LAUNCHING A WEBSITE, AND CREATING A VIRTUAL IDENTITY FOR THE ACUM AREA

As we have seen (cf. ch. 5.2.2.3), in the modern world, the Internet and social networks are essential tools for effectively promoting a tourist destination. Therefore, at the same time as action 15.1.1, the SDP proposes launching a promotional web campaign for the ACUM area, by creating a dedicated website and a virtual social identity which can be used as a beacon and reference point on the main social networks used by tourists (e.g. Facebook, Twitter and Instagram for European and American tourists, and WeChat, Qzone, RenRen and Kaixin for tourists from China, etc).

The web campaign will permit the communication of the vision set out in the marketing plan and, at the same time, offer general and specific information updated in real time, as well as constituting a reference point capable of guiding tourists before, during and after their trip. This social identity will allow tourists to share in an effective, immediate and integrated way their personal travel experiences, increasing the visibility of the area.

Such a campaign – which must be coordinated by the IMB (cf. ch. 14.1.1) – will require strong coordination between public and private stakeholders, who will have to make efforts to publicize the brand, the identity, and the vision among tourists.

15.1.3 ESTABLISHING EDUCATION, TRAINING AND SUPPORT PATHS FOR LOCAL OPERATORS IN THE PROMOTION AND HOSPITALITY SECTORS

In a plan centred upon responsible tourism, the ability of tourist operators to effectively accommodate, communicate with and inform tourists – both remotely and in situ – is an essential requisite for promoting the area as a sustainable tourism destination. The possibility for tourists to review, in real time, almost any moment of their tourist experience makes it even more important to develop the capacity for effective and appropriate communication and hospitality. A good “reputation” and visibility on the web, as well as locally, by individual operators, can create positive repercussions for the entire area, overall.

With a view to this, the SDP proposes establishing three specific procedures for educating, training and supporting operators active in the tourism sector: from tour guides to tour operators, from museum sites to hotels and homestays. These procedures should be based on both the use of the web as a form of promotion and information, and the reception of tourists on the ground. This action must be coordinated by the IMB, in cooperation with the main organizations representing the stakeholders in the sector.

■ 15.2 INFORMING AND MAKING TOURISTS AWARE OF RESPONSIBLE BEHAVIOURS

15.2.1 PUBLISHING SPECIALIZED GUIDE BOOKS, TOURIST MAPS AND INFORMATION MATERIAL ON-LINE AND IN HARD-COPY FORM

The promotion of sustainable and responsible tourism cannot forgo accurate information for tourists who desire in-depth and specialized information about the area they are visiting. This need is a particular that is absent in the ACUM area. Indeed, although guide books, and information materials on Myanmar in general (in English, and in other languages spoken by tourists) have increased substantially in the last few years, there is still little specialized material regarding individual regions in the country's interior, and even less material which is able to recount – in a detailed way – the historic, cultural and environmental complexities of the territory.

To this end, the SDP proposes publishing materials dedicated to the ACUM area, both specialist in nature and for the general reader: a specialized guide book devoted to the entire area, and monographic guide books dedicated to single (or groups of) historic and cultural sites; thematic maps and tourist maps indicating the main products; and advertising and information material about the various tourist products offered by the area to be made available both on the web and in printed form.

15.2.2. CREATING A NETWORK OF TOURIST INFORMATION POINTS

In order to inform tourists and make them more aware of responsible behaviours, the SDP proposes creating a network of tourist information points spread across the territory near the main sites of interest, with at least one for each Ancient City (Mandalay, Amarapura, Mingun, Sagaing, Inwa). The tourist information points – perhaps also equipped with digital devices – must serve a function as reference points for tourists, distribute information material, publicize interesting events, give information about opening times, prices, itineraries and tourist services, and

provide basic information about the norms of conduct to be observed. The information points will also fulfil the crucial function of safeguarding the local area in the proximity of the most popular tourist sites.

15.2.3 IMPLEMENTING A SYSTEM OF INFORMATION PANELS ON THE LOCAL AREA, ALSO VIA INTEGRATION WITH NEW TECHNOLOGIES

In close synergy with the action 15.2.2, but with an even more widespread distribution on the ground, the SDP proposes implementing a system of information panels, both on physical supports, and by means of integration with new technology (e.g. via the use of QR code systems).

Through the use of panels, detailed and dedicated information can be offered to tourists regarding individual sites of cultural and environmental interest, as well as promoting integrated visitor itineraries, as in the case of the *Cultural Route of Upper Myanmar* (cf. ch. 10).

■ 15.3 PROMOTING AND REWARDING VIRTUOUS BEHAVIOUR

15.3.1 ESTABLISHING A CUMULATIVE TICKETING SYSTEM AND PROMOTIONAL RATES

At present, the possibility of benefiting from cumulative tickets and promotional rates is available for only a small number of historic and cultural sites in the Mandalay area. However, this possibility could serve as an effective marketing strategy, with three aims:

- increasing visits to a greater number of sites and monuments in the project area;
- encouraging tourists to stay longer in the area, thanks to the possibility of having access to sites, monuments and tourism experiences;
- promoting and encouraging specific visitor experiences and itineraries, for example those based on environmental sustainability.

To this end, the SDP is in favour of establishing a cumulative ticketing system and promotional rates, as follows:

- a cumulative tourist card allowing access, for a duration of 72 hours, to all tourism sites of interest included in the ACUM area which require payment for entry. The card could incorporate, with the involvement of public and private tour operators, extra services (e.g. access to public transport) and discounts (e.g. reductions for commercial enterprises that participate in the scheme);
- favourable rates – agreed in advance with operators in the sector – and cumulative rates for visitor experiences, based on the use of the intangible natural and cultural heritage (e.g. excursions among the network of rural villages), and on overnight stays in homestay facilities. More specifically, such rates can encourage – through specific packages – a form of tourism based on contact with the local population, and longer stays in the area.

16. Guidelines for implementation of the plan

■ The process of drawing up the Sustainable Development Plan for Ancient Cities of Upper Myanmar (Mandalay, Amarapura, Innwa, Sagaing, Mingun) has led, via analysis, processing and the participation of several different local stakeholders, to the identification of the strategies and actions held to be most suited for guiding the evolution of the ACUM area in the immediate future.

The subsequent step will consist in the adoption of this plan by the relevant authorities, which will then make it possible to move on to the activities to put it into effect.

The implementation of the plan will constitute a process no less complex than its preparation, and will require specific activities which can be grouped into two macro-phases, one involving planning and the other the actual implementation. These two macro-phases must pay special attention to a number of distinctive elements which mark the general sustainability of the whole process.

First, the fact that the SDP does not simply set out a list of individual actions to be pursued, but, on the contrary, constitutes a system of integrated actions which are interconnected. This becomes clear if one considers the fact that each action refers to a specific objective, and the fact that the objectives are grouped into strategies. Each action will thus prove to be fully justified, significant and effective only if it is able to find the synergy offered by the further actions set in place to achieve the objectives themselves. By the same token, if one or more actions are not implemented, or are even just delayed beyond the scheduled dates, this could have negative effects on the other correlated actions, and on the plan overall.

Another substantial element in the SDP is its dynamic nature. Indeed, it is not devised as a plan which, once approved, remains unchangeable over time; rather, it is a plan-cum-process that is continually progressing. The plan's adoption must therefore constitute the moment when its subsequent evolution immediately starts, and this will include both fine-tuning and the detailing of the actions provided for, and also a continual process of updating them on the basis of developments in the surrounding conditions, and opportunities for optimization.

Finally, the implementation of the SDP is founded explicitly on its conditions of feasibility. Indeed, the phase of drawing up the actions was carried out by paying special attention to the aspects of their physical, procedural, and organizational feasibility, and – as far as possible – their financial feasibility. This was possible also thanks to the fact that field surveys were conducted, and that local stakeholders took part in the process of analysis and drawing up strategies and specific actions, and the numerous meetings held at the local level. The activities designed to ensure the general feasibility of the plan must therefore continue, with the same prerogatives of the aforementioned dynamic approach in the process, and in the planning and implementation phases, with particular reference to the allocation of responsibilities, identifying resources, project management, and impact assessment.

■ 16.1 ADOPTION

The adoption of the Sustainable Development Plan will be dependent on the procedural process envisaged under the regulations of the Republic of the Union of Myanmar. In view of the participation-based approach pursued in its preparation, and the cooperation with the MOC (Ministry of Construction), with the MOHT (Ministry of Hotels and Tourism, the authority in charge of tourist development), with the MOC (Ministry of Culture), and with the University of Mandalay, it is hoped that the plan may be approved and adopted in a sufficiently short space of time.

■ 16.2 PLANNING

Before being able to embark upon the operational implementation of the contents of the plan, it will be necessary to draw up a detailed planning that is as complete as possible. In this phase, the main elements to be taken into consideration will be identifying responsibilities for enactment, getting hold of resources, and drawing up a precise methodology for monitoring and assessing the activities that are being implemented.

16.2.1 ALLOCATION OF RESPONSIBILITIES AND RESOURCES

In order to allow the actual realization of the actions proposed by this plan, it is absolutely necessary that, for each of these actions it is clearly stated which body is responsible for its enactment, and that responsibility for implementing it is formally handed to this body. Furthermore, the implementing bodies must have the necessary resources, both budgetary and resources of knowledge and manpower. Numerous players will be involved, from the key stakeholders who have specific responsibilities in the field of tourism, to the intermediary stakeholders who draw up tourism policies and conduct tourism business in the area (cf. Section 2.1). Amongst these, therefore, the bodies must be identified which implement the various actions under the plan, in accordance with the respective institutional roles. Given the multiplicity of the players who will be involved, it will be necessary, moreover, for these to be coordinated in an effective way. This coordination action is handed to the Integrated Management Board (IMB; cf. ch. 14.1.1). As regards the implementation of the Sustainable Development Plan, the IMB will have the following specific tasks:

- overseeing the whole process of planning, implementing and updating the plan;
- informing ordinary people and stakeholders continuously, and involving them;
- ensuring coordination and collaboration between the bodies having responsibility for implementing, and thus facilitating both the proper application of the plan's actions and the optimization of their impact on the tourism system;
- adopting direct responsibility for more general actions, such as communications and governance;
- setting in place an Action Plan;
- overseeing the whole implementation phase.

A very delicate issue will be the identification of resources, and their allocation to the implementing bodies. At the moment, it does not seem that an institutionally-financed fund is available for implementing the Sustainable Development Plan, and thus the financial resources will have to be located in the planning phase. Possible ways of getting financing could be the following:

- financing issued by the government;
- financing issued by local administrations;
- financing made available by donors;
- one-off, specific contributions made available by private-sector operators who have a particular interest in the implementation of one or more actions;
- fund-raising activities, possibly with the involvement of sponsors;
- local taxes, for example with the creation of a tax for the purpose of developing tourism, which could be levied on public- or private-sector firms;
- revenue funding, via the proceeds from, for example, the sale of tickets for some visitor programmes, from tariffs for some tourist services, and from advertisements.

16.2.2 SETTING IN PLACE AN ACTION PLAN

One of the IMB's tasks for implementing the plan is, as mentioned, the preparation of an Action Plan. This becomes necessary to formalize the implementation procedure on the basis of the responsibilities and resources assigned, and will form an essential operational management tool for the Sustainable Development Plan. It must contain:

- formalization of the responsibilities of all the actors involved;
- identification of the resources and sources of financing;
- detailed definition of the individual actions, broken down into the planning and realization phases;
- a clear definition of the priorities of the individual actions and their mutual relations;
- time schedules for implementation;
- the main risks relating to the implementation phase;
- a schedule for monitoring implementation of the actions under the plan.

The Action Plan must be set in place prior to the start of the implementation activities.

16.2.3 SETTING IN PLACE A MONITORING SCHEDULE

As an integral part of the Action Plan, a monitoring plan must be set in place, designed to track the realization of the actions envisaged by the plan. It must contain the criteria for assessing progress in the realization of the individual actions by means of predetermined and objective criteria. By means of the monitoring schedule, it will also be possible to identify any obstacles which may arise in the realization phase, and possibly deploy suitable measures for solving them.

To this end, the following will be set in place:

- a set of Performance Indicators, of quantitative or qualitative type, able to measure progress in the realization of the individual actions envisaged by the plan. A proposal for these indicators is shown in Tab. 16.1.
- a set of Impact Indicators, able to measure improvements caused by the realization of the planned actions on the quality of the tourism system in the ACUM area. These indicators must be defined in the planning phase on the basis of the actual possibility of measuring their values – by means of special surveys – both in the current situation and during the implementation phase. Examples of pos-

sible indicators are employment levels at the accommodation facilities, the satisfaction of tourists, the percentage of tourism which adopts more responsible and sustainable behaviours, etc.

The indicators must be periodically monitored in the realization phase, preferably with the involvement of a certain number of stakeholders with an interest in the various actions. It is also to be hoped that the monitoring is effected by a body or authority that is independent from those who have the responsibility for putting the plan into effect.

Tab. 16.1 Strategies, objectives and performance indicators of the sustainable destination plan for the ancient cities of upper myanmar: Mandalay, Amarapura, Innwa, Sagaing, Mingun.

Source: processed by the author.

■ 16.3 IMPLEMENTATION

In the implementation phase of the Sustainable Development Plan, in which the anticipated interventions must be put into effect, it will be important for the IMB to have adequate resources for carrying out all the project management and monitoring activities envisaged in the previous planning phase. In particular, it will be necessary for the roles of all the actors involved in the realization of the actions to be formalized, for close coordination to be guaranteed between all the sides involved, for the potential risks to be managed and the possible synergies to be activated, and for monitoring and assessment of the whole process to be ensured.

In the spirit of sustainability and responsibility with which this plan was devised, a continual activity of information and involvement of ordinary people during the implementation phase is urged. This activity can improve the level of acceptance of the actions by the community, it can increase the awareness of the effects of the plan, it can contribute to a sentiment of ownership of the activities under way on the part of ordinary people, and it can mitigate the perception of the possible inconvenience caused by any interventions that may become necessary.

Finally, in order to maximize the usefulness of the Sustainable Development Plan, its dynamic features must be valorized. As mentioned, the plan is not conceived of as a static output that is not subject to changes once it has been set in place, but as a continually evolving plan-cum-process. During the implementation activities, it can therefore be regularly updated on the basis of how the activities are proceeding, with the aim of being adapted to developments in the context, ensuring the best achievement of the objectives, and optimizing the implementation process. In this way, measures to update the plan that are set in place during the time-frame of its implementation will become the best precondition for the genesis of the subsequent and future Sustainable Development Plan, which must be set in place once this plan has been adequately accomplished.

Strategy	Objective	Action	Lead agencies	Performance indicator	Unit	Year	Target
7 Identifying sensitive areas	7.1 Protecting the sensitive areas	7.1.1 Adopting the zoning map of sensitive areas	Mandalay City Development Committee, Mandalay Region, Sagaing Region	Zoning map	–	2018	Adoption
		7.2.1 Valorizing the archeological site of the royal city of Ava	Ministry of Hotels and Tourism, Ministry of Culture	Forming an earthwork along the line of the walls	km	2021	3
	7.2 Identifying areas to be valorized	7.2.2 Valorizing the archeological site of the royal city of Amarapura	Ministry of Hotels and Tourism, Ministry of Culture	Forming an earthwork along the line of the walls	km	2021	6
		7.2.3 Valorizing the archeological site of the royal city of Mandalay	Ministry of Hotels and Tourism, Ministry of Culture	Allowing visitors to walk along the top of the walls	km	2021	8
8 Bringing accommodation facilities into line with the evolution in the tourist demand	8.1 Bringing the accommodation system in line with the high scenario of evolution in the tourism demand	8.1.1 Calibrating tourism accommodation to the expected increase in demand	Ministry of Hotels and Tourism, ACUM Municipalities, Mandalay City Development Committee	Completion of proposed hotel accommodation units	rooms	2021	6180
				Creation of new non hotel accommodation units	new rooms	2021	1000
		8.1.2 Diversifying the types of tourist accommodation in terms of quality of the services offered	Ministry of Hotels and Tourism	Preparation categories form	–	2018	Adoption
	8.2 Bringing the accommodation system in line with standards of environmental sustainability	8.2.1 Establishing forms of certification for the environmental quality of accommodation facilities	Ministry of Hotels and Tourism	Certification rules	–	2018	Adoption
9 Product development	9.1 Improving the use of existing tourism products	9.1.1 Facilitating pedestrian mobility among the main attractions	Urban Municipalities, Mandalay City Development Committee, Urban Planning Department, Public Works Department	Creation of pedestrian paths with pavements	km	2019	10.0
			Urban Municipalities, Mandalay City Development Committee, Urban Planning Department, Public Works Department	Creation of protected pedestrian routes	km	2019	48.0
		9.1.2 Creating visitor routes through craft districts	Tour operators, Tourist guides	Visitor programmes	–	2018	Implementation
		9.1.3 Creating visitor routes in rural villages	Tour operators, Tourist guides	Visitor programmes	–	2018	Implementation
		9.1.4 Developing view points	Urban Municipalities, Mandalay City Development Committee, Urban Planning Department	Creation of new view points	–	2021	3
		9.1.5 Developing meditation tourism	Tour operators, Monasteries	Offer programmes	–	2021	Implementation

Strategy	Objective	Action	Lead agencies	Performance indicator	Unit	Year	Target
		9.1.6 Developing aquatic tourism	Tour operators, tourist guides	Offer programmes	–	2019	Implementation
		9.1.7 Creating a hub for visiting the area of Bamar culture	Tour operators, Public Works Department	Visitor programmes	–	2021	Implementation
			Tour operators, tourist guides	Visitor programmes	-	2018	Implementation
			Tourist guides, hotelier, MoHT	Information material	-	2018	Development and dissemination
		9.1.8 Promoting celebrations, festivities and traditional shows	Tour operators, tourist guides, hotelier, schools, Urban Municipalities, Mandalay City Development Committee	Agreements btw artistic schools and hotels	-	2018	Implementation
	9.2 Creating new tourist products	9.2.1 Creating cycling tourism routes	Urban Municipalities, Mandalay City Development Committee, Urban Planning Department, Public Works Department	Creation of cycle paths	km	2020	114.5
	10 Conservation and valorization of the tangible cultural heritage	10.1 Documenting the cultural properties	10.1.1 Heritage survey	Department of Archaeology	GIS of eoreferencing Ancient Cities sites and monuments	-	2018
10.1.2 Heritage inventory			Department of Archaeology	Heritage Inventory	-	2021	Implementation
10.2.1 Mitigate climate change risk		10.2.1.1 Soil drainage	Department of Archaeology, Planning Municipal Departments	Plans for water drainage of heritage sites	-	2018	Adoption
		10.2.1.2 Regular maintenance and repair	Department of Archaeology, University of Mandalay	Handbook for the Maintenance of Heritage Properties	-	2018	Adoption
10.2.2 Mitigate seismic risk		10.2.2.1 Preventive measures for building stabilisation	Department of Archaeology	Periodic Inspections and Structural Failure Reinforcement	-	2018	Definition of Operational Standards
		10.2.2.2 Post-seismic interventions	Department of Archaeology	Preparedness Plan	-	2018	Adoption
		10.2.3.1 Control the urban expansion risk	Department of Archaeology	Buffer Zones	-	2018	Adoption
10.2.3.2 Mitigate urban traffic risk			Department of Archaeology	Conservation Zones	-	2018	Adoption
		10.2.3.2 Mitigate urban traffic risk	Urban Municipalities, Urban Planning Department	Limited Traffic Zones	-	2018	Adoption
10.2.3 Mitigate the anthropic risk		10.2.3.3 Mitigate tourist pressure risk	Ministry of Hotels and Tourism, Ministry of Culture	Panel of indicators for Carrying Capacity Evaluation	-	2018	Adoption
		10.2.3.4 Control living heritage risk	Department of Archaeology, University of Mandalay	Official Guidelines on Restoration	-	2018	Implementation
		10.2.3.5 Containing the risk of neglect	Department of Archaeology	Regular Maintenance	-	2018	Definition of Operational Standards

Strategy	Objective	Action	Lead agencies	Performance indicator	Unit	Year	Target
	10.2.4 Preventing risk of illegal export	10.2.4.1 Preventing illegal trade of movable heritage properties	Department of Archaeology	Database for Movable Heritage Properties	-	2018	Implementation
	10.3 Tangible heritage conservation	10.3.1 Restoration of masonry structures	Department of Archaeology	Operational Guidelines for the Regular Maintenance and Repair of Masonry Structures	-	2018	Implementation
		10.3.2 Restoration of timber monasteries	Department of Archaeology	Operational Guidelines for the Regular Maintenance and Repair of Timber Structures	-	2018	Implementation
		10.3.3 Conservation of timber carvings	Department of Archaeology	Development of new Technologies and Criteria	-	2018	Definition of Operational Criteria
		10.3.3 Conservation of timber carvings	Department of Archaeology	Educational Training for Carving Art	-	2018	Training Program
		10.3.4 Conservation of plaster decoration	Department of Archaeology	improvement of restoration Techniques of Plaster Decorations	-	2018	Implementation
		10.3.5 Conservation of mural Paintings	Department of Archaeology	Restoration	-	2018	Definition of Operational Criteria
		10.3.6 Conservation of archeological ruins	Department of Archaeology	Balance btw. Absolute Conservation and Reintegrating Approach for Restoration of Archaeological Ruins	-	2018	Definition of Operational Criteria
	10.4 Tangible heritage valorization	10.4.1 Heritage sites promotion	Directorate of the Ministry of Hotel and Tourism	Promotional Plan	-	2018	Adoption
		10.4.2 UNESCO WHL nomination	Department of Archaeology, International Cooperation	Feasibility Study for Inscription	-	2018	Execution
		10.4.3 Institution of a cultural route	Department of Archaeology, International Cooperation	Feasibility Study for the Institution	-	2018	Execution
11 Valorizing the intangible cultural heritage	11.1 Protecting the rhythms and spaces of daily practices	11.1.1 Protecting silence in nocturnal hours	Urban Municipalities, Mandalay City Development Committee	Regulation	-	2018	Implementation
		11.1.2 Maintaining traditional shop opening times	Urban Municipalities, Mandalay City Development Committee	Regulation	-	2018	Implementation
			Urban Municipalities, Mandalay City Development Committee, Urban Planning Department	Map of Public Spaces	-	2018	Implementation
		11.1.3 Safeguarding public spaces habitually used for leisure	Urban Municipalities, Mandalay City Development Committee, Urban Planning Department	Protected Public Spaces	Square km	2021	To be derived from mapping

Strategy	Objective	Action	Lead agencies	Performance indicator	Unit	Year	Target
12 Increasing the benefits of tourism on the local economy	11.2 Valorizing and communicating daily cultures	11.1.4 Regulating ways in which tourists access places of worship	Monasteries	Regulation	-	2018	Implementation
		11.2.1 Setting up a virtual museum of daily cultures	MoHT, MONPED MOC DANM, Urban Municipalities, Mandalay City Development Committee	Virtual Museum	-	2021	Implementation
		11.2.2 Drawing up an integrated programme for regulating and promoting Street Food	MCDC, FDA	Programme	-	2018	Implementation
	12.1 Increasing the participation of the local population in the tourist economy	12.1.1 Promoting diffuse hospitality (Bed & Breakfast and Homestays)	MOHT, MCDC	Committee for the promotion of diffuse hospitality in ACUM area	-	2019	Establishment
		12.1.2 Developing the system of diffuse restaurants and Street Food	MCDC, FDA, Mandalay Restaurant Association	Coordination office for promotion of diffuse eateries	-	2019	Establishment
	12.2 Supporting local quality craft production	12.2.1 Promoting training initiatives aimed at the local craft sector	Ministry of Education, MCDC	Programme for education and training courses in traditional crafts	-	2019	Action started
13 Improving the efficiency of networks and services	13.1 Guaranteeing accessibility to sites of tourist interest	12.2.2 Setting up special areas set aside for commercialization and valorization of quality craft goods	Urban Planning Department	Creation of a special area for quality crafts	number	2021	1
		12.2.3 Reinforcing coordination between operators in the traditional crafts sector	Urban Municipalities, MCDC	Consortium for traditional crafts in the ACUM area	-	2019	Establishment
		13.1.1 Guaranteeing good accessibility to tourist sites situated in the extended area	Mandalay Region, Sagaing Region, MoT, MoRT	Enhanced extra-urban road network	km	2021	430
			Mandalay City Development Committee, Mandalay Region, Sagaing Region, MoT, MoRT	Preparation of a Transport Coordination Plan	-	2018	Adoption
		13.1.2 Creating routes dedicated to soft mobility	Mandalay City Development Committee, Mandalay Region, Sagaing Region	Pedestrian paths to be improved with pavement (same as Action 9.1.1)	km	2019	10.0
			Mandalay City Development Committee, Mandalay Region, Sagaing Region	Existing pedestrian paths to be promoted	km	2017	24.0
Mandalay City Development Committee, Mandalay Region, Sagaing Region	Existing pedestrian paths, access to be permitted		km	2017	14.0		
		Mandalay City Development Committee, Mandalay Region, Sagaing Region	Segregated cycling paths	km	2020	2.5	

Strategy	Objective	Action	Lead agencies	Performance indicator	Unit	Year	Target
	13.2 Improving the transport system	13.2.1 Setting in place a plan for sustainable mobility	Mandalay City Development Committee, Mandalay Region, Sagaing Region	Cycling paths in low-volume, mixed traffic	km	2020	91.5
			Mandalay City Development Committee, Mandalay Region, Sagaing Region	Cycling/walking paths	km	2020	20.5
			Mandalay City Development Committee, Mandalay Region, Sagaing Region	Preparation of an Area Sustainable Mobility Plan	-	2018	Adoption
			Mandalay City Development Committee, Mandalay Region, Sagaing Region	Preparation of a Road Network Enhancement Project	-	2019	Adoption
			Mandalay City Development Committee, Mandalay Region, Sagaing Region	Preparation of a Road Network Hierarchy and Policy Act	-	2019	Adoption
		13.2.2 Improving the general state of the road network	Mandalay City Development Committee, Mandalay Region, Sagaing Region	Preparation of a regulation for areas to be protected from traffic	-	2020	Adoption
			Mandalay City Development Committee, Mandalay Region, Sagaing Region	Preparation of a Cycling Network Plan	-	2019	Adoption
			Mandalay City Development Committee, Mandalay Region, Sagaing Region	Preparation of a traffic policies and regulations act	-	2020	Adoption
			Mandalay City Development Committee, Mandalay Region, Sagaing Region	Preparation of plans for primary network of collective transport	-	2019	Adoption
			Mandalay City Development Committee, Mandalay Region, Sagaing Region	Reorganization of open-road collective transport	-	2021	Operations
		13.3 Ensuring an adequate water supply	Mandalay City Development Committee	Creation of a system of integrated ticketing for collective transport	-	2021	Operations
			Mandalay City Development Committee	Increase the number of households receiving continuous water supply	Number	2021	124,000
			Mandalay City Development Committee	Preparation of a Water Management Plan	-	2018	Adoption
	13.4 Ensuring an adequate system of solid waste management	13.4.1 Producing a Solid Waste Management Plan	Mandalay City Development Committee	Preparation of a Waste Management Plan	-	2018	Adoption

Strategy	Objective	Action	Lead agencies	Performance indicator	Unit	Year	Target
	13.5 Expanding access to Internet and mobile phone connections	13.5.1 Extending network coverage for mobile and fixed-line telephony for Internet access	MPT, Ooredoo, Telenor	HSPA+ mobile network coverage	%	2017	98%
			MPT, Ministry of Communications and Information Technology	Fixed broadband subscriptions (percentage of population)	Number	2018	40%
14 Promoting an effective system of governance and management of sustainable tourism	14.1 Supporting coordination between stakeholders in the tourism sector	14.1.1 Creating an Integrated Management Board for sustainable tourism	MOHT	Integrated Management Board	-	2017	Establishment
		14.1.2 Creating an inter-institutional coordination discussion body for managing the cultural heritage	Ministry of Culture, MOHT	Coordination Group	-	2017	Establishment
	14.2 Consolidating expertise in tourism management	14.2.1 Creating training programmes for tourist guides on sustainable tourism issues	MOHT, Myanmar Tourist Guide Association	Training programmes sponsored	number	2019	3
		14.2.2 Promoting advanced training programmes for ministerial officials	MOHT	Advanced training programmes sponsored	Number of programmes	2021	3
15 Promoting the ACUM area as a destination for sustainable tourism	15.1 Effectively communicating cultural and environmental values	15.1.1 Developing a sustainable promotion plan	IMB	Sustainable promotion plan	-	2018	Plan approval
		15.1.2 Launching a website, and creating a virtual identity for the ACUM area	IMB	Creation of a website and social identity	-	2018	Action started
		15.1.3 Establishing education, training and support paths for local operators in the promotion and hospitality sectors	MOHT, Mandalay University	Training programmes	number	2019	3
	15.2 Informing and making tourists aware of responsible behaviours	15.2.1 Publishing specialized guide books, tourist maps and information material on-line and in hard-copy form	MOHT, Ministry of Culture	A specialist tourist guide book of the area published	number	2018	1
		15.2.2 Creating a network of tourist information points	MOHT, Ministry of Culture	New information points	number	2021	4
		15.2.3 Implementing a system of information panels on the local area, also via integration with new technologies	MOHT, Ministry of Culture	System of information panels	-	2021	Implementation
	15.3 Promoting and rewarding virtuous behaviour	15.3.1 Establishing a cumulative ticketing system and promotional rates	MOHT, Ministry of Culture	Cumulative tourist card	-	2018	Operation started

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