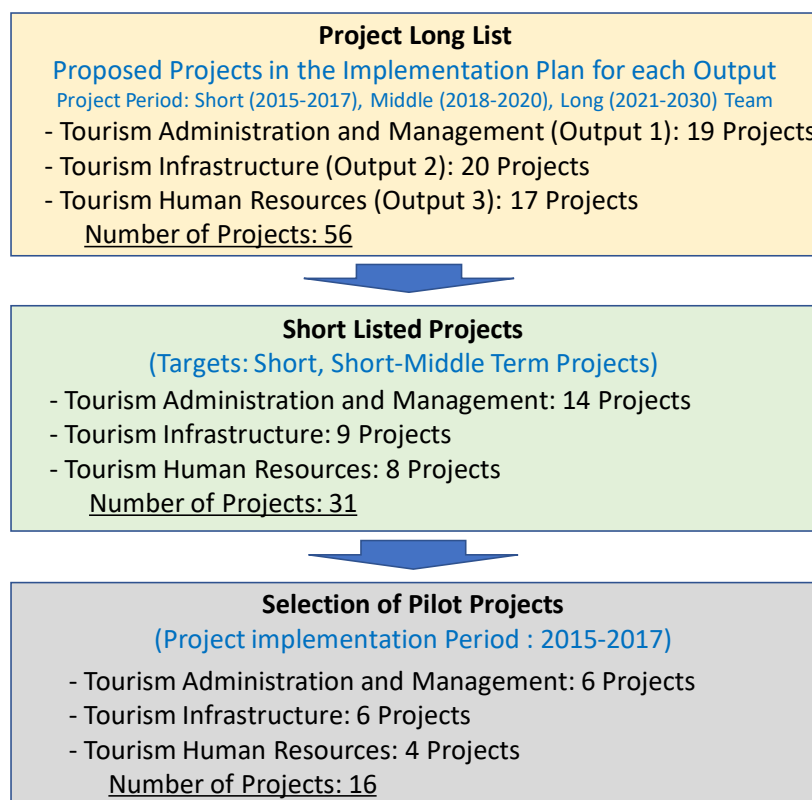


Chapter 4 Implementation and Verification of Pilot Projects

4.1 Outline

4.1.1 Objective of Pilot Projects

An objective of the Pilot Projects was to implement and verify selected priority projects from proposed projects (the short and middle term) in the Implementation Plans for three outputs as Pilot Projects, review, modify the Strategies and Action Plan in Bagan Tourism Development Plan (BTDP) based on the results of the Pilot Projects verification and lessons learned, and to reflect for finalizing BTDP. In the Pilot Project activities, selected Pilot Projects were planned and implemented by experts in charge of Pilot Project in the JICA Expert Team in cooperation with WG members. The Pilot Project activities were part of the capacity building of project implementation and management for tourism development in coordination with the relevant agencies (government, private companies, and local residents) for the WG members and relevant stakeholders. The selection process of Pilot Projects is shown in the figure below.



Source: JICA Expert Team

Figure 4—1 Work Flow from Project Long List to Selection of Pilot Projects

4.1.2 Selection of Pilot Projects

The Pilot Projects were selected priority from the total of 31 projects for short and middle term in the Draft Implementation Plan. The total by each output, they were Tourism administration and management: 14 projects, Tourism infrastructure: 9 projects, Tourism human resources development: 8 projects. The following was the selection method for the Pilot Projects.

Prior to the 2nd Working Group meeting (held on February 2, 2015), 9 evaluation criteria were set (as shown below) and the preliminary evaluation matrix of the selected pilot projects by each output were prepared by the JICA Expert Team.

- Accordance with key objectives
- Urgency
- Project completion within 3 years (2015-2017)
- Financially feasible
- Local benefits
- Permission by Ministry of Religious Affairs and Culture
- Permission by Ministry of Natural Resources and Environmental Conservation
- Execution and management
- Sustainability

In the Working Group meeting, JICA Expert Team explained selected list of Pilot Projects and evaluation criteria to WG members, and discussed the preliminary evaluation of the selected pilot projects by each output with WG members. The selection criteria were set according to a three-grading system from High (3 points), Moderate (2 points) to Low (1 point) in terms of total scoring of the evaluation criteria. Based on the result of the evaluation, 4-5 pilot projects by output were selected with the highest scores. As a result of the final evaluation, the total of 16 Pilot Projects was selected.

The selection process and the selected Pilot Projects were explained at the 2nd JCC meeting (held on 3 June 2015) and officially approved at the JCC meeting.

Table 4—1 Selected Pilot Projects by Output

Output	Name of Pilot Project
Output 1: Tourism Management and Administration	1-4. Community-based Based Tourism (CBT) Development
	1-6. Dissemination of Tourist Information
	1-7. Production of Promotional Materials
	1-9. Organization of Tourism Event
	1-11. Media Planning
	1-19. Improvement of Transport Management System
Output 2: Tourism Infrastructure	2-1. Enrichment of Cultural Landscape
	2-3. Development of Tourist Information Center (TIC)
	2-5. Development of Viewing Points
	2-7. Development of Tourist Routes
	2-8. Improvement of Public Signage System
Output 3: Tourism Human Resources	2-9. Development of a Guideline for Outdoor Advertisement
	3-3. Hotel Front Office Training
	3-5. Food & Beverage Service Training
	3-10. Licensed Tourist Guides Training
	3-12. Public Awareness Campaign

Source: JICA Expert Team

Remark: The Pilot Projects of 3-3, 3-5, and 3-10 in the table were integrated into one Pilot Project named "Tourism Human Resources Development" from 2016.

4.1.3 Implementation Method, Implementation System and Verification

(1) Preparation of Action Plans for Selected Pilot Projects

After the selection of pilot projects, action plans for these projects were prepared by the JICA Expert Team in cooperation with the WG members in the preparation and implementation of projects within the project period. The contents of the action plans are as follows: the background of the pilot project, objectives, project target stakeholder and area, required activities, implementation body and method, expected output, project cost, and implementation schedule. The preparation of the action plans followed the laws and regulations in Myanmar and the JICA Guidelines for Environmental and Social Considerations. Due to budget constraint, the specification of the pilot project was considered and adjusted.

(2) Execution of Pilot Projects

Selected pilot projects for each output were implemented by the JICA Expert Team, in cooperation with the members of the WGs and relevant stakeholders, based on the action plans. The pilot projects were implemented continuously during the project period. Execution of the pilot project consists of four steps: 1) preparation, 2) planning, 3) project execution, and 4) evaluation. Some design works in the pilot projects for

Output 1, and civil works in the projects for Output 2 were carried out as subcontracted work. The WG members were responsible in managing the pilot project with support of local project assistants and instruction by the JICA Expert Team. Some pilot projects need to have collaboration with other WGs.

(3) Monitoring and Verification of the Results of Pilot Projects

The JICA Expert Team conducted monitoring the progress of Pilot Projects related to Outputs 1-3 quarterly utilizing the monitoring sheet, verified monitoring results at each WG and revised contents and implementation schedule in action plans during the implementation period.

WG members conducted monitoring of work progress for each Pilot Projects on a regular basis for effective operation and management of the pilot project. The progress of the Pilot Project activities was reported from leaders or representatives of each WG at the WG meeting and JCC meeting.

The status of achievement for each Pilot Project was confirmed by verification items set for Pilot Project. Lessons learned and improvement were examined and identified from the verification of results of Pilot Project. Verification items for each Pilot Projects are shown in the table below.

Based on the result of verification work, strategies, action plans in the BTDP were reviewed and revised.

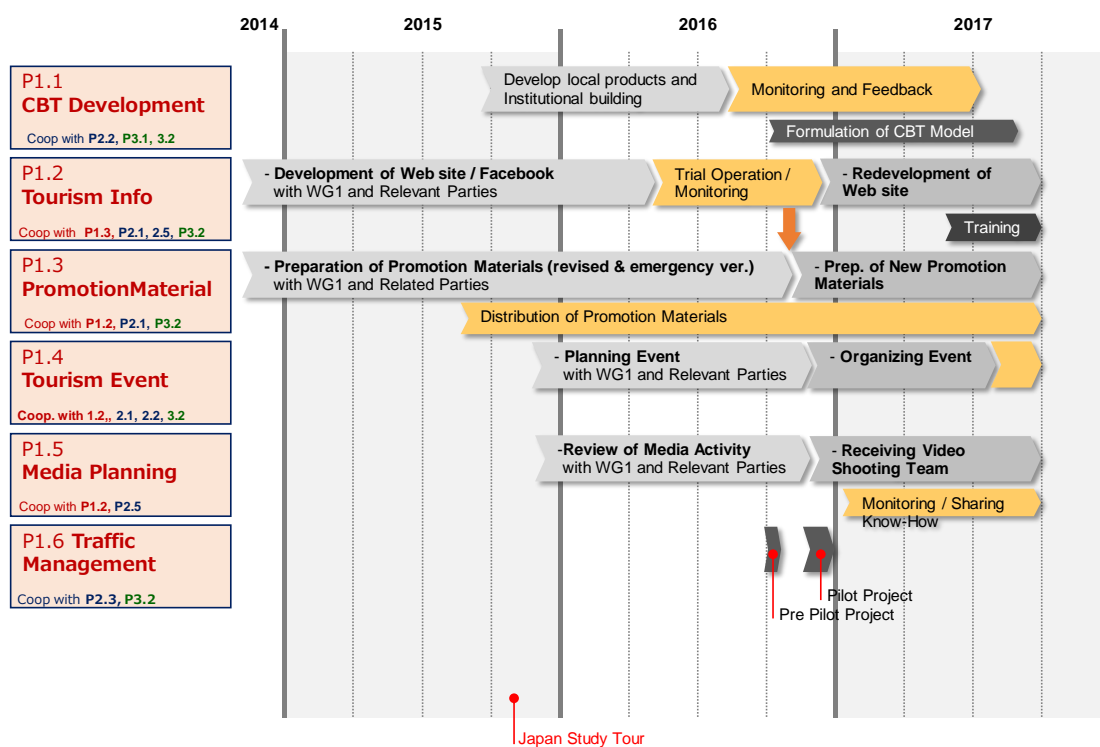
Table 4—2 Verification Items for Pilot Projects

Output	Name of Pilot Project	Verification Item
Output 1: Tourism Administration and Management	P1.1 Community-based Tourism (CBT) Development	<ul style="list-style-type: none"> ✓ Were CBT Development and local products as tourism product strengthened? ✓ Were CBT and local products strengthened through participation by local people?
	P1.2 Dissemination of Tourism Information	<ul style="list-style-type: none"> ✓ Did disseminated tourism information through the internet by local people involve tourism sector properly and sustainably? ✓ Was feedback proved with cooperation among other pilot projects such as tourism promotion materials and tourism media planning?
	P1.3 Development of Tourism Promotion Materials	<ul style="list-style-type: none"> ✓ Did produced materials which meet objectives timely by local people involved in tourism sector? ✓ Is feedback utilized from other pilot projects especially tourism information?
	P1.4 Tourism Event Management	<ul style="list-style-type: none"> ✓ Did planned and organized an event by local people involved in tourism sector? ✓ Was cooperation formulated among local people to be involved in tourism sector to have events sustainable?
	P1.5 Media Planning	<ul style="list-style-type: none"> ✓ Were planned and implemented public relation activities through media by local people involved in tourism sector? ✓ Was acceptance system formulated for outside media?
	P1.6 Traffic Management System	<ul style="list-style-type: none"> ✓ Confirm technical feasibility (Bus transportation, Traffic control, etc.) ✓ Evaluate impacts for tourism traffic system (traffic volume, etc.) ✓ Improve convenience for tourists (Number of passengers, etc.)
Output 2: Tourism Infrastructure	P2.1 Development of Bagan Information Center	<ul style="list-style-type: none"> ✓ Has renovation improved the historical landscape? ✓ Has renovation improved the existing structure? ✓ Has the performance of the facility improved?
	P2.2 Development of Viewing Points	<ul style="list-style-type: none"> ✓ Has a plan viewing point considered the historical landscape? ✓ Have tourists concentrating on specific temples and pagodas been reduced?
	P2.3 Development of Tourist Routes	<ul style="list-style-type: none"> ✓ Has improved tourist routes considered the historical landscape? ✓ Have safety and comfort for the travel environment of tourists been secured? ✓ Were sustainable construction methods possible with locally procurable materials?
	P2.4 Improvement of Public Signage System	<ul style="list-style-type: none"> ✓ Has it been possible to formulate and install highly visible signage by the guidelines? ✓ Has a unified signage system been built? ✓ Has signage created a sustainable production system whereby

Output	Name of Pilot Project	Verification Item
	P2.5 Development of Outdoor Advertisement	<ul style="list-style-type: none"> ✓ production can be continued locally? ✓ Was the regulation and model of outdoor advertisement proposed by guidelines? ✓ Was the guideline proposed to the local government used for implementing landscape regulations?
	P2.6 Visitor Management Plan	<ul style="list-style-type: none"> ✓ Has it been possible to propose improvement plan around the monuments? ✓ Has the movement and flow in the monument become smooth by the plan and its implementation?
Output 3: Tourism Human Resources	P3.1 Tourism Human Resources Development	<ul style="list-style-type: none"> ✓ Was the capacity of local tourism resources corresponding to international tourist destination strengthened? ✓ Was the opportunity to strengthening tourism human resources and institutional building increased?
	P3.2 Public Awareness Campaign	<ul style="list-style-type: none"> ✓ Was awareness of local people related to tourism environment, manner to receiving tourist, heritage conservation improved? ✓ Were opportunities for participation and involvement of voluntary activities by local people increased?

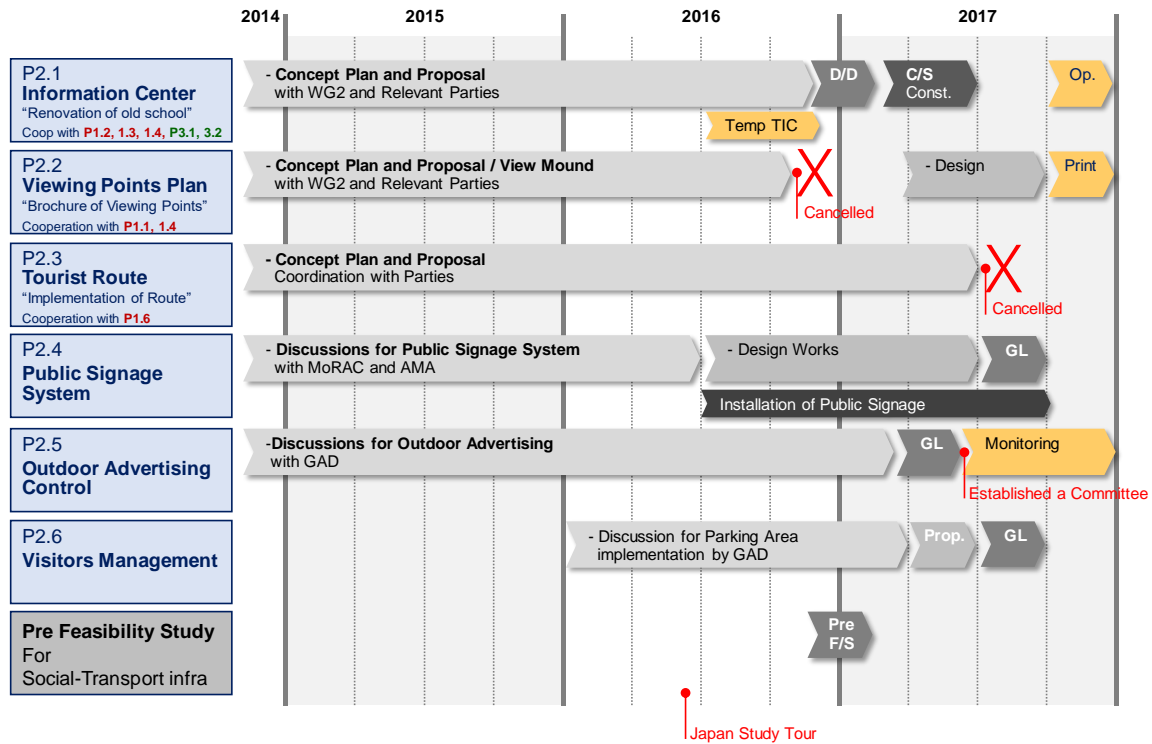
Source: JICA Expert Team

4.1.4 Implementation Schedule



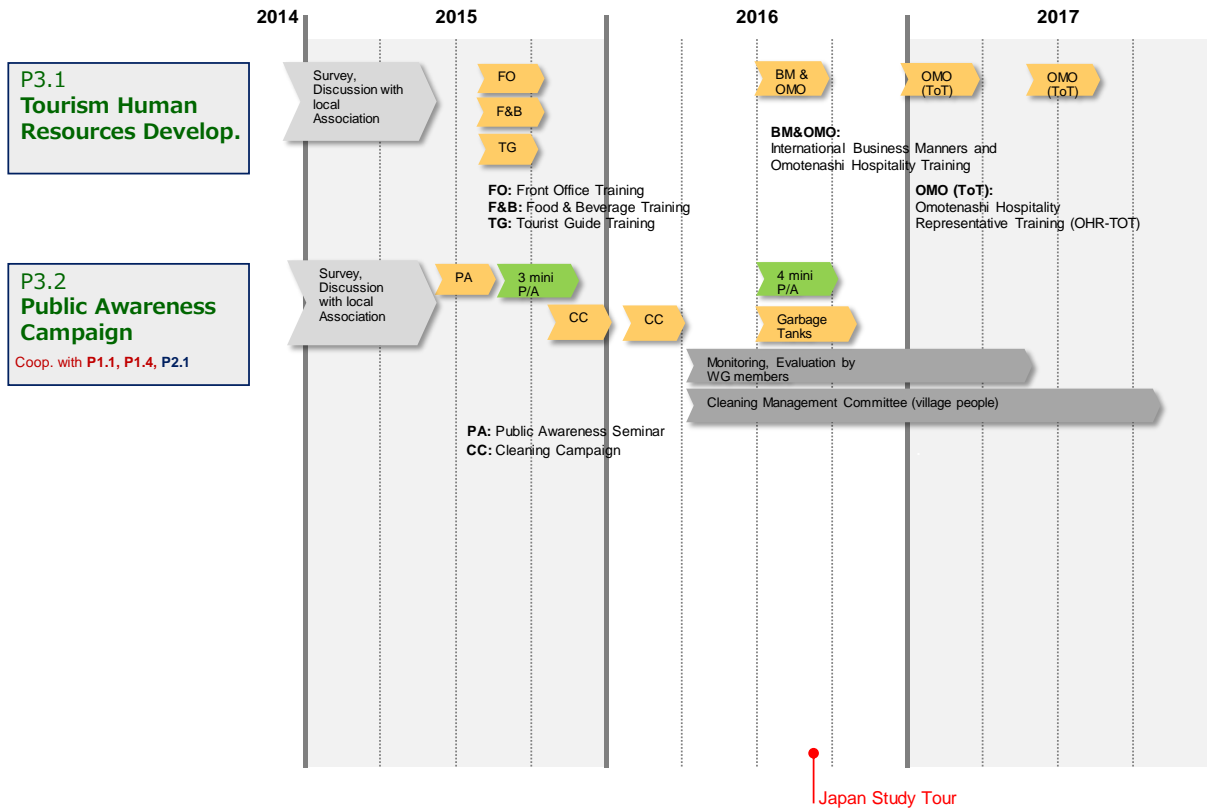
Source: JICA Expert Team

Figure 4—2 Implementation Schedule of Pilot Projects for Tourism Administration and Management



Source: JICA Expert Team

Figure 4—3 Implementation Schedule of Pilot Projects for Tourism Infrastructure



Source: JICA Expert Team

Figure 4—4 Implementation Schedule of Pilot Projects for Tourism Human Resources Development

4.2 Output 1: Tourism Management and Promotion

The six (6) pilot projects were implemented to verify strategic measures for strengthening on tourism management and promotion in Bagan and to get lessons learned for preparation of master plan on tourism development in Bagan.

4.2.1 Development of Community-based Tourism (CBT) (P1.1)

(1) Background

The villages in and around Bagan have potential for Community-based Tourism (CBT) such as excursion of local handicrafts and traditional rural lifestyles. Several CBTs are being developed and promoted by community people as a new tourism product in Bagan, and fascinates foreign tourists who expect travel experience in rural area. Community participation is indispensable for sustainable tourism development in Bagan, which could create, at the same time, more opportunities for tourists to connect with community people and local products.

(2) Planning

The following points were set in the pilot project of Development of CBT to verify strategic measures for strengthening on tourism management and promotion in Bagan.

- Were CBT Development and local products as tourism product strengthened?
- Were CBT and local products strengthened through participation by local people?

To realize the verification, three villages, West Pwa Saw, Tha Zin Myit Chay and Thae Pyin Taw, have been selected as promising destinations of CBT in consideration of the Working Group 1 discussions as well as a basic CBT survey on collecting data of tourism resources and basic information which was conducted targeting 27 villages in Bagan.

(3) Implementation

Main activities conducted for the verification in the three villages are as follows.

1) Develop CBT as tourism product

a) Cooking tour

Project period	: From January 2016 to December 2016
Project Place	: West Pwa Saw Village
Project Implementer	: Rural women's group (12 women and 1 man)
Cooperator	: Working Group 1 members, MOHT Bagan branch



Visit and shopping in local market with the group members and local guide



Hands-on experience of local cooking was welcome for foreign tourists



Lunch with explanation from group members in cooperation with local guides
Source: JICA Expert Team



Additional attraction to dance with foreign tourists

Figure 4-5 Activities in Cooking Tour

b) Village tour

Project period : From June 2016 to September 2017
 Project Place : Thae Pyin Taw Village
 Project Implementer : Village organization
 Cooperator : Working Group 1 members, MOHT Bagan branch, monastery in the village



Local guides who explain their life & culture in cooperation with travel agency staff



Cooperation with local handicraft women to demonstrate traditional weaving style



Cooperation with local farmers to observe traditional sugar cane processing
Source: JICA Expert Team



Cooperation with primary school and students to welcome foreign tourists

Figure 4-6 Activities in Village Tour

2) Strengthen local products

Project period : From January 2016 to September 2017
 Project Place : West Pwa Saw and Tha Zin Myit Chay villages
 Project Implementer : Handicraft workshops/families in the villages
 Cooperator : Working Group 1 members, MOHT Bagan branch



Participation in the night market event in Yangon for promotion of local handicrafts



Display event for local handicrafts at high-class hotels in Nay Pyi Taw



Development of experience-based tourism in lacquerware workshop
Source: JICA Expert Team



Development of new eco-friendly packages prepared by newspaper

Figure 4—7 Activities to Strengthen Local Products

(4) Verification

Through the pilot project activities, the following two points are verified for strengthening on tourism management and promotion in Bagan.

1) Were CBT development and local products as tourism product strengthened?

<Cooking tour>

- Several travel agencies in Yangon as well as Bagan were interested in adapting the cooking tour as a tourism product in their tour program.
- Based on the experience of the pilot project, a member of the women's group opened a small cottage restaurant.
- As a spreading effect of the pilot project, three restaurants were newly opened in the village for targeting tourists.

<Village tour>

- Several travel agencies in Yangon as well as Bagan were interested in adapting the village tour as a tourism product in their tour program. As of September 2017, two travel agencies in Yangon are promoted as their tourism product.

<Local products>

- Handicraft workshops are received an order from not only domestic customers but also foreign customers such as German, Chinese and Japanese who had opportunities to know the workshops in the events, exhibitions and the CBT tours.
- As a spreading effect of the pilot project, some advanced workshops share their orders to other workshops in the village.

2) Were CBT and local products strengthened through participation of local people?

<Cooking tour>

- Rural women, who had a limited opportunity to work in and around their village, had an opportunity to receive temporary cash income.

<Village tour>

- Since not only local guides but also local people welcome tourists as a community under the control of village leaders, tourists take a walk anywhere and anytime with local guides in the village tours.
- The village fund, which is reserved from the income of CBT, are allocated for community development such as rehabilitation of rural roads and improvement of school facilities.
- Village leaders train younger generation as local human resources for CBT.

<Local products>

- Job opportunities related to local products for community people are increasing in accordance with the increase of order.



Discussion meeting with working group members and villagers for CBT activities



Meeting to promote community participation with related staffs, village leaders and monks



Cooperation with a rural woman to give an opportunity for rural life experience



Local children who are valuable tourism resource for foreign tourists

Source: JICA Expert Team

Figure 4—8 Local Participation in CBT

(5) Lessons Learned

1) Develop CBT as tourism product

a) Close cooperation with travel agency

Most of tourists who visited CBT in Thae Pyin Taw Village were foreign visitors who participated in the tour program of travel agency in Yangon. Thus, close cooperation with travel agency is important to develop CBT for the following reasons.

- CBT has limited access to foreign tourists because of lack of staff who speak foreign language, and insufficient communication infrastructure and tools.
- Most of tourists who visit Bagan decide their tour schedule before arriving in Bagan.

b) Contribution to community society

The village fund, which is reserved from the income of CBT, contributed to community development. Thanks to the contribution for community society, CBT was welcomed by local community people.

c) Role of local guide

Foreign tourists participated in CBT tour, which was planned by travel agency, with a tourist guide in general. However, tourist guides have limited local knowledge to attract CBT in detail. Thus, local guides who lives in the CBT village have an important role to establish CBT tour.

d) Cooperation with tourism resources in community

In addition to main tourism activities, other tourism resources in community were utilized as an optional tour for tourists. Cooperation with tourism resources in CBT in a community will contribute to develop as an integrated CBT and to generate benefits for more local people.

e) Study tour in advanced CBTs

A study tour in advanced CBT was useful for local CBT staffs who have limited opportunities to know other CBTs. The local CBT staff got know-how of CBT and raise their awareness for developing their CBT activities.

2) Strengthen local products

a) Participation of promotion events

Through participating in promotion events such as exhibition, hotel and handicraft shop galleries and any promotional opportunities in other cities such as Yangon and Nay Pyi Taw, workshops of local products in Bagan got several chances to promote their products and received orders more than they expected, and they could know that the promotion was effective.

b) Preparation of promotion materials

Thanks to preparation and distribution of promotion materials such as photo handbook of local products, workshops of local products received orders from those who did not visit their workshops and watch their products directly. Such promotional materials contributed to increase of their sales.

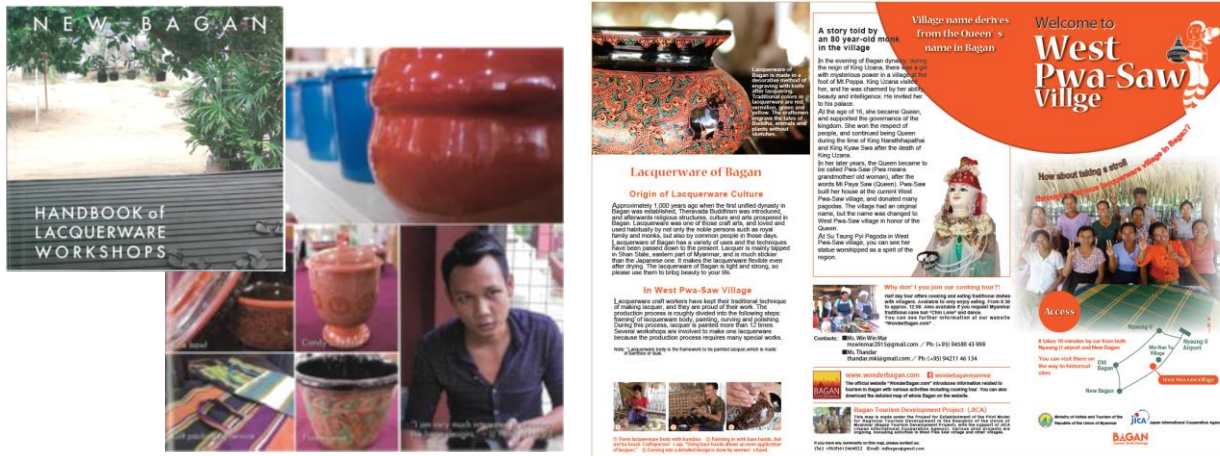


Photo handbook introducing Lacquerware workshops in New Bagan

Pamphlet of Waking Tour in West Pwa Saw Village introducing local products such as Lacquerware

Source : JICA Expert Team

Figure 4—9 Promotion Materials on CBT and Local Products

c) Support of outside specialists

New approaches supported by outside specialists such as designer, illustrator and skilled handicraft person were contributed not only to improve their products in quality but also to enhance their promotion such as packaging, marketing and sales.

d) Diversification of activities

Based on sufficient experience with contacting with foreign tourists, some workshops of local products began to provide experience-based tourism as a new CBT program in a tour program of travel agencies in addition to their main activity.

(6) Proposal of Priority Project

There are villages with potential for CBT in and around Bagan. Some villages have already developed and promoted CBT by own villages, although operation and management of CBT at villages needs to have improvement based on the results of verification and lessons learned from the Pilot Project. At For villages in and around Bagan, it is necessary to provide continuous support for CBT development such as public awareness on entrepreneurship of CBT activities, human resources development, guidance on operation and management of CBT activities for villagers in order to improve, develop and promote CBT. CBT is a tourism product that greatly contributes to the development of tourism human resources and local community so that “3-6: Strengthen of Entrepreneurship for CBT” is proposed as a priority project in the sector of HRD and local community for further development of CBT in Bagan.

4.2.2 Dissemination of Tourism Information (P1.2)

(1) Background

The internet such as websites and social media are an important source of information for tourists to consider destination and itinerary. The Ministry of Hotels and Tourism (MOHT) and Myanmar Tourism Federation (MTF) have their own websites to provide tourism information of the whole country. However, tourism information about Bagan in their websites are insufficient. Dissemination of tourism information other than website is limited.

(2) Planning

In this pilot project, the following points were verified to examine the strategy of tourism management and promotion in Bagan.

- Did disseminated tourism information through the internet by local people involve tourism sector properly and sustainably?

- Was feedback proved with cooperation among other pilot projects such as tourism promotion materials and tourism media planning?

To verify the above-mentioned points, this pilot project has implemented 1) development of the official website and Facebook page which disseminate tourism information specialized on Bagan and 2) establishment and strengthening of the system for operation and management of such website and Facebook page.

(3) Implementation

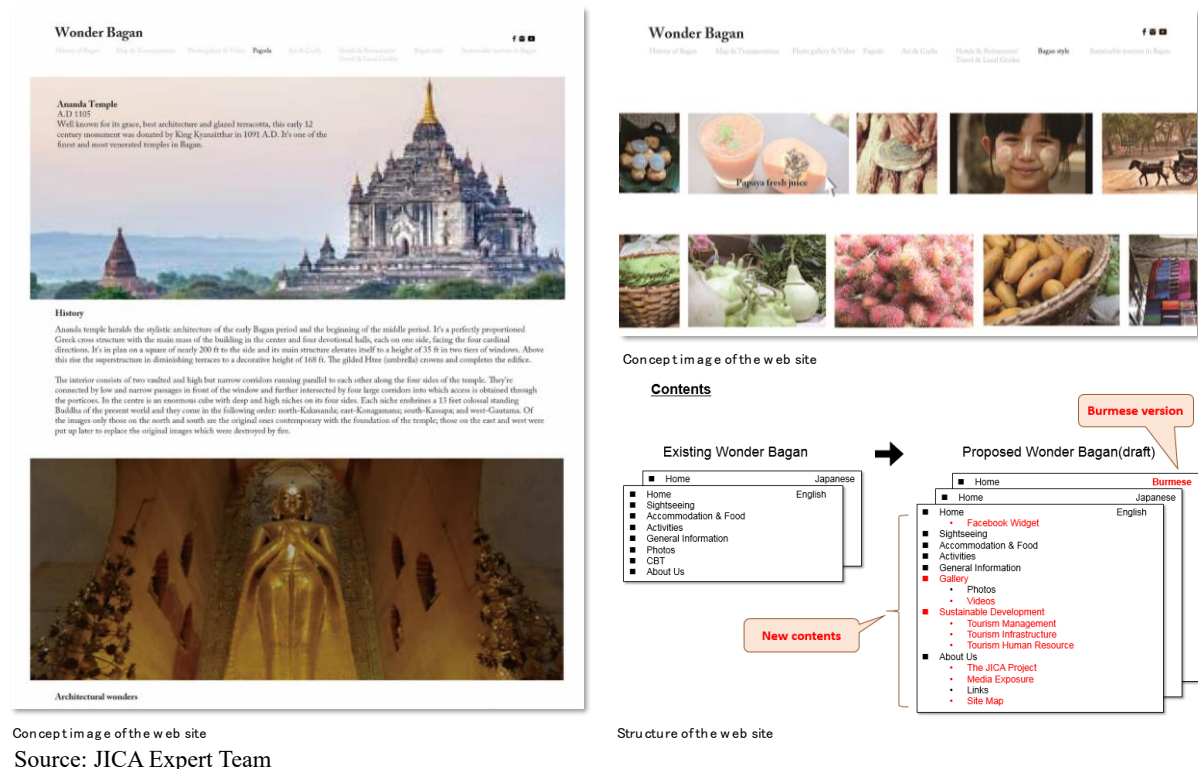
Main activities conducted to verify the above-mentioned points are as follows.

1) Development of website and Facebook page

The temporary Japanese website which provided general information of Bagan was launched on September 24, 2015 before the JATA Tourism Expo Japan 2015. The full-scale website was released in March 2016 after the expansion of contents both in Japanese and English and the test and modification of beta version.

2) Operation of website and Facebook page

Technical transfer training was conducted for Working Group members after the release of the full-scale official website in March 2016. Working Group members played a key role to operate the website and Facebook page, and JICA Expert Team supported it. During operation, Working Group and JICA Expert Team considered its sustainable operation system and clarified the issues.



Source: JICA Expert Team

Figure 4—10 Development and Operation of Website

3) Revision of website

Based on the half-year operation of the website after the launch of full-scale official website, revision of the website was started at the end of 2016 with Working Group members, local tourism business operators and several web developers.

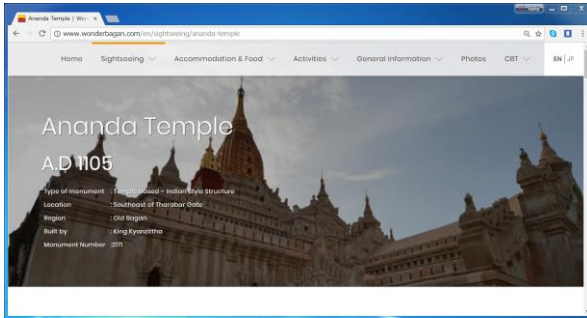


Image of the website



Image of the facebook page



Training for Technical transfer in Bagan
Source: JICA Expert Team



Closing Ceremony of the training

Figure 4–11 Revision of Website

4) Reconstruction and strengthening of operation and management system

At the same time of revision of website, a non-profit organization for dissemination of tourism information was established by Working Group members, local tour guides who have knowledgeable about tourism and foreign language skills and the youth who have knowledge and experience about information and communication technology at the end of 2016. In the Pilot Project, the technical transfer trainings have conducted for members of the organization.

(4) Verification

Through the implementation of the pilot project activities, the following points were verified for strengthening on tourism management and promotion in Bagan.

- **Did disseminated tourism information through the internet by local people involve tourism sector properly and sustainably?**
- **Was feedback proved with cooperation among other pilot projects such as tourism promotion materials and tourism media planning?**

1) Development of website and Facebook page

- Working Group members played a key role to discuss and decide specifications of the website. In addition, Working Group members received cooperation from relevant organizations for collecting and editing the contents of the website.
- Detail information about the heritage such as temples and pagodas were submitted by the Ministry of Religious Affairs and Culture (MORAC). General information about tourism were made with the Ministry of Hotels and Tourism. Information about local hotels and restaurants were submitted by managers of each hotels and restaurants with cooperation of Myanmar Hotelier Association (MHA) and Myanmar Restaurant Association (MRA). Photos and images were provided by MOHT, MTF and web developer.
- Collaboration was made between other pilot projects such as tourism promotion materials (P1.3) by Stating URL of the website on several materials.

2) Operation of website and Facebook page

- Information about activities in other pilot projects such as CBT (P1.1), tourism event (P1.4) and tourism traffic management (P1.6) were disseminated through the website and Facebook page timely.
- Technical issues were clarified such as gap between what is expected to add and modify in the website and what is actually available to add and modify in the website.
- Human resources and organizational issues were clarified such as limited human resources with sufficient knowledge and experience of management of website and unbalance of workload among Working Group members.
- Operation and maintenance issues were clarified such as maintenance provided by web developer which contained excessive service.
- The issues of human resources in MOHT was clarified. In MOHT Nay Pyi Taw, there are only four staff in charge of operation and management of website. In MOHT Bagan, there was no staff specialized for operation and management of website.

3) Revision of website

- Contents Management System and maintenance service provided by each web developer varied. It took time to compare these specifications provided by each web developer because some important information such as capacity of staff was difficult to be judged by scrutinizing proposal and quotation.
- Revision of the website has been conducted with cooperation between the non-profit organization established by Working Group members and local people involved in tourism sector and web developer. English and Japanese versions for the website were launched at the end of September and in mid-November, respectively. Myanmar version will be launched in 2018.

4) Reconstruction and strengthening of operation and management system

- 51 members are participating in the non-profit organization. The members are divided into several groups and update the website and Facebook page.
- About 10 members were selected as leaders. The leaders manage overall organization including discussion with web developer.
- MOHT agreed on the operation and management system implemented by the non-profit organization.
- The technical transfer trainings enabled the trainees, who did not have much knowledge and experience of operating website, to do operation and management of the website with relatively simple Contents Management System.

(5) Lessons Learned

Major lessons learned through the pilot project are as follows.

1) Detailed discussion with web developer

It is difficult to find many web developers in Bagan. It is necessary to cooperate with a web developer based in cities like Yangon. Many web developers are located in cities. Each web developer has different capacity and package of service. Detailed discussion with web developers about specifications of the website and web developer's capacity is indispensable. Careful and frequent discussion with web developer is important to make the website meet the aims and reduce development period, even though Bagan and Yangon are geographically remote.

2) Provision of information from relevant organizations

It is important to show various types of information such as the heritage, viewing spots, gourmet and accommodation in Bagan tourism website. To collect and disseminate the accurate many information, it is important to get cooperation from MOHT but also relevant organizations such as MORAC, MHA and MRA. It is also important to check copyright issue when photos and images are provided by others.

3) Building management system conforming to actual situation

It is ideal to operate and manage the tourism website which is specialized on Bagan from Bagan. However, there are not many people workforce who have sufficient knowledge and experience of website management. Budget for employing staff from cities like Yangon is limited. It is recommended to introduce simple and easy Contents Management System with appropriate security system and visibility. Involvement of the youth who have knowledge and experience about information and communication technology including social medias such as Facebook is effective. For example, there are quite a few young tour guides who are passionate to support tourism development and promotion.

4) Technical Training

An effective training for improvement of operation and management for the website and Facebook is not only read manuals etc., but also practical technical trainings. Hands on trainings for operating computers, taking photos, shooting videos, and writing and editing articles are useful to acquire knowledge and skills.

5) Proposal of Priority Project

Based on the verification results and lessons learned from the Pilot Project, following further support will be necessary for the website and social media (Facebook) developed in the Pilot Project, such as improvement and updating information for the website and Facebook in order to meet the needs of those users, expansion of the functions of social media, and improvement of management system and capacity building of staff. Hereafter strengthening of tourism promotion with utilizing and in cooperation with the websites and social media is required so that “1-2: Enhancement of Promotion” including support of website and social media is proposed as a priority project in the sector of tourism management and promotion.

4.2.3 Production of Promotion Materials (P1.3)

(1) Background

Various tourism brochures and maps are issued and distributed at tourism information center, hotels and restaurants in Bagan. However, there are limited materials which are tourist-friendly. Especially there are few materials that aim to encourage potential tourists who have not decided on their destination. As for the languages, most of the materials are only in English. Materials in other languages such as Japanese and Chinese are limited, even though the number of tourists from Japan and China are increasing.

(2) Planning

In this pilot project, the following points were verified to examine the strategy of tourism management and promotion in Bagan.

- **Did produced materials which meet objectives timely by local people involved in tourism sector?**
- **Is feedback utilized from other pilot projects especially tourism information?**

To verify the above-mentioned points, this pilot project has implemented production and distribution of promotional materials specialized on Bagan such as maps, brochures, videos and booklets.

(3) Implementation

Main activities conducted to verify the above-mentioned points are as follows.

1) Production and distribution of Bagan tourism brochures, leaflets and maps

Basic structure and policy was discussed in Working Group meeting. Working Group and JICA Expert Team discussed basic structure and policy on production of tourism brochures and maps and collection of contents, and created tourism promotion materials with sharing roles of these work. clarified the division of roles such as collection of contents. The materials were distributed at tourism information centers, hotels, restaurants in Bagan, and JATA Tourism EXPO Japan (2015, 2016, 2017).



Source: JICA Expert Team

Figure 4-12 Developed Tourism Promotion Materials and Distributed at JATA Tourism EXPO Japan 2016



Source: JICA Expert Team

Figure 4-13 Tourism Promotion Materials Distributed at Temporary Bagan Information Center

2) Production and distribution of Bagan tourism promotion video

In the Pilot Project, the development of video aims to targeting motivate potential tourists who had not yet decided to visit Bagan. At first the video shooting was conducted not only to the popular scenic sites

with the heritage and sunset view, but also to CBT villages to shoot various attraction of Bagan. After that the video was edited and completed. The developed videos were displayed at joint promotion between Siem Reap in Cambodia and Bagan promoted by MOHT and JATA Tourism EXPO Japan 2017. The videos were uploaded on the official Wonder Bagan website and YouTube.



Source: JICA Expert Team

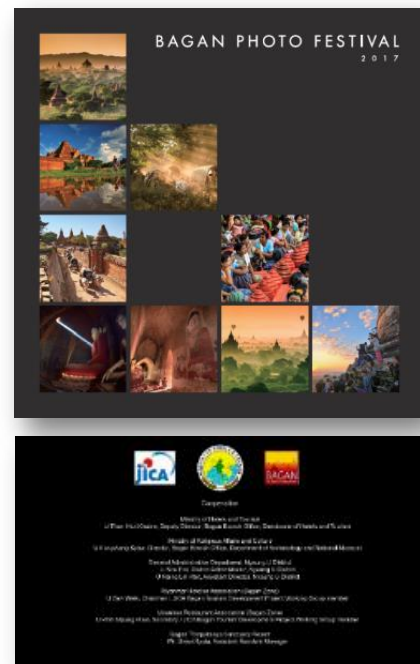
Figure 4–14 Development of Bagan Tourism Promotion Videos

3) Production and distribution of booklets

New Bagan Lacquerware Handbook and West Pwa Saw Lacquerware Photobook including strolling map were produced and distributed with collaboration of CBT development (P1.1). Bagan Photo Festival Photobook was produced and distributed with collaboration of tourism event (P1.4).



Handbook of handicrafts of West Pwa Saw Village



Source: JICA Expert Team

Figure 4–15 Dissemination of Tourism Information by Creating Booklets

(4) Verification

Through the pilot project, the following points were verified for strengthening on tourism management and promotion in Bagan.

- **Did produced materials which meet objectives timely by local people involved in tourism sector?**
- **Is feedback utilized from other pilot projects especially tourism information?**

1) Production and distribution of Bagan tourism brochures, leaflets and maps

- Development of materials was started from collecting contents. Working Group collected the contents such as hotels, restaurants, souvenir shops and photos. On the other hand, JICA Expert Team edited the contents and contacted to the map company to use the map data.
- The Bagan tourism map was revised based on the feedback from interview survey at JATA Tourism EXPO Japan. Improvements were continuously made afterward by Working Group members.

2) Production and distribution of Bagan tourism promotion video

- Local people involved in tourism sector cooperated location for scouting and making itinerary in advance of shooting.
- Working Group and local people involved in tourism sector supported to get permission of use of cameras and drone in advance of shooting. Also, they negotiated with hotels and villages to conduct shooting inside of the hotels and public and private space in the villages.
- Local people involved in tourism sector accompanied with the producer team during shooting. They managed the schedule to finish all shooting on time. They also mediated between the producer and local people to get cooperation for interviews.

3) Production and distribution of booklets

- Two kinds of booklet were produced based on the feedback from CBT (P1.1). One is focusing on workshops and craftsman of lacquerware, and the other is focusing on suggesting the usage of lacquerware in daily life.
- Bagan Photo Festival photobook was produced after tourism event (P1.4). The booklet is distributed not only in Bagan but also Yangon and Tokyo to disseminate Bagan's attractions and to promote potential tourists to visit Bagan.

(5) Lessons Learned

Major lessons learned through the pilot project are as follows.

1) Selection of contents

There exist many kinds of tourism materials. It is important to examine the purpose and positioning of the materials when we make new ones. To collect the voice from tourists both who visiting Bagan and who have not visited Bagan by interview is effective to make the materials.

2) Revision of materials

Materials like maps need to be improved based on the feedback from tourists. To foresee the cycle of distribution and revisions and to secure the production time and budget are important to make better materials.

3) Cooperation with other activities

The collaboration was made between this pilot project and other pilot projects such as CBT (P1.1) and tourism event (P1.4). To make close relationships for cooperation enables to produce and to distribute tourism materials effectively and timely.

4.2.4 Tourism Event Management (P1.4)

(1) Background

In Bagan, various events are held such Ananda Festival. Most of the events originate from Buddhism and the lunar calendar and are established among local people as annual events. From these events, a

part of traditional farming culture can be seen. On the other hand, these events are not aim for foreign tourists to participate or appreciate. From the tourist point of view, these events tend to be a little redundant and not very sophisticated.

(2) Planning

In this pilot project, the following points were verified to examine the strategy of tourism management and promotion in Bagan.

- **Did planned and organized an event by local people involved in tourism sector?**
- **Was cooperation formulated among local people to be involved in tourism sector to have events sustainable?**

To verify the above-mentioned points, this pilot project has implemented planning and organizing an event so that foreign tourists can participate and appreciate easily and which leads to enhance attractiveness of Bagan as a tourist destination by collaborating with local people involved in tourism sector.

(3) Implementation

Main activities conducted to verify the above-mentioned points are as follows.

1) Planning of Bagan Photo Festival 2017

In January 2017, outline of tourism event was discussed in Working Group meeting. The event was named “Bagan Photo Festival 2017” and its objectives were set as “discover”, “disseminate” and “preserve” the attractiveness of Bagan. The event consisted of photo contest as a main event and some related activities such as photo exhibition and making photo books.

2) Holding photo contest

Collection of entries was conducted through the created website of Bagan Photo Festival (Entry period: from March 12 to May 14, 2017). Popular vote was done by “Like” through Facebook page of Wonder Bagan (Vote period: from March 26 to May 19, 2017). Relevant tourism organizations and companies in Bagan and Yangon cooperated in judging, preparation of supplementary prizes and public relations.



Jury for the photo festival by the professional photographers in Yangon
Source: JICA Expert Team

Public July in Bagan

Figure 4—16 Preparation of Bagan Photo Festival

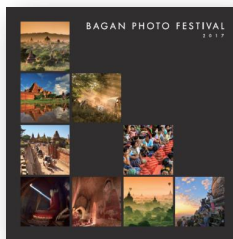
3) Making photo books, preparation of supplementary prizes for winners and holding

photo exhibition

Certificate and some supplementary prizes which came from Bagan were presented to the winners. In addition, commemorative photo books consisting 40 winning photos were printed. Photo exhibition was held at the Bagan Information Center.



Exhibition of Photo Festival at Bagan Information Center



Photobook of the festival

Cooperation



Source: JICA Expert Team

Figure 4—17 Holding Exhibition of Photo Festival and Photo Book

(4) Verification

Through the implementation of the pilot project activities, the following points were verified for strengthening on tourism management and promotion in Bagan.

- **Did planned and organized an event by local people involved in tourism sector?**
- **Was cooperation formulated among local people to be involved in tourism sector to have events sustainable?**

1) Planning of Bagan Photo Festival 2017

- Although the idea to hold a photo contest was proposed by JICA Expert Team, Working Group members and local people involved in tourism sector played a key role to discuss and organize the event.

2) Holding photo contest

- 439 photos were submitted in total. Around 70 % were submitted by domestic tourists, around 15% were by foreign tourists and around 15% were by local people living in Bagan. Collection of entry through the website with three languages in English, Myanmarese and Japanese contributed the achievement of objective of discover the attractiveness of Bagan.
- 21,427 Likes were collected in total. Popular vote through Facebook contributed the achievement of objective of disseminate the attractiveness of Bagan to the world including for those who have not visited Bagan yet.
- Utilization of website and Facebook reduced the workload of operating the event. Most of the administrative works such as registration of entry photos were done by computer.
- JICA Myanmar Office, MOHT, Working Groups, local tourism related stakeholders and professional photographers cooperated in judging process.
- Working Group members and local people involved in tourism sector including hotels and

restaurants provided free ticket for hotel stay and meals.

- MOHT, Myanmar Tour Guide Association (MTGA) and other related organizations cooperated for public relations by sharing information through their websites and Facebook. Local people involved in tourism sector such as tour guides also cooperated for distributing postcards and sharing information in Facebook.

3) Making photo books, preparation of supplementary prizes for winners and holding photo exhibition

- As for the preparation of photo books, outside designer cooperated for the design of front cover and back cover. Text and titles of photo were written in two languages, English and Myanmar. The organizer contacted to each winner to explain the usage of their submitted photos, which was written in entry guidelines. The photo books were distributed in Bagan and used as a promotion material in some events like JATA Tourism EXPO 2017 in Tokyo.
- As for the supplementary prizes for the winners, in addition to the invitation ticket to hotels and restaurants in Bagan, some hand made products of Bagan specialties such as lacquerware, textile and cane designed by designer were provided with the collaboration of CBT (P1-1).
- As for the photo exhibition, preparation proceeded with collaboration to Bagan Information Center (P2.1) as of September 2017. In addition, some selected photos were provided to be displayed at the photo exhibition held by ASEAN Japan Center in Japan in late September 2017.

(5) Lessons Learned

Major lessons learned through the pilot project are as follows.

1) Establishment of cooperation system between relevant organizations

Cooperation from various relevant organizations are essential to hold tourism events. To gain cooperation, it is important to state the aim of the event and to explain it clearly to relevant organizations. Once cooperation is established, positive chain reaction may happen such as a cooperator introducing another cooperator. If the circle of cooperators expands not only within Bagan but also in Yangon and even in Japan, the public recognition of the event increases. In addition to cooperation from private sector, strong backing of governmental agencies such as MOHT and international donors including JICA is crucial to establish cooperation system.

2) Supports of outside experts

Advice and cooperation from external experts are very important. For example, professional photographers can give advice on rules and regulations of photo contest including copyright issue. Designer can support for design of certificate, supplementary prizes and so on. Those supports from experts are vital for managing events.

3) Lighten workload of operating events

In the future, large-scale events which needs longer preparation period and significant cost may be considered. However, at the beginning stage, it is more realistic to hold events with less operational burden. Utilization of useful internet tools such as Facebook is also important to reduce workload and to expand ripple effect.

4) Diversification of events

Holding various events is effective. For example, night market may be able to be one of the major activities after enjoying watching the sunset. Exhibitions of lacquerware may be able to be one of the good opportunities of business matching. Those events may lead not only to attract tourists but also to revitalize local society.

4.2.5 Media Planning (P1.5)

(1) Background

MOHT and MTF have conducted media promotion activities about tourism for the whole country. Those activities include some large-scale projects such as production of promotion video and running advertisements on TV programs. On the other hand, there have been no record of media promotion activities conducted by local tourism stakeholders in Bagan independently. Know-how of media promotion has not been accumulated in Bagan.

(2) Planning

In this pilot project, the following points were verified to examine the strategy of tourism management and promotion in Bagan.

- **Were planned and implemented public relation activities through media by local people involved in tourism sector?**
- **Was acceptance system formulated for outside media?**

To verify the above-mentioned points, this pilot project has implemented production and distribution of videos with strong message and sustainability, and accumulated know-how of acceptance and utilization of media.

(3) Implementation

Main activities conducted to verify the above-mentioned points are as follows.

1) Selection of themes of short documentary films

The themes were selected from living heritage of Bagan like traditional life style, traditional crafts and arts in heritage site. In July 2017, the production team visited Bagan for research. Working Group and local people involved in tourism sector discussed and decided to feature three persons stories.

2) Shooting and editing videos

Shooting was conducted from July 23 to July 31, 2017. Two weeks after shooting, rough cut was made. At the stage of rough cut, Working Group members and local people involved in tourism sector made some comments. English version completed at the end of August and Japanese version completed in early September after fine tuning.

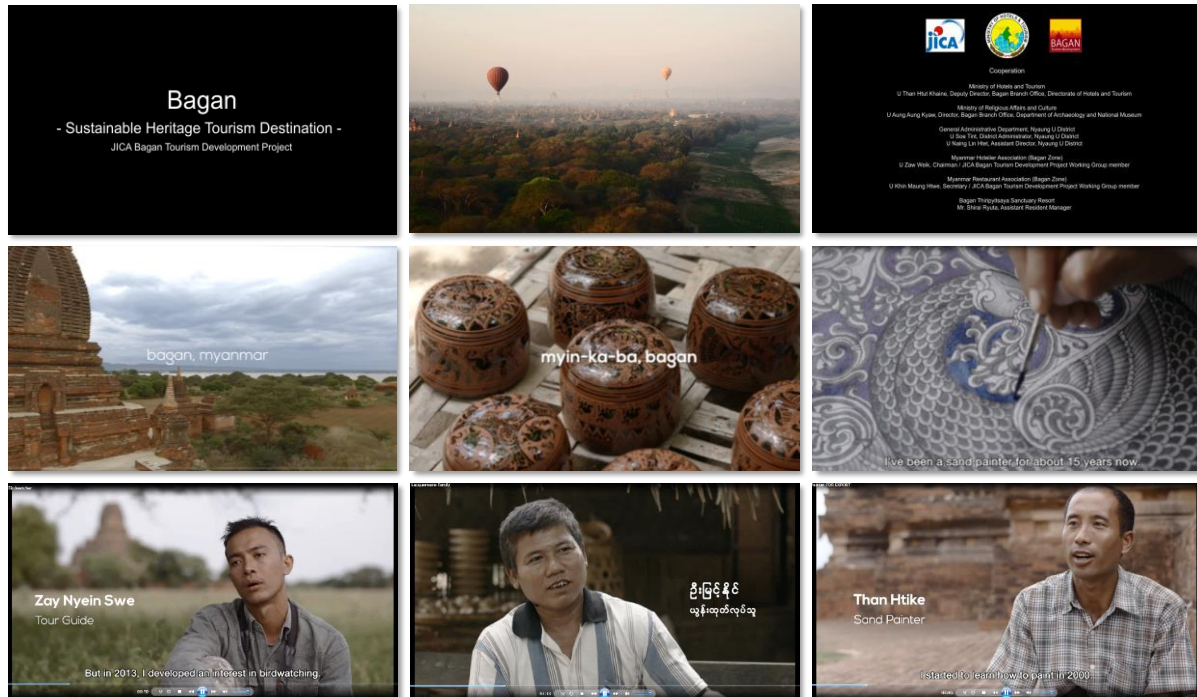


Source: JICA Expert Team

Figure 4—18 Production of Short Documentary Videos in Bagan

3) Sharing know-how and distribution of videos

Working Group members and local people involved in tourism sector had a meeting at the end of shooting and shared the experience of support for the shooting. The producer lectured to local people involved in tourism sector on technical transfer of video shooting and effective use of social media. Film showing seminar was held as well. The videos have been distributed in the internet such as website, YouTube and Facebook, and also were displayed at JATA Tourism EXPO Japan 2017.



Source: JICA Expert Team

Figure 4–19 Short Documentary Videos in Bagan

(4) Verification

Through the pilot project, the following points were verified for strengthening on tourism management and promotion in Bagan.

- Were planned and implemented public relation activities through media by local people involved in tourism sector?
- Was acceptance system formulated for outside media?

1) Selection of themes of short documentary films

- Working Group and local people involved in tourism sector provided information on tourism resource in Bagan to the production team. It helped the production team to conduct research smoothly.
- Local people involved in tourism sector played an important role in location hunting and mediation the production team and interviewees.

2) Shooting and editing videos

- Local people involved in tourism sector accompanied the production team during shooting, understood the basic procedure of shooting and summarized what kind of support can be provided from local.
- Working Group members and local people involved in tourism sector assisted wording and expression in English subtitles.

3) Sharing know-how and distribution of videos

- Meetings and workshops were held three times before and after research and shooting. Around 10 people from Working Group and local people involved in tourism sector participated each time and shared knowledge and experience of accepting media.
- Around 20 local people involved in tourism sector participated in technical transfer training lectures by the producer. They learned through practice how to utilize social media for tourism development and promotion.
- Around 80 people from MOHT, Working Group and local people involved in tourism sector participated in the film showing seminar and shared know-how of how to accept and support outside media.
- Wonder Bagan official YouTube channel was created. It linked with Wonder Bagan official website and Facebook page and has been distributed videos to all over the world. From now on, local people involved in tourism sector will continue uploading new videos to the YouTube channel.

(5) Lessons Learned

Major lessons learned through the pilot project are as follows.

1) Selection of film production team and detailed discussion with production team

It is difficult to find film production teams in Bagan and is necessary to cooperate with a production team based in a city like Yangon. Each production has different characteristic. For example, some production teams are good at making commercial videos, and some production teams are good at making documentary films like this time. For selecting the film production team, it is necessary to consider expertise and experience, which is suitable for the type of film production. Detailed discussion with film production on objectives and themes of the videos, target audience and so on, before shooting starts.

2) Utilization of social media

Utilization of social media is effective. Comparing to conventional media such as TV, radio, newspaper and magazine, social media is less costly but can expect a larger ripple effect. Social media can distribute colorful and lively photos and videos and those can be stored on the internet whereas TV commercial is just temporary. Expansion of the contents and maintenance of social media are also relatively easy for local people involved in tourism sector.

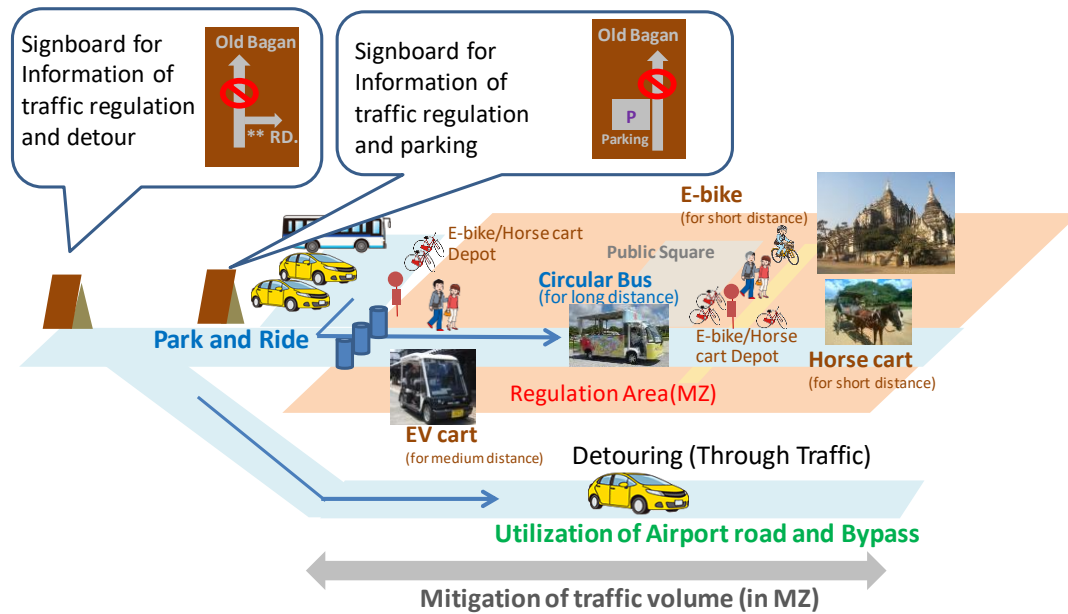
4.2.6 Traffic Management System (Tourism Transportation Management) (P1.6)

(1) Background

In the Bagan Cultural Heritage Region, the number of tourists and vehicle traffic volume have both been increasing in recent years, particularly in the Old Bagan and areas around popular temples and pagodas. The increasing traffic volume has had a harmful impact on traffic flow and traffic safety, and it is seen that it will also harm the historical remains and the scenery.

(2) Planning

In order to mitigate the negative impacts on the environment, scenery etc. by traffic in the Bagan Cultural Heritage Region, it is important to clarify an image of future traffic. The following diagram presents the concept of the anticipated Traffic Demand Management (TDM).



Source: JICA Expert Team

Figure 4–20 Concept of Anticipated Traffic Demand Management (TDM) Policy in Bagan

In the Cultural Heritage Region, it is necessary to create an environment that will allow tourists to walk through monuments in comfort, while preserving them. An effective way to achieve this goal would be a Park and Ride (P&R) system: building parking facilities outside the heritage preservation district, parking large vehicles in these parking areas and having tourists transfer to separate feeders (small vehicles, E-bikes, etc.) to approach close to the ruins. We hope that in the future, Electric Vehicles (EV), E-bikes, horse-carts, etc. will be used as feeders that lighten the load on the heritage environment within the preservation area.

For this concept to be realized, a step-by-step plan is necessary. This project has been planned as trials that will be corroborative stepping-stones to the future. Prior to the trials, it is important to clarify traffic demand in order to prepare to respond to its rise. This pilot project will be undertaken by selecting three projects based on guidelines to Traffic Demand Management. The following figure shows relationships between policies for Traffic Demand Management and the steps taken through this project.

Three policies in TDM

- ✓To shift transportation mode
- ✓To avoid peak time (shift of departure time)
- ✓To avoid congested route or section

(Components of Pilot Project)

- (1) Introduction of Public Transport (Circular Bus and Sunset Shuttle) and Feeder Transportation
- (2) Traffic Regulation in Monument zone
- (3) Introduction of Parking Lot
(to encourage modal shift and to avoid private vehicle concentration)

Source: JICA Expert Team

Figure 4–21 Pilot Project Execution Contents and TDM Policy

A pilot project (corroborative traffic trials) was planned for: 1) reconsideration of existing traffic modes, 2) avoiding peak times and 3) to reduce congestion. Its elements include: 1) introducing public transportation, 2) enforcing traffic regulation, and 3) managing parking.

The results of the process of selection of pilot projects were announced and formally approved by the Third JCC (held on July 4, 2016), and the projects were planned for the period from December 1 to 14 of the same year.

(3) Implementation

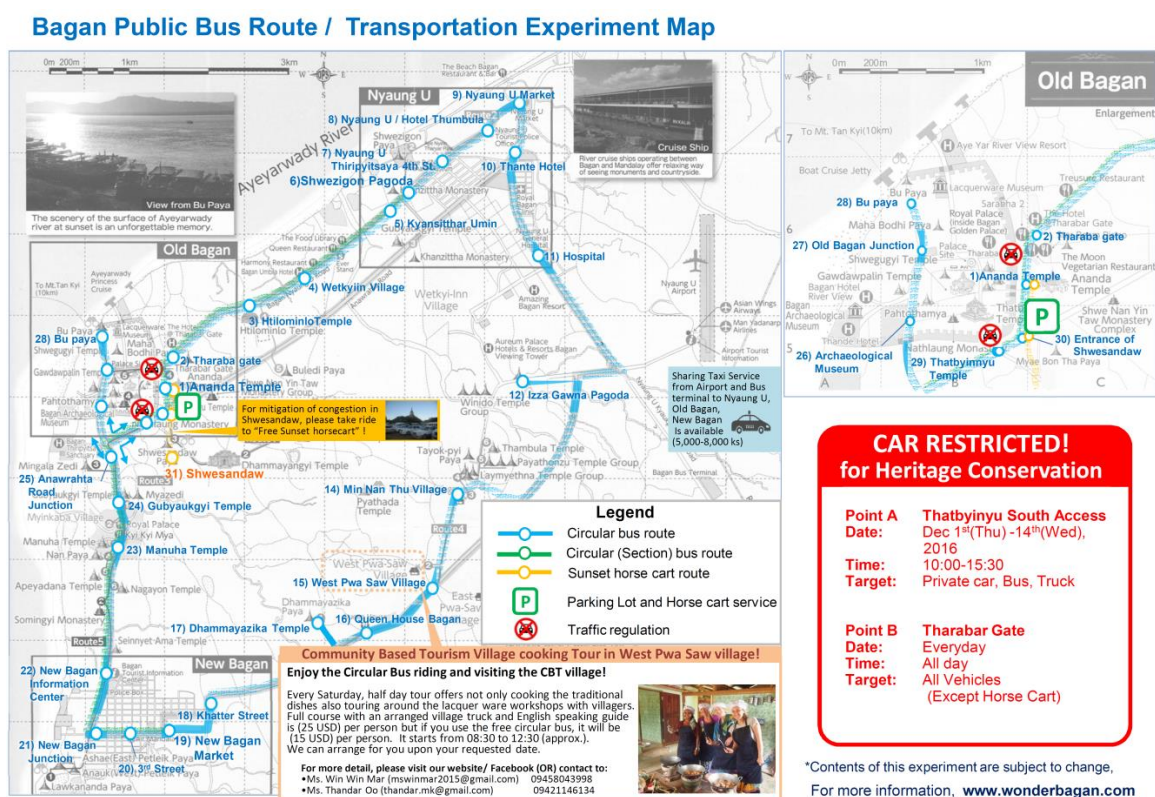
The following three pilot projects were conducted from December 1 to 5, 2016.

1) Introduction of Public Transportation

A trial introduction of public transportation from privately owned automobiles in order to lower the traffic volume in the heritage preservation district. Circular bus routes were set enabling access to the major sightseeing sites, and two operating methods, clockwise circulation and anti-clockwise circulation were planned for the sake of tourist convenience.

As a public transportation trial introduction, loop buses that travel the circular road around Bagan were introduced. Six 25-seat busses were prepared, with three traveling clockwise and three traveling counter-clockwise at 30 minute intervals for 9 hours from 9:00 a.m. to 6:00 p.m. During the time period before and after sunset, horse-carts were introduced as a feeder transport mode.

When the pilot projects were implemented, a pamphlet presenting the major tourist sites of Bagan, bus route map, and bus timetable (English and Myanmar) was prepared in advance for tourists and local residents and distributed to users to inform them of the project. Also, during the project, a questionnaire survey was conducted on the circuit busses to get the opinions of tourists who used them.



Source: JICA Expert Team

Figure 4–22 Route Map of Circular Bus (Flyer)

Circular Route | Clockwise
Ananda > Nyaung U > New Bagan > Bu Paya > Ananda

No.	Bus Stop	C1	C2	C3	C4	C5	C6	C7
1	Ananda Temple (Parking)	9:00	10:00	11:00	12:00	13:00	14:30	15:30
2	Tharaba gate	9:02	10:02	11:02	12:02	13:02	14:32	15:32
3	Hilominlo Temple	9:06	10:06	11:06	12:06	13:06	14:36	15:36
4	Wetkyin Village	9:08	10:08	11:08	12:08	13:08	14:38	15:38
5	Kyansittha Umin	9:11	10:11	11:11	12:11	13:11	14:41	15:41
6	Shwezigon Pagoda	9:12	10:12	11:12	12:12	13:12	14:42	15:42
7	Nyaung U	9:16	10:16	11:16	12:16	13:16	14:46	15:46
8	Nyaung U / Hotel Thumbala	9:18	10:18	11:18	12:18	13:18	14:48	15:48
9	Nyaung U Market	9:21	10:21	11:21	12:21	13:21	14:51	15:51
10	Thando Hotel	9:23	10:23	11:23	12:23	13:23	14:53	15:53
11	Hospital	9:27	10:27	11:27	12:27	13:27	14:57	15:57
12	Izza Gawna Pagoda	9:32	10:32	11:32	12:32	14:02	15:02	16:02
13	Payathonzu	-	-	-	-	-	-	-
14	Min Nan Thu Village	9:40	10:40	11:40	12:40	14:10	15:10	16:10
15	West Pava Saw Village	9:43	10:43	11:43	12:43	14:13	15:13	16:13
16	Queen House Bagan	9:45	10:45	11:45	12:45	14:15	15:15	16:15
17	Dhammayazika Temple	9:48	10:48	11:48	12:48	14:18	15:18	16:18
18	New Bagan Khatter Street	9:53	10:53	11:53	12:53	14:23	15:23	16:23
19	New Bagan Market	9:58	10:58	11:58	12:58	14:28	15:28	16:28
20	New Bagan 3rd Street	10:00	11:00	12:00	13:00	14:30	15:30	16:30
21	New Bagan Junction	10:02	11:02	12:02	13:02	14:32	15:32	16:32
22	Information Center	10:04	11:04	12:04	13:04	14:34	15:34	16:34
23	Manuha Temple (Myinkaba)	10:11	11:11	12:11	13:11	14:41	15:41	16:41
24	Gubyaukgyi Temple (Myinkaba)	10:13	11:13	12:13	13:13	14:43	15:43	16:43
25	Anawrahta Road Junction	10:15	11:15	12:15	13:15	14:45	15:45	16:45
26	Archaeological Museum	10:17	11:17	12:17	13:17	14:47	15:47	16:47
27	Old Bagan Junction	10:18	11:18	12:18	13:18	14:48	15:48	16:48
28	Bu paya	10:23	11:23	12:23	13:23	14:53	15:53	16:53
29	Old Bagan Junction	10:25	11:25	12:25	13:25	14:55	15:55	16:55
30	Archaeological Museum	10:26	11:26	12:26	13:26	14:56	15:56	16:56
31	Thabyinnyu Temple	10:29	11:29	12:29	13:29	14:59	15:59	16:59
32	Entrance of Shwesandaw	10:30	11:30	12:30	13:30	15:00	16:00	17:00
...	1. Ananda Temple (Parking)	10:32	11:32	12:32	13:32	15:02	16:02	17:02

Section Route 1 | Ananda > Shwezigon | 12min
Dept. Ananda at 9:30, 10:30, 11:30, 12:30, 14:05, 17:40

Section Route 2 | New Bagan > Ananda | 21min
Dept. New Bagan Market at 10:28, 11:28, 12:28, 13:58, 14:58, 15:58

Source: JICA Expert Team

Circular Route | Anti-Clockwise
Ananda > Bu Paya > New Bagan > Nyaung U > Ananda

No.	Bus Stop	C11	C12	C13	C14	C15	C16
1	Ananda Temple (Parking)	9:30	10:30	11:30	13:00	14:00	15:00
30	Entrance of Shwesandaw	9:32	10:32	11:32	13:02	14:02	15:02
29	Thabyinnyu Temple	9:33	10:33	11:33	13:03	14:03	15:03
26	Archaeological Museum	9:36	10:36	11:36	13:06	14:06	15:06
27	Old Bagan Junction	9:37	10:37	11:37	13:07	14:07	15:07
28	Bu paya	9:42	10:42	11:42	13:12	14:12	15:12
27	Old Bagan Junction	9:44	10:44	11:44	13:14	14:14	15:14
26	Archaeological Museum	9:45	10:45	11:45	13:15	14:15	15:15
25	Anawrahta Road Junction	9:47	10:47	11:47	13:17	14:17	15:17
24	Gubyaukgyi Temple (Myinkaba Village)	9:49	10:49	11:49	13:19	14:19	15:19
24	Manuha Temple (Myinkaba Village)	9:54	10:54	11:54	13:24	14:24	15:24
22	New Bagan Information Center	9:58	10:58	11:58	13:28	14:28	15:28
21	New Bagan Junction	10:00	11:00	12:00	13:30	14:30	15:30
20	New Bagan 3rd Street	10:02	11:02	12:02	13:32	14:32	15:32
19	New Bagan Market	10:04	11:04	12:04	13:34	14:34	15:34
18	New Bagan Khatter Street	10:09	11:09	12:09	13:39	14:39	15:39
17	Dhammayazika Temple	10:14	11:14	12:14	13:44	14:44	15:44
16	Queen House Bagan	10:17	11:17	12:17	13:47	14:47	15:47
15	West Pava Saw Village	10:19	11:19	12:19	13:49	14:49	15:49
14	Min Nan Thu Village (MCD cold drink shop)	10:26	11:26	12:26	13:56	14:56	15:56
13	Payathonzu	-	-	-	-	-	-
12	Izza Gawna Pagoda	10:32	11:32	12:32	14:02	15:02	16:02
11	Hospital	10:36	11:36	12:36	14:06	15:06	16:06
10	Thando Hotel	10:41	11:41	12:41	14:11	15:11	16:11
9	Nyaung U Market	10:43	11:43	12:43	14:13	15:13	16:13
8	Nyaung U (Hotel Thumbala)	10:45	11:45	12:45	14:15	15:15	16:15
7	Nyaung U / Hotel Thumbala	10:47	11:47	12:47	14:17	15:17	16:17
6	Shwezigon Pagoda	10:50	11:50	12:50	14:20	15:20	16:20
5	Kyansittha Umin	10:51	11:51	12:51	14:21	15:21	16:21
4	Wetkyin Village	10:54	11:54	12:54	14:24	15:24	16:24
3	Hilominlo Temple	10:56	11:56	12:56	14:26	15:26	16:26
2	Tharaba gate	11:00	12:00	13:00	14:30	15:30	16:30
1	Ananda Temple (Parking)	11:02	12:02	13:02	14:32	15:32	16:32

Section Route 1 | Shwezigon > Ananda | 12min
Dept. Shwezigon at 9:50, 11:10, 12:10, 13:50, 14:50

Section Route 2 | Ananda > New Bagan | 21min
Dept. Ananda at 10:00, 11:00, 12:00, 13:30, 14:30, 15:30, 17:40

Source: JICA Expert Team


Transportation Experiment in Bagan

First 2 Weeks in December

Period: Dec 1 (Thu) to 14 (Wed), 2016


Time: 9:00-18:00

Place: Bagan Heritage Zone



Trial 1 Public Bus

4 public bus routes are provided at Ananda Temple as a starting point.



Trial 2 Public Parking


Public parking area at the west part of Ananda Temple is provided for all kinds of vehicles.



Trial 3 Traffic Control

For the heritage conservation, car traffic is restricted.

“Park & Ride” style
For the heritage conservation...



This experiment is conducted as a part of "The Project for Establishment of the Pilot Model for Regional Tourism Development in the Republic of the Union of Myanmar". Supported by:






*Contents of this experiment are subject to change.
For more information, www.wonderbagan.com

Figure 4-23 Timetable of Circular Bus (Flyer)



Source: JICA Expert Team

Figure 4-24 Conditions of Circular Bus Operation and Questionnaire Survey

2) Parking Management

In order to resolve the problem of insufficient parking and to reduce the traffic volume around the heritage site, parking facilities were provided to ensure uninterrupted field of vision to the historical

monuments. With the area on the West side of the Ananda Temple set as the model object area, the following measures were taken: 1) parking was restricted in front of the temple and 2) substitute parking was ensured. To restrict parking, signboards and triangular cones were installed, parked cars were removed from the area around the entrance to the Western Temple Path, that is the main access route to the Ananda Temple, and an area 80 m wide and 50 m deep was set aside as the area permitting pedestrians access only. A substitute parking facility was made on the south side of the same area.



Before experiment (4th Nov, 2016)

During experiment (2nd Dec 2016)

Source: JICA Expert Team

Figure 4—25 Conditions of Parking Management Implementation

3) Traffic Regulation

To reduce traffic volume in Old Bagan, traffic was controlled at the Tharabar Gate at the time of the pre-pilot project (September 2016), and on the access road on the south side of Thatbyinnyu Temple during the pilot project. To enforce the traffic controls, the object areas were selected, signboards installed, and temporary parking facilities established cooperatively by the administrative bureau, the township development committee, the Pagoda Trustee, and the Bureau of Antiquities of the Ministry of Religious Affairs and Culture.



Parking Control at Ananda Temple (Left) Traffic Regulation at Tharaba Gate (Right)

Source: JICA Expert Team

Figure 4—26 Conditions of Traffic Regulation Implementation



Source: JICA Expert Team

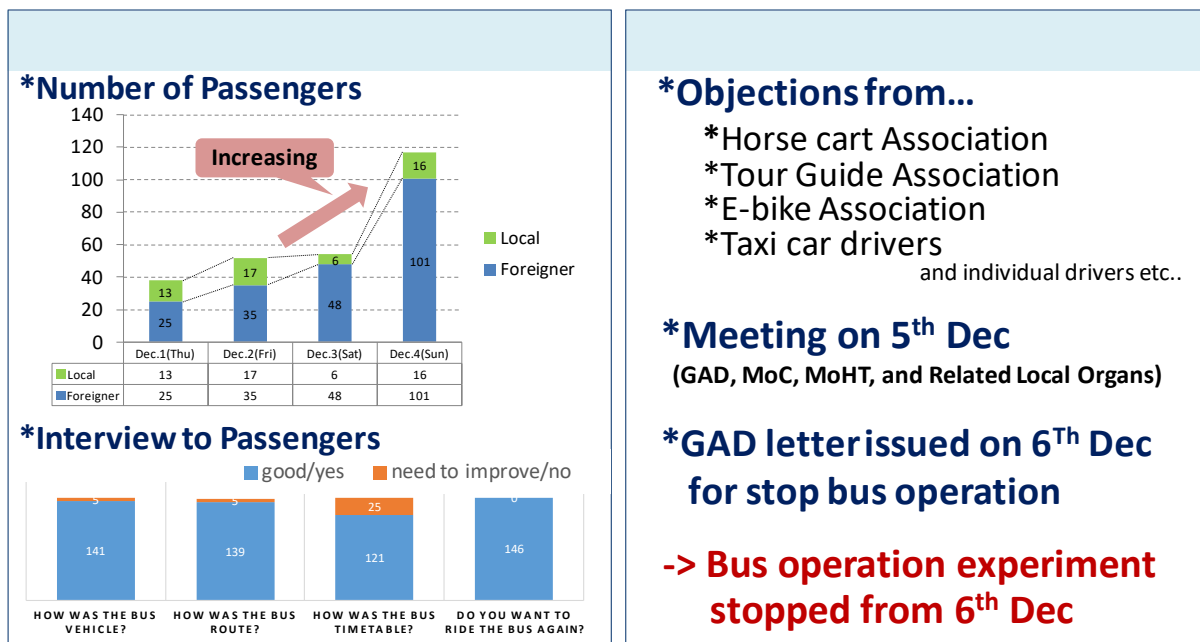
Figure 4—27 Conditions of Traffic Regulation Implementation (South of Thatbyinnyu Temple)

(4) Verification

The matters implemented through the pilot project were evaluated and insights are described below.

1) Public Transportation

- During the implementation of the pilot project, the distribution of the pamphlets and increase in the number of tourists who directly witnessed the introduction of the busses were accompanied by a rise in the number of users. The questionnaire survey for passengers confirmed an extremely high degree of satisfaction.
- On the other hand, the operation of the “free” circular busses had a serious negative impact on local transportation company operators, and while the test was scheduled to continue for 14 days in the initial plan, it was stopped after 5 days. In the future, in order to introduce public transportation, it will be necessary to fully coordinate the introduction with local interested parties in order to build a sustainable operating system that will benefit the overall local business community.



Source: JICA Expert Team

Figure 4—28 Verifications for Public Transportation Introduction Effects

2) Traffic Regulation and Parking Management

- Controlling traffic and managing parking facilities to accommodate controlled vehicles during the pilot project appeared to reduce the traffic volume in Old Bagan by about 145 % for small vehicles and by about 53 % for all vehicles. This means that controlling traffic and providing parking facilities would be an effective way to also preserve the heritage area.
- These projects were continued by the Nyaung U administrative office after completion of the pilot project. Traffic control should be continued as its range is expanded. The parking facility management was continued as one pilot project for visitor management (P2.6).



Source: JICA Expert Team

Traffic count survey(12 hours)

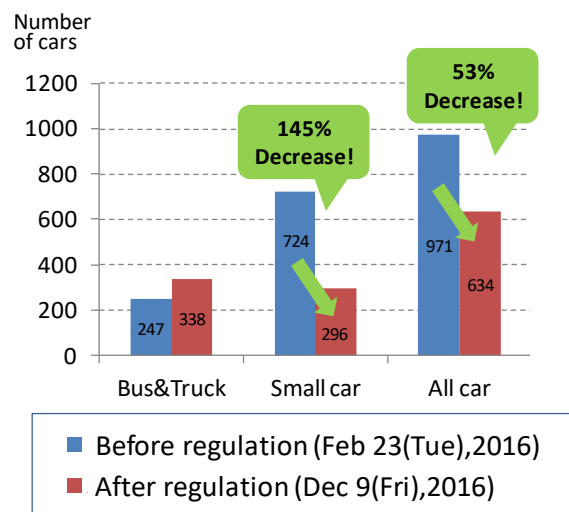


Figure 4—29 Traffic Volume Mitigation by Traffic Regulation and Parking Management

(5) Lessons Learned

It is predicted that the number of tourists and traffic volume will soar when Bagan is designated as a World Heritage Site. It is anticipated that not only in Old Bagan, but in the entire Bagan heritage preservation area, the parking facilities and roads will cause severe problems due to over-capacity. There is a strong demand for the implementation of TDM throughout Bagan and for continued social experiments in the traffic field to clarify the public acceptance and effectiveness of tourism traffic management in order to predict and to resolve any problems in advance.

4.3 Output 2: Tourism Infrastructure

The six (6) pilot projects were implemented to verify strategic measures for strengthening on tourism infrastructure in Bagan and to get lessons learned for preparation of master plan on tourism development in Bagan.

4.3.1 Development of Bagan Information Center (P2.1)

(1) Background

Despite Bagan being a representative tourism destination of the country, core facilities to provide tourist information service are not well developed. MOHT has established tourist facilities in New Bagan, however, because the location is away from the main tourism destinations, the number of users is as extremely small, about 10 people in high season. In addition, the information in the facility is not the latest information or useful information that is requested by tourists. There are problems in both for the facility and for the information materials. Improvement of facilities to support activities that contribute to sightseeing in Bagan is an urgent issue.

(2) Planning

As a facility that contributes to Bagan’s tourism and community, the implementation plan is to develop “Bagan Information Center” in Old Bagan in cultural heritage area where many ancient monuments are concentrated. By providing information that contributes to tourism and the region, it aims to develop the facility that can be used not only by domestic and foreign tourists but also by local residents.

The Target site is located at the western side of Bagan Golden Palace in Old Bagan where tourists frequently access. On the south side of the site, there is an excavation site that is said to be where the Royal Palace had once existed. In the vicinity, there are many remarkable ancient monuments such as Thabyinnyu Temple, Gawdawpalin Temple, Maha-Bodi Temple, Bu Paya etc.



Source: JICA Expert Team

Figure 4—30 Target Site for Bagan Information Center

In the government-owned land, there is a wooden structure 80 years old. It has been used as government related facility, schools etc., and it is also known as a place where General Aung San gave a speech in 1946. Since the citizens of Old Bagan were forcibly relocated to the current New Bagan, the structure was left unattended and deterioration is evident.



Source: JICA Expert Team

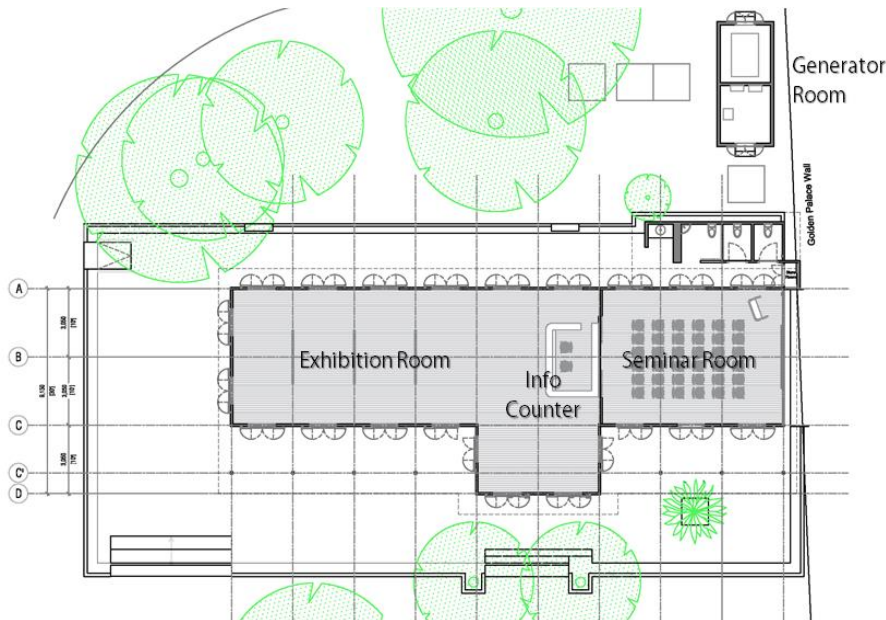
Figure 4—31 Wooden Structure 80 Years Old

[Outline of Existing Building]

The existing building is a wooden structure 180 m² with a width of 3 m-9 spans, and a depth of 6 m-1 span (one deformation part on the south side). The roof tiles are pottery tiles which seems to be from the original construction. The exterior wall is plaster-finished on brickwork. A pattern that looks like brickwork is a painting applied to the plaster, and it is a design commonly seen in the colonial period buildings. Interior wall is finished smoothly with white paint except for pillars, and floors have mortar finish both inside and outside. Two toilet units behind the building are squat type, and the sewage is treated in a septic tank located on the north side. There are no electrical facilities.

Since the structure is located in the cultural heritage area, the implementation plan is required to minimize the negative impact on the surrounding environment. Improvement of the performance of the building will be accomplished while preserving the appearance and structure of the existing building.

The new facility consists mainly of three elements, one exhibition room, one seminar room, and one information desk. Two rooms can be partitioned with large sliding doors with a height of 3m, and thus ensure the diversity of use of the facility. On the backside of the building, three toilet units are installed. On the back, one back-up facility with a generator room and a pumping room are newly developed. In addition, the whole facility is barrier-free compliant with installation of a wheelchair exclusive toilet and a slope on part of steps.



Source: JICA Expert Team

Figure 4—32 Floor Plan of BIC

(3) Implementation

When selecting the target sites, JET discussed and consulted with MOHT, GAD and DOA while receiving advice from AMA, and 10 candidate sites were proposed for 2 years from the beginning of the project at end of 2014 to the end in 2016. The main concern on the site for development of BIC is located in the area to resist World Heritage Site and the instruction order by MORAC. Heritage Impact Assessment (HIA) was conducted for the final two candidate sites by UNESCO recommended experts. The HIA replied that the movable new construction was “Unacceptable” and the renovation of existing structure was “Acceptable with Mitigation”. Based on this result, JET with related organizations decided to implement the latter proposal.

Basic design, detailed design and bidding preparation were done from December 2016 to January 2017, and a contractor was selected on February 1. After that, renovation work was carried out in five months until June 2017. JICA Expert Team conducted construction supervision during the same period. Main works of the construction are as follows.

- 1) The corroded structural members were newly replaced with the equivalent material and structural reinforcements were carried out.
- 2) All the pottery tiles were removed and reused after cleaning.
- 3) Plywood and waterproof sheet were laid on the roof truss for the prevention of the rain water intrusion.
- 4) The floor was finished by hardwood flooring.
- 5) Damaged parts of the interior wall were repainted with the same white plaster.
- 6) The ceiling was finished with weaving bamboo, the traditional building material of Bagan.
- 7) Lighting, air-conditioning equipment (for seminar room) were installed to improve the indoor environment.
- 8) Speakers, Wi-Fi system, projector, and microphones were equipped for the facility management.



Source: JICA Expert Team

Figure 4–33 BIC Under-Construction



Source: JICA Expert Team

Figure 4–34 BIC after Completion of the Work

The outline of the renovation work is as follows.

Table 4—3 Outline of the Renovation Work

Client	Ministry of Hotels and Tourism
Supervision	Japan International Cooperation Agency / JICA
Implementation	JICA Expert Team
Permissions	MOHT, MORAC, Mandalay Region Government, GAD, DOA
Design and C/S	JICA Expert Team
Contractor	Excellent Unity Co., Ltd.
Design Period	From January 2016 to January 2017
Construction Period	From February 2017 to June 2017 (5 months)
Site	West of Bagan Golden Palace, Old Bagan
Floor Area	180 sqm
Structure	Wooden
Finishing	Exterior: Floor: Ceramic tile, Wall: painting on mortar, Roof: Pottery Tiles (recycle) Interior: Floor: hardwood, Wall: painting on mortar, Ceiling: Bamboo weaving sheet. Furniture: Teak wood for doors, partition door and information counter
Lighting	LED downlight
Air-conditions	Individual air condition machines / 2 sets
Water Supply	Deep well. Pumping up to the elevated water tank.

Source: JICA Expert Team

(4) Verification

The following are three items to be evaluated.

1) Has renovation improved the historical landscape?

In order not to have a negative impact on the surrounding historical landscape, renovation work was carried out so as to keep the appearance of the existing structure as much as possible. The structure, interior and exterior materials before the construction had been aged and deterioration remarkably advanced due to the dirt and mold. By cleaning and repairing the damaged parts, the structure was revived as a new facility. As a result, the structure was regenerated while minimizing the negative impact on the surrounding environment.

2) Has renovation improved the existing structure?

The corroded or damaged structural members were replaced with the same material, and all the existing roof tiles were once removed and reused after cleaning one by one. As the existing elements were left as much as possible, it can be said that the renovation has been made carefully.

3) Has the performance of the facility improved?

Upon the implementation of the new facility, functions of the facility were renewed suitable for exhibition room, seminars and information provisioning. In addition, to satisfy the new functions, some equipment was improved such as installation of waterproofing sheet, installation of ceramic tile on the exterior terrace, installation of flooring inside the building, lighting equipment, audio-visual equipment etc. Furthermore, back-up facilities for facility management were improved such as securing water source by deep-well, renewal of water supply and sewage facilities, installation of generator, etc. It can be said that the performance of the facility was greatly improved.

(5) Lessons Learned

On June 23, 2017, at the same day that the renovation work was completed, some local residents held a demonstration against the BIC's opening. Since MOHT needed time to explain to the residents, the facility opening was postponed to October 1, although it was delivered from JICA Myanmar Office to MOHT at JCC on September 13. The reason of the demonstration was simply that the prior explanation to the residents or the involvement of the resident were not made sufficiently. Especially, Old Bagan is a place where there was a forced resident relocation in the past. Therefore, it was necessary to do more

explanation. On the other hand, the insufficient information sharing to the citizens about the facility caused misunderstandings and opposition.

In the future, it is essential to formulate and implement a development plan after exchanging adequate opinions with citizens through GAD of Nyaung U District in order to formulate projects such as infrastructure development in the preservation area. For that purpose, it is desirable to establish a framework for the project implementation such as holding public meetings in the planning implementation process to incorporate and hear the opinions from locals.

4.3.2 Development of Viewing Points (P2.2)

(1) Background

A main purpose of people traveling around the world is to leave themselves from everyday life, put themselves in a place with different cultures, and enjoy the scenery and historical sites. Nowadays where information and communication technologies are penetrating all over the world, we not only record these attractiveness in the pictures, but also upload and share images taken with digital cameras and smart phones to SNS (social networking service) such as Facebook, Instagram etc. This kind of behavior is also becoming one of the purposes of the trip. Although the style of the travel varies depending on the age, having an attractive viewpoint in the destination is an important point in attracting people as tourist attractions.

The activity that attracts people most in sightseeing in Bagan is to climb the Buddhism temples and pagoda and look at the sunset view. Among them, the Shwesantaw Stupa is the most popular spot where people can simultaneously see the sun falling on the mountainside across the Ayeyarwady River and the silhouette of the pagoda group overlapping it. According to the survey in this project, it was confirmed that there were nearly 900 tourists climbing up to the pagoda during the sunset time in the high season.

In January 2017, the State Counselor visited Bagan and issued a statement that was “In order to preserve the heritage in long term, it is inevitable to restrict climbing up the Buddhism temples and pagodas”. Following this, the Ministry of Religious Affairs and Culture is going to regulate the admission to the ruins to tourists in Bagan.

In order to protect heritage ruins that are the foundation of Bagan and conserve them for the next generation, it is essential to restrict the number of tourists who concentrate on specific temples and pagodas, and to disperse them to alternative places.

(2) Planning

This plan consists of two parts, one is to find attractive viewing points in Bagan, and another is to encourage tourists to go to many locations by distributing a map that show various viewing points.

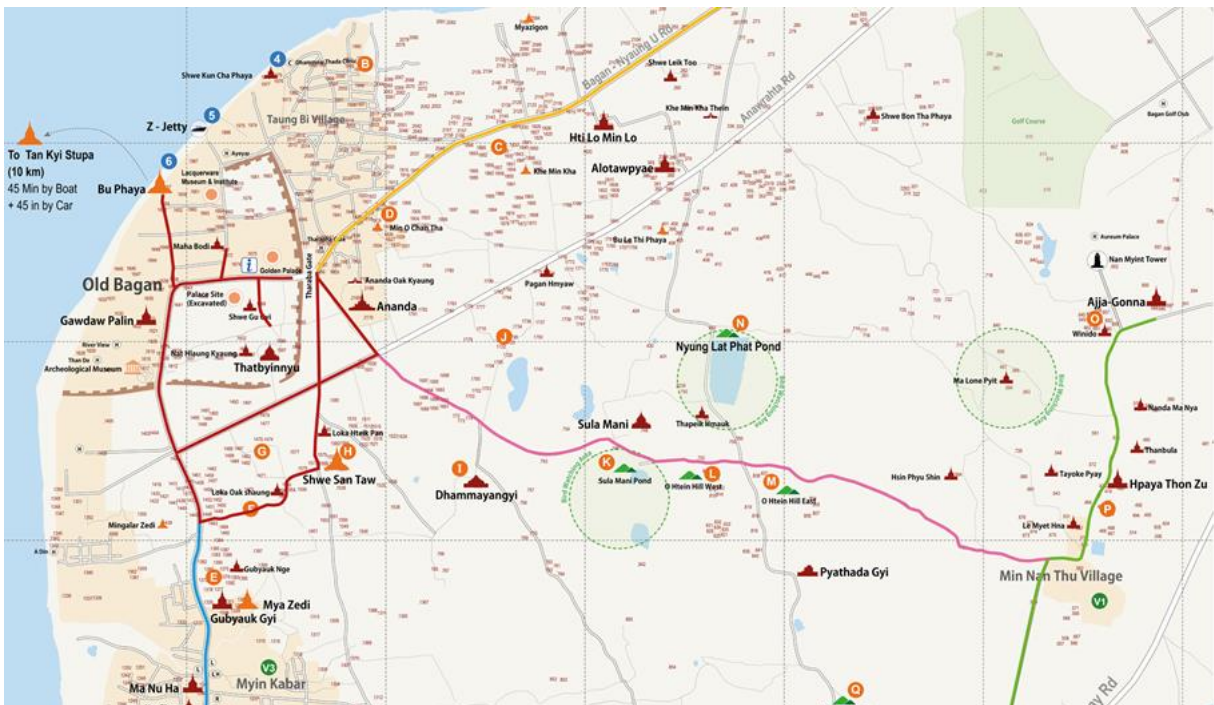
In the cultural heritage area, people can see a variety of landscapes including scenes of people’s activities such as traditional agriculture and village production, and also beautiful sunset viewed from the riverside.



Source: JICA Expert Team

Figure 4–35 Bagan’s Sceneries of Tangible and Intangible Heritage

On the other hand, in order to widely show these attractive viewing points to tourists, it is necessary to “visualize” the information on a map.



Source: JICA Expert Team

Figure 4–36 Provisional Concept of Map Showing the Attractive Viewing Points

By creating a map that consists of the contents described in Chapter 2, this is a way to test to influence people’s behavior to go to more destination in Bagan.

(3) Implementation

The objectives of the pilot projects were: 1) discovery of viewing points and 2) mapping. To discover attractive viewing points, on-site surveys were conducted with cooperation by working group members who knew the place well. Through some surveys, diverse landscapes of Bagan were found not only sceneries of temples and pagodas, but also unnoticed views from riverside. For creating a folding map on A2 paper, JET could make a precise map on one side based on the GIS data provided by DOA, and photos and texts on another side to show various attractions of Bagan.

(4) Verification

The three items to be verified in this program are as follows.

1) Has a plan viewing point considered the historical landscape?

The idea of viewing mound was proposed in this project that is something in harmony with the historical environment. However, it was not implemented because of the result of HIA that suggested the possibility of disturbance to buried cultural property. The revised aim was to discover viewing points for map creation did not have negative impacts on historical landscape.

2) Have tourists concentrating on specific temples and pagodas been reduced?

In 2017, Mandalay Region Government constructed three new viewing mounds by its own budget in the cultural heritage area. As new viewing points are formed, it is expected that tourists will be dispersed to many temples or pagodas, which also is expected to contribute to the protection of monuments.

(5) Lessons Learned

The behavior of tourists climbing up certain pagodas is a matter to be reviewed from the viewpoint of heritage protection. Three viewing points by Mandalay Region Government should be evaluated as a plan to give maximum effect through minimum intervention as to solve the problem. However, it is strongly desired that the projects should respect advice from international organizations.

Also, making the map took time to produce in order to reflect many comments received from working group members and counterparts etc. The data created and printed through this pilot project will be shared with MOHT, and tourism operators such as hotels and restaurant, and expected to become a standard map of Bagan.

4.3.3 Development of Tourist Routes (P2.3)

(1) Background

Horse-carts and bicycles have been main means of tourists' transportation in the past in Bagan, but E-bikes use is growing in recent years. To travel around the cultural heritage area where monuments are scattered, E-bike, which are cheap and provide a high degree of freedom, are popular among individual travelers. This trend will continue in the future. However, most of the access roads to the monuments are unpaved roads, which means dusty in the dry season, and muddy in in the rainy season, and this causes inconvenience to tourists.

In order to secure the safety of tourists and to provide more comfortable mobile environment, it is required to improve some of the roads in this area.

(2) Planning

This plan consists of two components, one is to upgrade the inner road in the cultural heritage area, and another is to remove the bush along the route.

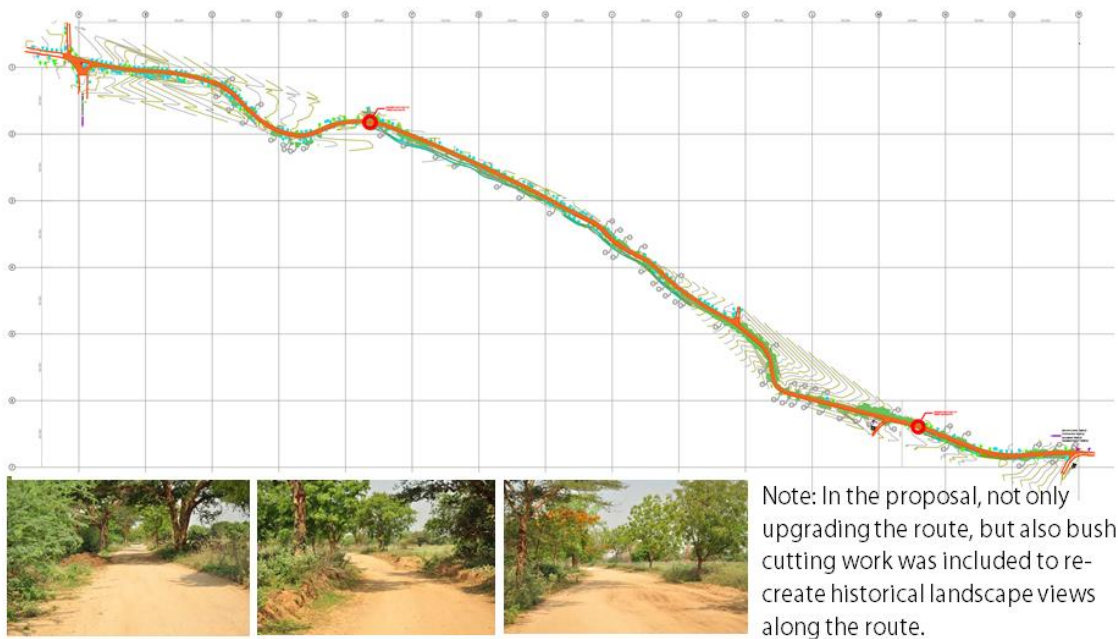
Regarding upgrading the road, it is necessary to comply with the existing laws and regulations. According to the regulations by MORAC (Instruction Order No.2, issued on August 1, 2014) in the case of implementation of the road in the relevant area, there are clauses as follows.

- Excavation should be within 1 ft. (0.30 m)

- The width should not exceed 15 ft. (4.50 m)
- The distance from the monument should be more than 90 ft. (27.4 m)
- The road should be in harmony with the historical landscape.
- The finishing by concrete and asphalt are not allowed.

The proposal had to be planned to fulfill these provisions.

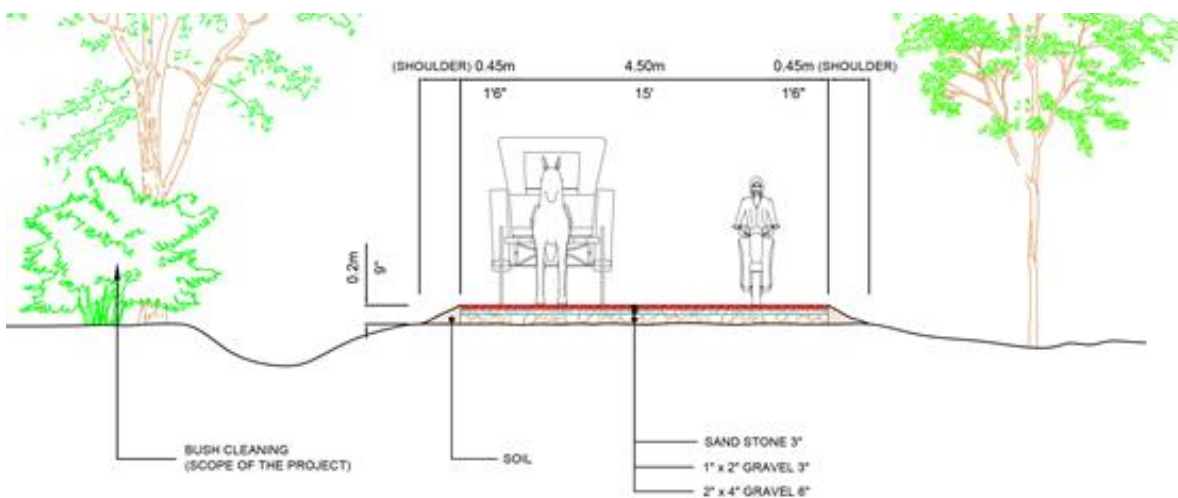
The target route is a section in the cultural heritage area, 1.6 km from the Bei Maung intersection to Min Nan Thu Village, to upgrade the existing unpaved roads to gravel roads. The alignment of the routes is assumed to follow the existing one shown below.



Source: JICA Expert Team

Figure 4–37 Alignment of the Target Route

Refer to the specification that was already constructed on the west side of Ananda Temple, cross section of the road was defined with a width of 15 ft. (4.5 m) and 1.5 ft. (0.45 m) as shown in below.



Source: JICA Expert Team

Figure 4–38 Standard Section of the Tourist Route

On the other hand, removal of the bush along the road is also common to the pilot project P2.2. It aims to create viewing points along the road to allow seeing the wonderful historical landscape in the surroundings.

By improving road upgrades and removing the bushes along the road together, improvement of the comfort and attraction for tourists are expected.

(3) Implementation

Implementation as part of this project was cancelled due to the delay in acquiring approval, and due to the demonstration by some citizens against the opening of Bagan Information Center on June 23, 2017. However, the plan was submitted to GAD, Nyaung U District, and implementation by the local government is expected.

Regarding the removal of the bushes, under the instruction by the district administrator, private enterprise employees who are not working during the rainy season are carrying out the removal of them every Friday as a part of the volunteer activities.

(4) Verification

The three items to be verified in this plan are as follows.

1) Has improved tourist routes considered the historical landscape?

The proposal in this pilot project involved the method of covering the surface with soil after compacting the gravel as a specification considering the historical landscape. A route (8 m in width and 700 m in length) on the western side of Ananda Temple was constructed on January 2017 by GAD. Also, the solution made no difference between existing earthen road in color tone and texture. It can be said that it is a landscape friendly solution.

2) Have safety and comfort for the travel environment of tourists been secured?

On the route on western side of Ananda Temple, since there was frequent driving by large vehicles (45 seat large buses), some road surface collapsed during the rainy season. It is thought that this was due to insufficient compaction to the road-bed by crushed stones during the construction. In order to ensure the safety and comfort of vehicles, it is essential to do the compaction work of the road-bed carefully.

3) Were sustainable construction methods possible with locally procurable materials?

The main materials consist of crushed stone of different sizes and soil, and can be easily procured locally. From the point of production, it is considered to be sustainable because of material procurement and using local technology. On the other hand, in the compaction work, consideration is necessary so as not to transmit vibration to archaeological structures.

(5) Lessons Learned

Hoping for a synergistic effect with other pilot projects, and while there were various stakeholders, the decision on the target route was delayed significantly. As a result, the project was forced to cancel the implementation. Fortunately, since similar specifications were implemented in the same area, it was decided to change the verification by referring to it. By monitoring the existing project, it is expected that future construction will be improved.

4.3.4 Public Signage System (P2.4)

(1) Background

One of Bagan's main attraction is the historical landscape that a thousand years old. A way to freely travel around the scattered temples and pagodas on foot (using E-bike between sites), while viewing the landscape as a background, is becoming the main way of travel for individual tourists visiting Bagan.

However, in the cultural heritage area, the direction signs for guiding tourists to the destination was one that was inconvenient for tourists such as lack of English notation or lack of description of distance. It is required to improve the environment as a tourism place by appropriately arranging unified signage

through the area.

(2) Planning

As a part of environmental improvement as a tourist destination in Bagan, this is a plan to formulate guidelines for signage planning and implement some installation of signs based on it. Having a basic guidance function, it aims to develop a signage reflecting the uniqueness of Bagan. Here, three types of signage were proposed, direction sign, building name sign and building information sign. The direction sign is for guiding the tourist to the destination appropriately, and it is installed at the intersection of the road. Building name sign and information sign are installed in front of each monument site.

As signage is to be installed in the cultural heritage area, policies concerning procurement, production and design were defined as follows.

1) Use materials that can be procured locally

From the viewpoint of material procurement, teak wood which is easy to procure in the surrounding area and durable and easy to process shall be used.

2) Collaborate with carpenters with traditional wood carving skills

From the production and processing point of view, establish a local production system collaborating with craftworkers who have a high wood carving skill to produce Bagan's traditional wood carving relief.

3) Unify design and harmonize with historical environment

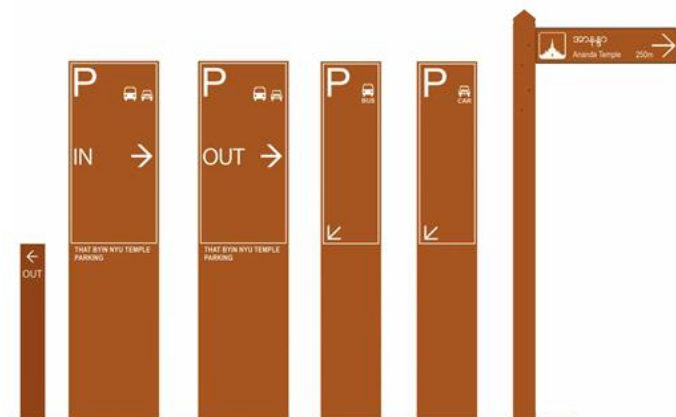
In order to make a sign with good visibility, readable fonts, bilingual words in English and Myanmar are adopted. In addition, the whole sign design shall be in harmony with the historical landscape



Source: JICA Expert Team

Figure 4-39 Basic Concepts of Signage System

While meeting these basic policies, it aims to make it possible to carry out all works from procurement to installation only in Bagan.



Source: JICA Expert Team

Figure 4-40 Design of the Signage

(3) Implementation

From June 2016 to September 2017, JET installed 65 directional signs in cultural heritage area and 5 parking signs at Thabyinnyu south parking. Before the installation, current condition survey was conducted beforehand and all the existing signage was replaced with the new one.

For the production, 1) DOA of MORAC did spelling check of Myanmar and English for the name of each monument, 2) JET created a draft of sign design, and 3) wood carving carpenter procured, produce and install the signage. As for the installation, DOA witnessed beforehand and after to check for the presence of buried objects.



Source: JICA Expert Team

Figure 4-41 Installed Signage

Together with the installation of signage, JET cooperating with the working group members prepared a guideline for signage for the cultural heritage site. In September 2017, it was submitted to MORAC and, was handed over for future.

(4) Verification

The three items to be verified in this project are as follows.

1) Has it been possible to formulate and install highly visible signage by the guidelines?

For the definition of the final design, it is required that the design be high visibility while harmonizing with the historical landscape. By arranging letters and pictograms in white while setting the teak material as a background color, the contrast was clarified and the visibility was improved. By adopting pictograms, signage that is easy to grasp intuitively was considered not only by the information by letters.

2) Has a unified signage system been built?

By using the same design code for different types of signs, a signage system for this region could be built. From now on, it is expected that the same kind of signature will be installed continuously based on the guidelines.

3) Has signage created a sustainable production system whereby production can be continued locally?

Local production system from procurement to production and installation were established as a process of product of “Made in Bagan” which made maximum use of the local material and human resources.

That is, procurement of highly durable materials available locally, processing by skilled carpenters with local traditional skills, and environmentally harmonized design were established.

(5) Lessons Learned

By using traditional and unique techniques of Bagan to improve the environment in cultural heritage area, a unique mechanism of this region was created. It was confirmed that the utilization of local material resources and human resources are the basis of sustainable environmental formation.

In the future, it is expected that the governmental body should implement and continuously develop this signage project as a part of the environmental improvement of the cultural heritage area.

4.3.5 Outdoor Advertisement Control (P2.5)

(1) Background

The historical landscape consisting of thousands of temples and pagodas is the biggest value of Bagan. The landscape that has been continuing for nearly a thousand years which is regarded as a universal value in mankind, is one of the reasons for selecting World Heritage nomination.

However, in recent years, that landscape is on the verge of crisis due to the trend of commercialization.

Outdoor advertisement that interfere the historical landscape is randomly installed along the road, intersections, the places where there are gaps in the cultural heritage area, is an eyesore that gives visual negative impact to the environment.

This degrades the value of the landscape of this place significantly. Township Development Committee of Nyaung U manages 306 outdoor advertisement inside and outside the urban areas and revenue and gained tax revenue, but the landscape regulation has not been done, and it is the present situation that it is a lawless zone.

The outdoor advertisement is the “visual impact” that appeared in recent years alters the landscape that has been unchanged for a thousand years in a negative direction. Hence, appropriate regulation is necessary to protect the landscape.

Maintaining the historical landscape towards the future is indispensable to preserve the wonderful value of Bagan, and it is strongly required to take measures including enforcement.

(2) Planning

For the preservation of the historical landscape, it is ideal to remove the visual negative impacts and bring it closer to what it was like in the past. For that, it is necessary to remove the current outdoor advertisement. In order to implement the removal work, proposal to GAD to carry out the removal activities is needed.

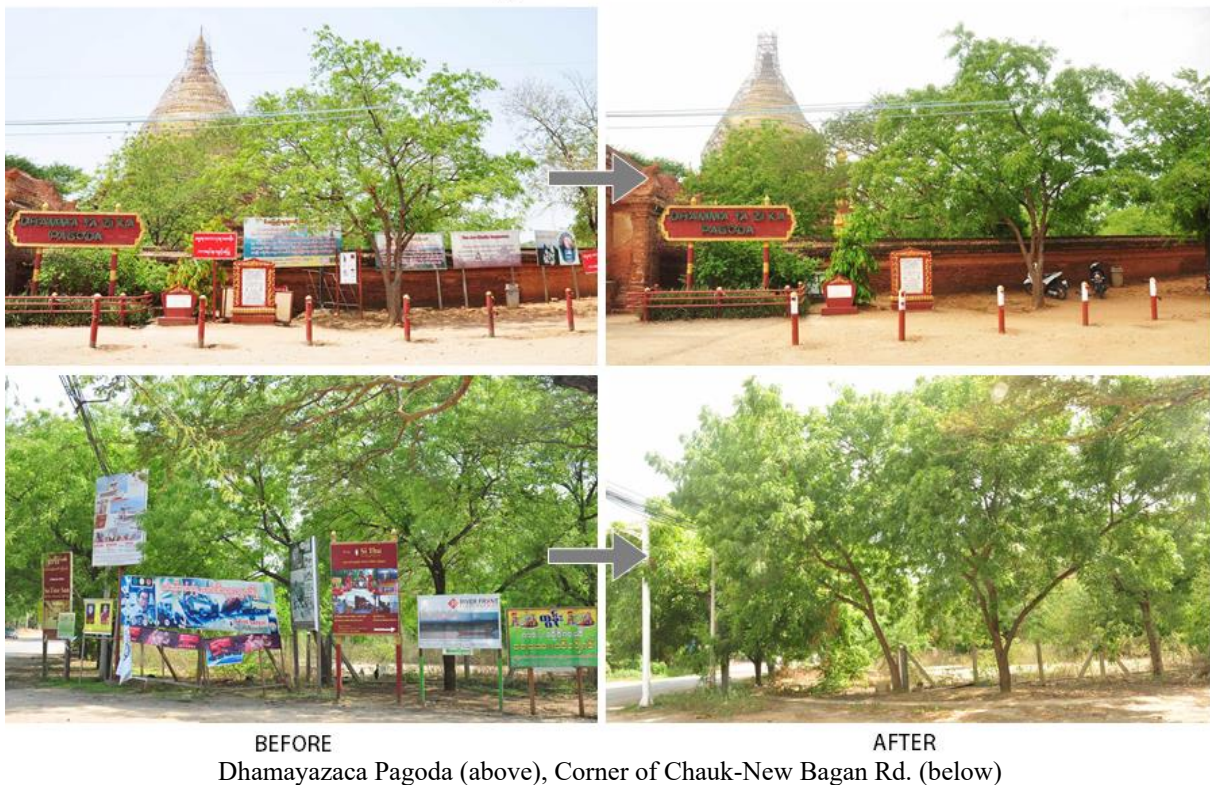
(3) Implementation

JET together with working group members discussed repeatedly and drafted a guideline on advertisement regulation in the cultural heritage area, and proposed to GAD of Nyaung U.

In May 2017, GAD established a committee for the advertisement regulation. The members consist of TDC, Bagan branch of MOC, DOA of MORAC, and some private sector firm.

By the establishment of the committee, the patrol of the outdoor advertisement was started to be conducted in the same month targeting 1) outdoor advertisement not registered in TDC, 2) public advertisement in front of monuments, and 3) temporary advertisement affixed to trees.

In the future, the committee set up in GAD will regularly remove inappropriate outdoor advertisement.



Source: JICA Expert Team

Figure 4-42 Before and After Relocating the Outdoor Advertisement

(4) Verification

The two items to be verified in this project are as follows.

1) Was the regulation and model of outdoor advertisement proposed by guidelines?

To formulate the guideline (draft), JET in collaboration with working group members mainly from private sectors analyzed the current situation and made proposals of area regulation and the guideline.

2) Was the guideline proposed to the local government used for implementing landscape regulations?

For the implementation of landscape regulations, the administration department has established a regulatory committee within the department including private sectors' peoples. The committee has started their activities such as removal work based on the policy of the guidelines, and it is expected that the committee will become a main body to implement the regulatory activities.

(5) Lessons Learned

Implementation of outdoor advertisement control is largely due to regional administration, but it is indispensable for private business operators to understand the importance of landscape improvement.

In order to maintain the landscape with excellent uniqueness, not only that the administration implements unilateral removal, but also understanding and value of the historical landscape to private business is essential.

4.3.6 Visitor Management (P2.6)

(1) Background

It is important for heritage tourism destination to facilitate the movement and flow of the tourists.

In the main archaeological sites in Bagan, the quality as a tourism spot was remarkably reduced (see Chapter 3) as a result of the inadequate maintenance of the surrounding environment of the monuments. Large buses and passenger cars parked randomly in the vicinity of the compound, disturb the smooth flow, and block the view of the monument.

As an environment improvement suitable for the candidate site of the World Heritage Site, it is desired to promote smooth movement of tourists, encourage the preservation of the landscape of the heritage site, and improve the value of it.

(2) Planning

Since this project targets the major tourism spots in Bagan, improvement plans for transportation and parking were proposed for the area around Ananda Temple and Old Bagan and its surrounding. By arranging the flow of traffic around the monument, it aims to improve the environment around the monument not only to have smooth flow of vehicles and people, but also to secure the view of the monument. In the plan, keeping in mind the protection of heritage monuments, consideration was given to minimize the negative impacts on the monuments environment. In the planning of the traffic around Old Bagan, reducing the traffic volume was targeted in cooperation with the traffic plan (P1-6). In the planning of the parking lots, with the cooperation by GAD, the parking areas were proposed based on the site under the jurisdiction of the government. The plan of parking lot and traffic regulation is as follows.



Source: JICA Expert Team

Figure 4—43 Proposal Plan for the Parking System in Old Bagan and Surrounding

This pilot project complements the future transportation plan (P1.6) to the whole Bagan heritage conservation area.

Note: Since parking lots in cultural heritage area are significantly absent, GAD is planning to upgrade the parking at Thabyinnyu Temple, Htilominlo Temple, Dhammayazaka Temple and so on. These implementation work is funded by donations from disaster recovery after the earthquake in August 2016. The pilot project supports the implementation of the work.

(3) Implementation

GAD is the executing agency of parking lot improvement in the cultural heritage area. JICA Expert Team proposed a parking plan from February to September 2017 for 5 temples, 1) Ananda Temple south, 2) Thabyinnyu Temple south, 3) Htilominlo Temple north, 4) Gawdawpalin Temple, and 5) Dhammayazaka Temple. To formulate the plan, the following items were considered: 1) setting parking lots for large and small vehicles, 2) securing smooth flow and 3) arranging trees to block sunlight and give shade appropriately. After submitting proposal plan to GAD, they began to implement it from August 2107.



Thabyinnyu Temple / Dhammayazaka Temple / Parking Plan of Thabyinnyu Temple South
Source: JICA Expert Team

Figure 4—44 Planning of the Parking for Two Temples

(4) Verification

The two items to be verified in this project are as follows.

1) Has it been possible to propose improvement plan around the monuments?

From February to September 2017, parking plans for 5 temples to be carried out by GAD were proposed.

2) Has the movement and flow in the monument become smooth by the plan and its implementation?

For the implementation of the parking at the south of Thabyinnyu Temple, JET supported not only for planning, but also for the implementation. After the execution of the plan, it has been observed that smoother of vehicle flow is being planned such as parking the vehicles at the designated position. It is necessary to continue to monitor for any problems.

(5) Lessons Learned

JET supported to propose five parking plans such as Thabyinnyu and Htilominlo Temple and GAD implemented based on the plans. All the proposal were ideas to solve the urgent parking shortage problem.

In the future, it is necessary to promote development plan in step wise manner, consistent with future vision of transportation plan in Bagan.

4.4 Output 3: Tourism Human Resources Development

The two (2) pilot projects were implemented to verify strategic measures for strengthening on tourism human resource development in Bagan and to identify lessons learned for preparation of master plan on tourism development in Bagan.

4.4.1 Tourism Human Resources Development (P3.1)

(1) Background

According to the statistics of MOHT, foreign tourist arrivals to Bagan continues to increase year by year and has reached 284 thousand in 2016. Along with this, the problem emerging for the tourism stakeholders in Bagan (hotel and food & beverage industry, tourist guide, tour operator, other groups directly and indirectly benefiting from tourism) is capacity of human resources that whether stakeholders in Bagan can train human resources to acquire knowledge, skill and know-how to accommodate increasing demand of customer needs with maintaining customer satisfaction, and to further develop human resources. In other words, "Develop a training program for training professionals in tourism industry to maintain and continue towards the future in Bagan" is an urgent issue for tourism human resources development as well as Working Group 3.

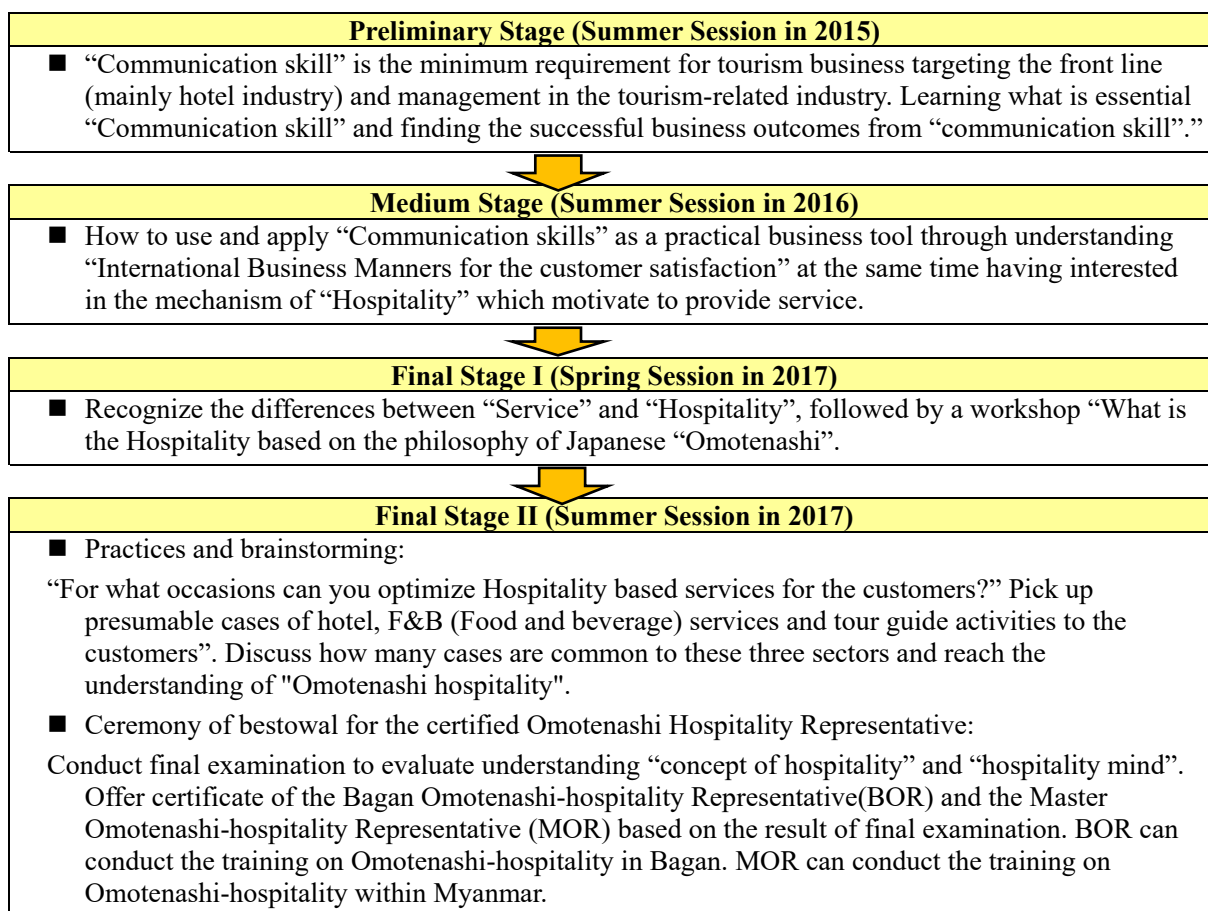
Following three elements, "Communication skills", "Knowledge about good service" and "Understanding hospitality as final goal" are common needs for HRD of tourism industry. As for the Pilot Project for Tourism Human Resources Development (HRD), contents of training programs for Tourism HRD is mainly focus on these elements which will contribute to support tourism HRD in Bagan.

(2) Planning

In this pilot project, the following points were verified to examine the strategy of tourism human resource development in Bagan

- **Was the capacity of local tourism resources corresponding to international tourist destination strengthened?**
- **Was there increased opportunity to strengthening tourism human resources and institutional building?**

To verify the above-mentioned points, to conduct this pilot project, the implementation plan of the training, designed for the tourism industry people in Bagan was prepared. Implementation was divided into several stages according to the gradual learning methods prepared by Japanese experts.



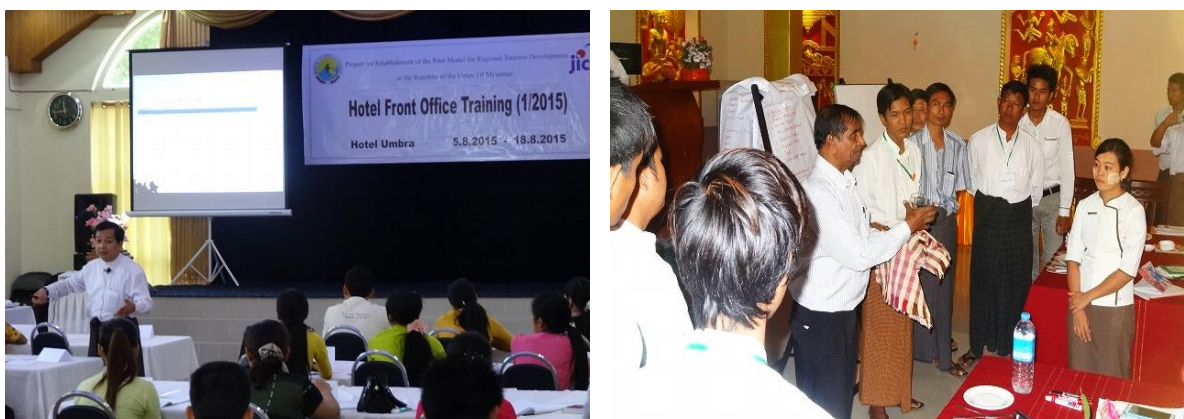
Source: JICA Expert Team

(3) Implementation

Main activities conducted to verify the above-mentioned points are follows.

1) Preliminary Stage in 2015 : ”Communication Skills”

The training program was planned and conducted for targeting hotel front office, F&B service and licensed tour guide separately. Training programs were focusing on learning communication skills for customer service.



Source: JICA Expert Team

Figure 4—45 Hotel Front Office Training (Left), Food & Beverage Service Training (Right)

2) Medium Stage in 2016: “Communication Skills to Business Manners”

All participants from hotel, F&B and tour guide was together within one class in order to understand and recognize perspective from other sectors in tourism industry, like “We all are in the same boat”.

Reviewed the previous session “Communication Skills” and then moved onto “International Business Manners” focused on the inbound tourism business.



Source: JICA Expert Team

Figure 4–46 International Business Manner Training (Hospitality Communication)

3) Final Stage I in 2017: Hospitality → the ‘Omotenashi’ Hospitality

Made sure the deep understanding of Hospitality and its way of thinking, then moved onto understanding of the Japanese “Omotenashi” based hospitality. At this stage, those well-motivated participants decided to establish their own organization, to maintain what they have learned and to deliver what they developed to the public, called “Bagan Hospitality Association” (BHA).



Source: JICA Expert Team

Figure 4–47 Group Work in the Omotenashi-Hospitality Training

4) Final Stage II in 2017: The Omotenashi-Hospitality Representatives Training and Examination for Certification

Series of the work shop sessions have been conducted by the Japanese expert aiming at the participants’ deeper understandings about the “Omotenashi” based hospitality by using many role-plays, case studies, brain storming for those cases for better visualization. Participants kept exploring the practices on themselves by using a series of practices and brain storming to firmly understand what the “Omotenashi” spirit means, in order to develop their own “Omotenashi”-Hospitality, “The Bagan Style”.

The Final Examination was conducted to get the participants certified for the “Omotnashi-Hospitality”. As a result, none of the participants failed the examination and all participants received certification of the “Omotenashi-hospitality”.



Source: JICA Expert Team

Figure 4—48 Presentation by Participants in the Training (Left), Ceremony of Bestowal for the Certified “Omotenashi-Hospitality” (Right)

The certificate is called “Boarding Pass” and also it used as an identification card. It got highly valued among them.



Source: JICA Expert Team

Figure 4—49 “Omotenashi Hospitality” Qualification Certificate

(4) Verification

Through the pilot project, the following points were verified for strengthening on tourism human resource development in Bagan.

1) Was the capacity of local tourism resources corresponding to international tourist destination strengthened?

a) Hotel front office, Food & Beverage service, and Tourist guide training

- There was no tourism business training opportunity for manager and supervisor level in Bagan. Training programs such as communication skill, international business manners and Japanese “Omotenashi Hospitality” were effective and indispensable for human resources development training in terms of development of Bagan as international tourist destination. The training program provided in the pilot project was highly valued by most trainees.
- Most of trainees shared knowledge, skill and experience acquired through the training

program with colleagues and subordinates at their work after the training. Knowledge, skill and experience were utilized for human resources training of staff and improvement of acceptance by tourists.

- Training session for site guides at UNESCO World Heritage site provided in the guide training program was very effective training in preparation of World Heritage nomination for Bagan. Tourist guides who participated the session are practicing knowledge and skill gained in the training session at their field work.

b) Omotenashi-Hospitality Training

- Omotenashi-Hospitality training can be utilized and applied for tourism industry in general. Trainees from hotel, restaurant and tourist guide were able to establish cooperative relationships and clarify their own responsibility among various tourism business in the tourism industry through discussion at the joint training.
- Trainees shared and instructed knowledge and skill on “Omotenashi, hospitality and business manners” learned from the training program with colleagues and subordinates at their work place. Many colleagues and subordinates have started practicing the knowledge and skill for appealing to foreign tourists.

2) Was the opportunity to strengthening tourism human resources and institutional building increased?

a) Hotel front office, Food & Beverage service, and Tourist guide training

- Trainees increased opportunity to become trainer and lecturer for tourism human resource training program organized by MOHT, relevant tourism association and workplace.

b) Omotenashi-Hospitality Training

- Successfully achieved to get them kept highly motivated with updated and competitive knowledge/experiences about hospitality provided by the Japanese experts. Bagan Hospitality Association (BHA) was established by those people spontaneously to maintain and develop what they learned from the programs in March 2017
- BHA started delivering HRD training for tourism business applying what they learned though the training in other towns such as Pakkoku near Bagan by themselves.

(5) Lessons Learned

Major lessons learned through the pilot project are as follows.

- It appears to be imperative to start next phase project from next year in order to maintain the “Omotenashi” based protocol in Bagan, and then develop the Omotenashi based hospitality for their own unique hospitality method “Bagan Style”. Fortunately, we have newly built facility “Bagan Information Center” (BIC) and it could fully be optimized to conduct the next phase project.

(6) Proposal for Priority Project

Through the implementation of this Pilot Project, Bagan Hospitality Association was established. In order to officially introduce and promote certification system of “Omotenashi-Hospitality, and establish “Bagan style” of hospitality, it is necessary to have further training on "Omotenashi-hospitality" and to conduct training of lecturers. Therefore, “3-1: Bagan Tourism Institute (BTI)” including “Omotenashi-hospitality” training and training of lecturers is proposed as a priority project in the sector of tourism human resources development and local community. Bagan is scheduled to be registered as a World Heritage site in 2019. There is a demand for site guides in Bagan and it will be required to train site guides specific for the World cultural heritage site. “Cultural heritage site guide” training session was conduct as part of tour guide training program in the Pilot Project in 2015. Many requests to have the opportunity of the site guide training from tour guides participated in the training. For these reasons, “3-

4: Training Program for Cultural Heritage Site Guide” is also proposed as a priority project in the sector of tourism human resources development and local community

4.4.2 Public Awareness Campaign (P3.2)

(1) Background

Landscape and environment of tourist sites in Bagan have been degraded and are having serious issue such as illegal dumping of garbage, inappropriate management of garbage with increasing the number of tourists in every year. This factor gives a negative image of the tourist site for foreign tourists going to Bagan.

In Bagan, many local residents are engaged in various tourism businesses, such as hotels, restaurants, taxis, sightseeing guides, crafts making, etc. However, manners and hospitality to foreign tourists by local residents is not developed enough. There are many valuable historical and cultural heritage sites in Bagan. Currently, the Ministry of Religious Affairs and Culture (MORAC) is preparing for registration of Bagan as UNESCO World Heritage site, although local residents do not have sufficient knowledge and awareness on the importance of world heritage registration, cultural heritage and conservation of heritage.

In order to strengthen operation and management, promote tourism development as well as to benefit the regional economy for Bagan as a sustainable tourist destination, it is necessary to conduct public awareness activities for enhancement of correct recognition and understanding about tourism, heritage and environment conservation, manners for foreign tourists and hospitality, and to encouragement of environmental conservation and beautification in voluntary and sustainable manner.

(2) Planning

In this pilot project, the following points were verified to examine the strategy of tourism human resource development in Bagan

- **Was awareness of local people related to tourism environment, manner to receiving tourist, heritage conservation improved?**
- **Were opportunities for participation and involvement of voluntary activities by local people increased?**

To verify the above-mentioned points, to conduct this pilot project, implementation plans were prepared for 1) public awareness seminar, 2) mini-public awareness workshop and 3) clean up campaign as follows.

Plan of activity contents for action plan, selection of targets for activities, schedule and action plan for this pilot project were prepared by JICA Experts in charge of Output 3 (Tourism human resources development) in cooperation with members of WG3. For the preparation of activity plan for the public awareness campaign, a baseline survey (February - March 2015) was conducted to identify information on tourism development, tourism industry in Bagan, consciousness of environment and heritage conservation, problems and needs. Collected information and analyzed results from the baseline survey was reference for the preparation of the action plan of public awareness campaign.

Presentation materials, brochures to distribute for participants, T-shirts and caps with printed logo and messages for activities were created for each activity in the pilot project.

Table 4—4 Outline of Activities in Public Awareness Campaign

Activity	Content	Target	Date, location (No. of activity)
Public awareness seminar	<ul style="list-style-type: none"> - Lectures: 1) History of heritage in Bagan, 2) Hospitality to receive tourists, 3) Improvement and creation of food menu and souvenir for development of Bagan brand - Question and answer 	Public and private sector, local residents	June 7-8, 2015, Hall at Bagan Lacquerware College (2 days)
Mini-public awareness workshop	<ul style="list-style-type: none"> - Lectures: 1) History of heritage in Bagan, 2) Hospitality to receive tourists, 3) Improvement and creation of food menu and souvenir for development of Bagan brand, 4) Conservation of heritage and beautification - Question and answer 	Students of Basic Education Middle school, High school, villagers	September 26-27, 2015, October 25-26, 2016, schools, villages (7 times)
Clean up campaign	<ul style="list-style-type: none"> - Clean up activity - Brief guidance of awareness on environment and beautification 	Villagers in Bagan	October 14, 2015, February 19-20, 2016 (2 times)
Awarding ceremony of cleaning campaign	<ul style="list-style-type: none"> - Monitoring report on clean up activities by village in Bagan, - Awarding ceremony 	Villagers in Bagan	October 19, 2016, Town hall, Nyaung U General Administration Office

Source: JICA Expert Team

(3) Implementation

Main activities conducted to verify the above-mentioned points are follows.

1) Public Awareness Seminar

“Edification Seminar” to be launched for the first activity as public awareness seminar boosted their motivation. The seminar was held for two days. The 1st day was targeting for tourism business operators, and local people. The 2nd day was targeting government offices and school teachers. Lectures in the seminar covered three topics (shown below) with strong emphasis for public awareness. The total number of participants was about 200.

- History and conservation of heritage in Bagan (MORAC)
- Importance of hospitality, skills, knowledge and strategy to welcome tourists (Kandawgy Hotel and Tourism Training School)
- How to improve and create foods and souvenirs for creating Bagan brand (Myanmar Restaurant Association)

The lectures were conducted by MORAC, Kandawgy Hotel and Tourism Training School in Yangon and Myanmar Restaurant Association (Bagan Zone). After the lecture, there was time for questions and answers for participants.

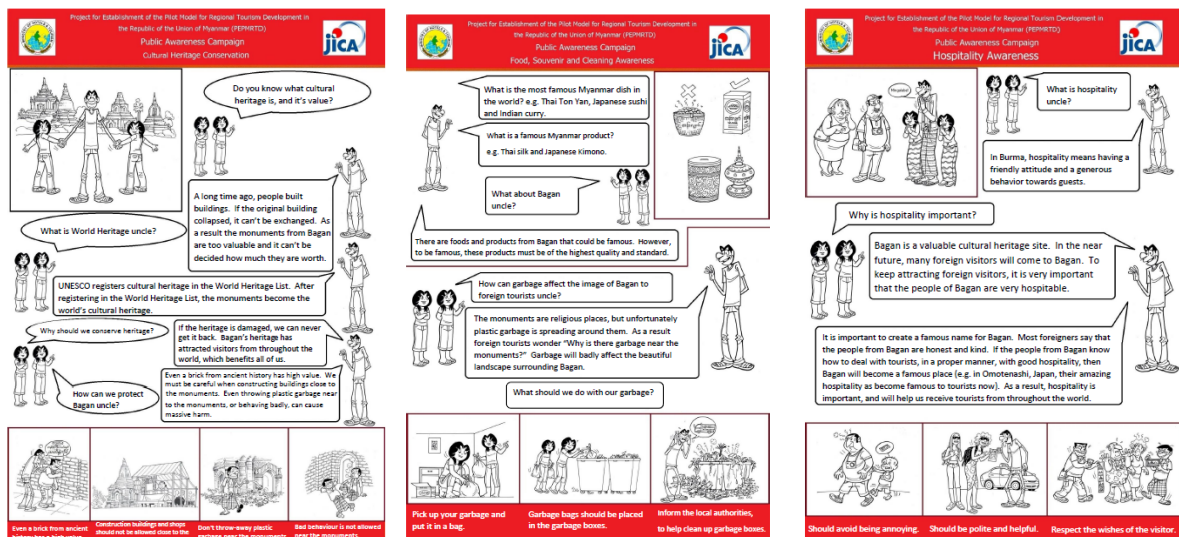


Source: JICA Expert Team

Figure 4–50 Public Awareness Seminar

Before the seminar, three leaflets covering the themes of public awareness were prepared in English and Myanmar) and distributed at the seminar

- Conservation of cultural heritage
- Food, souvenir, cleaning
- Hospitality



Source: JICA Expert Team

Figure 4–51 Public Awareness leaflet for Local People (English version)

2) Mini-Public Awareness Workshop

The first mini-public awareness workshop was held at Min Nan Thu Village and two Basic Education High School in Bagan (Nyaung U, New Bagan) on September 26-27, 2015. The number of participants was 104 for village and 337 for high school, in total 411.

The workshop was conducted by JICA experts and WG members using presentation materials. The lecture themes at the workshop were as follows.

- Conservation of heritage in Bagan
- Importance of hospitality to welcome tourists
- Improvement and creation of local products
- Enhancement of consciousness on environment and beautification of tourist sites

The second mini-public awareness workshop was held at three Basic Education Middle Schools (Wat Kyi Inn Village, West Pwa Saw village Taung, and Bi Village) and Basic Education High School (Myingabar Village) in Bagan on October 25-26, 2016. The number of participants was 350 for Basic Education Middle School and 195 for Basic Education High School, in total 545.

The lecture theme of the workshop was the same as previous workshop. Updated and modified presentation materials were used at the workshop.

In the workshop, a newly developed version of public awareness brochure in Myanmar was distributed to students.



Source: JICA Expert Team

Figure 4—52 Public Awareness Brochure (English version)

3) Clean up Campaign

The first clean up campaign was carried out at three areas (Old Bagan, Myingabar Village and Min Nan Thu Village) with total of 130 participants on October 14, 2015. Before the clean up activity, a ceremony for the clean up campaign was held in the open space in front of Ananda Temple. The representative of WG3 explained the objective of the campaign and encouraged participants of villagers to conduct voluntary cleaning activity. In the clean up campaign, JICA Project Team provided T-shirts and caps with printed logos JICA and the Project logo and a message. The necessity things for cleaning of things such as plastic bags, baskets, brooms, etc. was explained to the participants, and clean up activities were carried out.



Source: JICA Expert Team

Figure 4—53 Ceremony for the Clean up Campaign (Left), Cleaning Activity near the Ananda Temple (Right)

The 2nd clean up campaign was carried out at 6 villages in Bagan (Myingabar, Wet Kyi Inn, Taung Bi, Min Nan Thu, West Pwa Saw, Nat Kyot Aing). The number of participants was 400. In each village, members of WG 3 explained the objective of the clean up campaign for the previous time and this time at the opening speech, and encouraged to conduct voluntary clean up activities by villagers.



Source: JICA Expert Team

Figure 4—54 Clean up Activities at West Pwa Saw Village (Left), Clean up Activities at Taung Bi Village (Right)

4) Periodical Monitoring of Clean up Activities after the Clean up Campaign and Awards Ceremony in 2016

After the clean up campaign, monitoring of cleaning activities by villagers was conducted from May 2015 about once every one to two months by members of WG3 for 6 villages in order to check the status of voluntary and regular clean up activities at each village. In the monitoring, record of clean up activities, organizing cleaning system, management of garbage, and condition of sanitary environment were checked and evaluated. In particular, the points to be checked were that clean up activities in each village were conducted and managed by volunteers organized by the committee. In each village, there was no place for garbage collection and incineration. In the pilot project, small scale garbage dumping facility was constructed for the six target villages. Maintenance of the brick and concrete garbage dumping facility is the responsibility of the village.



Source: JICA Expert Team

Figure 4—55 Garbage Dumping Facility (Left), Monitoring by Members of WG3 at West Pwa Saw Village (Right)

Cleaning Award ceremony was held at the hall of General Administration Department, Nyaung U District in order to enhance voluntary and regular cleaning and beautification activities by village on

October 9, 2016 based on the results of monitoring by WG members. Representatives from project-related government organizations, tourism-related organizations, local volunteer organizations and villagers from the six target villages were invited to the awards ceremony. Before the awards ceremony, JICA Expert Team and representative from WG 3 explained overall activities of the Project in brief and status of clean up and beautification activities of each village based on the monitoring results. After that the awards were given to villages participating in clean up activities.



Source: JICA Expert Team

Figure 4—56 Reporting the Status of Clean up and Beautification Activities in Each Village by WG Member (Left), Villages Participating the Cleaning Award Ceremony (Right)



Source: JICA Expert Team

Figure 4—57 Giving Trophy to the Winner (Left), Participants at the Cleaning Awards Ceremony (Right)

5) Periodic Monitoring of Clean up and Beautification Activities in Villages in 2017

In 2017 prior to getting into the final evaluations of the public awareness of the 6 designated villages, WG members went to each site without notification and assessed the real status of the site. What they found was that most of the villagers were already recognizing the value of the “Keep Clean Environment”. But some villages were suffering from the “Over-limit” garbage dumping.

JICA Expert and members of WG3 held meetings with those village management people following week. Except for Taung Bi Village, the other five villages were conducting cleaning activities one a week by volunteers in the village. In order to ensure continuity of clean up activities in the village, in addition to the garbage dumping facility provided in the pilot project, WG members suggested that the best solution would be “Joint-Operations of the garbage collection trucks” among the villages.



Source: JICA Expert Team

Figure 4–58 Many Garbage Scattered around Garbage Dumping Facility (Left), Overflowed a Large Volume of Garbage at Village (Right)

After the internal review by members of WG3, JICA Expert visited the target 6 villages together with members of WG3. As suggested by the WG member, in order to sustain relatively high motivation for the clean up activity, it is considered that the joint management of the garbage collection vehicles will be the most appropriate solution as the next stage.



Source: JICA Expert Team

Figure 4–59 Meeting with Committee Members of Village Clean up Activities at Villages to Discuss the Garbage Management Issue

(4) Verification

Through the pilot project, the following points were verified for strengthening on tourism human resource development in Bagan.

1) Improved awareness of local people related to tourism environment, manner to receiving tourist, heritage conservation

- It is apparent that local people had moved from “Why do we need to clean up” to “How we can maintain it” through cleaning activities.
- At basic middle schools and high schools that had the Mini-public awareness workshop, teachers began teaching students to practice the things mentioned received in lectures, students improved their manners to receive tourists, and their consciousness of beautification. Now few students throw away garbage.

2) Increased opportunities for participation and involvement of voluntary activities by local people

- Five villages out of the designated six villages already have established the public awareness committee that directed volunteer based weekly clean up activities. (for the exception was Taung Bi Village) Min Nan Thu Village already got started sorting the garbage systematically. Each of the 5 villages has shown its own unique progress.

(5) Lessons Learned

Major lesson learned through the pilot project are as follows.

- The Public Awareness in the most of the designated villages are unexpectedly high enough to maintain the work going forward. Only back sliding factor is the high growth rate of the garbage which is almost about to destroy their efforts to keep it clean. The solution should be Joint Operation based Garbage Truck by several village managements. Also, they are reportedly ready to run it whenever the budget to purchase the trucks gets approval.
- In Bagan there are still many villages and there is little interaction or cooperation among them. To widely promote public awareness activities for local people in Bagan, it is necessary to conduct seminars and workshops on beautification, tourism promotion and conservation of heritage with MOHT in cooperation with MORAC, Nyaung U General Administration Department and the private tourism sector.

(6) Proposal for Priority Project

Through public awareness seminars, workshops, and clean up activities carried out in the activities of this Pilot Project, awareness of local people who participated activities concerning the importance of environmental beautification in Bagan, tourism promotion, conservation of heritage, accepting foreign tourists were enhanced. Clean up activities were conducted voluntarily at the village level. As a result of the Pilot Project, implemented activities in the Pilot Project were considered to be highly effective. There are still many villages in Bagan, which need to have public awareness activities so that it is necessary to conduct public awareness activities for local people of other villages in Bagan. Therefore, “3-5: Public Awareness Campaign” is proposed as a priority project in the sector of tourism human resources development and local community.

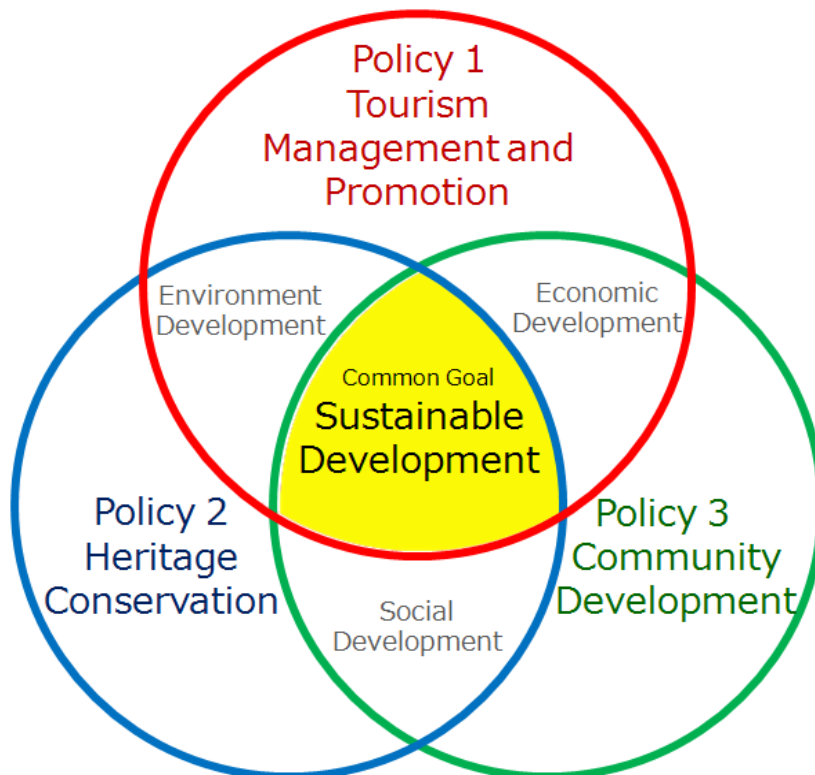
Chapter 5 Strategic Plan for Sustainable Tourism

5.1 Vision

The vision for the sustainable development of Bagan area targeting 2030 is as follows:

To create a comprehensive and sustainable heritage tourist destination benefit for local community with utilizing tangible and intangible cultural properties in Bagan

The vision should be applied to three areas of policy in Bagan: heritage conservation, tourism management, and community involvement. In order to continue sustainable development of Bagan, all these policy areas are indispensable and interrelated as shown the figure below. The central overlapping portion is where these three policy areas need to be harmonized in order to produce synergy and sustainable development.



Source : JICA Expert Team

Figure 5—1 Areas to be Harmonized to Produce Synergy and Sustainable Development

To achieve the vision by 2030, which is the target year for the long term, it is necessary to strengthen capacity of local administration, improve the environment and develop local economy for sustainable tourism development of Bagan. This should be done through implementation of projects based on the framework of tourism management and promotion, heritage conservation, and community development including tourism human resources development.

Tourism is important for economic growth, comprehensive development and creation of sustainable environment. Tourism can have a positive economic effect as the result of tourism promotion. On the other hand, it has the potential for negative impact on the environment due to an increase in tourism use of resources.

To achieve the vision, it is strongly recommended to implement each project described in the action plan in the Bagan Tourism Master Plan to minimize negative impacts and maximize positive aspects,

and repeat the cycle of PDCA (planning, implementation, checking and adjustment) during the period the Bagan Tourism Master Plan.

5.2 Strategies

Based on the vision mentioned above, the following three policies are set for preparing the Strategic Plan for Sustainable Tourism in Bagan: “Tourism management and promotion”, “Environmental conservation of cultural heritage and infrastructure development”, and “Tourism human resources and local community”.

5.2.1 Tourism Management and Promotion

A wide variety of local stakeholders will be involved to promote and manage tourism in Bagan. MOHT is expected to provide the leadership as the responsible authority of tourism promotion and management, and to coordinate with the local stakeholders related to tourism. MOHT, related governmental agencies, the private sector, local stakeholders have to promote and strengthen tourism management and tourism promotion in view of the heritage conservation and community involvement included in the following strategies.

Strategy 1-1: Establish and Strengthen Tourism Administration and Management in Cooperation with Public, Private and Local Community

MOHT, especially the MOHT Bagan branch, is responsible for administrative management in tourism sector in cooperation with MORAC, but has not provided enough management due to limited responsibilities, leadership and human resources for tourism promotion, heritage conservation and local participation. Thus, tourism in Bagan is not managed comprehensively yet.

MOHT Bagan branch with strong support of MOHT in Nay Pyi Taw should provide leadership to strengthen tourism management in cooperation with local stakeholders including private sector and local communities as well as the public sector.

In order to harmonize activities among tourism promotion, heritage conservation and regional development in Bagan, it is essential to establish and strengthen the tourism management system. MOHT Bagan branch should take responsibility to proactively prepare necessary plans and programs and implement them appropriately in cooperation with local tourism business operators.

Strategy 1-2: Develop Tourism Products based on Local Needs with Consideration of Heritage Conservation

The main tourism products in Bagan are sightseeing tour programs and visiting temples and pagodas in group tours and FIT. Optional tour programs are limited such as visiting local villages, river cruising along the Ayeyarwady River and air balloon tour.

Local stakeholders related to tourism sector in Bagan need to improve existing tourism products and to develop new tourism products for making tour programs more attractive for group tours and FIT in harmony with local needs as well as in consideration of heritage conservation.

In particular, it is expected for local communities to improve and develop tourism products such as community based tourism (CBT: handicraft, traditional culture and cooking tour, etc.), local market tours in Nyaung U Town, meditation experience in monasteries, and eco-tourism (bird watching). These will contribute to income generation in the rural area of Bagan.

Strategy 1-3: Strengthen Tourism Marketing and Promotion in Cooperation with Public and Private Partnership

MOHT, especially the MOHT Bagan branch, is responsible for tourism promotion in the public sector, but has not implemented these activities effectively due to the limited human resources and budget in Bagan. On the other hand, private tourism sector such as hotels, restaurants and travel agencies in Bagan conduct tourism promotion on their own. Local communities have limited capacity for tourism

promotion. Thus, integrated countermeasures for tourism promotion are still not implemented yet in Bagan.

MOHT Bagan branch with strong support of MOHT in Nay Pyi Taw should provide leadership to enhance tourism marketing and promotion in cooperation with local stakeholders including private sector and local communities.

Furthermore, a tourism promotion body, which should conduct integrated activities for tourism promotion in Bagan, needs to be established with local participation of public sector, private sector and local communities.

5.2.2 Environmental Conservation of Cultural Heritage and Infrastructure Development

The majority of the Bagan area is a heritage conservation area under the jurisdiction of MORAC. On the other hand, local stakeholders related to tourism sector such as MOHT, the private sector and local communities are trying to strengthen tourism promotion. According to the following strategies, MOHT, MORAC, and the local stakeholders should coordinate to develop and preserve tourism environment as heritage conservation area.

Strategy2-1: Preserve the heritage environment in cultural landscape in the cultural heritage area.

In order to conserve the environment with heritage of Bagan, it is required to properly manage the preservation of the cultural landscape including the surrounding environment while preserving heritage as the foremost requirement. Approaches for conservation are as follows.

Conserve heritage environment / Dispersion of tourists

Thousands of ancient Buddhist temples and stupas are the core of Bagan tourism. However, in some heritage sites, damage to the monuments occurs due to the large number of tourists rushing into them, and the environment around is deteriorated by the concentration of vehicles. As a result, there is negative impact to the monuments and surrounding environment. In order to protect heritage from physical damage in terms of its carrying capacity and in order to improve the surrounding environment, the following actions are necessary.

- Restrict access to heritage sites. Since the current situation exceeds the carrying capacity, it is necessary to restrict excessive access from the viewpoint of protecting the heritage sites.
- Regarding vehicle traffic, it is necessary to eliminate the through-traffic, and improve the bypass road outside the cultural heritage area. Also to reduce the impact to the heritage site and reduce the impact of transportation, it is necessary to introduce Park-and-ride parking area outside the area.
- Develop new viewing points. The problems of concentration of the tourists at certain heritage sites cannot be solved without expanding the number of viewing points. Implementation to minimize the environmental impact is required.
- To disperse tourists to viewing points that embody Bagan's diverse attractions other than Buddhist heritages. At the same time, produce a promotional guide map to inform about Bagan's wide range of attractions.
- Regarding development around the heritage site, implementation of landscape development together with visitor management is required. Vehicles in the heritage site are negative but necessary. Therefore, it is necessary to require them to coexist in an appropriate way.
- In the mid to long term, it is necessary to eliminate through traffic and to control access to heritage sites by private cars and others.
- As a part of the dispersion of tourism in Bagan, make opportunities to touch the heritage through special openings to the upper platform of large temples and pagodas. It is necessary to

find a way to give tourists unique experiences in Bagan.

Conserve cultural landscape / Conservation of visual environment

The cultural landscape of Bagan, one of the most valuable in the world, is the biggest tourism resource and it must be preserved. In order to regain a really attractive landscape, it is necessary to reduce visual elements that disturb it. The following actions are necessary.

- In the Property Zone, installation of outdoor advertisements and private signboards should be prohibited, in principle.
- In the Buffer Zone, installation of signboards can be permitted within limited areas such as urban area.
- Distribution of electric power and telecom cables should be relocated to underground or rerouted in order to reduce their presence in the cultural landscape.

Strategy 2-2: Develop tourism infrastructure in the cultural heritage area that respond to the needs of tourists.

Tourism infrastructure development in the cultural heritage area should be provided to satisfy the basic needs of tourists, and to allow tourists to enjoy sightseeing comfortably. Approaches for tourism infrastructure development are as follows.

Strengthen access to tourism site

Tourism sites in Bagan are Buddhism temples and pagodas, and they are located mainly in the cultural heritage area. However, most access is on unpaved roads. With the goal to ensure safe driving by E-bikes and vehicles used by tourists to reduce accidents and to give comfortable driving environment, it is necessary to strengthen access to tourism sites. Hence, the following actions are necessary.

- Upgrade the road in a way that matches to the cultural landscape. Also improve the road function to provide safe and comfortable driving environment.
- Install street lighting. In order to ensure safe movement of tourists after sun-set, it is necessary to install the lighting along the main roads.
- Restrict vehicle traffic in the cultural heritage area. Encourage the use of E-bike, bicycles, horse-carts, and pedestrian walking because they have less impacts on the heritage environment. In addition, it is needed to set up park-and-ride system to change from large vehicle to small feeders, and improve the routes.

Strengthen tourism facilities

When developing tourist facilities in cultural heritage area, it is required to implement a “reversible” structure in order to allow for the possibility for the change in the future. Also, when upgrading the existing facilities, it is necessary to create an attractive environment for tourist. Regarding facilities for strengthen tourism in Bagan, the following actions are needed.

- Improve the information center. It was developed as a part of the pilot projects. In the future, it is needs to become a core facility in the tourism sector while strengthening the contents of its activities.
- Improve rest areas within the cultural heritage area. Regarding facilities supporting movement over scattered heritage sites in the cultural heritage area, it is necessary to develop facilities that do not have negative impact on the surrounding environment.
- Upgrade Bagan Archaeological Museum. The existing facility is not foreign visitor friendly. It is desirable to improve the exhibition as well as to add equipment to make it a more attractive and informative facility.

Strengthen visitor management

In order to move around the cultural heritage area, installation of appropriate signage is essential over the whole region. Development of the surrounding environment including parking lots are also

indispensable. These environmental improvements are extremely important not only to facilitate the movement of the tourists, but also to preserve the surrounding landscape. In order to strengthen visitor management, the following actions are necessary.

- Upgrade various signage boards to the monuments in the cultural heritage area. The boards should use material harmonizing with the cultural landscape with bilingual notation in English and Myanmar. It is desirable to continue to install them after the pilot project.
- Develop parking lots around heritage sites. In addition to facilitation of the movement of tourists by setting up parking lots, creation of new viewing points is required to improve the value of more heritage sites. Regarding the parking lots, it is desirable to develop them in a stepwise manner referring to the future traffic plan.

Strategy 2-3: Develop social and transportation infrastructure that contributes to sustainable development in Bagan

The development of social and transportation infrastructure should comply with the legal framework and development guidelines. For the infrastructure development, all the ministries and related agencies should implement them after the formulation of comprehensive infrastructure plan agreed upon by relevant ministries. In addition, implementation of Heritage Impact Assessments (HIA) is indispensable for the structure that are not temporary. By considering the above evaluations, it is expected to minimize negative impacts by infrastructure development, and maximize their benefits. Approaches to social and transportation infrastructure development are described below.

Strengthen and promote social infrastructure

While promoting sustainable development as a tourist destination, it is essential to develop infrastructure that contributes to local communities. Although the target population is relatively small, about 50,000 people, it is necessary to implement the infrastructure that satisfies the basic needs of communities in this area.

- Develop water supply facilities. By installing a water purification plant and distribution pipelines, continuous purified water supply 24/7 will be archived.
- Develop waste facilities. It is indispensable to review the waste collection system and to improve sanitation waste facilities. After the implementation of the new facilities, the existing dumping sites in the cultural heritage area should be closed.
- Relocate the electric power and telecom lines underground in cultural heritage area. To improve the landscape as heritage tourism destination, electric power and telecom lines that are an eyesore in the landscape should be moved underground or re routed outside the area.

Strengthen and promote transportation infrastructure

Strengthen and promote transportation infrastructure on land, air and water which are used by tourists and also by local residents. Upgrading transportation infrastructure is expected to contribute to the improvement of the local community and also by supporting the traffic demand management (TDM), reduction of the volume of the vehicles in the cultural heritage area can be expected.

- Regarding roads, in addition to the development of a bypass route to reduce the through-traffic in the cultural heritage area, improvement of parking lots inside and outside the area together with feeder plan is required. Through this implementation, reduction of factors that impact the area and environmental are expected.
- By improvement of the restroom and tourism information facilities combined with the improvement of the parking lot outside the cultural heritage area, and by improvement of the terminal of alternative transport feeders into the area, convenience for tourists will improve and also revitalization of the area is expected.
- For the air transport, Bagan is scheduled to cooperate with Siem Reap, Cambodia as a sister city. So, it is essential to develop CIQ (customs, immigration control, quarantine) facilities in

Nyaung U Airport to accept international flights. Through this implementation, direct flights from World Heritage sites in ASEAN countries will be possible. In addition, the formulation of the new direct heritage tours not via Yangon nor Mandalay is expected.

- Regarding waterways, accessibility of tourists through the year around can be expected by improving floating bridges and terminal facilities of Nyaung U river port along the Ayeyarwady River.

In addition to strengthening and improving the above-mentioned wide-area transport infrastructure, by improving existing roads and by-pass route, it is expected that the flow of people and goods with other areas will be stabilized and smoother exchange will be promoted.

5.2.3 Tourism Human Resources and Local Community

Under the current situation of the annual growth in the number of tourists to Bagan, securing sufficient and competent local human resources and strengthening capacity of human resources in the tourism industry is an urgent task. MOHT, relevant tourism associations and tourism business operators are expected to collaborate in securing tourism human resources and strengthening the capabilities of tourism human resources to provide appropriate services that will contribute to the World Heritage tourist destination.

Strategy 3-1: Strengthen System of Tourism Human Resources Development based on Development of Tourism Industry for Bagan and Its Needs

With continuous annual increase of tourists to Bagan and development of tourist facilities such as hotels and restaurants together with required securing sufficient number of tourism human resources (HR) in response to demand and quality improvement of service for Bagan, the number of qualified trainers for tourism HR and programs for HR development are required. However, the current systems for the training are insufficient and no schools or facilities are yet developed in Bagan.

For secure sustainable growth as a tourist destination, it is indispensable to train instructors for HR development and strengthening capacity of training for tourism sector. Regarding tourism HR development in Bagan, it is necessary to develop the HR system so that HR always possesses the knowledge and experience of the tourism business needed by people who are the core of tourism business in Bagan.

Bagan Information Center (BIC) opened and operated by MOHT Bagan branch Office since October 2017 has functioned as a tourist information center and additionally as a training facility. Various types of HR training including hospitality training can use space in BIC. In terms of smooth implementation of HR training for tourism at BIC, Tourism HR Development and Training Committee or section needs to be established as part of BIC. Business manners and hospitality training for hotels, restaurants and tourist guide Businesses, and training program for travel agency business will also be provided at BIC in cooperation and collaboration with MOHT, Myanmar Tourism Federation (MTF) and Tourism Association.

In particular, the Bagan Tourism Institute (BTI) (tentative) is recommended to be established in BIC as a tourism educational institution to foster leaders to promote tourism in Bagan. It is necessary to create a Bagan-style tourism HRD system through introduction of certified BOR (Bagan Omotenashi-hospitality Representative), TOT (Training of Trainer) program to certify Master BOR and promotion of BOR activities in BTI with support of Bagan Hospitality Association (BHA).

In the medium to long term, a tourist school needs to be established in Bagan to promote diversified tourism education and training as local tourism HR. This is necessary to enhance human resources diversely in Bagan.

Strategy 3-2: Strengthen Capacity of Tourism Administrative Human Resources for Effective and Appropriate Operation and Management as a Cultural Heritage Tourism Destination

MOHT Bagan branch office is the local tourism administrative body in Bagan. However, most of staff at the Bagan branch office lack knowledge and experience on tourism promotion, tourism management and tourism development. The MOHT Bagan branch office needs to improve the capacity building of management officers as well as staff members for receiving a large increase in the number of domestic and foreign tourists to Bagan. They will need to manage tourist destinations, and maintain close communication and cooperation with relevant government agencies such as MORAC and the private tourism sector.

Since Bagan will be registered as a World Heritage Site in the future, it is urgent that MOHT take responsibility to strengthen the institutional capacity for an appropriate operation and management of tourism administration in Bagan and staff allocation at the Bagan branch office.

In addition to MOHT Bagan branch, Nyaung U Airport, railway, tourist police and hospitals are important tourism related public services to serve tourists in Bagan. To respond the growing needs of tourist services and improve level of service in the tourism related public sector, the capacity development of people is indispensable at each service agency or organization.

Various human resources and capacity building training for regional tourism administration including the Bagan branch office is being implemented with the support of donors on the basis of the Myanmar Tourism Human Resources Development Strategy and Action Plan (formulated in 2016). However for Bagan, it is necessary to develop and carry out training programs to train human resources and capacity development according to the needs of staff at the Bagan branch office. Additionally, HR training program for tourism related public services needs to be conducted for improved receiving of tourists in cooperation with relevant governmental agencies and associations, focusing on public tourism related service organizations. They should also conduct human resources training with the view to improve tourism acceptance services.

In particular, the "Omotenashi-hospitality" certification system should be established under the responsibility of the MOHT Bagan branch office. It is necessary to create a certified system that the Executive Committee consisting of members from BHA and relevant associations belong to MTF so that it is possible to supervise the certification system and support operation and management of the training course on "Omotenashi-hospitality" on the premise it will have certification.

Strategy 3-3: Strengthen Capacity and Tourism Human Resources Development for Private Tourism Sector with Meet Demand and Needs of Local Tourism Industry

The number of people employed in the entire tourism industry in Bagan is about 6,300 in 2015, 70 of which are from hotels and restaurants. In the future, as tourists increase, it is indispensable to secure human resources, train human resources, and strengthen capacity HR development for the tourism industry as an international heritage tourist destination.

In Bagan, there is currently no school to train people for tourism industry and there are limited opportunities for participation in training programs in Bagan, except of large hotels. Training and capacity development of staff conducted at hotels and restaurants in Bagan are normally handled by on-the-job training (OJT) so that methods and contents of staff training differ for each hotel and restaurant depending on training policy by the capabilities, knowledge and experience of owners and managers of hotels and restaurants. In Bagan, training program for staff working at small hotels and guest houses will be necessary, but the first priority is for owners and managers to strengthen capacity development of the hotel and restaurant sector.

Regarding tourist guides, in the future the need for the licensed regional guides in Bagan will increase due to increasing the number of foreign tourists going to Bagan. Currently Bagan is preparing for nomination as UNESCO World Heritage Site so that both licensed regional guides and national guides should be trained appropriately for improvement of knowledge and guiding skills as well as hospitality. To acquire such guide skills regarding cultural heritage, history, architecture, local culture, and preservation of traditional culture and heritage for national and regional guides, should be planned and implemented. Such training as tourist guide should include lectures introducing Cultural Heritage

Special Guide Training and Certification Program for UNESCO World Heritage Sites, prepared by UNESCO, site training and language training in cooperation with MORAC and UNESCO.

Tour packages for traveling to Bagan will be developed and controlled by major travel agencies in Yangon and overseas that overcome obstacles to the development of tourism in Bagan. Thus, it is necessary to promote the establishment of travel agency in Bagan that can develop and operate tour programs locally, and expand the operation and services of work for travel agencies for meeting the needs of tourists.

The training for human resources development related to the above will be conducted at BIC and fully utilize its features. In the middle to long term, it is necessary to strengthen HR development and capacity development according to the needs of various tourism businesses by establishment of tourism schools or related tourism educational training institutions in Bagan.

Strategy 3-4: Promote Local Community Involvement on Tourism with Enhancement of Awareness on Tourism and Conservation of Heritage

The local economy in Bagan is largely supported by tourism. However, many local residents are not fully aware of the importance of tourism industry, the value of cultural heritage, the economic benefits of tourism, and the role of local community living in tourist destination. Major issues such as illegal waste dumping around heritage sites and roadside and inadequate manners for foreign tourists which are required to improve receiving foreign tourists appropriately in Bagan.

As a heritage tourist destination, it is necessary to conduct public awareness seminars, workshops and beautification campaigns for encouragement of tourism business operators and local residents so they can understand the importance of tourism industry and conservation of heritage.

Various festivals and events are held in Bagan, and local residents are important stakeholders of festivals and events in addition to tourism business operators. Active involvement and support of local residents is indispensable for enhancing local tourism-related events. MOHT is responsible to encourage local residents to participate in those events and activities in cooperation with private tourism sector.

In Bagan and surrounding areas, Community-based Tourism (CBT) tours making use of the characteristics of villages have been developed and offered to foreign tourists as optional tours. CBT is a tourism business model that provides opportunity for employment and getting revenue directly from tourists which contributes to improve livelihood for people in the villages. In Bagan there are villages with high potential for development of CBT. MOHT will support to develop and promote a CBT model that enables the villagers to benefit from CBT, and can be operated and managed sustainably by villagers in cooperation with travel agents and tourist guides.

5.3 Development Scenarios

In the Bagan Tourism Development Plan, the period from 2017 to the target year of 2030 is divided into three development stages and set tourism development scenarios for each stage based on Bagan's UNESCO World Heritage registration, tourism projection and infrastructure demand in Bagan. The development scenarios need to be consistent with the "Bagan Management Plan" prepared by MORAC for the registration of Bagan as World Heritage site in 2019.

The outline of tourism development scenarios in Bagan are as follows.

Table 5—1 Tourism Development Scenarios of Bagan by Stage

Period	Short-Term (Priority: A)	Middle-Term (B)	Long-Term (C)
	2017-2019	2020-2024	2025-2030
Development Scenarios	<ul style="list-style-type: none"> Build-up the basis for the tourism management, environment and human resources suitable for International Tourism Destination 	<ul style="list-style-type: none"> Develop the tourism system in accordance with Bagan Management Plan under the World Heritage Nomination. 	<ul style="list-style-type: none"> Establish sustainable tourism in harmony with tourism management and promotion, heritage conservation and regional development

Source : JICA Expert Team

5.4 Action Plans

In accordance with development strategies and development scenarios mentioned above, action plans, which are composed of project lists and priority projects, are proposed below. The target period of project lists is from 2017 to 2030 the same as from the short-term to long-term in the development scenarios. The target period of priority projects is from 2017 to 2019 the same as short-term development scenario.

5.4.1 Tourism Management and Promotion

To achieve sustainable tourism development in the Bagan Cultural Heritage area, short-term (high priority), middle-term and long-term projects are proposed for strengthen tourism management and promotion.

(1) Project List

Projects for Tourism Management and Promotion are listed below.

Table 5—2 Projects for Tourism Management and Promotion

Stage Period	Short Term (Priority: A) 2017-2019	Middle Term (B) 2020-2024	Long Term (C) 2025-2030
Project	1-1. <u>Formulation of Local Platform for Bagan Tourism Development</u>	1-3. Strengthening of Local Platform for Bagan Tourism Development 1-4. Strengthening of Tourism Administration Office for Bagan in Central Gov. 1-5. Strengthening of Tourism Administration Office in Local Gov.	
			1-9. Arrangement of Laws, Regulations and Rules for Tourism Management in/around Bagan
	1-2. <u>Enhancement of Promotion</u>	1-6. Development of Tourism Corridors in greater Bagan 1-7. Strengthening of Tourism Fairs 1-8. Development of FAM Tours	1-10. Development of Tourism Corridors in Cooperation with Other Tourist Destinations in Myanmar

Source : JICA Expert Team

(2) Priority Projects

The following priority projects are proposed to be implemented as urgent.

- 1-01 Formulation of Local Platform for Bagan Tourism Development
- 1-02 Enhancement of Promotion

Sector: Tourism Management and Promotion

Project No.	Project Name	Project Priority
1-01	Formulation of Local Platform for Bagan Tourism Development	A
Project Site / Location		Assumed Fund
Bagan (Bagan Information and Training Center)		MOHT, MTF
Target Beneficiaries		Estimated Cost
Local stakeholders related to tourism in Bagan		10,000 USD
Implementation Organization		Relevant Organization
MOHT		MTF, GAD and local stakeholders
1. Background		
<p>There are several organizations related to tourism in both public and private sectors in Bagan. However, the organizations have limited cooperation and coordination each other. As a result, it is complicated to coordinate and implement activities of tourism management and promotion. To realize smooth and sound activities of tourism management and promotion, it is indispensable to organize a platform body for tourism management and promotion in Bagan.</p>		
2. Project Propose		
<ol style="list-style-type: none"> 1) Raise awareness of local stakeholders to get common sense for integrated and comprehensive tourism development in Bagan 2) Establish and strengthen an implementation body related to tourism development in Bagan under the public-private partnership 3) Support activities of the Bagan Information and Training Center (BITC) 		
3. Project Outline / Components / Activities		
<ol style="list-style-type: none"> 1) Preparatory meetings among local stakeholders with initiative of MOHT 2) Preparation of an articles of incorporation including organization structure, functions, budgeting, etc., an annual plan and activity plans 3) Legal registration of organization 4) Capacity building for tourism management and promotion to the platform members 5) Institutional building implementing pilot projects with support of BITC activities 6) Monitoring of the platform activities and follow-up trainings 		
4. Outputs of the Project		
<ol style="list-style-type: none"> 1) Enhancement of planning capability for tourism management and promotion in Bagan 2) Establishment of an implementation body for tourism management and promotion in Bagan 3) Sustainable activities of BITC 		
5. Environmental and Social Impact		
<p>The project will not cause any direct environmental impact.</p> <p>The project may influence positive impact on regional development in Bagan</p>		
6. Related Projects		
None		
7. Implementation Schedule		8. Project Cost (USD)
Short and Middle Term:		TOTAL 10,000
2018:	Preparatory meetings	
2018:	Formulation of the platform	
2018-2019:	Capacity building to the platform members	
2018-2019:	Institutional building in pilot projects	
2018-2019:	Monitoring, follow-up training	

Sector: Tourism Management and Promotion

Project No.	Project Name	Project Priority
1-02	Enhancement of Promotion	A
Project Site / Location		Assumed Fund
The whole Bagan area		MOHT/Donors
Target Beneficiaries		Estimated Cost
Local tourism sector, Local community, Tourists		30,000 USD
Implementation Organization		Relevant Organization
MOHT-Bagan	Nyaung U GAD	Local private sector in tourism
1. Background		
<p>Tourism information specialized on a region is not sufficient, although there are some websites providing tourism information about the whole country. In addition, the existing promotional materials seems not friendly for tourists and there are limited kinds. As a result, the various attractions of Bagan are not reached to tourists in terms of both quantity and quality. Website, social media, materials and events are needed to be improved and expanded for enhancement of promotion.</p>		
2. Project Propose		
<p>1) Promotion of tourism demand by disseminating tourism information through website, social media, materials and events.</p> <p>2) Capacity building for implementation of various promotion activities.</p>		
3. Project Outline / Components / Activities		
<p>1) Operation and management of website and social media</p> <p>2) Improvement, expansion and distribution of various materials such as printings and pictures</p> <p>3) Holding tourism events regularly</p> <p>4) Enhancement of collaboration among each tourism promotion activity</p> <p>5) Strengthening public private partnership (PPP) in implementation of various promotion activities</p> <p>6) Monitoring and evaluation of various promotion activities</p>		
4. Outputs of the Project		
<p>1) Increase of the number of access to website and social media</p> <p>2) Increase of the number of user of materials and the number of participants of events</p> <p>3) Establishment of sustainable implementation system of promotion activities by PPP</p>		
5. Environmental and Social Impact		
<p>1) Environment: Increase of the volume of waste associated with materials and events</p> <p>2) Social impact: Increase of tourism demand (tourist arrivals, length of stay, expenditure)</p>		
6. Related Projects		
<p>1) None</p>		
7. Implementation Schedule		8. Project Cost (USD)
Short term:		1) Materials 15,000
2018-2019: O&M of website and social media, improvement and distribution of materials, holding tourism events		2) Events 15,000
2018-2019: Establishment and enhancement of implementation system for promotion activities		Total 30,000
2019: Monitoring and evaluation		

(3) Mid- to Long-Term Projects

Sector: Tourism Management and Promotion

Project No.	Project Name	Project Priority
1-03	Strengthening of Local Platform for Bagan Tourism Development	B
Project Site / Location		Assumed Fund
Local stakeholders related to tourism in Bagan		MOHT, MTF
Target Beneficiaries		Estimated Cost
Local stakeholders related to tourism in Bagan		-
Implementation Organization		Relevant Organization
MOHT		MTF, GAD and local stakeholders

Sector: Tourism Management and Promotion

Project No.	Project Name	Project Priority
1-04	Strengthening of Tourism Administration Office for Bagan in Central Government	B
Project Site / Location		Assumed Fund
MOHT in Nay Pyi Taw / Bagan area		MOHT/Donor
Target Beneficiaries		Estimated Cost
MOHT, relevant tourism stakeholders (Government, private sector, local community)		-
Implementation Organization		Relevant Organization
MOHT		Tourism related associations in Bagan

Sector: Tourism Management and Promotion

Project No.	Project Name	Project Priority
1-05	Strengthening of Tourism Administration Office in Local Government	B
Project Site / Location		Assumed Fund
Bagan area		MOHT/Donor
Target Beneficiaries		Estimated Cost
MOHT, relevant tourism stakeholders (Government, private sector, local community)		-
Implementation Organization		Relevant Organization
MOHT	MOHT Bagan branch	Tourism related associations in Bagan

Sector: Tourism Management and Promotion

Project No.	Project Name	Project Priority
1-06	Development of Tourism Corridors in greater Bagan	B
Project Site / Location		Assumed Fund
Areas around Bagan		MOHT/Donor
Target Beneficiaries		Estimated Cost
MOHT, relevant tourism stakeholders (Government, private sector, local community)		-
Implementation Organization		Relevant Organization
MOHT	MOHT Bagan branch	Tourism related associations in Bagan

Sector: Tourism Management and Promotion

Project No. 1-07	Project Name Strengthening of Tourism Fairs	Project Priority B
Project Site / Location Bagan area and places holding tourism fairs		Assumed Fund MOHT/Tourism private sector
Target Beneficiaries MOHT, relevant tourism stakeholders (Government, private sector, local community)		Estimated Cost -
Implementation Organization MOHT		Relevant Organization Tourism private sector Tourism related associations in Bagan

Sector: Tourism Management and Promotion

Project No. 1-08	Project Name Development of FAM Tours	Project Priority B
Project Site / Location Areas around Bagan		Assumed Fund MOHT/Tourism private sector
Target Beneficiaries MOHT, relevant tourism stakeholders (Government, private sector, local community)		Estimated Cost -
Implementation Organization MOHT		Relevant Organization Tourism private sector Tourism related associations in Bagan

Sector: Tourism Management and Promotion

Project No. 1-09	Project Name Arrangement of Laws, Regulations and Rules for Tourism Management in/around Bagan	Project Priority C
Project Site / Location Bagan area		Assumed Fund Myanmar gov./Donor
Target Beneficiaries MOHT, relevant tourism stakeholders (Government, private sector, local community)		Estimated Cost -
Implementation Organization MOHT		Relevant Organization Tourism private sector Tourism related associations in Bagan

Sector: Tourism Management and Promotion

Project No. 1-10	Project Name Development of Tourism Corridors in Cooperation with Other Tourist Destinations in Myanmar	Project Priority C
Project Site / Location Bagan and the whole are of Myanmar		Assumed Fund Myanmar gov./Donor
Target Beneficiaries MOHT, relevant tourism stakeholders (Government, private sector, local community)		Estimated Cost -
Implementation Organization MOHT		Relevant Organization Tourism private sector Tourism related associations in Bagan

5.4.2 Environmental Conservation of Cultural Heritage and Infrastructure Development

To achieve sustainable tourism development in the Bagan Cultural Heritage area, short-term (high priority), middle-term and long-term projects are proposed for promoting environmental conservation of cultural heritage and infrastructure development.

(1) Project List

Projects for Heritage Environmental Conservation and Infrastructure Development are listed below.

Table 5—3 Projects for Heritage Environmental Conservation and Infrastructure Development

Stage Period	Short Term (Priority: A) 2017-2019	Middle Term (B) 2020-2024	Long Term (C) 2025-2030
Project	2-1. <u>Establishment of Guideline for Outdoor Advertisement</u>	2-11. Development of Viewing Points 2-12. Electric Line Underground*	
	2-2. Development of Information Center at New Bagan Town and Nyaung U Town	2-13. Improvement of Archaeology Museum 2-14. Development of Rest Spaces in Heritage Area	
	2-3. Improvement of Tourist Routes	2-15. Street Lights in Cultural Heritage Area	
	2-4. <u>Establishment of Public Sign System</u> 2-5. <u>Development of Visitor Management</u>		
	2-6. Water Supply System* 2-7. Development of Sewage and Drainage System* 2-8. Improvement of Garbage Collection Services* 2-9. Development of Final Waste Disposal Site* 2-10. Improvement of Nyaung U Airport		2-20. Development of ICT System
		2-16. Parking in Culture Heritage Area 2-17. Development of By-pass Route* 2-18. Drainage Facility for Flood* 2-19. Nyaung U Jetty Improvement* (* Target of Pre Feasibility Study)	2-21. Development of Inter-City Road 2-22. Development of Railway 2-23. Development of Park and Ride System

Source : JICA Expert Team

(2) Priority Projects

The following priority projects are proposed to be implemented as urgent.

- 2-01 Establishment of Outdoor Advertisement Control
- 2-02 Development of Information Centers at New Bagan Town and Nyaung U Town
- 2-03 Improvement of Tourist Routes
- 2-04 Establishment of Public Sign System
- 2-05 Improvement of Visitor Management
- 2-06 Development of Water Supply System
- 2-07 Development of Sewage and Drainage System
- 2-08 Improvement of Garbage Collection Services
- 2-09 Development of Final Waste Disposal Site
- 2-10 Improvement of Nyaung U Airport

Sector: Tourism Infrastructure

Project No.	Project Name	Project Priority
2-01	Establishment of Outdoor Advertisement Control	A
Project Site / Location		Assumed Fund
Bagan Cultural Heritage Area		To be determined
Target Beneficiaries		Estimated Cost
Tourists, Local Community		36,000 USD
Implementation Organization		Relevant Organization
GAD of Nyaung U / Nyaung U TDC / Bagan Management Committee		DOA of MORAC
1. Background		
<p>The cultural landscape consisting of thousands of temples and pagodas is the biggest values of Bagan. The landscape that has being going on for nearly a thousand years is the only landscape in the world, and it is regarded as a universal value in mankind. In recent years, however, the landscape is on the verge of crisis along with the trend of democratization in Myanmar. In the places where gaze of people and tourists gather easily such as the road sides and intersections in cultural heritage area, outdoor advertisements that install randomly and disturb the cultural landscape results in a negative visual impact on the environment and reduce the value of the landscape significantly.</p>		
2. Project Purpose		
<p>Maintaining the cultural landscape towards the future is indispensable to preserve the graceful value of Bagan, and it is strongly required to take measures, including the administration. By restricting the landscape, it aims to exclude the visual elements that disturb the landscape from the monuments and its surroundings, and regain the landscape of the times. It is expected that the landscape will be preserved in the future by implementation of the regulation continuously by the local government.</p>		
3. Project Outline / Components / Activities		
<ol style="list-style-type: none"> 1) Current situation survey for the control target area 2) Establishment of the Guideline. 3) Establishment of a committee in GAD. 4) Implementation of removal work outdoor advertisement. Do the work thereafter continuously. 		
4. Outputs of the Project		
<ol style="list-style-type: none"> 1) Reduce the negative visual impact to the cultural heritage area. 2) Enhance the attractiveness of the cultural landscape. 		
5. Environmental and Social Impact		
<ol style="list-style-type: none"> 1) Environmental: No negative impacts because the project is for environmental improvement. 2) Social: Impacts on private businesses of advertisers, but limited. 		
6. Related Projects		
2-11 Electric Line Underground		
7. Implementation Schedule		8. Project Cost (USD)
Short Term		1) Consultant Fee 0
2017: Current situation survey		2) Removal Work for 3years 36,000
2017: Establish a committee		Total 36,000
2017: Start removal work. To be continued thereafter.		

Sector: Tourism Infrastructure

Project No.	Project Name	Priority
2-02	Development of Information Centers at New Bagan Town and Nyaung U Town	A
Project Site / Location		Assumed Fund
Bagan Cultural Heritage Area		To be determined
Target Beneficiaries		Project Cost
Tourists, Local Community		350,000 USD
Implementation Organization		Relevant Organization
MOHT		GAD of Nyaung U / DOA of MORAC
1. Background		
<p>Despite being a representative heritage tourist destination in the country, Bagan does not have sufficient facilities to provide tourist information as a core facility of tourism. There are some problems in environment and in management aspects such as inappropriate location of the facility, lack of information contents and human resources. To improve this situation, it is necessary to develop facilities to support their activities that contribute to tourism. As a JICA pilot project, the information center in Old Bagan was implemented as a renovation work. For the further support of tourism in Bagan in Bagan, same kinds of facilities will be required in New Bagan town and Nyaung U town. In addition, as a candidate site for World Heritage Site, improvement of the facility considering the historic environment is required.</p>		
2. Project Purpose		
<p>It aims to develop a core facility for dissemination of tourist information etc. In the facility, tourist information counter, exhibition room and seminar room for tourists and local people will be provided. Since the implementation of renovation work for a tourist information center was carried out in Old Bagan inside the cultural heritage area as a pilot project, consideration should be given to the historical landscape, at the same time to minimize the impact on the surrounding environment during the construction. After completion of the renovation of the information center in Bagan, continuous maintenance of facilities related to activities is also required. Similar considerations are necessary for the future project.</p>		
3. Project Outline / Components / Activities		
<ol style="list-style-type: none"> 1) Current situation survey 2) Selection of target route, Planning and Design 3) Bidding 4) Construction 		
4. Outputs of the Project		
<ol style="list-style-type: none"> 1) Provide a place to information dissemination on tourism in Bagan. 2) Provide a place for some activities by tourists and local people. 		
5. Environmental and Social Impact		
<ol style="list-style-type: none"> 1) Environmental: Implemented the HIA (Heritage Impact Assessment) recommended by MORAC, and confirmed that there was no influence on the heritage environment. 2) Social: Benefit to local communities. 		
6. Related Projects		
1-02 Enhancement of the Tourism Promotion, 3-01 Establishment of Bagan Tourism Institute, 3-03 Training for Tourism Human Resources, 3-04 Training Program of the Guide for Cultural Heritage Site, 3-05 Public Awareness Campaign		
7. Implementation Schedule		8. Project Cost (USD)
JICA Pilot Project		1) Consultant Fee 0
2016: Current situation survey and Planning		2) Direct Const. Cost 150,000
2017-: Construction, Operation and Maintenance		Total 150,000
This Project		1) Consultant Fee 50,000
2018: Current situation survey and Planning		2) Direct Const. Cost 300,000
2019: Construction, Operation and Maintenance		Total 350,000

Sector: Tourism Infrastructure

Project No.	Project Name	Project Priority
2-03	Improvement of Tourist Routes	A
Project Site / Location		Assumed Fund
Bagan Cultural Heritage Area		To be determined
Target Beneficiaries		Estimated Cost
Tourists, Local Community		4,600,000 USD
Implementation Organization		Relevant Organization
GAD of Nyaung U / Township Development Committee		DOA of MORAC
1. Background		
<p>In the past, horse-carts and bicycles were the mainstream means of tourist's transportation in Bagan. However, in recent years, E-bikes are emerging. To travel around the cultural heritage area where monuments are scattered, E-bikes, which are cheap and high in freedom, are popular among individual tourists, and this trend will continue in the future.</p> <p>Most of the access roads to each monument are unpaved road, which is dusty in dry season and muddy in the rainy season, which makes inconvenience for vehicle traffic. In order to secure the safety of tourist and to provide a more comfortable mobile environment, it is required to improve some of the roads in the area. For this development plan, specifications (consideration of materials, dimensions and historical landscape) according to the instruction by MORAC are required.</p>		
2. Project Purpose		
<p>The aim this project for the unpaved roads in the cultural heritage area is 1) to secure safety of tourists, 2) to provide a more comfortable mobile environment, and 3) to provide roads matching to the historical landscape.</p>		
3. Project Outline / Components / Activities		
<ol style="list-style-type: none"> 1) Conduct current situation survey. 2) Select target route and design the road. 3) Perform bidding procedure. 4) Implement the construction work. 		
4. Outputs of the Project		
<ol style="list-style-type: none"> 1) Provide safe and comfort mobile environment for tourist. 2) Create mobile environment matching to the cultural landscape. 		
5. Environmental and Social Impact		
<ol style="list-style-type: none"> 1) Environmental: During the construction period, some negative impacts will be occurred by the vehicles. Therefore, consideration is needed to minimize the impact. The solution will give less impacts to the heritage environment. 2) Social: Positive impact on local communities will be expected. 		
6. Related Projects		
2-05 Improvement of Visitor Management		
7. Implementation Schedule		8. Project Cost (USD)
Short-middle term		1) Consultant Fee 600,000
2018: Current situation survey and Planning		2) Direct Const. Cost 4,000,000
2019: Construction		3) Land Acquisition 0
2020: Start Operation and Maintenance		Total 4,600,000

Sector: Tourism Infrastructure

Project No.	Project Name	Project Priority
2-04	Establishment of Public Sign System	A
Project Site / Location		Assumed Fund
Bagan Cultural Heritage Area		To be determined
Target Beneficiaries		Estimated Cost
Tourists, Local Community		40,000 USD
Implementation Organization		Relevant Organization
DOA of MORAC		GAD of Nyaung U
1. Background		
<p>One of the attraction of Bagan is the unique historical landscape that has passed through hundreds of years. To travel freely by their own feet (by E-bike) while taking the scenery as a background, is the real pleasure for individual tourists in Bagan. However, the condition of directional signage that guide to the tourism destination were physically damaged, and not providing appropriate indication for foreigners (no English, no distance, various design). Therefore, there was a condition that forced inconvenience to tourists. Although directional signs were installed as a pilot project, additional supports will be required for the implementation of the integrated signage system for inside and outside the monuments in Bagan.</p>		
2. Project Purpose		
<p>As a part of environmental improvement of Bagan heritage tourism area, it aims to develop a unified signage. The main policies are 1) to use materials that can be procured locally, 2) to cooperate with carpenters with traditional woodcarving skills, and 3) unify design and harmonize them with historic environment. It aims also to secure sustainability for the implementation. It is required to continue to carry out the installation of the signage based on this pilot project.</p>		
3. Project Outline / Components / Activities		
<ol style="list-style-type: none"> 1) Current situation survey 2) Selection of target sign 3) Spelling check by DOA of MORAC 4) Procurement, production and installation of the signs by wooden carpenter. 5) Implementation of above work from 1) to 4) for the new target signage. <p>Note: 1) to 4) were implemented as a pilot project. 5) will be implemented in this project.</p>		
4. Outputs of the Project		
<ol style="list-style-type: none"> 1) Install directional signs at the intersections in cultural heritage area. 2) Establish regional specific production system to ensure sustainability. 		
5. Environmental and Social Impact		
<ol style="list-style-type: none"> 1) Environmental: No negative impact to heritage environment. 2) Social: No negative impact on local societies. 		
6. Related Projects		
2-05 Improvement of Visitor Management		
7. Implementation Schedule		8. Project Cost (USD)
JICA Pilot Project		1) Consultant Fee 0
2016:	Current situation survey and Planning	2) Material and Production Cost 25,000
2017:	Installation	Total 25,000
This project		1) Consultant Fee 10,000
2018:	Current situation survey and Planning	2) Material and Production Cost 25,000
2018:	Installation and Maintenance	3) Maintenance Cost for 3 years 5,000
		Total 40,000

Sector: Tourism Infrastructure

Project No.	Project Name	Project Priority
2-05	Improvement of Visitors' Management	A
Project Site / Location		Assumed Fund
Around the Main Heritage Sites		To be determined
Target Beneficiaries		Estimated Cost
Tourists, Local Community / Tourism Business / Pagoda Trustee		50,000 USD
Implementation Organization		Relevant Organization
GAD of Nyaung U		DOA of MORAC
1. Background		
<p>It is important for the heritage tourism destination to smooth the flow lines of tourists. In the surrounding environment of the main monument, especially the parking lot has not been improved yet. As a result, large busses and passenger cars are randomly parked in the vicinity of the monuments, obstruct smooth flow of the tourists, and furthermore, the view point to the monument is blocked by the them. Then the quality as a tourism spots is remarkably reduced. As an environment improvement suitable for the candidate site for the World Heritage Site, it is desirable to improve smooth movement of tourists, encourage the formation of landscape of monument sites, and to improve the value of the environment.</p>		
2. Project Purpose		
<p>This is a plan aiming to improve flow lines of tourism by planning traffic and parking lots around Ananda Temple, Old Bagan and surrounding area. At the same time, it aims to secure the view toward the monument. In the planning, it is desirable to consider carefully so as to minimize the influence on the monument environment while preserving heritage as the foremost. An improvement plans for transportation and parking the area around Ananda trample and Old Bagan were proposed as a pilot project and part of work are conducted by the local governments. However, further support is indispensable for the local administration office in order to plan and implement visitor management for parking areas around manor monuments on a continuous basis.</p>		
3. Project Outline / Components / Activities		
<ol style="list-style-type: none"> 1) Current situation survey 2) Selection of target site 3) Planning for the implementation plan 4) Propose to GAD to implement the plan 5) Implementation of above work from 1) to 4) for the new target area. <p>Note: 1) to 4) were implemented as a pilot project. 5) will be implemented in this project.</p>		
4. Outputs of the Project		
<ol style="list-style-type: none"> 1) Reorganize the flow line of vehicles and tourists around the monument site and its surrounding. 2) Create new viewing points toward the monuments. 		
5. Environmental and Social Impact		
<ol style="list-style-type: none"> 1) Environmental: No negative impact to heritage environment. 2) Social: No negative impact on local societies. 		
6. Related Projects		
2-03 Improvement of Tourist Route		
2-10 Development of Viewing Points		
7. Implementation Schedule		8. Project Cost (USD)
JICA Pilot Project		1) Consultant Fee 0
2016: Current situation survey and Planning		2) Direct Const. Cost 0
2017: Construction		Total 0
2017-: Operation and Maintenance (local government)		
This project		1) Consultant Fee 0
2018: Current situation survey and Planning		2) Direct Const. Cost 50,000
2019: Construction, Operation and Maintenance		Total 50,000

Sector: Tourism Infrastructure

Project No.	Project Name	Project Priority
2-06	Development of Water Supply System	A
Project Site / Location		Assumed Fund
Nyaung U Town, New Bagan Town, Villages		To be determined
Target Beneficiaries		Assumed Cost
Local Community / Tourism Business		39,200,000 USD
Implementation Organization		Relevant Organization
GAD of Nyaung U / Township Development Committee		DOA of MORAC
1. Background		
<p>The water service is managed by Township Development Committee (TDC). Target area is two urban area, Nyaung U Town and New Bagan Town. Daily water distribution time is limited (3 to 12 hours). Water supply rate is 86% in Nyaung U, 17% in New Bagan. The residents' access to treated water is not sufficient.</p> <p>In addition, water supply facility and water supply pipes are becoming aging, therefore, improvement of existing facilities is essential. In rural area, groundwater is common in use.</p>		
2. Project Purpose		
<p>The aim is to provide purified water to the people by constructing a water supply system using river water for two urban areas and 10 villages in the vicinity. Through the project, the facilities for water inlet, water purification plants, and water distribution will be improved.</p>		
3. Project Outline / Components / Activities		
<ol style="list-style-type: none"> 1) F/S 2) Detailed Design 3) Bidding 4) Construction 		
4. Outputs of the Project		
<ol style="list-style-type: none"> 1) Provide treated hygienic water. 2) Achieve 100% of water supply rate at two urban areas. 3) Achieve 24 hours water supply in two urban areas. 		
5. Environmental and Social Impact		
<ol style="list-style-type: none"> 1) Environmental: Before the implementation of pipe burial work in heritage area, it is required to implement HIA (Heritage Impact Assessment) whether there is buried cultural properties or not. 2) Social: Benefit to local communities. 		
6. Related Projects		
2-07 Development of Sewage and Drainage System		
7. Implementation Schedule		8. Project Cost (USD)
Short-middle term		1) Consultant Fee 5,000,000
2018: F/S		2) Direct Const. Cost 34,200,000
2019: Detailed Design		3) Land Acquisition 0
2020: Bidding		4) Contingency ---
2020: Construction		5) Price Escalation: ---
2021: Operation		Total 39,200,000

Sector: Tourism Infrastructure

Project Number.	Project Name	Project Priority
2-07	Development of Sewage and Drainage System	A
Project Site / Location		Assumed Fund
Bagan Cultural Heritage Area		To be determined
Target Beneficiaries		Estimated Cost
Local Community / Tourism Business		33,500,000 USD
Implementation Organization		Relevant Organization
GAD of Nyaung U / Township Development Committee		DOA of MORAC
1. Background		
<p>The water service is managed by TDC of Nyaung U which collects and discards sewage. Tourist operators such as hotels and restaurants may have septic tanks, but there are cases where they are discharged directly to the soil without being provided. The rate of installation of septic tanks at home is less than 50%, and there is no hygienic situation. Miscellaneous waste water is generally discharged directly to the soil without treatment. As mentioned, sewage treatment has not been done in urban area in Bagan.</p>		
2. Project Purpose		
<p>Target to Nyaung U Town where there are many tourism operators, it aims to improve the environment through implementation of sewage treatment plants, pipelines and related facilities.</p>		
3. Project Outline / Components / Activities		
<ol style="list-style-type: none"> 1) F/S 2) Detailed Design 3) Bidding 4) Construction 		
4. Outputs of the Project		
<ol style="list-style-type: none"> 1) Realize appropriate sewage treatment in Nyaung U Town. 		
5. Environmental and Social Impact		
<ol style="list-style-type: none"> 1) Environmental: Before the implementation of pipe burial work in heritage area, it is required to implement HIA (Heritage Impact Assessment) whether there is buried cultural properties or not. 2) Social: Benefit to local communities. 		
6. Related Projects		
2-06 Development of Water Supply System		
7. Implementation Schedule		8. Project Cost (USD)
Short-middle term		1) Consultant Fee 5,000,000
2018: F/S		2) Direct Const. Cost 28,500,000
2019: Detailed Design		3) Land Acquisition 0
2020: Bidding		4) Contingency ---
2020: Construction		5) Price Escalation ---
2021: Operation		Total 33,500,000

Sector: Tourism Infrastructure

Project No.	Project Name	Project Priority
2-08	Improvement of Garbage Collection Services	A
Project Site / Location		Assumed Fund
Bagan Cultural Heritage Area		To be determined
Target Beneficiaries		Estimated Cost
Local Community		1,020,000 USD
Implementation Organization		Relevant Organization
GAD of Nyaung U / Township Development Committee		DOA of MORAC
1. Background		
The garbage collection service in two urban area, Nyaung U Town and New Bagan Town, is carried out by TDC of Nyaung U. However, the areas other than urban areas, village areas and heritage areas are not subject to collection. As a result, garbage is scattered around the monument, and reducing the image of the tourism spot. In addition, because of the collection service is not reached enough, 11 tons of garbage per day is being dumped into river or the like.		
2. Project Purpose		
With the increase of garbage by tourism demand increase and the expanding of garbage collection area to rural areas and heritage area, it aims to procure garbage collection vehicles to enhance the collection and transportation capability. In improve the collection systems, it is also necessary to raise awareness of local people and to improve the system itself.		
3. Project Outline / Components / Activities		
1) F/S 2) Bidding 3) Procurement		
4. Outputs of the Project		
1) Achieve 100% for garbage transportation ration to sanitary landfill disposal site. 2) Create sanitary heritage tourism destination by setting the village and heritage area as garbage collection area. 3) Improve awareness of the local people to the waste.		
5. Environmental and Social Impact		
1) Environmental: The environment of overall Bagan (urban area, village, heritage area) will be improved. 2) Social: Benefit to local communities.		
6. Related Projects		
2-09 Improvement of Garbage Collection Services		
7. Implementation Schedule		8. Project Cost (USD)
Short-middle term		1) Consultant Fee 0 (including to P2-09)
2018: F/S		2) Direct Const. Cost 1,020,000
2020: Bidding		3) Land Acquisition 0
2021: Procurement of garbage collection vehicles		4) Contingency ---
		5) Price Escalation ---
		Total 1,020,000

Sector: Tourism Infrastructure

Project No.	Project Name	Project Priority
2-09	Development of Final Waste Disposal Site	A
Project Site / Location		Assumed Fund
Bagan Cultural Heritage Area		To be determined
Target Beneficiaries		Estimated Cost
Local Community		13,300,000 USD
Implementation Organization		Relevant Organization
GAD of Nyaung U / Township Development Committee		DOA of MORAC
1. Background		
Nyaung U Town and New Bagan Town, each has a final disposal site near the urban area. Both are located not in a proper place, such as located in the archaeological conservation area and near the residential area. In addition, both are open dumping sites and have negative impacts on the air quality water environment, etc.		
2. Project Purpose		
For proper treatment of waste, it aims to compost, to recycle and to sanitary landfill. For sanitary landfill, the sanitary landfill disposal site will be implemented that is low operation and maintenance cost, and can reduce the environmental impact to the surrounding area. In addition, the current open dumping site shall be closed after the operation of the new disposal site.		
3. Project Outline / Components / Activities		
1) F/S 2) Detailed Design 3) Bidding 4) Construction		
4. Outputs of the Project		
1) Achieve 0% of open dumping site. 2) Realize hygienic waste disposal with reduced environmental impact.		
5. Environmental and Social Impact		
1) Environmental: Although the site is located outside buffer zone, implementation of HIA (Heritage Impact Assessment) is desirable. 2) Social: Benefit to local communities.		
6. Related Projects		
2-08 Improvement of Garbage Collection Services		
7. Implementation Schedule		8. Project Cost (USD)
Short-middle term		1) Consultant Fee 1,870,000
2018: F/S		(including 2-08)
2019: Detailed Design		2) Direct Const. Cost 11,430,000
2020: Bidding		3) Land Acquisition 0
2021-: Construction		4) Contingency ---
		5) Price Escalation ---
		Total 13,300,000

Sector: Tourism Infrastructure

Project No.	Project Name	Project Priority
2-10	Improvement of Nyaung U Airport	A
Project Site / Location		Assumed Fund
Nyaung U Airport		To be determined
Target Beneficiaries		Estimated Cost
International Tourists, Domestic Tourists, Local Community		84,100,000 USD
Implementation Organization		Relevant Organization
DCA (Department of Civil Aviation)		
1. Background		
Air traffic demand of domestic flights has been rapidly increasing recently in Nyaung U Airport and it is expected to continue in future due to the growth of Myanmar economy and development of tourism sector in Bagan. However, the airport facilities and equipment in Nyaung U Airport do not meet requirements of International Civil Aviation Organization (ICAO) standards and do not have enough capacity to handle future air traffic. From this situation, it is urgently required to develop and improve the airport facilities and equipment in Nyaung U Airport.		
2. Project Purpose		
The aim of this project is 1) to handle international flight to invite international tourists efficiently, 2) to meet the required capacity for future traffic demand, 3) to meet ICAO standards, 4) to develop Nyaung U Airport as Eco-Airport		
3. Project Outline / Components / Activities		
1) F/S 2) Detailed Design 3) Bidding 4) Construction		
4. Outputs of the Project		
1) Provide safe airport operation 2) Accommodate International Flight 3) Provide capacity for total 1.5 million per annual of passengers upon completion of Phase-1 4) Provide eco-friendly airport facilities		
5. Environmental and Social Impact		
1) Environmental: No negative impact to heritage environment. 2) Social: No negative impact on local societies.		
6. Related Projects		
2-08 Improvement of Garbage Collection Services		
7. Implementation Schedule		8. Project Cost (USD)
Short-middle term		1) Consultant Fee ---
2017: F/S		2) Direct Const. Cost 84,100,000
2018: Detail Design		3) Land Acquisition ---
2018: Construction for Urgent Work		4) Contingency ---
2019: Construction for Phase-1		5) Price Escalation ---
2020: Operation		Total 84,100,000

(3) Mid- to Long-Term Projects

Sector: Tourism Infrastructure

Project No.	Project Name	Project Priority
2-11	Development of Viewing Points	B
Project Site / Location		Assumed Fund
Bagan Cultural Heritage Area		To be determined
Target Beneficiaries		Estimated Cost
Tourists		---
Implementation Organization		Relevant Organization
Mandalay Region Government / GAD of Nyaung U / Bagan Management Committee		DOA of MORAC

Sector: Tourism Infrastructure

Project No.	Project Name	Project Priority
2-12	Electric Line Underground	B
Project Site / Location		Assumed Fund
Bagan Cultural Heritage Area		To be determined
Target Beneficiaries		Estimated Cost
Tourists, Local Community		12,250,000 USD
Implementation Organization		Relevant Organization
MOTC / Bagan Management Committee		DOA of MORAC

Sector: Tourism Infrastructure

Project No.	Project Name	Project Priority
2-13	Improvement of Archaeology Museum	B
Project Site / Location		Assumed Fund
Old Bagan		To be determined
Target Beneficiaries		Estimated Cost
Tourists		---
Implementation Organization		Relevant Organization
DOA of MORAC / Bagan Management Committee		---

Sector: Tourism Infrastructure

Project No.	Project Name	Project Priority
2-14	Development of Rest Spaces in Heritage Area	B
Project Site / Location		Assumed Fund
Bagan Cultural Heritage Area		To be determined
Target Beneficiaries		Estimated Cost
Local Community, Tourists		---
Implementation Organization		Relevant Organization
DOA of MORAC / Bagan Management Committee		GAD of Nyaung U

Sector: Tourism Infrastructure

Project No. 2-15	Project Name Street Lights in Cultural Heritage Area	Project Priority B
Project Site / Location Bagan Cultural Heritage Area		Assumed Fund To be determined
Target Beneficiaries Local Community, Tourists		Estimated Cost 2,800,000 USD
Implementation Organization Mandalay Region Government / GAD of Nyaung U		Relevant Organization DOA of MORAC

Sector: Tourism Infrastructure

Project No. 2-16	Project Name Parking in Cultural Heritage Area	Project Priority B
Project Site / Location Bagan Cultural Heritage Area		Assumed Fund To be determined
Target Beneficiaries Local Community, Tourists		Estimated Cost 1,350,000 USD
Implementation Organization Mandalay Region Government / GAD of Nyaung U		Relevant Organization DOA of MORAC

Sector: Tourism Infrastructure

Project No. 2-17	Project Name Development of By-pass Route	Project Priority B
Project Site / Location Bagan Cultural Heritage Area		Assumed Fund To be determined
Target Beneficiaries Local Community, Tourists		Estimated Cost 20,870,000 USD
Implementation Organization Ministry of Construction / GAD of Nyaung U		Relevant Organization DOA of MORAC

Sector: Tourism Infrastructure

Project No. 2-18	Project Name Drainage Facility for Flood	Project Priority B
Project Site / Location Bagan Cultural Heritage Area		Assumed Fund To be determined
Target Beneficiaries Local Community, Tourists		Estimated Cost 3,710,000 USD
Implementation Organization GAD of Nyaung U / Township Development Committee		Relevant Organization DOA of MORAC

Sector: Tourism Infrastructure

Project No. 2-19	Project Name Nyaung U Jetty Improvement	Project Priority B
Project Site / Location Bagan Cultural Heritage Area		Assumed Fund To be determined
Target Beneficiaries Local Community, Tourists		Estimated Project 13,060,000 USD
Implementation Organization MOTC / GAD of Nyaung U		Relevant Organization DOA of MORAC

Sector: Tourism Infrastructure

Project No. 2-20	Project Name Development of ICT System	Project Priority C
Project Site / Location Bagan Cultural Heritage Area		Assumed Fund To be determined
Target Beneficiaries Local Community, Tourists		Estimated Cost ---
Implementation Organization MOTC / GAD of Nyaung U		Relevant Organization DOA of MORAC

Sector: Tourism Infrastructure

Project No. 2-21	Project Name Development of Inter-City Road	Project Priority C
Project Site / Location Bagan Cultural Heritage Area		Assumed Fund To be determined
Target Beneficiaries Local Community, Tourists		Estimated Cost ---
Implementation Organization Ministry of Construction / GAD of Nyaung U		Relevant Organization DOA of MORAC

Sector: Tourism Infrastructure

Project No. 2-22	Project Name Development of Railway	Project Priority C
Project Site / Location Bagan Cultural Heritage Area		Assumed Fund To be determined
Target Beneficiaries Local Community, Tourists		Estimated Cost ---
Implementation Organization MOTC / GAD of Nyaung U		Relevant Organization DOA of MORAC

Sector: Tourism Infrastructure

Project No. 2-23	Project Name Development of Park and Ride System	Project Priority C
Project Site / Location Bagan Cultural Heritage Area		Assumed Fund To be determined
Target Beneficiaries Local Community, Tourists		Estimated Project ---
Implementation Organization Mandalay Region Government / GAD of Nyaung U		Relevant Organization DOA of MORAC

5.4.3 Tourism Human Resources and Local Community

To achieve sustainable tourism development in the Bagan Cultural Heritage area, short-term (high priority), middle-term and long-term projects are proposed for strengthen tourism human resources development and involvement of local community.

(1) Project List

Projects for Tourism Human Resources and Local Community is listed below.

Table 5—4 Projects for Tourism Human Resources and Local Community

Stage Period	Short Term (Priority: A) 2017-2019	Middle Term (B) 2020-2024	Long Term (C) 2025-2030	
Project	3-1. <u>Bagan Tourism Institute</u>			
		3-7. Establishment of Hotel and Tourism School		
	3-2. Capacity Development for Human Resources in Tourism Administration			
	3-3. <u>Capacity Development for Local Tourism Business</u>			
	3-4. <u>Training Program for Cultural Heritage Site Guide</u>			
		3-8. Training and Strengthening of Local Craftsman	3-10. Establishment of Traditional Crafts Support Center	
	3-5. <u>Public Awareness Campaign</u>		3-9. Joint Garbage Collection Operation	
	3-6. <u>Strengthen of Entrepreneurship for CBT</u> (including strengthening of local products such as handicraft and food/beverage) (including development of optional tours such as eco tour)		3-11. Community Development based on CBT Promotion including Basic Infrastructure Development	

Source : JICA Expert Team

(2) Priority Projects

The following priority projects are proposed to be implemented as urgent.

- 3-01 Bagan Tourism Institute
- 3-02 Capacity Development for Human Resources in Tourism Administration *
- 3-03 Capacity Development for Local Tourism Business
- 3-04 Training Program for Cultural Heritage Site Guide
- 3-05 Public Awareness Campaign
- 3-06 Strengthen of Entrepreneurship for CBT

* This project is recommended to plan and implement within the framework of “Myanmar Tourism Human Resources Development Strategy & Action Plan (2016)”. It needs to be discussed with MOHT. Therefore, this project is not included as a project sheet below.

Sector: Tourism Human Resources and Local Community

Project No.	Project Name		Project Priority
3-01	Bagan Tourism Institute		A
Project Site / Location			Assumed Fund
Bagan Area			MOHT/Donor
Target Beneficiaries			Estimated Cost
Tourists to Bagan, Bagan Local Residents			40,000 USD
Implementation Organization		Relevant Organization	
MOHT	GAD, Nyaung U District	Bagan Hospitality Association, relevant tourism Associations	
1. Background			
<p>The project for Establishment of the Pilot Model for Regional Tourism Development will be implemented in year 2017. And working group 3 (in charge for the HR development in Tourism) has accomplished series of hospitality related training courses was planned and conducted for local tourism business (hotel, restaurant and tourist guide) successfully as pilot project for the tourism human resources development in the Bagan Tourism Development Project. The final training program on Omotenashi-hospitality in August 2017, 18 participants passed the final exam and received certificate of Omotenashi-hospitality as the first “Omotenashi-hospitality Representatives” in Myanmar. As the matter of fact, this year is the startup year for the Hospitality Program to maintain and develop this hospitality style, “Bagan Style”, backed by Japanese Omotenashi philosophy. In order to boost and promote Omotenashi- hospitality for tourism business in Bagan by certified Omotenashi-hospitality Representatives, it is still necessary to further support on training on Omotenashi-hospitality.</p>			
2. Project Propose			
<p>The project aims at feeding the market (Bagan) as the center to represent Myanmar’s unique hospitality style called “Bagan Style” while developing the region as a convenient hub to variety of domestic destinations.</p>			
3. Project Outline / Components / Activities			
<ol style="list-style-type: none"> 1) Establish Bagan Tourism Institute as tourism education center under supervision of the MOHT/JICA 2) Plan and conduct three months based “Omotenashi-Hospitality” course. And the successful trainees will get certified Omotenashi-hospitality Representatives. Selected top 3 will be sent to Japan to soak up Japanese hospitality related experiences/knowledge before becoming MOR (Master Omotenashi-hospitality Rep) who can teach Omotenashi hospitality to the others. (Training of Trainer program) 3) Establish series of travel business related courses, such as “How to run Travel Agency” etc. 			
4. Project Output			
<ol style="list-style-type: none"> 1) The first local Omotenashi-hospitality trainers will be created to run future hospitality business in Bagan. (8 local trainers are trained, more than 4 training courses are held, more than 80 people are participated.) 2) This unique hospitality style taught in BIC will get branded as “Bagan Style” and can expand it to the other areas, such as Inle Lake, Mandalay, etc. (O-H training course is held in 2 areas.) 3) The BIC will fully be utilized and functioned as the core of the Destination Management Organization (DMO) in Myanmar Tourism. (5 new travel agencies are established in Bagan. More than 5 new tour programs are created.) 			
5. Environmental and Social Impact			
<p>Environment: Enhance environmental protection and beautification as a tourist destination Social Impact: Increase level of tourists’ satisfaction in terms of service in tourism industry and tourism demand (Tourists, tourists’ length of stay, tourist expenditure)</p>			
6. Related Projects			
Hotel Training Initiative (Swisscontact)			
7. Implementation Schedule		8. Project Cost (USD)	
Short Term – Mid Term		1) Development of training programs	
2018: Preparation and start the implementation		2) Development of training materials	
2019-: Continue the activities.		3) Implementation of training courses (lecturers, transport expenses, etc.)	
		Cost for training program in Japan is excluded.	
		Total	40,000

Sector: Tourism Human Resources and Local Community

Project No.	Project Name		Project Priority
3-03	Capacity Development for Local Tourism Business		A
Project Site / Location			Assumed Fund
Bagan			MOHT, MTF
Target Beneficiaries			Estimated Cost
Tourism business in Bagan			40,000 USD
Implementation Organization		Relevant Organization	
MOHT	MOHT Bagan branch	MORAC, Hotel and Tourism Training Schools, tourism associations (MTF, MHA, MRA, BHA, BTGA) in Bagan	
1. Background			
Basic level training for hotel, restaurant and training for regional guide license are conducted by MOHT Bagan branch office in collaboration with relevant ministries, Hotel and Tourism Training Schools and tourism associations in Bagan. However, current HRD trainings for tourism business in Bagan organized by MOHT Bagan branch is still insufficient in term of quantity and quality, and do not meet increasing needs of training for tourism sector in Bagan due to no tourism school or training school in Bagan. Until the establishment of tourism school in Bagan, ToT (Training of Trainer) for tourism HRD, development of training materials and training contents will be required for effective implementation of HRD trainings for tourism sector in Bagan. HRD trainings are planned and conducted at a newly opened Bagan Information Center (BIC) by MOHT in cooperation with MTF and other tourism associations in Bagan.			
2. Project Propose			
The project aims to create practical and result-oriented training program and training implementation scheme, and improve ability, skill and knowledge for those who engaged in respective tourism business (hotel, restaurant, tourist guide, retail store, transport business) in Bagan by proving training programs.			
3. Project Outline / Components / Activities			
<ol style="list-style-type: none"> 1) Conduct needs survey and assessment for tourism HRD in Bagan 2) Selection of training targets and level 3) Preparation of action plan and schedule for training programs including workshop 4) Development of training course curriculum and materials for respective tourism business 5) Preparation and implementation of training programs and workshop 6) Feedback of trainings (Questioner and interview survey) 7) Development and implementation of ToT programs 8) Evaluation of training programs 			
4. Project Output			
<ol style="list-style-type: none"> 1) Practical training program system for tourism HRD is developed. (4 training programs are developed.) 2) Ability, skill and knowledge of trainees are improved. 3) Acquired skill, knowledge and experience from participated training is shard with colleagues and staff at working place4) 4) The number of trainer is increased. (More than 10 local trainers are trained by ToT training.) 			
5. Environmental and Social Impact			
No direct environmental impact. Positive impact and influence to tourism businesses in Bagan and tourists visiting Bagan.			
6. Related Projects			
<ol style="list-style-type: none"> 1) Hotel Training Initiative (Swisscontact) 2) Myanmar Tourism Human Resources Development Strategy and Action Plan (Lux - Dev) 3) Tourism Value Chain Assessment (ILO) 			
7. Implementation Schedule		8. Project Cost (USD)	
Short Term – Middle term		1) Development of training programs	
2018: Preparation and start the implementation		2) Development of training materials	
2019-2022: Continue the activities, monitoring and evaluation		3) Implementation of training courses	
		(lecturers, transport expenses, etc.)	
		Total	40,000

Sector: Tourism Human Resources and Local Community

Project No.	Project Name	Project Priority
3-04	Training Program for Cultural Heritage Site Guide	A
Project Site / Location		Assumed Fund
Bagan		MoRAC, UNESCO
Target Beneficiaries		Estimated Cost
Tourist guides, tour operators in Bagan		USD 65,000
Implementation Organization		Relevant Organization
MORAC		UNESCO, MOHT, Bagan Tourist Guide Association
1. Background		
<p>In Bagan, tourist guide is an important role for tourism sector in terms of receiving foreign tourists and explaining cultures, history, tourism resources and tourist sites to foreign tourists. Currently, nomination of Bagan as UNESCO World Cultural Heritage site has been under the preparation by Ministry of Religious Affairs and Culture in cooperation with MOHT, relevant governmental agencies, UNESCO and Myanmar and Association of Myanmar Architect. Main tourist attraction for Bagan is archaeological monument sites including temples, pagodas and monasteries. There are 311 national and 231 regional licensed tourist guides in Bagan. After receiving the license, limited opportunity to have retraining of skill, knowledge and updated information for tourist guiding. Constraints of tourist guides in Bagan is interpretation of inaccurate information on monuments, culture and history as well as language skill, especially for regional guide. During the training program for tourist guide in August 2015 as part of the pilot project for Tourism HRD, training session on site guide at World Heritage site was conducted by a licensed trainer of WH site guide. This training session was meeting the needs for tourist guide in Bagan. Before the World Heritage nomination of Bagan in 2019, official licensed site guide for heritage site of Bagan need to be trained with providing training programs by MORAC in collaboration with UNESCO and MOHT.</p>		
2. Project Propose		
<p>The project aims to train site guides for heritage tourist destination of Bagan in order to provide accurate and sufficient information on heritage site of Bagan for tourists and meet the demand of Bagan as WHS.</p>		
3. Project Outline / Components / Activities		
<ol style="list-style-type: none"> 1) Contact and discussion with MORAC and UNESCO regarding the site guide training 2) Sites survey in Bagan Heritage area by UNESCO 3) Preparation of training program and schedule 4) Development of training course material and module for Bagan WHS 5) Implementation of training program in Bagan (Lecture, on-site guidance, field trip to Pyu Ancient cities) 6) Study tour to WHSs in Thailand/Cambodia (Optional program) 7) Examination and license 8) Monitoring, evaluation and assessment of training program contents 		
4. Project Output		
<ol style="list-style-type: none"> 1) Training program for site guide at Bagan WHS is developed. (Training course, site guide manual, modules are developed.) 2) Training programs for site guide are carried out. (More than 20 site guides are trained by each training course.) 3) Instructors for site guide in Bagan are trained by ToT program. (More than 5 instructors for site guide are trained.) 		
5. Environmental and Social Impact		
<p>Environment: Enhance environmental conservation and improve environment at heritage site Social impact: Strengthening management and conservation of heritage site by tourist guide, tourists and local community in Bagan</p>		
6. Related Projects		
None		
7. Implementation Schedule		8. Project Cost (USD)
Short Term – Middle term		1) Preparation 5,000
2018: Preparation of training programs		2) Training program 10,000
2019-20: Implementation of training programs, evaluation (1 st phase)		(Lecture, field trip)
2021-22: Preparation and implementation of training programs, evaluation (2 nd phase)		3) Study tours 40,000
		4) Miscellaneous 10,000
		Total: 65,000

Sector: Tourism Human Resources and Local Community

Project No.	Project Name	Project Priority
3-05	Public Awareness Campaign	A
Project Site / Location		Assumed Fund
Nyaung U Town, New Bagan, Old Bagan, villages in Nyaung U Township		Local government
Target Beneficiaries		Estimated Cost
Local residents, students		20,000 USD
Implementation Organization		Relevant Organization
MOHT Bagan branch		MORAC, MOEducation, GAD, Nyaung U District, tourism associations in Bagan
1. Background		
<p>During the Bagan Tourism Development Project, public awareness seminar, mini-public awareness workshop and cleaning campaign were conducted as part of activities for the pilot project of Public Awareness Campaign for targeting of government offices, local residents, school students and tourism business operators in Bagan with more than 1,800 participants. These activities helped to enhance awareness and knowledge on importance of tourism and conservation of heritage, manner to welcome foreign visitors for residents and students. Most of participants were motivated to practice what they learned and acquired knowledge from the seminar, workshop and cleaning campaign. Currently, nomination of Bagan as UNESCO World Cultural Heritage site is under the preparation. It is necessary to improve environment at heritage sites and receive foreign tourists with warm hospitality as an international heritage destination. Considering these factors, there is a demand for public awareness activities targeting to villagers and schools in Bagan.</p>		
2. Project Propose		
<p>The project aims to enhance awareness on importance of tourism, conservation of heritage and beautification of heritage sites and so on for local residents and students (primary, middle and high schools) in Bagan through public awareness activities.</p>		
3. Project Outline / Components / Activities		
<ol style="list-style-type: none"> 1) Establish a team for preparation and implementation of public awareness campaign in cooperation with relevant governmental agencies and tourism associations 2) Conducting needs survey for target villages and schools by the team 3) Selection of targets and preparation of action plan and schedule for public awareness campaign (seminar, workshop and cleaning activities) 4) Preparation of presentation and materials for activities of public awareness campaign 5) Implementation of planned activities based on the action plan 6) Monitoring of villages and schools after the implementation of activities 7) Evaluation of activities 		
4. Project Output		
<ol style="list-style-type: none"> 1) Committee or group for cleaning activities at village are established. (80% of villages participated the activities establish committee/group in their own villages.) 2) The volume of garbage at heritage sites and villages is reduced. (Waste separation and composting are conducted in 60% of villages in Bagan.) 3) The level of satisfaction for Bagan as heritage tourist destination by tourists is increased. 4) The number of negative factors caused by local residents is reduced. 		
5. Environmental and Social Impact		
<p>No direct environmental impact. Positive impact and influence to local communities, tourism businesses in Bagan and tourists visiting Bagan.</p>		
6. Related Projects		
None		
7. Implementation Schedule		8. Project Cost (USD)
Short Term		Total
2018: Preparation and start the implementation		20,000
2019-: Continue the activities, monitoring and evaluation		

Sector: Tourism Human Resources and Local Community

Project No.	Project Name	Project Priority
3-06	Strengthen of Entrepreneurship for CBT	A
Project Site / Location		Assumed Fund
The whole Bagan area		MOHT/Donor
Target Beneficiaries		Estimated Cost
Local community, Travel agencies		30,000 USD
Implementation Organization		Relevant Organization
MOHT	MOHT-Bagan	Private sector related to Tourism in Bagan
1. Background		
<p>The villages in and around Bagan have potential for Community Based Tourism (CBT) such as excursion of local handicrafts and traditional rural lifestyles. Several CBTs are being developed and promoted by community people as a new tourism product in Bagan, and fascinates foreign tourists who expect to enjoy travel experience in rural area. However, not a few CBTs face difficulties to establish sustainable operation and management due to the lack of entrepreneurship.</p>		
2. Project Purpose		
<ol style="list-style-type: none"> 1) Awareness raising of community people to strengthen entrepreneurship for CBT activities 2) Enhance sustainability of CBTs 7) Develop CBT as alternative tourism in Bagan 		
3. Project Outline / Components / Activities		
<ol style="list-style-type: none"> 1) Mapping of CBTs in and around Bagan 2) Trainings of strengthening entrepreneurship for CBT group leaders 3) Implement pilot projects for developing model CBTs in Bagan 4) Set up matching opportunities to present CBTs in Bagan for private sector as a promotion activity 5) Monitoring of CBT activities and follow-up trainings 6) Evaluation 		
4. Project Output		
<ol style="list-style-type: none"> 1) Increase of human resources for CBT (Goal: A total of 100 are trained for the target of administrative officers, private sector, CBT leaders) 2) Sound operation and management of CBT activities by local community (Goal: 3 CBT programs are developed at 19 villages in Bagan.) 3) Existence of Model CBTs in Bagan (Goal: 10 Model CBTs such as rural tourism, cultural experience tour, eco tour are developed.) 4) Creation of CBT tour programs as new tourism destinations in and around Bagan (Goal: 30 CBT tour programs) 		
5. Environmental and Social Impact		
<ol style="list-style-type: none"> 1) Environment <ul style="list-style-type: none"> - Limited impact on natural resources and environment under appropriate garbage and traffic control of tourists 2) Social Impact <ul style="list-style-type: none"> - Increase of job opportunities and income generation in local communities - Promote community development through CBT activities 		
6. Related Projects		
<ol style="list-style-type: none"> 1) Advanced CBT projects by donors in and around Bagan 2) Model CBT projects in Myanmar 		
7. Implementation Schedule		8. Project Cost (USD)
Short Term		
2018: Mapping of CBTs		Total
2018-2019: Trainings (a week training, 3 times a year)		30,000
2018-2019: Pilot project of model CBT		
2018-2019: Matching with private sector for CBT promotion		
2018-2019: Monitoring, follow-up training and evaluation		

(3) Mid- to Long-Term Projects

Sector: Tourism Human Resources and Local Community

Project No.	Project Name	Project Priority
3-07	Establishment of Hotel and Tourism School	B
Project Site / Location		Assumed Fund
Bagan		MOHT/ Donor
Target Beneficiaries		Estimated Cost
MOHT, tourism business operators, local residents		-
Implementation Organization		Relevant Organization
MOHT	MOHT Bagan branch	MORAC, relevant tourism associations in Bagan

Sector: Tourism Human Resources and Local Community

Project No.	Project Name	Project Priority
3-08	Training and Strengthening of Local Craftsman	B
Project Site / Location		Assumed Fund
Bagan area		Myanmar government / donor
Target Beneficiaries		Estimated Cost
Craftsman, local residents, tourism business operators		-
Implementation Organization		Relevant Organization
MOALI	MORAC	Lacquerware Technology College in Bagan, MOHT

Sector: Tourism Human Resources and Local Community

Project No.	Project Name	Project Priority
3-09	Joint Garbage Collection Operation	B
Project Site / Location		Assumed Fund
Bagan Cultural Heritage Region		Myanmar government
Target Beneficiaries		Estimated Cost
Local community, tourists		60,000 USD
Implementation Organization		Relevant Organization
GAD	TDC	MORAC

Sector: Tourism Human Resources and Local Community

Project No.	Project Name	Project Priority
3-10	Establishment of Traditional Crafts Support Center	C
Project Site / Location		Assumed Fund
Bagan area		Myanmar government / donor
Target Beneficiaries		Estimated Cost
Craftsmen, traditional dancers, traditional artists, tourists		-
Implementation Organization		Relevant Organization
MOALI	MORAC	Relevant tourism associations in Bagan

Sector: Tourism Human Resources and Local Community

Project No.	Project Name	Project Priority
3-11	Community Development based on CBT Promotion including Basic Infrastructure Development	C
Project Site / Location		Assumed Fund
Bagan area		Myanmar government / donor
Target Beneficiaries		Estimated Cost
Local community		-
Implementation Organization		Relevant Organization
Relevant departments in Myanmar Government	GAD	Relevant agencies in Bagan

5.5 Implementation Plan

In accordance with the Bagan Management Plan prepared by MORAC toward the UNESCO World Heritage nomination, an implementation plan is prepared for the proposed projects and programs for the Strategic Plan for Sustainable Tourism in Bagan Cultural Heritage Site in cooperation with MOHT, local stakeholders related to tourism and local communities in Bagan.

Chapter 6 Lessons Learned and Recommendations

6.1 Lessons Learned from Bagan Tourism Development Plan

(1) Involvement of Local Community

During the implementation of pilot project activities, some projects had to cancel implementation due to occurrence of opposition demonstrations by related business operators and some local residents. The reason for opposition by the opponents was that the project contents were not sufficiently shared with those local stakeholders beforehand and the involvement of the local stakeholders in the pilot project was not sufficient from the beginning of the plan for the pilot project. In the future, it is necessary to share the project contents, such as holding of explanatory meeting in advance with local residents and to actively involve and have the local residents participate so as not to incur such opposition.

(2) Collaboration among Related Ministries, Regional and Local Governments

In addition to the development of local community, Bagan is a special place requiring the creation of a comprehensive environment as a world heritage site. In the formulation of various projects, collaboration by various ministries and agencies is indispensable not only for the ministries concerned, but also MORAC, which is responsible for conservation of heritage, MOHT, which is responsible for supporting tourism promotion, Mandalay Region Government, which controls overall administration of Bagan as a regional government, and GAD, Nyaung U District, which is a center of local administration.

(3) Clarification of Consensus Building System

While proceeding with various projects, it is important for concerned stakeholders to be involved in discussions and to build consensus. To develop a system for tourism management in Bagan, it is necessary to establish a committee participating in addition to GAD and each Bagan Branch office in relevant ministries, as well as various public and private parties that can cooperate in public and private partnership. The establishment of such committee is considered as an effective means to develop a system that allows members to discuss comprehensively.

(4) Clarification and Decentralization of Decisions

Regarding obtaining licenses and approvals for projects, they are often left for the minister of the ministries to handle even at local level projects. In the case of Bagan, the head of the Mandalay Region Government is the chairman of the "Bagan Management Committee" and he makes decisions on the implementation of many projects. It is expected that project implementation can be speeded up by transferring the responsibility and decision-making authority by the ministries to the regional administration, such as GAD and the directors of each the administrative bureau and head of each branch office of ministries.

(5) Consideration for Cultural Heritage Site / Implementation of Heritage Impact Assessment

To create an appropriate environment as a cultural heritage site, it is important to implement the project to maximize the effect and minimize the environmental impact. When implementing projects such as infrastructure development, it is necessary to conduct a preliminary assessment, Heritage Impact Assessment (HIA) at the planning stage and ask for appropriate decision. In implementing projects within the Bagan Heritage Protected area, it is necessary for HIA to be conducted by domestic experts. Therefore, capacity development for the expert in charge of HIA is indispensable.

(6) Execution of Bagan Management Plan

MORAC is formulating "Bagan Management Plan (BMP)" as one of the required applications for registration of UNESCO World Heritage to continue maintaining and preserving the Buddhist heritage that is the universal value of Bagan and the landscape in the future generations. BMP describes the regional plan including the tourism strategic plan based on the main content of heritage conservation plan. After being registered as a World Heritage Site, BMP will become the most important and highest

plan in this area. Both the public and private sectors will be required to cooperate for implementing projects in accordance with BMP.

(7) Unification of Information

In applying for the registration of World Heritage Site, MORAC unified the implementation status of various infrastructure development along with information on heritage in the Bagan area, and created it as "One Map" with receiving support from UNESCO. To comprehensively manage the entire area, it is desirable to promote this further, and transfer the responsibility of information management to GAD, and establish a system to update information regularly.

(8) Utilization of Social Media

Websites, social media such as Facebook are indispensable information infrastructure in the present world. Compared with traditional media such as television, radio, newspaper, magazine, it can produce a big ripple effect. These social media are relatively easy for local operators to expand and maintain the contents, as a tool for disseminating and sharing tourism information and tourism promotion. It is desirable to use social media for not only these purpose, but also as a tool for dissemination of information on administrative management and tourism management. In addition, it is expected that these tools can proactively be utilized and capture various opinions from local residents.

(9) Continuation of Human Resources Development

Due to increased tourism demand in Bagan, it is necessary to train human resources engaged in tourism industry with development of accommodation facilities to meet the demand. To create a sustainable tourist destination, it is also indispensable to continue training for tourism business operators such as hotels, restaurants, tourist guides, etc. as well as to conduct seminars and workshops for raising the awareness of local residents. Also, in Bagan it is strongly required to foster leaders for the establishment of Destination Management Organization (DMO) to be responsible to lead the overall tourism promotion and tourism management for Bagan.

(10) Cooperation with Other Donors

Bagan has been receiving assistance from international organizations and other countries concerning conservation of heritage and human resourced development. It is urgent to build a system to receive these assistance by the Myanmar government. Regarding such assistance, it is desirable to cooperate among the supporting donors and countries, to avoid duplication of the contents of the support project and at the same time to raise the synergistic effect of the project.

6.2 Tourism Plan Applicable to Other Areas in Myanmar

The tourism plan is a pilot model for regional tourism development in Myanmar. Initially for Bagan as a target area for the plan, the plan was prepared and presented based on the regional characteristics. At the same time, it was supposed to be a model plan combining universality and versatility that can be applied to other areas in Myanmar.

Since Bagan is highly regarded as a cultural heritage tourist destination, it can be said that it is highly applicable not only as a tourist destination but also as a heritage tourist destination. In the case of Myanmar, it is appropriate to apply to other cultural heritage sites, such as the ancient heritage site, Myauk-U in Rakhine State which is the next candidate for World Heritage site in Myanmar, Inwa and Amarapura in Mandalay Region, and Sagaing in Sagaing Region.

6.3 Recommendations

Bagan is a gateway to the history of Myanmar. To visit this place is not only to learn the history of Myanmar through heritage such as pagodas and temples, but also to experience Myanmar culture through the traditional lifestyle and the natural heritage spread around that still exists.

The Buddhist monuments, which are the symbols of Bagan, have universal value for humanity and it is our duty to pass it on to future generations. To realize this, it is important to conserve not only heritage, but also various natural and cultural assets around it.

Conserved valuable resources will foster the pride of local residents living in that area. It also fascinates and satisfies tourists from all over the world. This will promote Bagan as an international heritage tourist destination.

The plan, "Bagan Tourism Development Plan" is a roadmap for Bagan to be a self-sustaining heritage tourist destination by 2030. Recommendations for action to achieve the plan are as follows.

- Recommendation 1: To enhance the tourism promotion of Bagan as a heritage site, for tourists from Myanmar and overseas, and disseminate the attraction of Bagan widely to the world. (Region / Country / World)
- Recommendation 2: To preserve the natural and cultural heritage of Bagan, which has universal value to humanity and future generations, the public and private sectors need to unite to create an environment for heritage conservation in Bagan for conserve the natural and cultural heritage of Bagan. (Past / present / future)
- Recommendation 3: To develop local human resources that support heritage conservation and tourism promotion, and establish a mechanism that enables sustainable development with benefit for the local community. (Human Resources / Structure / Sustainability)

Finally, it is recommended that the whole area of Bagan be developed in a comprehensive and sustainable manner by the combination of heritage conservation, tourism management and promotion and community development.

APPENDIX 1

Preliminary Feasibility Study on Basic Infrastructure Development in Bagan (Executive Summary Report)

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Executive Overview

Bagan is a unique heritage tourism destination in Myanmar. However, the infrastructure and services for tourists from domestic and overseas are not sufficiently developed. Such development as a tourist destination, will contribute to the local community as well. In the pre-feasibility study, JICA Expert Team analyzed the current situation and prepared the draft future infrastructure development plan in Bagan for five sectors covering roads, water and sewage, waste management, electricity and telecommunications and ports. As a candidate to become a World Heritage site, it is expected that sustainable development will be carried that includes the three areas of tourism promotion, regional development, and heritage preservation for cultural heritage such as Buddhism temples and pagodas.

Proposed basic infrastructure

To support forecast increase in tourists to the Bagan Heritage Area and vicinity, eleven (11) basic infrastructure projects are proposed to be implemented. The list of projects by sector and outline of rationales of basic infrastructure development are summarized in the Tables below. Project locations can be found on the Location Map at the end of this section.

List of Proposed Basic Infrastructure Projects in Bagan

Sector	Proposed Projects		
Road	1	New Bypass Road	Proposed 2-lane roads with Length approx. 13.8 km for 10,000 vehicles per day in 2030 width future widening to 4-lanes.
	2	Car Parking Spaces (in and outside of MZ)	Proposed 6 parking areas of 3,000 m ² size each
	3	Inner Road Pavement in MZ	Proposed 12 roads totaling 21 km length with road width 3 - 4.2 m.
	4	Street Lights (in and outside of MZ)	Streetlight installation along 18 km length road at 30 m intervals on both side of the road.
	5	Drainage Facility (box culvert, inside of MZ)	Proposed raising road elevation as well as river side protection work with box culvert.
Water Supply/ Sewerage	6	Water Treatment Plant / Pipeline, etc.	Service population and water volume is 66,000 and 11,000 m ³ /day respectively in 2040. Length of conveyance pipeline and distribution pipeline will be 38.5 km and 124 km respectively.
	7	Sewage Treatment Plant / Sewer, etc.	Waste water volume is planned as 7,000 m ³ /day in 2040. Length of sewer design is 93.5 km.
Solid Waste Management	8	Final Waste Disposal Site & closure of existing site	Proposed sanitary waste dumping site with capacity of 35 tons/day in 2040. 10 ha area of SWDS will be necessary. Closing work of existing open dumping site is also included in this project.
	9	Improvement of Garbage Collection Services	Proposed enlarging and upgrading of garbage collection service including procurement of garbage trucks. Soft component of campaigns for community awareness and education is included.
Electric Power & Telecom cables	10	Relocating Electric Power & Telecom Cables Underground (in or outside of MZ)	Proposed relocation of 22 km high voltage electric power cables (66 kV) along with underground installations of low/medium voltage lines over 97 km.
Port	11	Nyaung U Jetty Improvement	Proposed installation of navigation aids devices, and construction of terminal building, jetty, car parking (2,000 m ²), and improvement of access road (200 m).

Source: JICA Expert Team

Note: MZ: Ancient Monumental Zone

Outline of Development Rationales of Basic Infrastructure Projects

Basic Infrastructure		Rationale for Infrastructure Development
Transportation	Road network	1. Deterioration of road transportation safety caused by traffic increase and mixed transportation modes of tourism and community 2. Chaos of access roads to monuments
	Air	Congestion at Nyaung U airport
	River boat	Lack of port facility for cruise vessels in Ayeyarwady River
Water supply		Unstable/unreliable water supply service due to limited water supply caused by insufficient capacity of facility
Sewerage		1. Although river water contamination is not a problem yet, preparation is necessary to meet water quality deterioration from increased tourism demand. 2. Shallow well cannot be drilled due to degrading water quality in downtown area.
Drainage (flood)		Periodic road blockage by flooding in rainy season
Garbage		Soil covering is not made at present final dumping site causing problems of odor, landscape degradation, etc.
		Garbage is littered in MZ due to lack of waste collection service
		Waste volume minimization is not done
Electric Power & Telecom Cables		Overhead cables degrade landscape of world heritage site

Source: JICA Expert Team

Target Year

- **Target year of project implementation:** 2020 - 2023 (1 - 4 years construction period depending on sector)

Development Cost (Provisional)

Overall development cost will total US\$ 146 million as summarized below.

- Construction cost: US\$ 145 million
(Including engineering cost of US\$ 16 million)
- Land acquisition/compensation cost: US\$ 1 million
- Total Development cost: US\$ 146 million
(MMK 196 billion where 1 \$ = 1.343 MMK)

Results of Analysis of Development Effects

Tourism revenue increase and job creation effects: In case of “with the project”, it is projected that the tourism revenue in Bagan will increase to USD 1,855 million in 2040, which is more than eight times the current amount, and the number of job created will be about 25,000 which is almost five times that of 2015. In case of “without the project”, increase of revenue and job creation will be less than double the current numbers.

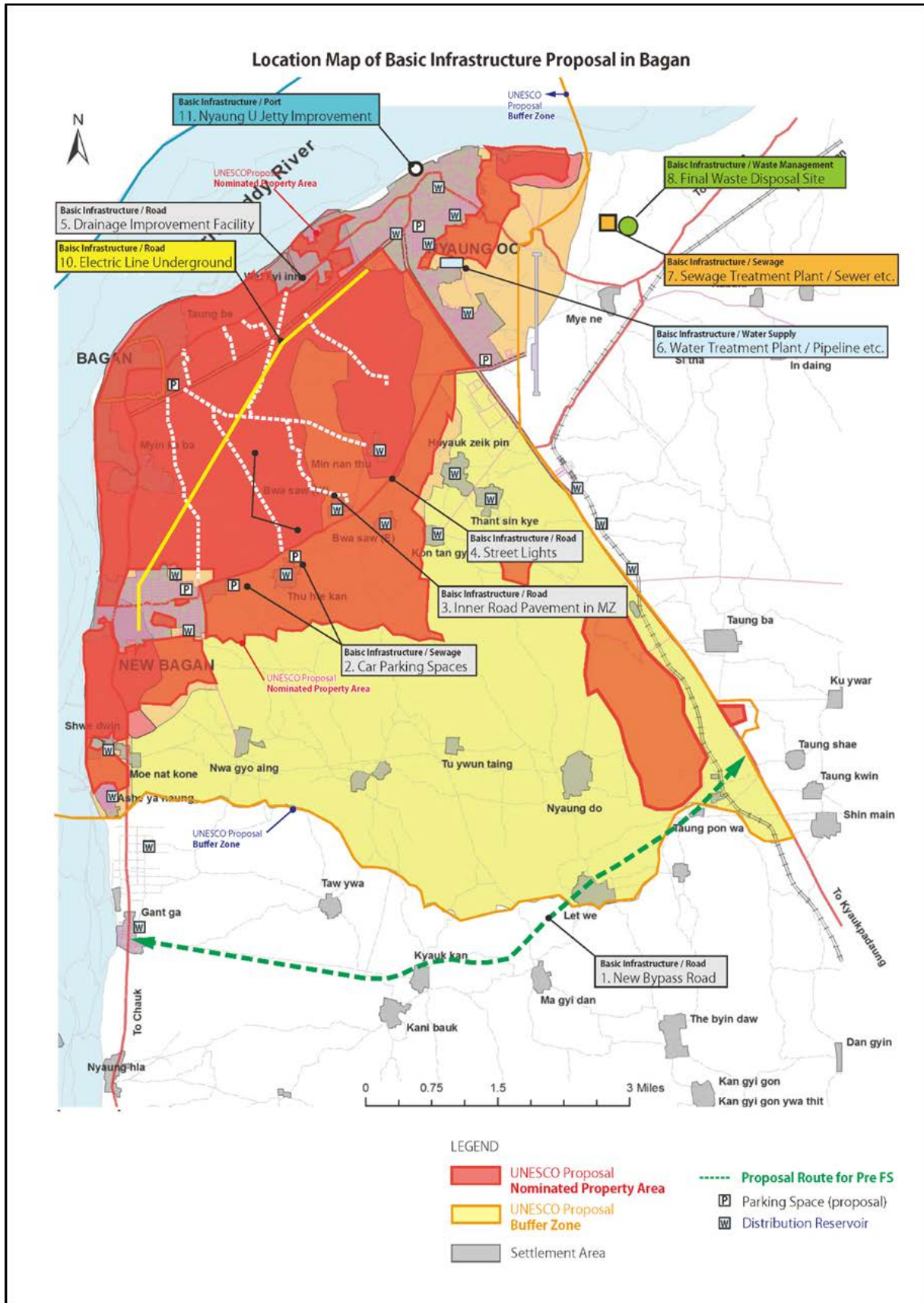
Economic Evaluation: By comparing tourism revenue as benefit and development cost of basic infrastructure project and related industry projects, Economic Internal Rate of Return (EIRR) is estimated to be 29.1% which is over the 10% social opportunity cost of capital. In other words, the economic effect of the project is high.

EIRR & FIRR of Sub-project: Economic Internal Rate of Return (EIRR) of water supply sub-project will be 11.2%, which exceeds the 10% social opportunity cost of capital. FIRR, on the other hand, is minus, which makes the project low priority for the nation. In general, water supply projects in rural areas fail to satisfy full cost recovery, and Bagan water supply project is no exception. However, FIRR by covering only operation and maintenance cost would be 20%; this would allow the project to be sustainable. EIRR and FIRR of the port facility project will be 19% and 4.5% respectively, which makes them both feasible.

Idea of Organization Structure for Project Implementation

There are two options for implementing organization structure for basic infrastructure project.

- Option 1: MRG will be the sole executing agency under which concerned Ministries/organizations will implement relevant sub-projects as the “implementing agencies”.
- Option 2: Relevant Ministries/organizations will be the executing agencies for corresponding sub-projects.



Source: JICA Expert Team

Location Map of the Proposed Basic Infrastructure in Bagan

1. Road Network

1.1 Present Situation

(1) Road classification

Roads in Bagan can be classified as 1) Inter-city road, 2) City road, 3) Inner (MZ) road, 4) Village road and 5) Other road by their role in network and road conditions. Inter-city road and City Road are maintained jointly by Ministry of Construction (MOC), private company (Myat Noe Thu Co Ltd.) and Township Development Committee (TDC). Maintenance of Inner road is under control of Department of Archeology (DOA).

(2) Surface condition

Typically, Inter-city road and City road are paved with bituminous/tar coat but other roads are left unpaved and covered with soil. Roads under control of TDC are 30 sections with 17.3 km length in total. Paved road is only 5.0 km.

(3) Problems on the existing road

The main traffic network inside of MZ is composed of Inner road. Although the roads are the only access to monuments, there are problems for smooth traffic flow due to poor condition of the surface. During dry season, surface of the road becomes dusty and it reduces driver visibility. During rainy season, some road sections are covered with mud or water due to lack of drainage system. Within the whole area, every creek or water way is crossing over road surface since there are few undercrossing structures. Heavy rain causes traffic stoppage at some places not only on Inner road, but on Inter-city road and City road as well.

Streetlights are installed along only parts of City road and there it is dangerous to drive at night, especially for tourists using e-bike or bicycle.

There are no any traffic controls at the entrances of Inner road, MZ, and tourist large-scale buses are even allowed to enter. As a result, the mixing of different types of transport (motorized and non-motorized) poses serious risk of collision.

With increasing traffic/tourism demand, there is concern that further road congestion will occur on the existing roads.

1.2 Plan of Development

The following road improvement projects are proposed to be implemented.

(1) Construction of Bypass Route

To ease traffic congestion in MZ, it is necessary to divert large vehicles and through traffic away from Bagan central area. For this purpose, new bypass route is proposed to be constructed between the point of 6.5 km south of New Bagan and the road to Kyauk Pa Taung. Lane number of vehicles will be confirmed by carrying out traffic demand forecast; however, it is assumed that implementation in stages of temporary 2-lane and



Figure 1.1 Muddy Road (Inner Road)



Figure 1.2 Flooded Road (Nyaung U – Old Bagan Road)



Figure 1.3 Large Bus in Inner Road

future widening to 4-lanes will be effective to accelerate results in the short term. Route length is approximately 13.5 km.



Figure 1.4 View from Tuyin Mt.

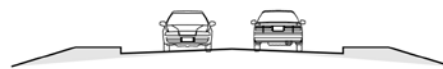
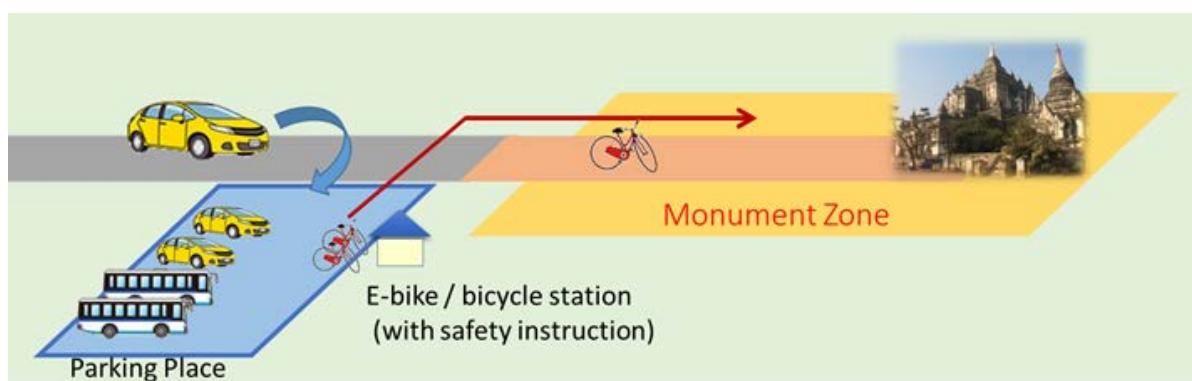


Figure 1.5 Tentative Cross Section

(2) Provide Parking Spaces

Currently, there is chaotic car parking in front of the major monuments. After the restriction of large vehicle to enter in MZ Inner road, parking spaces should be able to provide tourists with opportunity to switch their traffic mode from bus/taxi to e-bike or bicycle. Candidate parking lots are proposed at 6 locations along the circular City road.



Source: JICA Expert Team

Figure 1.6 Image of Switching Traffic Mode

(3) Improvement of Inner Road

Pavement works on Inner road can provide tourists with increased safe transportation. Since the pavement will become part of heritage scenery, pavement materials must be considered to match with the environment and monument appearance. In this, regard Brick or Block are supposed to be suitable. Target road section is approximately 21.0 km in total.



Paving with
Brick or
Block



Source: JICA Expert Team

Figure 1.7 Image of Improvement of Inner Road Pavement

(4) Installation of Streetlights (Circular roads of MZ)

To secure safe transportation at night, streetlights should be installed along the major traffic routes. Target sections must be decided after considering tourist demand for access to sunset viewing points. Lighting instruments are selected from non-glare type to avoid obstructing landscape. For the access road to Shwesandaw Temple, it is proposed to install bollard type lights to secure safety after sunset.

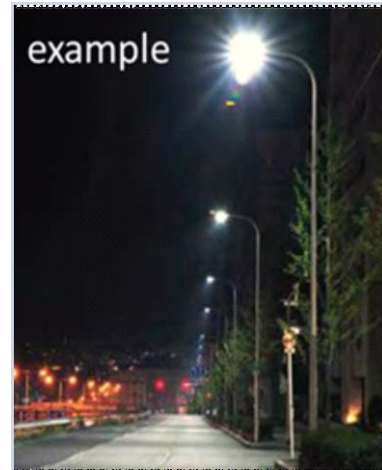


Figure 1.8 Image of Street Light

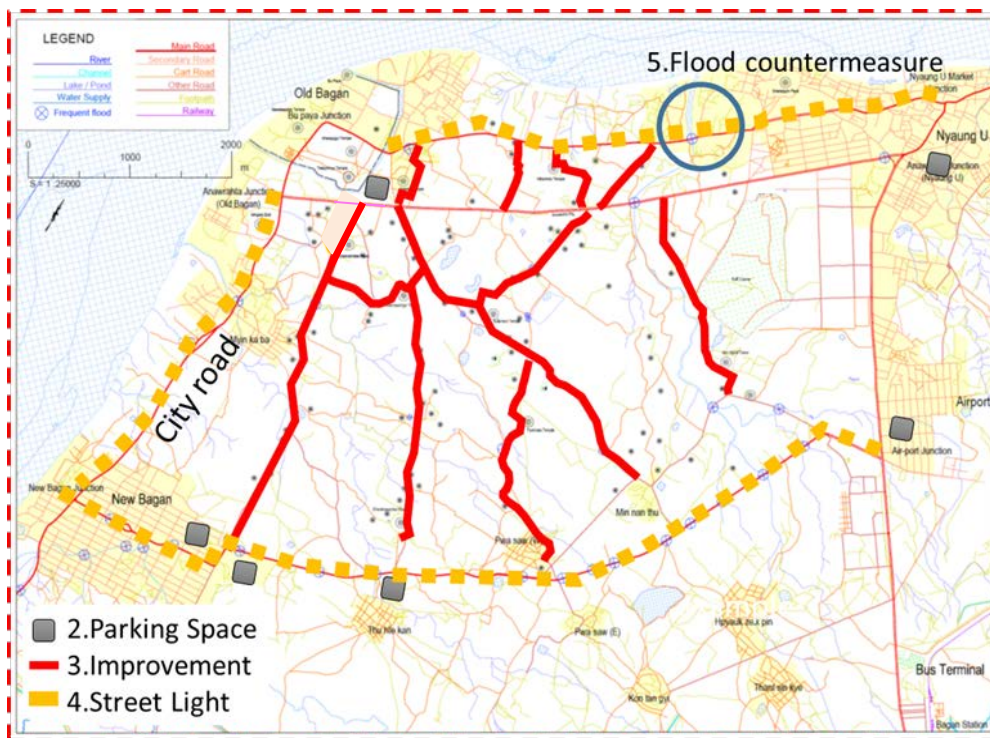
(5) Flood Countermeasure (Nyaung U – Old Bagan Road)

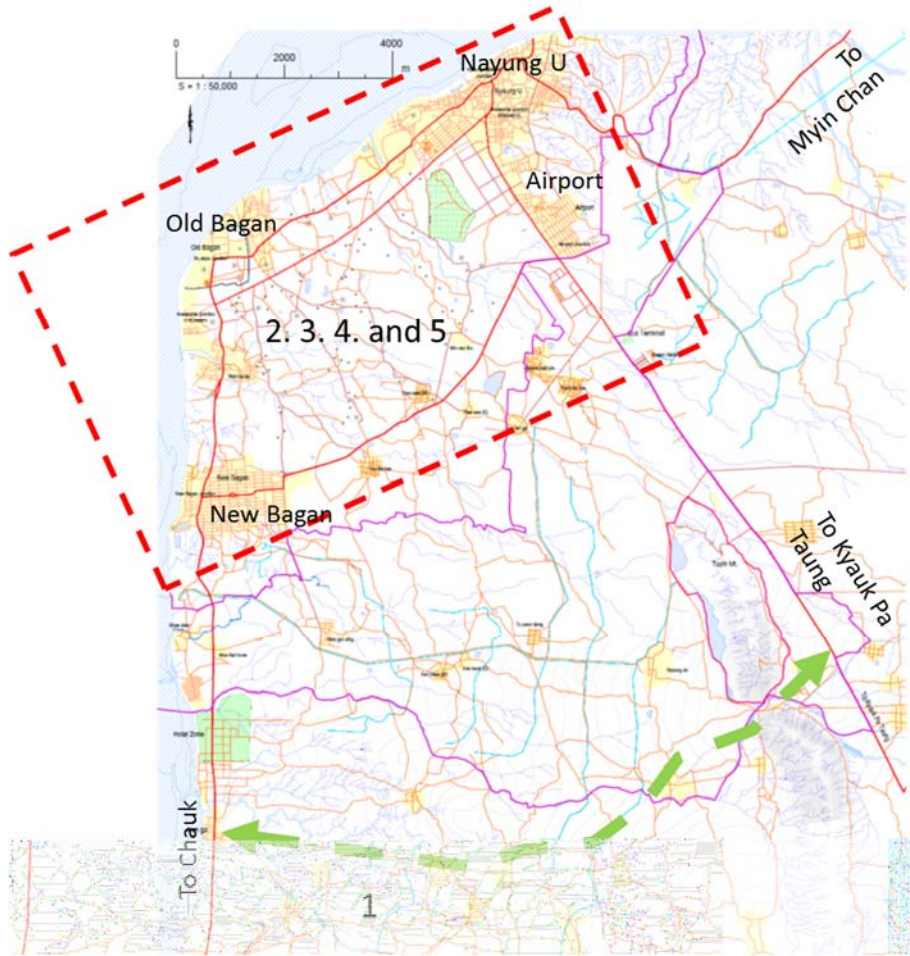
Wet Gyi Inn creak on Bagan Nyaung U road often floods after heavy rain. The causes of flooding but also rise in the Torrential flooding during the flood, prevent long term road level raising, are proposed.



Figure 1.9 Image of Box culvert and bank protection

are not only water flow from upstream water level of Ayeyarwady River. lasts for 2 weeks with 5ft depth of water; vehicles cannot pass over the road. To road stoppage, construction measures of box culvert and bank protection works





Source: JICA Expert Team

Figure 1.10 Road Network Project Site Map

2. Water Supply and Sewerage

2.1 Present Situation

The water supply in the target area is managed by TDC. TDC provides the water supply service to Nyaung U Town and New Bagan Town. For the supply to Nyaung U Town, there are two water distribution stations, which have only primary or no treatment system, while one water treatment plant is constructed in New Bagan town. Nevertheless, its capacity is so small to respond to the water demand, and river water is directly delivered from the intake point for the almost all the service time.

Almost water is delivered to the users without any treatment in principal, meaning that the supplied water is raw river water from Ayeyarwady River, for which, users need to remove the particles in the water by sedimentation before use. In addition, TDC supplies the water for limited hours that doesn't respond to the daily water demand of users.

The number of private connections in Nyaung U Town and New Bagan Town are 2,400 and 361 respectively (as of October 2016); accordingly, the service connection ratio of each water supply area is 38% and 23% respectively. This low connection ratio results from unreliability of water supply service of TDC due to intermittent water supply and unpurified water delivery.

2.2 Plan of Development

In order to supply purified water for 24 hours to users and increase the service connection, JICA Expert Team proposes the development of the water supply system as shown in Figure 2.1. The water treatment plant (WTP) will be constructed at the proposed site of TDC in Nyaung U Town.

According to our study, the people in villages along the airport road are facing difficulty to secure the water throughout the year. In addition, hotels utilizing tube wells require purified river water to provide to guests.

Therefore, the new WTP will supply water to Nyaung U Town, New Bagan Town, local villages, governmental zone and hotel zone. In the dry season, the water treatment plant in New Bagan cannot secure river water due to the low river water level, and the new WTP will cover the water supply area of the WTP in New Bagan.

(1) Coverage Ratio

Currently, the coverage ratio is relatively low due to the low reliability of the service of TDC. When TDC can provide water supply service with good quality, the achievement of the high coverage ratio is expected. Therefore, the JICA Expert Team estimates the coverage ratio as shown in Table 2.1. Further study will be made in the next survey.

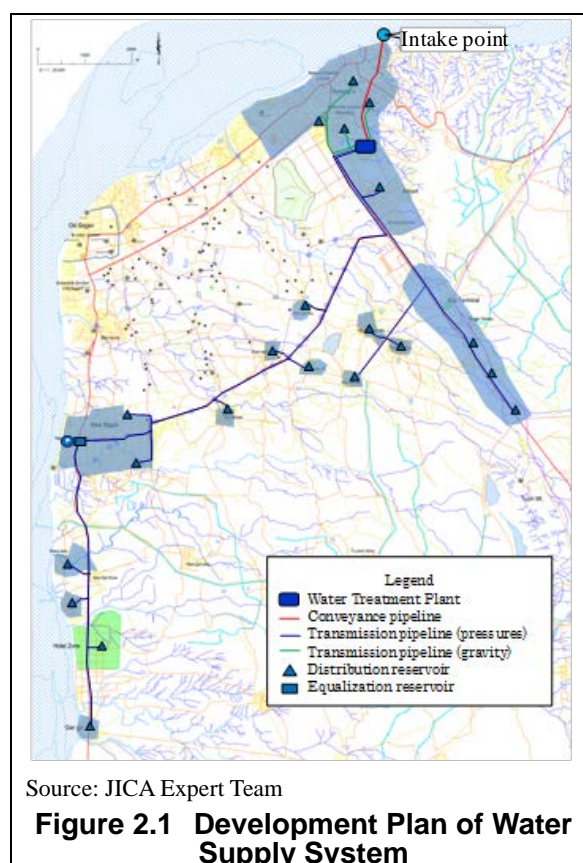


Table 2.1 Expected Service Coverage

Area		Year and unit water consumption in lpcd*						Remark
		Present	2020	2025	2030	2035	2040	
Nyaung U	Private	38%	65%	95%	100%	100%	100%	The installation of the destitution pipe will be completed until 2025.
	Public	100	100%	100%	100%	100%	100%	
New Bagan								
Downtown	Private	23	65	85	95	100	100	The installation of the destitution pipe will be completed until 2025.
	Public	100	100	100	100	100	100	
Suburb	Private	0%	0%	0%	0%	0%	0%	Private connection is not planed.
	Public	0%	0%	100%	100%	100%	100%	The installation of the transmission pipe will be completed until 2025.
Village	Private	0%	0%	0%	0%	0%	0%	Private connection is not planed.
	Public	0%	0%	100%	100%	100%	100%	The installation of the transmission pipe will be completed until 2025.

Source: JICA Expert Team

Remark: */ lpcd: Litter per capita a day

(2) Unit Water Consumption

Unit water consumption is shown in Table 2.2. Further study will be made in the next survey.

Table 2.2 Proposed LPCD by JICA Expert Team

Area		Year and unit water consumption in lpcd						Remark
		Present	2020	2025	2030	2035	2040	
Nyaung U	Private	90	100	120	125	130	135	
	Public	45	50	55	60	65	70	
New Bagan								
Downtown	Private	90	100	120	125	130	135	
Suburb	Private	45	50	55	60	65	70	
	Public	45	50	55	60	65	70	
Village	Public	45	50	55	60	65	70	

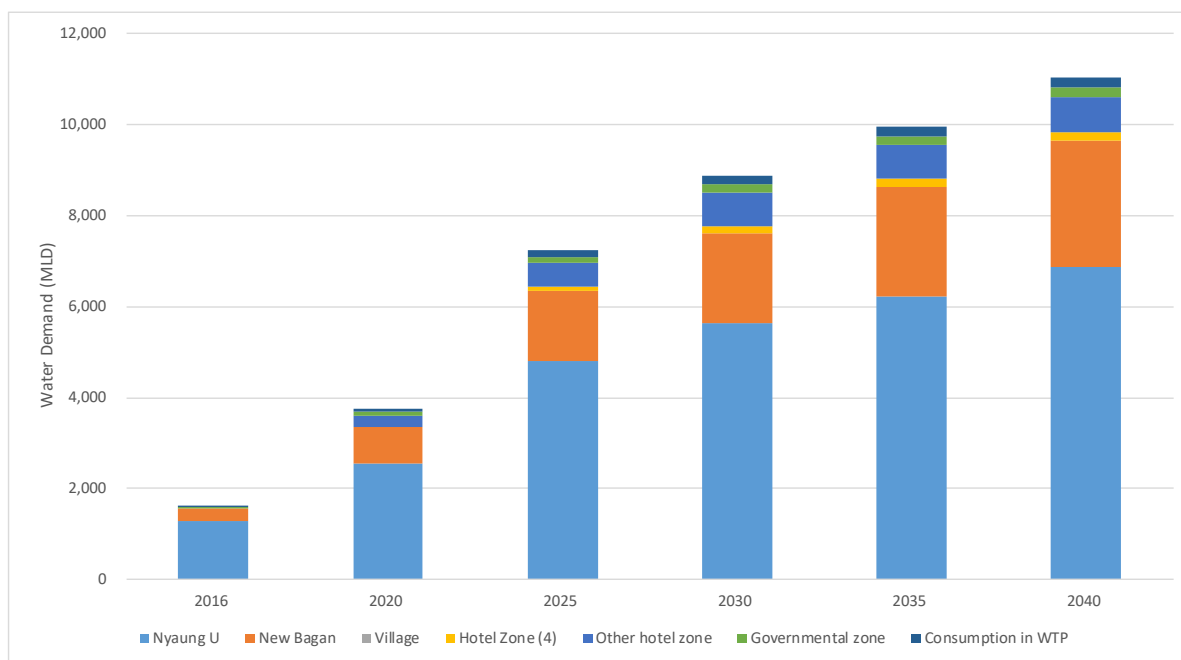
Source: JICA Expert Team

(3) Water Loss

The distribution network in the project area will be composed of the new distribution pipe and the existing pipe installed by TDC. Therefore, the water loss will be higher than that of the new distribution pipes alone, which is approximately 10%. Therefore, the 15% loss is tentatively proposed for the water demand forecast. Further study will be made in the next study.

(4) Result of the Water Demand Forecast

The results of the water demand forecast are shown below. In 2040, 11,000m³/day of treated water will be required to meet the water demand for all users.



Source: JICA Expert Team

Figure 2.2 Water Demand Forecast

3. Sewerage

3.1 Present Situation

In Bagan, there is no wastewater treatment plant. The wastewater is categorized into black water discharged from toilets, and gray water discharged from showers, kitchens, etc. The current situation of each type of wastewater is explained below.

(1) Black Water

The black water discharged from the hotels and restaurants is stored in the septic tank installed in each building. When the black water is fully stored in the tank, the upper water overflows and penetrates to the ground through a pipe as shown in Figure 3.1. The solid components, remaining in the tank, are collected by TDC approximately once a year and disposed of at a garbage dumping site.

Most households do not have their own treatment system and black water directly penetrates the ground.

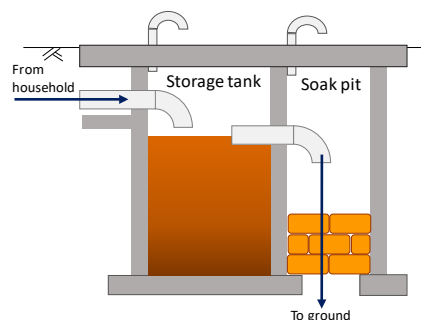


Figure 3.1 Structure of the Storage Tank

(2) Gray Water

In principle, gray water is discharged through a pipe into the ground without any treatment. In case that the water volume is too much to discharge to the ground, such as commercial usage, the gray water is brought to a creek located in the town area, and the creek is polluted as shown in Figure 3.2.

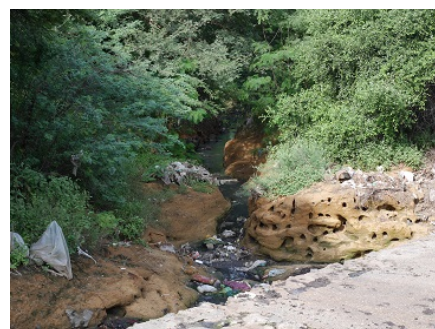


Figure 3.2 Pollution of the Creek

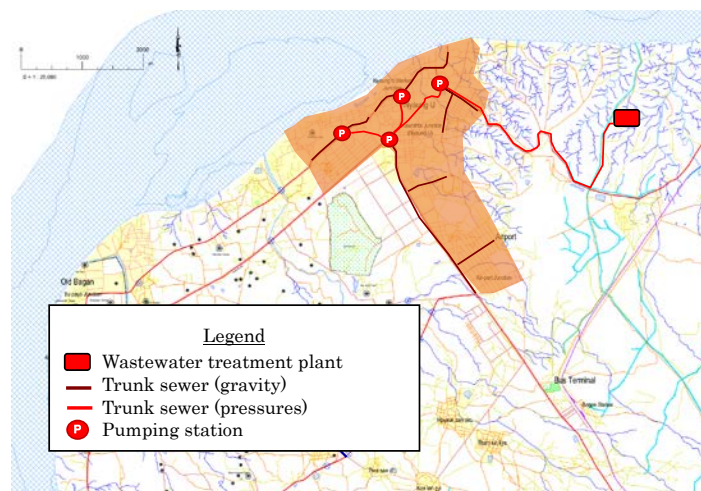
3.2 Plan of Development

For treatment of the wastewater, a development plan of sewerage treatment is proposed as shown in Figure 3.3. In the plan, the wastewater treatment plant will be constructed outside the monument zone, adjacent to the planned solid water plat.

The coverage area for the sewage collection is limited to Nyaung U Town area because the pollution load in New Bagan Town is relatively low due to the small population.

The effluent of the wastewater treatment plant will be delivered to the channel installed in Nyaung U Town.

The sewerage volume is estimated based on the water supply volume and ground water consumed in Nyaung U Town. For the decision of the capacity of the WWTP, the daily maximum of sewerage volume, which is defined as 1.1 times the average volume is applied.

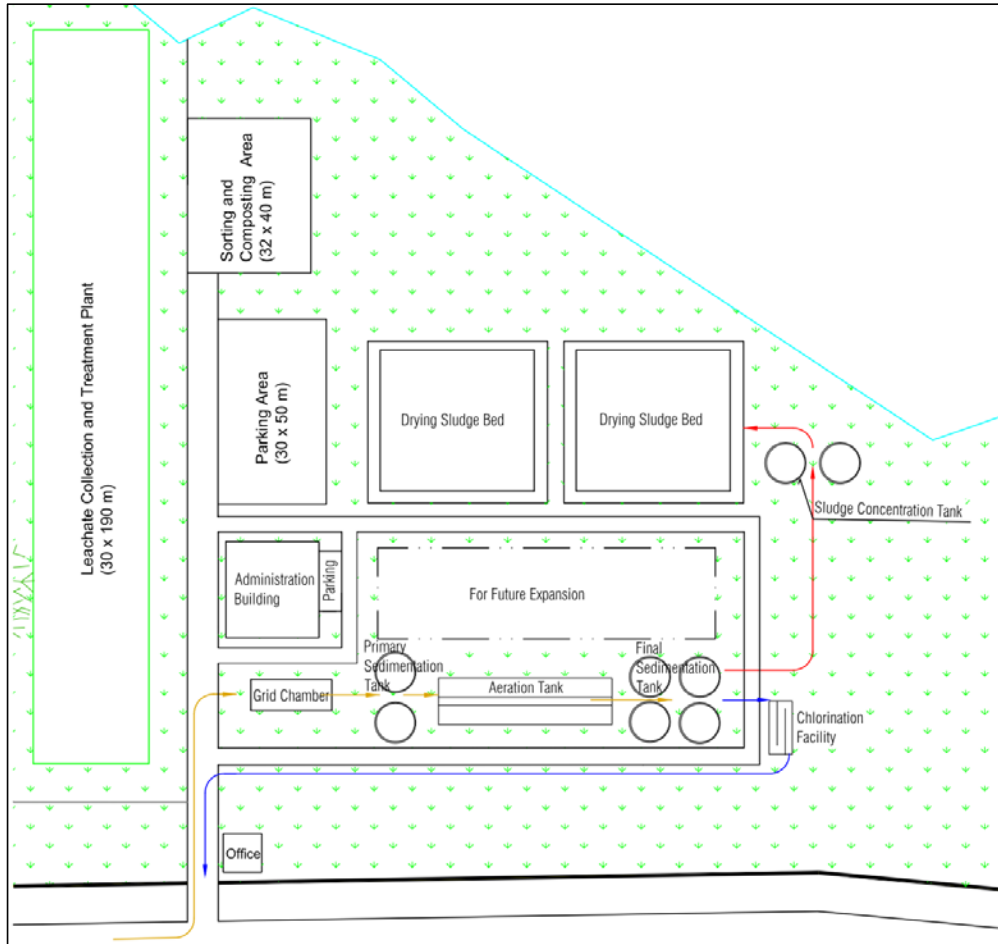


Source: JICA Expert Team

Figure 3.3 Sewerage Treatment Plant

As for the ground water volume, 10% of water consumption in Nyaung U Town is expected, and sewerage volume will be 7,000 m³/day in 2040.

The layout of the WWTP is shown in Figure 3.4. Conventional activated sludge process is tentatively selected in terms of its popularity.



Source: JICA Expert Team

Figure 3.4 Layout of WWTP

4. Port

4.1 Present Situation

(1) Jetty Facilities

Ship Passengers are forced to cross unstable wooden bridge and walk on muddy ground in Nyaung U Port. Wooden bridge is easy to install and costs less to cope with seasonal water level change of Ayayarwaddy River (seasonal change of water level is approx. 12m).



Figure 4.1 Present Condition



Figure 4.2 Improvement Target

(2) Parking Area

Parking Area of Nyaung U Port is congested with waiting taxis and buses. Parking area is very hot during the day without any shade or sandy surface.



Figure 4.3 Present Condition



Figure 4.4 Improvement Target

(3) Access Road

The surface of access road to Nyaung U Port is heavily damaged due to inadequate pavement.



Figure 4.5 Present Condition



Figure 4.6 Improvement Target

4.2 Plan of Port Development

(1) Navigational Aids

Ayeyarwady River cruise ships sometimes arrive at Nyaung U Jetty after sunset. Navigational aids along river and new Nyaung U Jetty will be necessary for safe cruising.

Dredging work will also be necessary around new floating pontoon.

(2) Layout of Ferry Terminal

New floating facilities will be constructed in the east side area of Nyaung U Jetty with ferry terminal, parking area and access road. The terminal building will be constructed in front of the existing private houses and shops to reduce the land acquisition cost and relocation expenses.

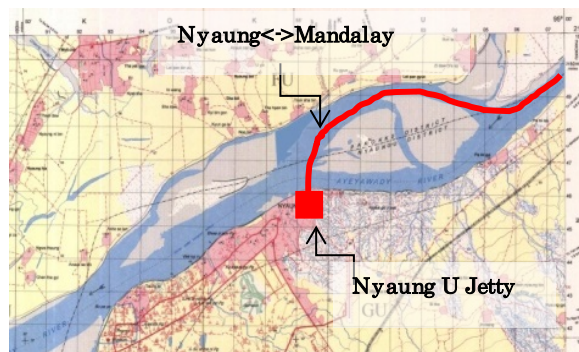
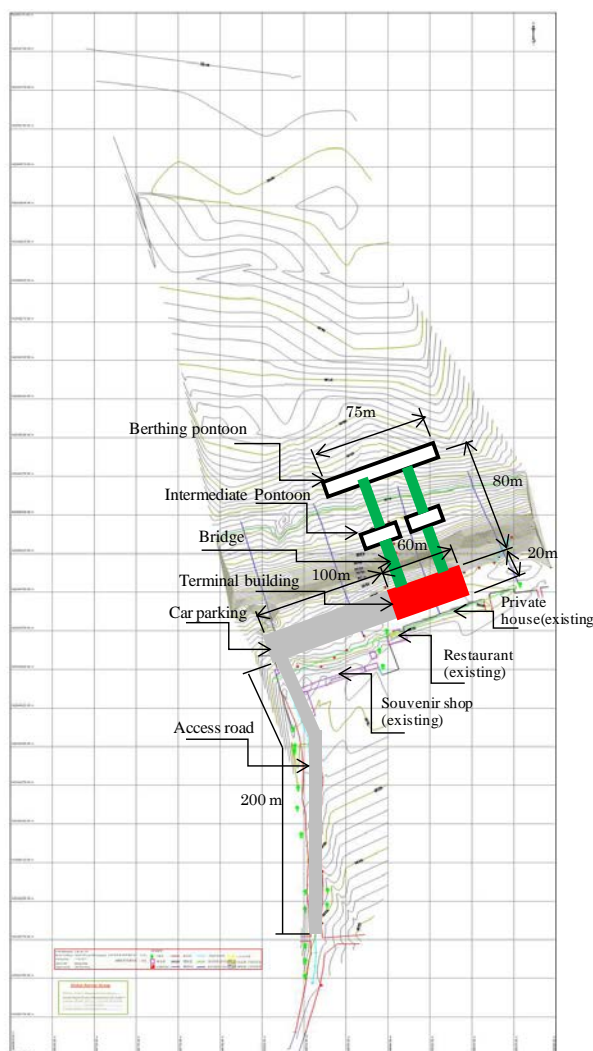


Figure 4.7 Location of Nyaung U Jetty and Cruising Route

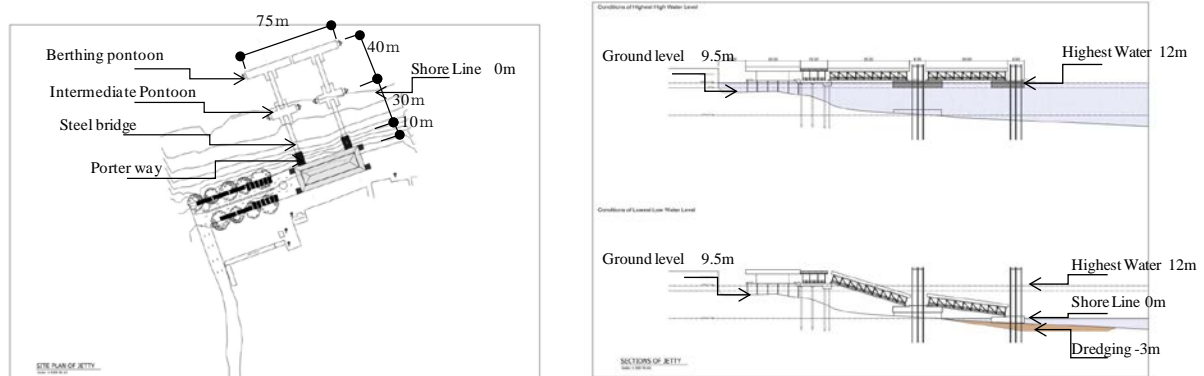


Source: JICA Expert Team

Figure 4.8 Development Plan of Nyaung U Port Terminal

(3) Side View of Ferry Terminal

Berthing facilities are designed for two sets of bridges to reduce slope angle at lowest water level and weight for unit length of bridge.



Source: JICA Expert Team

Figure 4.9 Development Plan of Nyaung U Port Jetty

(4) Parking Area and Access road

Parking area will be improved by concrete pavement to mitigate traffic congestion and to ensure smooth utilization of car, taxi, and bus. Access road is designed with concrete pavement to reduce the road maintenance work and secure comfortable driving. Area of car parking lot and length of access road is designed as 2,000 m³ and 200 m respectively.



Figure 4.10 Image of Car Parking of Nyaung U Port

5. Electric Power and Telecom Cables

5.1 Present Situation

There are 66KV, 11KV, 440V, 220V electric power cables and telecom cables all over the Bagan area. Some cables and poles are located very close to the monuments and are an eyesore to the landscape of MZ.

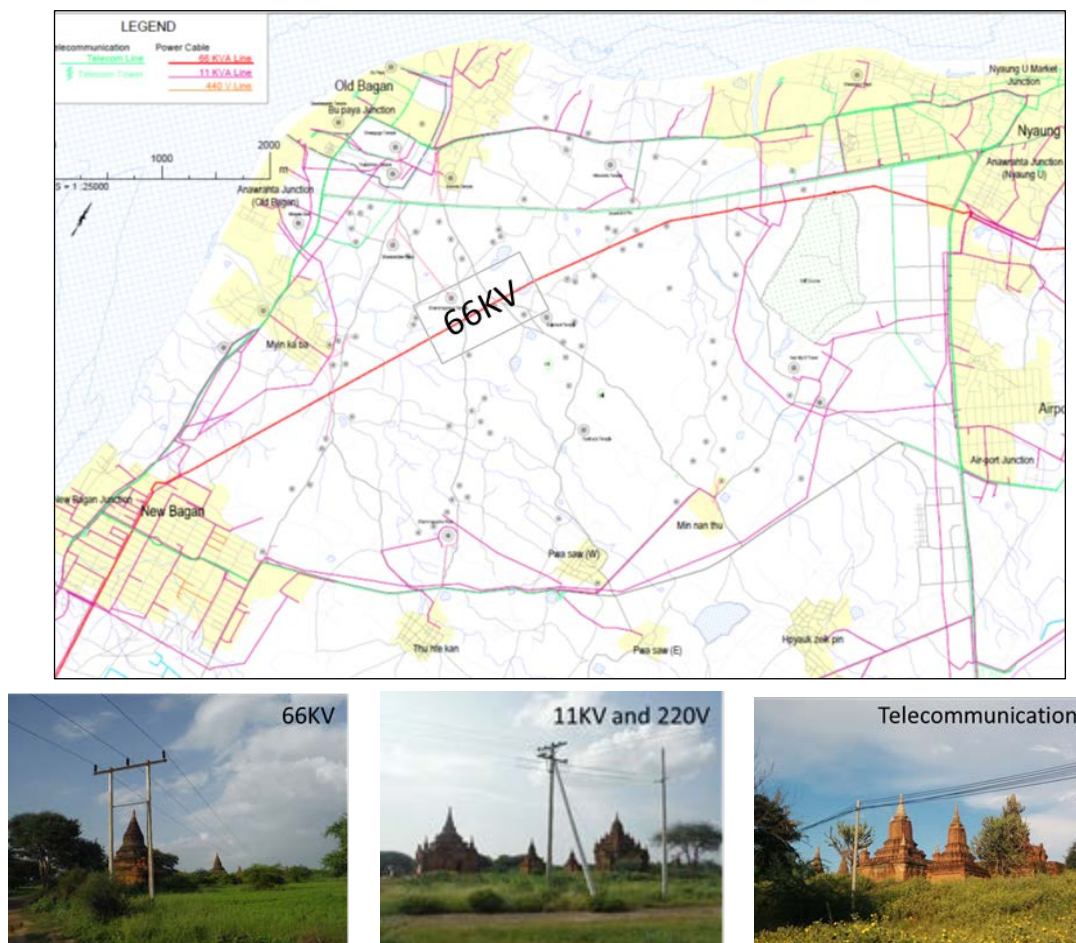


Figure 5.1 Existing Cable Plan and Photo of Cables and Poles Very Close to the Monuments

5.2 Plan of Development

(1) Electric Power Service

66kV Transmission Line (HTL)

The underground cable work of 66kV transmission line has many issues in terms of economic and technical aspects. Therefore, relocation of 66kV HTL to area where 11kV line is running along the irrigation channel in preservation zone is proposed.

Item	Present Condition	Suggested Plan
Location	Across Ancient Monuments Zone (MZ)	Replacement of route to outer perimeter of MZ along the irrigation channel.
Length	6.9km: Bagan SS to Wetky-Inn SS	22km: Bagan SS to Nyaung U SS

11 kV distribution system

The 11kV lines in the target area will apply underground cables except for some parts. Burying cables in roadside underground is proposed. Earth covering depth above the buried cables must be more than 0.6m.

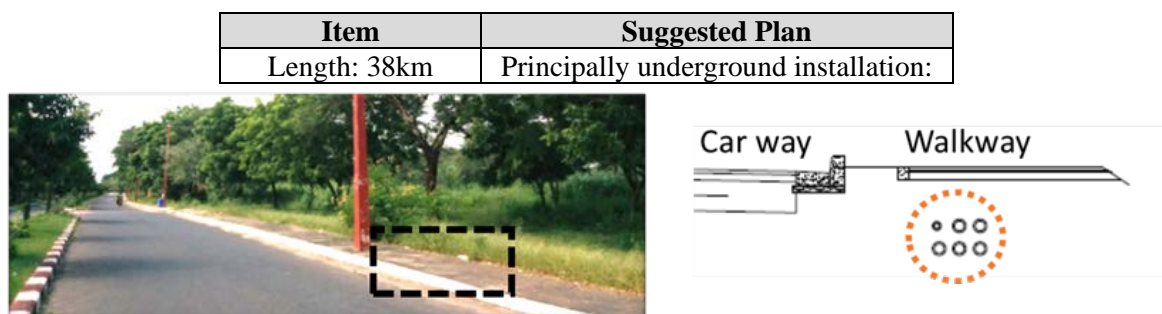


Figure 5.2 Image of Burying Position

0.4/0.2 kV LV Distribution Line

LV underground cables will be very effective for landscape improvement. On the other hand, length of LV cables is long when connecting individual customers with distribution transformer and underground work will not be easy. Although plan is proposed by assumption of 1.5km length LV cables from distribution transformer in Pre-FS, further detailed study is necessary.

Item	Suggested plan
Length	58.5km, (Estimated from Nos. of DTR x 1.5km)

11/0.4 kV DTR (Distribution Transformer)

Improvement of 39 distribution transformers will be necessary in line with installation of underground LV cables. However, existing distribution transformers have sometimes been installed by hotel, temples, etc. individually, and method of improvement, cost sharing will be issues.

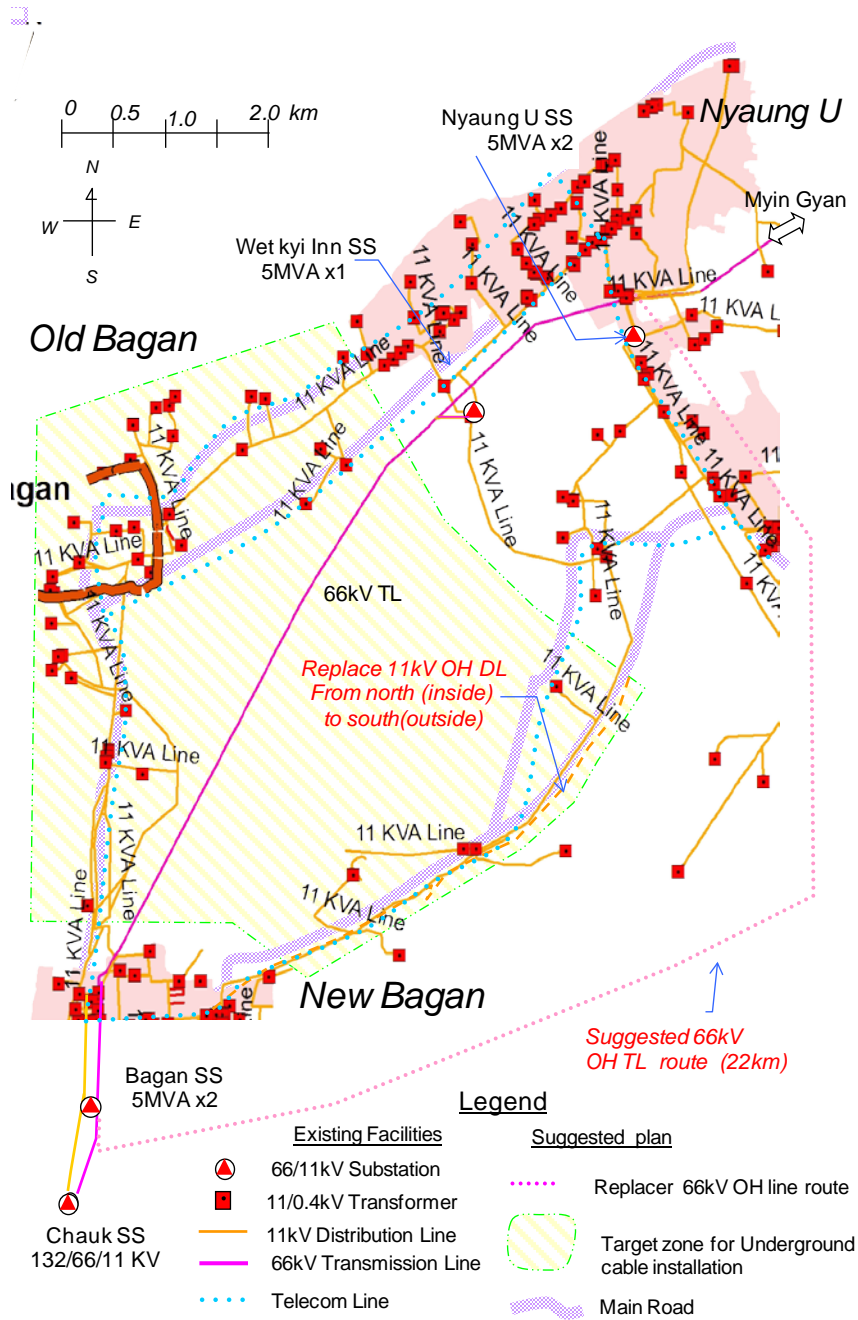
66/11 kV Substation

4 HV substations will be improved in line with relocation of HV cable and installation of LV cables.

(2) Telecom Services

Length of telecommunication cables to be installed underground is shown in the Table below. Admission for digging depth for underground telecom cable is an issue.

Circuit	Media	Route	Length
Back born	Microwave		
	Fiber Optic Cable (FO)	Pakokku - Nyaung U - Kyankpadang	
Sub trunk	Metal Fiber Optic Cable (FO)	* Nyaung U - Old Bagan (North Rout)	9.5km
		* Nyaung U - Old Bagan (South route)	4.3km
		* Old Bagan - New Bagan	5.5km
		* Nyaung U - New Bagan	8.3km
Branch	Metal Fiber Optic Cable (FO)	* Around Nyaung U	27.6km
		* Around Old Bagan	
		* Around New Bagan	
Total			55.2km



Source: JICA Expert Team

Figure 5.3 Improvement Plan of Electric Power and Telecom Cables in Bagan

6. Solid Waste Management

6.1 Present Condition

Current condition of waste management in the project area is not sufficient for a tourism development site. Waste collection service covers only Nyaung U Town and New Bagan Town; the Heritage site and the villages in Monument Zone are not covered. In addition, the current waste disposal site is in monument zone or buffer zone visible to tourists passing by so they can notice the scattered garbage. TDC in Nyaung U district collects the waste around 20 tons per day to dispose the waste into the waste disposal sites.

However, approximately 40-50 tons waste is not collected and is discharged daily along roads or rivers.

The issues related to waste management are mainly as follows:

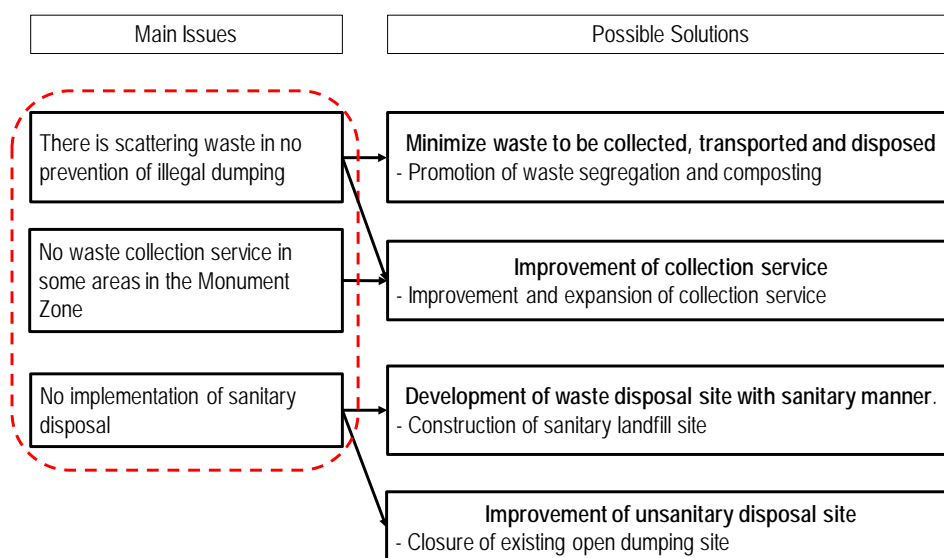
- Absence of waste collection service in Monument Zone
- Current open dumping site are seen by tourists.



6.2 Plan of Development

(1) Development Strategy

To cope with the issues, possible solutions are proposed as follows:

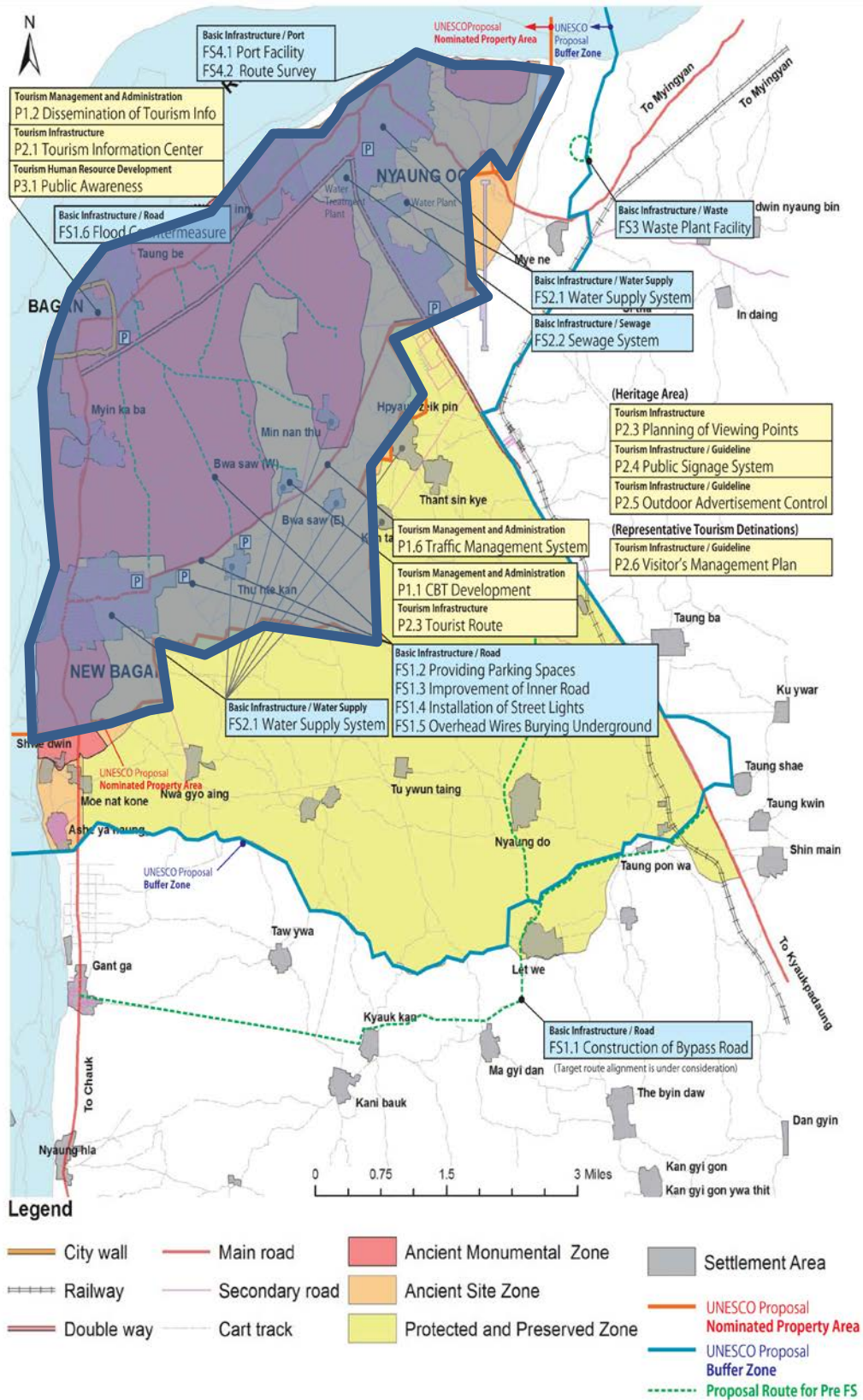


Source: JICA Expert Team

Figure 6.1 Issues and Possible Solutions

(2) Collection Area

The proposed waste collection area is shown in Figure 6.2 in blue color.



Source: JICA Expert Team

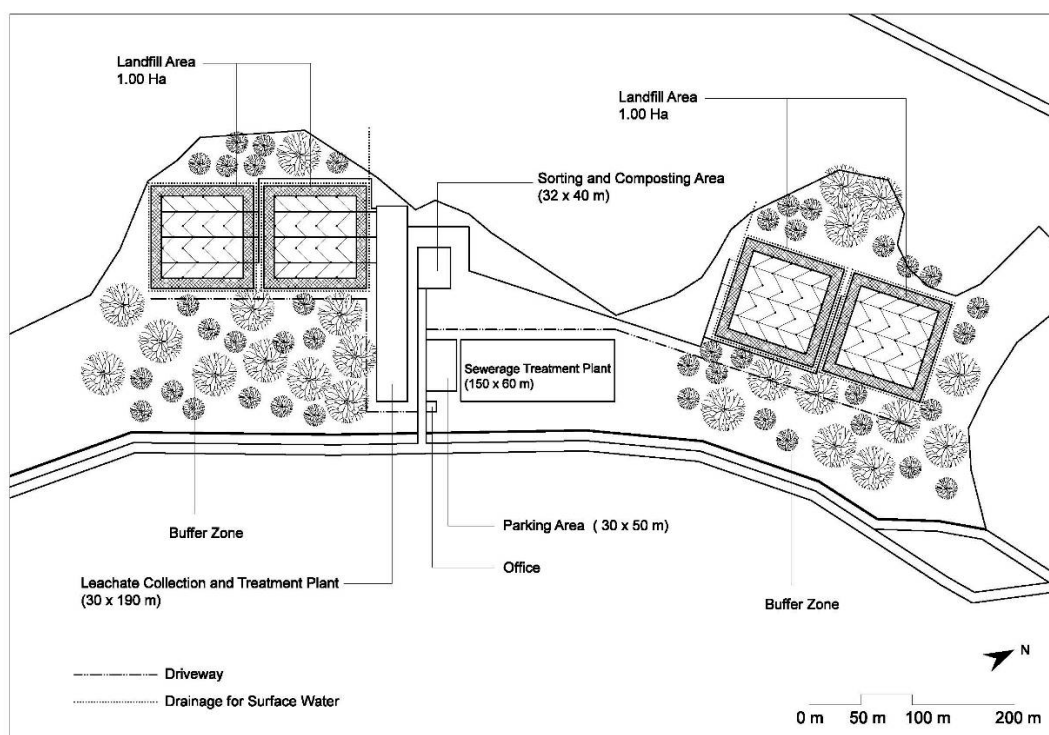
Figure 6.2 Proposed Waste Collection Area

(3) Components of Plan

Table 6.1 Components of the Plan

Component	Contents of component	Construction and material and equipment procurement
Promotion of waste segregation and composting	The following public awareness campaign or environmental education will be implemented. Education of home composting for residents and hotel or restaurant's owners Education of necessity of waste separation at source. Education for tourists for waste bring back campaign or system	Equipment for home composting Equipment for separation of recyclable waste Leaflet and other campaign goods
Improvement and expansion of current collection service	Expansion and improvement of collection service will be implemented. Expansion of collection area to villages in monument zone Introduction of separate collection for recyclable waste	Collection vehicle (1- 2.5tons vehicle: 16 vehicles)
Construction of Sanitary Landfill Site	Development of sanitary landfill site (10ha) Note: See the project location map	Landfill area Leachate collection and treatment Storm water drainage Gas ventilation pipe Weighing bridge, etc.
Closure of open dumping sites	Closure of current open dumping sites in Bagan and Nyaung U	Final cover soil and vegetation on the top of open dumping site Storm water drainage Gas ventilation pipe
Target year of the project	2040	

Plan of sanitary land fill site is shown in Figure 6.3. (see Location Map of the Proposed Basic Infrastructure in Bagan)



Source: JICA Expert Team

Figure 6.3 Plan of Sanitary Land Fill Site (Provisional)

7. Cost Estimation and Economic/Financial Analysis

7.1 Cost Estimate

Total development cost of basic infrastructure project will be US\$146 million or MMK 196 billion as shown below. (Price escalation cost is not included.)

Table 7.1 Development Cost of Basic Infrastructure in Bagan (Preliminary)

(unit: US\$ million)

Sector	Proposed Component	Estimated Cost (US\$)				
		Construction cost	Engineering cost	Subtotal	Land acquisition/compensation	Total
Road	1 New bypass road	18.0	2.4	20.4	0.47	20.87
	2 Car parking spaces	1.0	0.2	1.2	0.15	1.35
	3 MZ inner road pavement	4.0	0.6	4.6	0	4.6
	4 Street lights	2.4	0.4	2.8	0	2.8
	5 Drainage facility (box culvert)	3.2	0.5	3.7	0.01	3.71
	Total	28.6	4.1	32.7	0.63	33.33
Water supply/ sewerage	6 Water treatment plant/pipeline, etc.	34.2	5.0	39.2	0.1	39.3
	7 Sewage treatment plant./sewer, etc.	28.5	5.0	33.5	0	33.5
	Total	62.7	10.0	72.7	0.1	72.8
Solid waste management	8 Final waste disposal site	11.3	1.9	13.16	0	13.2
	9 Closing work of existing dumping site	0.1	0	0.11	0	0.1
	10 Soft component, closure of present sites	1.0	0	1.0	0	1.02
	Total	12.4	1.9	14.3	0	14.3
Electricity	10 Electric line &telecommunication line underground	11.1	1.1	12.3	0	12.3
Port	11 Nyaung U Jetty improvement	11.7	1.4	13.1	0	13.1
	Total	126.5	18.5	145.0	0.7	145.7

Note /1 Land of 30 m width for 4 lanes road is assumed in land acquisition cost estimation considering future expansion. (equivalent to MMK billion) 195.73
(1\$=1,343MMK)

Source: JICA Expert Team

7.2 Effects by the Project

Results of economic analysis and financial analysis of basic infrastructure project are summarized in this section.

(1) Economic Effects

Tourism revenue

In case of “with the project”, the tourism revenue of USD 225 million is estimated to rise to USD 1,855 million, which is more than eight times current revenue. On the other hand, in case of “without the project”, the tourism revenue in 2040 is estimated at USD 470 million, which is just double the current amount.

Economic evaluation

Economic benefit of the project is calculated by converting the tourism revenue estimated above to real base prices in 2017, and from financial benefit to economic benefit by using the Standard Conversion Factor (SCF).

Economic cost of the project is calculated by adding the cost of investment and O&M in private sector such as accommodation, restaurants, transportation, to the cost of the basic infrastructure project. The same as for economic benefit, economic cost is calculated by converting to real base prices in 2017 and from financial cost to economic cost by using SCF.

As a result of economic evaluation, the project indicates high Economic Internal Rate of Return (EIRR) as 29.1%, which is over the 10% social opportunity cost of capital. This means that the economic effect of the project is high.

Job creation effects

Job creation in the four occupations, which are directly affected by development of tourism sector, are shown below as estimates in cases of “with the project” and “without the project”.

1.	Accommodation
2.	Food and beverage
3.	Transportation
4.	Tour guide

In case of “with the project”, it is projected that the number of jobs created in the four occupations is about 25,000 which is almost five times 2015. If indirect job creation is considered, the effect of the project is larger.

In case of “without the project”, it is projected that the number of jobs created in the four occupations is about 10,000 which is less than half compared to “with the project” case.

Table 7.2 Estimation of Employment in Four Occupations

		2015	2030	2040
With the project	Four occupations	6,385	21,186	31,054
	Increase from 2015	-	+14,801	+24,669
Without the project	Four occupations	6,385	14,261	16,165
	Increase from 2015	-	+7,876	+9,780

Source: JICA Expert Team

(2) Economic and Financial Analysis of Sub-projects

Economic and financial analysis is conducted in 2 sub-projects, selected because their benefits are quantitatively calculated using revenue received.

Water supply project

As a result of economic analysis, the project indicates EIRR as 11.2%, which is over the 10% social opportunity cost of capital. B/C ratio is 1.11, which is over 1.0. It is recognized that the water supply project is economically feasible.

However, FIRR is calculated as minus and B/C ratio is less than 1.0. In general, it is difficult for water supply project in rural area to satisfy full cost recovery, and Bagan water supply project is no exception. On the other hand, operation and maintenance cost can be covered by current water tariff.

Port facility project

The project indicates EIRR as 18.9%, which is over the 10% social opportunity cost of capital. B/C ratio is 2.01, which is over 1.0 by assuming that economic benefit is counted as net revenue from passenger port facility utilization tariff. It is recognized that the port facility project is economically feasible. FIRR is calculated as 4.50%, which is over Weighted Average Cost of Capital (WACC) and B/C ratio is 1.53, which is over 1.0. It is recognized that the port facility project is financially feasible as well.

(3) Qualitative Analysis of Basic Infrastructure

Moreover, magnitude analysis of effects on development targets of the project; tourism development, heritage preservation and regional/community development expected by the proposed basic infrastructure development is made by qualitative manner as shown in Table 7.3.

Table 7.3 Expected Benefit for Tourism Development, Heritage Preservation and Regional/Community Development by Development of Basic Infrastructure

Basic Infrastructure		Effect on Tourism Development	Effects on Heritage Preservation	Effects on Regional/Community Dev.
1	New Bypass Road (outside MZ)	Road congestion caused by tourism traffic increase will be lessened and tourism activities will be promoted.	Large tourism vehicles running nearby heritage sites will be converted to bypass road and heritage sites	Villages nearby the bypass road can access easily, and economic as well as daily transportation can be done more effectively.

Basic Infrastructure		Effect on Tourism Development	Effects on Heritage Preservation	Effects on Regional/Community Dev.
			will be effectively preserved.	
2	Car Parking Spaces (in and outside of MZ)	Dignified international tourism destination can be realized by elimination of the tourism traffic currently invaded in HZ.	Mitigation of air pollution by exhausted gas and vibration caused by tourism vehicles can be expected	-
3	Inner road pavement in MZ	Safety and comfortable ride by eco-bike, bicycle, and horse cart as the eco-transportation, currently favored by international tourists can be realized.	Damage on heritage sites caused by dust in dry season and mud in wet season will be mitigated.	Improvement of inner roads utilized by community daily can affect positively on commuting and business transportation by local people.
4	Street lights (in and outside of MZ)	Safe driving and walking by tourism vehicles and tourists after sunset for observation can be secured.	Prevention of collisions to heritage sites by vehicles driving in dark night is done.	Road proposed to be installed with streetlights is also utilized by local people. Safe night transportation can be realized.
5	Drainage facility (box culvert, inside of MZ)	Long period blockage of major road can be settled and tourism activity will be unconstrained effectively.	-	Settlement of long period blockage of major road will benefit the local people.
6	Water treatment plant / pipeline, etc.	Safe and quality water supply to tourists staying in accommodations such as hotels.	-	Local villagers affected by water shortage in dry season can be connected with water pipeline and living environment improvement is expected.
7	Sewage treatment plant / sewer, etc.	Contaminated water environment will be improved by the development of treatment system for domestic and tourism waste water. Dignity of international tourism destination will be achieved.	-	More than 40,000 residents (in 2040) in Nyaung U town will be benefitted by waste water treatment system
8	Final waste disposal site & improvement of garbage collection services	Scattered garbage in HZ will be collected properly for achieving dignity as international tourism destination.	Scattered garbage around heritages threatening heritage preservation will be removed.	Modernization of solid waste disposal system in Nyaung U City as well as closure of damaged current dumping site will benefit local people effectively.
9	Electric power & telecom Cables Underground (in or outside of MZ)	Relocation of high voltage cable, underground installation of low/medium voltage cable and telecom cables will beautify the landscape of HZ and contribute to further promotion of tourism activity.	Removal of power and telecom cables running close to heritage sites will contribute to heritage preservation.	-
10	Nyaung U Jetty Improvement	Activities of cruise ship between Bagan and Mandalay, excursion boat in Bagan area will be promoted in terms of securing safe and comfortable ship activities.	-	Daily ship transportation across the river for local people will be improved

Source: JICA Expert Team

8. Environmental and Social Considerations

Environmental and social issues need to be considered appropriately for every infrastructure project to avoid negative impact on the environment and the society, and promote positive impact of the project. In this section, categorization of the projects and the Environmental Assessment Impact Procedure which is the key task of the environmental and social considerations will be given. After that, the results of scoping of each project will be made. Based on them, the ToR of IEE/EIA will be prepared and studies will be carried out in the next stage (feasibility study). The requirements and estimated schedule to obtain Environmental Compliance Certificate (ECC) is discussed below.

8.1 Categorization of Projects

(1) Categorization according to Myanmar Legislation

Every project is categorized into “IEE type project” and “EIA type project” according to the Annex 1 “Categorization of Economic Activities for Assessment Purposes” of the Environmental Impact Assessment Procedure. Table 8.1 shows the expected categories of each project.

Table 8.1 Project Categorization

Projects	Categorization according to Myanmar registrations	Type of economic activity	Criteria
Construction of Bypass Road	Non IEE/EIA project	No.130 Other Roads (state, region, urban; new construction or widening, more than one lane)	Length is from 50km to 100km, or more than 100km
Construction of Parking Spaces	Unknown. Need to ask for MONREC.		
Improvement of Inner Road	Unknown. Need to ask for MONREC.	No.131 Road Improvement (upgrading from seasonal to all weather surface, widening of shoulders)	Length is longer than 50km, or all activities where the Ministry requires that the Project shall undergo EIA
Installation of Street Lights	Unknown. Need to ask for MONREC.		
Burying underground Overhead Wires	Unknown. Need to ask for MONREC.		
Flood Countermeasure	IEE	No. 113 Other Large Civil Works Construction (embankment, seawalls, offshore break water)	Length is longer than 2km and area is more than 25ha
Water Supply System	IEE	No.110 Groundwater development for industrial, agricultural or Urban Water Supply	More than 4,500m ³ /day
Sewage System	EIA	No.108 Wastewater Treatment Plants (centralized systems)	All sizes
Waste Disposal Facility	EIA	No. 103 Non-Hazards Waste Disposal Facilities	The capacity of landfill is larger than 100ton/day or total capacity is larger than 25,000ton, Others is more than 50ton/day.
Port Facility	IEE	No. 117 Ports, Harbors, and Terminals (ports, harbors, and terminals for cargo and passenger transfer)	Area is less than 25ha.

Source: JICA Expert Team

(2) Categorization according to the JICA Guidelines

All projects are located in the Ancient Monumental Zone, Ancient Site Zone, or Protected and Preserved Zone. All projects are categorized as “A”, according to that JICA Guidelines that defines if a project covers more than one of the characteristics. Illustrative List of Sensitive Sectors, Characteristics, and Areas”, “nationally-designated protected areas (cultural heritage)” is categorized as “A”. Therefore, every project will be required to carry out EIA, although the anticipated negative impacts are not very significant.

(3) Summary of Scoping

No significant negative impact is foreseen for all projects because the estimated magnitude of construction work is not large, and the project direct influence area is not big. However, it is important to carry out scoping again during the feasibility study based on updated and detail design to prepare ToR of IEE or EIA.

Many significant positive impacts, such as improvement of road conditions; improvement of landscape; improvement of waste management, are expected, which contribute Bagan to make better ancient tourist destination.

8.2 Heritage Impact Assessment

UNESCO strongly recommends carrying out Heritage Impact Assessment (HIA) to project proponent to identify threats to outstanding universal value (OUV) before commencement of a project. HIA should be carried out by the consultant nominated by UNESCO.

Bagan will be nominated as the World Heritage Site in near future, and the project will be implemented within the UNESCO Nominated Property Area or the UNESCO Proposal Buffer Zone. Therefore, the project proponent of all projects should ask UNESCO if the project is required to carry out HIA in the feasibility study.

8.3 Next Steps / Tasks

(1) Requirement

All project proponent should follow Myanmar's EIA procedure to obtain ECC before commencement of projects, and at the same time, all projects proponent should carry out EIA and each EIA report should be disclosed by the EIA report for 120 days before signing of R/D.

(2) Schedule

The public disclosure of EIA is an important JJICA requirement for all Category A projects. Though all proponents (projects) will be categorized as Category A, it is necessary to disclose to the public all EIA reports at least before 120 days of R/D. The project proponent should submit project proposal of IEE project at least 11 months before R/D. The project proponent should submit project proposal at least 16 months before R/D for project.

8.4 Conclusions

- All projects will be categorized as Category A according to the JICA Guidelines. Therefore, it is required to carry out EIA for each project in the next stage of feasibility study (F/S).
- The main concern will be land acquisition for the bypass construction project and construction of sanitary landfill site. An abbreviated resettlement action plan (Abbreviated RAP) should be prepared by the project proponent for those projects which may require land acquisition. There are no official guidelines or rules in Myanmar on this topic, so the Abbreviated RAP will be prepared based on the OP 4.12 of World Bank. Some projects in Myanmar funded by international agencies (World Bank and ADB) have prepared the RAP based on WB policy and ADB policy. It is important to analyze if the project proponent of this project has enough experience or capacity to prepare them Abbreviated RAP for their project, and if not, additional assistance will be required for preparation of Abbreviated RAP in the next stage of the study.
- The process and duration to carry out IEE/EIA and to obtain ECC will depend on the ability of project proponent. It is important to make sure that JICA analyzes the capacity and ability of each project proponent, and will support them to archive the timing of R/D.
- All projects will be implemented within UNESCO Property Area or UNESCO Buffer Zone. It is necessary for project proponent to confirm with UNESCO if it is required to carry out HIA before commencement of projects.

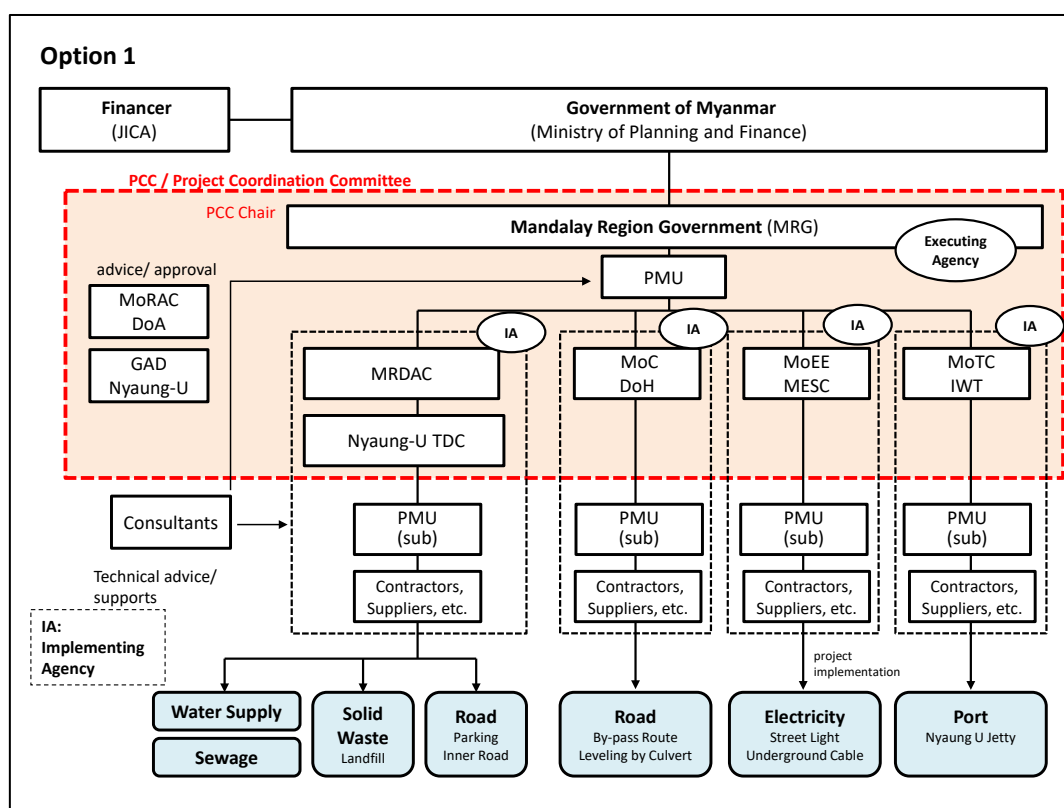
9. Organization Structure (Tentative)

A rough idea for implementing organization structure for basic infrastructure project is described below in Figures 9.1 and 9.2.

Option 1: MRG will be the sole executing agency for ensuring the budget for the project as the Regional Government Budget, under which, regional level units of concerned Ministries/organizations (MRDAC/Nyaung U TDC, MOC/DOH, MOEE/MESC, MOTC/IWT) will implement corresponding sub-projects as the “implementing agencies”.

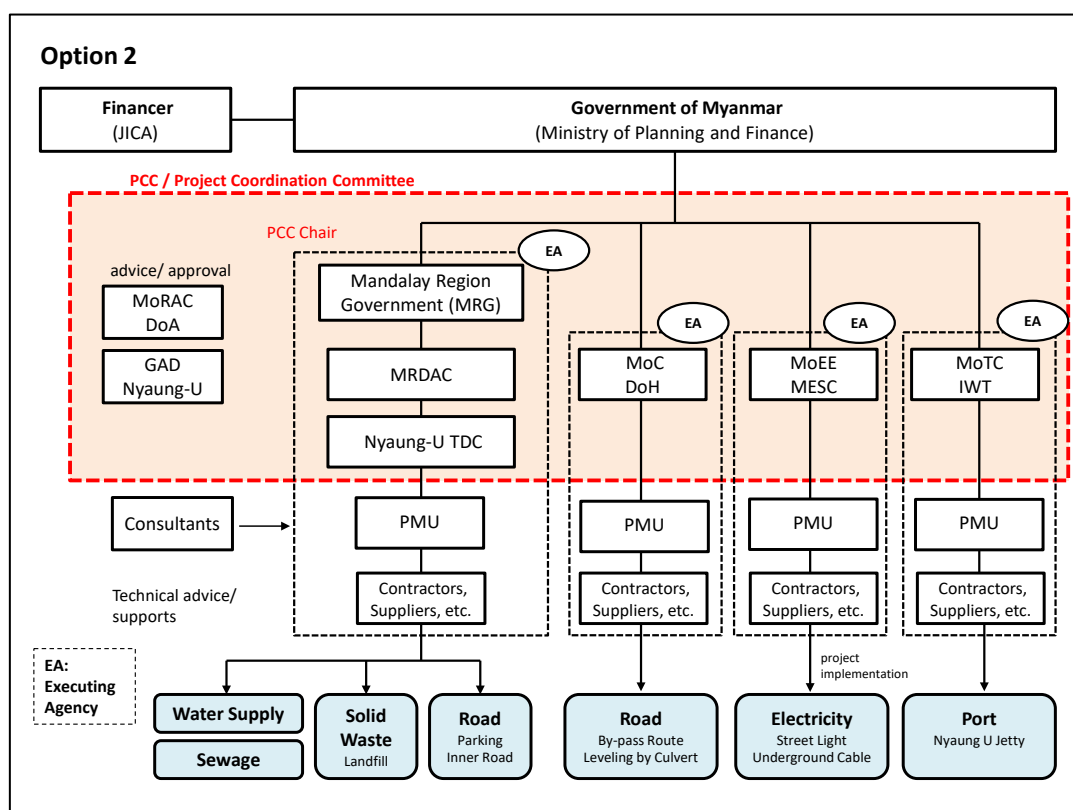
Option 2: Concerned Ministries/organizations (MRG/MRDAC/Nyaung U TDC, MOC/DOH, MOEE/MESC, MOTC/IWT) will be the executing agencies for ensuring their own budgets for corresponding sub-projects.

Organization structure for operation & maintenance (OM) is also provisionally shown in Table 9.1.



Source: JICA Expert Team

Figure 9.1 Idea of Implementing Organization Structure for Basic Infrastructure in Bagan (Option 1)



Source: JICA Expert Team

Figure 9.2 Idea of Implementing Organization Structure for Basic Infrastructure in Bagan (Option 2)

Table 9.1 Possible Organizations in charge of O/M of Basic Infrastructure

Sector	Proposed Component	Owner in charge of O & M
Road	1) Construction of bypass route	MoC/DoH
	2) Construction of parking spaces (inside and outside of MZ)	TDC
	3) Improvement of MZ inner road pavement	TDC
	4) Installation of street lights (inside and outside of MZ)	MoEE/MESC
	5) Overhead wires burying underground (inside MZ)	MoEE/MESC
	6) Road level raising, box culvert, etc. (inside MZ)	MoC/DoH
Water Supply Sewage	7) Construction of new treatment plant	TDC
	8) Construction of new sewage treatment plant	TDC
Solid Waste Management	9) Development of final waste disposal site	TDC
	10) Improvement of collection service	TDC
Port	11) Improvement of Nyaung U Jetty	MoTC/IWT

Source: JICA Expert Team

APPENDIX 2

Recommendations on SUSTAINABLE TOURISM STRATEGY for Bagan Archaeological Area and Monuments

Extracted from Sustainable Tourism Strategy, Volume III, Annex Integrated Framework (Management Plan), Nomination Dossier for Inscription on the World Heritage List Bagan, prepared by UNESCO in close collaboration with Ministry of Religious Affairs and Culture in December 2017.

Recommendations on SUSTAINABLE TOURISM STRATEGY for Bagan Archaeological Area and Monuments

Preamble

Tourism is a critical part of managing World Heritage properties. During the second cycle of periodic reporting on the implementation of the World Heritage Convention in Asia and the Pacific, site managers were asked to comment on factors affecting their heritage. One of the most prominent factors considered to have both negative and a positive impact on World Heritage was tourism and the related infrastructure development, accommodations, including interpretation and visitor facilities. The positive factors are the income and prestige which comes with promoting and sustaining the heritage sites. On the other hand, many activities can cause physical damage, loss of ambience, spoil the environment and the surrounding context and even alienate the local community.

Strategy points

The following strategy document has been established and adopted to ensure that tourism development is carried out in a sustainable and appropriate manner in and around the heritage site of Bagan. All activities, particularly those dealing with tourism in and around Bagan shall follow the provisions provided below:

Concerning overall approach for tourism in Bagan and sustainability:

1. Bagan is a heritage site, a sacred site, a place where communities live and work, and only then a tourist destination;
2. Tourism shall support the safeguarding of the heritage site;
3. Only activities that do not negatively impacted heritage shall be carried out;
4. Activities that enhance the protection of heritage shall be promoted;
5. Wherever possible the local community shall be prioritized to profit from tourism activities;
6. Long-term planning shall be carried out to ensure focus is not only on immediate gains;
7. The heritage site as a tourism product must ensure that there is a clear balance between the requirements and visions of the tourism sector and the need to safeguard the cultural heritage, the environment and the integrity of the local community;

Concerning tourism accommodations

8. Tourist accommodations within the town areas and home-stay in the villages shall be allowed as per the new legal framework being developed for Bagan. This will however be strictly controlled to ensure appropriate scale and compliance to the building bylaws while ensuring minimum impact on monuments and subsurface archaeology.
9. Large hotels and resorts shall be should be allowed only outside the heritage area. Planning provisions shall be made for good accessibility of the main heritage site from the peripheral areas where hotels might develop such as on either side of the Ayeyarwady River upstream towards Pakkoku and downstream towards Chauk.

10. All hotels and resorts located within the site, excluding those in towns that conform to the legal provisions, must be phased out by 2028. All further work on such resorts must stop. The hotels shall be entirely removed and the area shall be rehabilitated to become an archaeological area again. Procedures need to be clarified with the respective owners.

Concerning tourism infrastructure

11. The development of facilities and infrastructure for tourists within the heritage site shall visitor satisfaction in respect to basic needs, experience as well as information. These shall however be restricted to facilities that are non-intrusive, reversible and appropriate to the location and follow the legal framework being developed for Bagan.
12. Within the heritage site any facilities that need to be built shall adhere to the legal framework particularly to the building bylaws regarding temporary structures. Special care shall be taken with service lines for supply of electricity and water and disposal of sewage, waste water and solid waste.
13. The development of infrastructure linked to tourism activities shall closely adhere to the legal framework, in particular the development guidelines. The development of infrastructure shall only be carried out once an overall appropriate infrastructure development plan has been prepared, agreed upon and adopted by the government. All government departments shall then follow these plans. This is particularly important for circulation (roads, paths, parking areas, bus stops), airports extensions, railway lines and stations, jetties and piers for river traffic, as well as viewing mounts, decks and special access to temples and archaeological sites.
14. Any development projects that are not temporary or easily removable shall first have a Heritage Impact Assessment (HIA) carried out along with detailed sub-surface archaeological surveys linked to Archaeological Risk Maps (ARM). The project shall be developed taking into account the outcome of the assessment and survey.

Concerning tourism transportation and accessibility

15. Transportation within the heritage site will be a critical issue in ensuring heritage is protected. The distribution of visitors throughout the site in sustainable numbers needs to be targeted.
16. A hierarchical plan for transportation within the heritage site shall be established. This means that a detailed plan of vehicular movement must be prepared, agreed upon and adopted before any further infrastructure is developed. The plan shall allow general access to cycles and electric scooters with greatest restrictions to big busses. Accordingly parking facilities shall be provided with a hierarchical system of transportation.
17. The accessibility to Bagan shall be improved considering rising visitor numbers while taking into account its impact on the heritage site.
18. Nyaung U Airport shall not be extended and flight frequency shall be restricted. Should access to Bagan require larger flights and higher flight frequency, the option of moving the airport to other sites such as using the partially built one in Pakkoku needs to be considered. Bagan shall become a no-fly zone.
19. Railway transportation shall be prioritized for tourism development. This could become especially important when the airport is relocated. Special trains with steam engines could become a major tourist attraction.

20. Road networks must link to the heritage sites with the main connections being outside the heritage area.
21. Travel along the river shall be promoted. Infrastructure development along the river banks shall be restricted. No major development of jetties and piers shall be carried out within the heritage area. Floating hotels shall not be allowed within the heritage area, can however be promoted further upstream or downstream.

Concerning tourist activities

22. Tourist activities shall ensure that they do not impact the heritage which includes the monuments, the subsurface archaeology as well as the cultural sentiments of the community. This would need to be based on detailed studied and discussions with community members.
23. All activities shall be planned taking into account of the number of tourist that will be visiting the site over the next years and considering the carrying capacity of each of the monuments and sites. In certain cases, such as monuments with mural paints, might require controlling the number of tourist at any one time and overall daily restrictions, possibly by charging extra fees to cover direct management expenses.

Concerning involvement of local community and ensuring their involvement

24. Tourism shall be promoted while ensuring that it supports the livelihood of the local community. Great care shall however be taken to ensure that the lives of the local community members are not unduly disrupted.
25. Tourism activities shall consider the sentiments and values of the local community.
26. Tourism shall support local activities such as production of handicrafts and local agricultural products.

Concerning tourist during post-disaster rehabilitation

27. Tourism shall be promoted during the post-disaster rehabilitation phase to ensure continued support to the livelihood of the community. Tourists shall be encouraged to contribute to the rehabilitation efforts.
28. Provisions shall be made to allow visitors to observe the rehabilitation of Bagan. This would include possible means of observing ongoing restoration work but also by being provided information on the rehabilitation process.
29. Visitor management during the rehabilitation phase must be specially managed to allow for the experience however ensuring safety for heritage and visitors. Signage concerning possible threats must be clearly provided.

Source: Extracted from Sustainable Tourism Strategy, Volume III, Annex Integrated Framework (Management Plan), Nomination Dossier for Inscription on the World Heritage List Bagan, prepared by UNESCO in close collaboration with Ministry of Religious Affairs and Culture in December 2017.

APPENDIX 3

Outdoor Advertising Control Guideline for Bagan Cultural Heritage Site (Draft)

OUTDOOR ADVERTISING CONTROL GUIDELINE FOR BAGAN CULTURAL HERITAGE SITE

[DRAFT]

May 2017

JICA Expert Team



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1. INTRODUCTION

Bagan is one of the most important heritage destination in Myanmar with the richest archaeological values, that consists of monuments of over 3000 temples, stupas and pagodas. The landscape is one and only, and it should be preserved as a figure of the ancient time.

This is a “draft” guidance prepared by JICA Expert Team during the project period in May 2017, and this should be finalized through the Bagan Management Committee organized in General Administration Department of Nyaung U District, Mandalay Region.



Bagan's historical landscape

2. PURPOSE

The main purpose of this guideline is to show the direction of advertising control to maintain the historical environment in a systematic way.

Since there was no coordination organization to maintain the historical landscape of Bagan, it was not well controlled as a cultural heritage site. As a result, there was not unity of public signages and multiple advertisements by private business operators in different sizes, types and designs are standing everywhere in the cultural heritage area. If this uncontrolled situation is left as it is, the valuable landscape of Bagan may not be kept for the future.

In order to establish the procedures involved in erecting and maintaining outdoor advertising boards in Bagan Cultural Heritage Area, following are recommendation for the public sector and private business operators who are involved in promoting public signage and outdoor advertisings to ensure not to give negative and visual impact to the historical environment that is the outstanding universal value of Bagan. That is, the aim is to establish a systematic guideline to control the proliferation of advertisements and maintain the valuable cultural heritage zone.



Public ad. in front of the temple



Temporary Signs covering a shop



Multiple outdoor advertisements in different sizes, types and design

3. POLICIES

Policies for public signage and outdoor advertising are to:

- Define the categories of public signage and outdoor advertisement to erect in respective zone.
- Restrict specific design standards for erecting each advertisement.
- Set new standard consisting of distance between signage and advertisements, size, locations and siting orientation.

- Ensure that public signage and outdoor advertisement does NOT distract road users because of their unusual design and does NOT obscure or interfere with the effectiveness of traffic signals, safety signs and directional signs.
- Minimize visual clutter of advertisement at any site of rural and urban settlement area.
- Ensure that NO outdoor advertisement will be allowed to erect around the monuments in the property zone.
- Ensure off-premises signs, which advertise commercial product, business or service shall NOT be allowed.
- Protect vicinity of monument area and significant landscape area by limiting proliferation of advertising board.
- Ensure that outdoor advertising must NOT be located as to diminish the heritage values of items or areas of local and regional heritage significance and should NOT detract from the amenity or visual quality of any environmentally sensitive area, natural or other conservation areas.

4. RECOMMENDATION

1) DESIGN

- Public signage and advertising signs should NOT contain reflectors which can be mistaken for a traffic control device at night.
- Signs should be subordinate to the building and its shape and proportion should be appropriate to the building and its architectural elements.
- Signs should NOT cover, obscure or alter architectural features of the heritage building.
- Sign design should be match with the historical elements.



Design matching to the historical elements.

2) COLORS

- Public signage and advertising colors should be simple and appropriate or compatible with the monuments' color or neighboring natural landscape.
- The use of subdued colors is encouraged.
- A darker background with lighter lettering and graphic is encouraged as traditional and pleasant presentation.



Simple and natural color match to the surrounded environment

3) LETTERING

- Too bold, too harsh or trendy lettering shall be prohibited.
- Lettering which is traditional appearance and style and has an historic precedent is preferred.

4) MATERIAL

- Public signage and advertising sign shall be made of wood which tends to describe traditional appearance. Plywood with edge banded may be used but solid wood is recommended over plywood since plywood is easy to delaminate with age.



Teak wood is one of the material used for traditional crafts.

- Vinyl lettering or stick-on lettering shall NOT be used as primary public signage and advertising sign, it shall be used as a secondary or subordinate sign on awning valances.
- Other material may be considered on a case-by-case basis.

5) LIGHTING

- Full internally backlit plastic, vinyl or illuminated box or awning signs shall be prohibited.
- Bright flashing or quickly changing colors shall be prohibited.
- LED (Light Emitting Diodes) digital screen shall be prohibited.
- External illumination, internal illumination with dark background, opaque or halo-lit letters shall be permitted. This sign may be illuminated for a business operating after sunset.

6) CONTENTS

- The telephone number, email, or web address of a business, rates and other business location shall NOT be included in fascia sign, public directional sign, and awning sign.
-

5. CONTROL AREA

The regulations of advertising are identified based on zoning that is defined by MoRAC for World Heritage Nomination. 1) Property Zone, 2) Buffer Zone and 3) Settlement Area for towns and villages as shown in below.

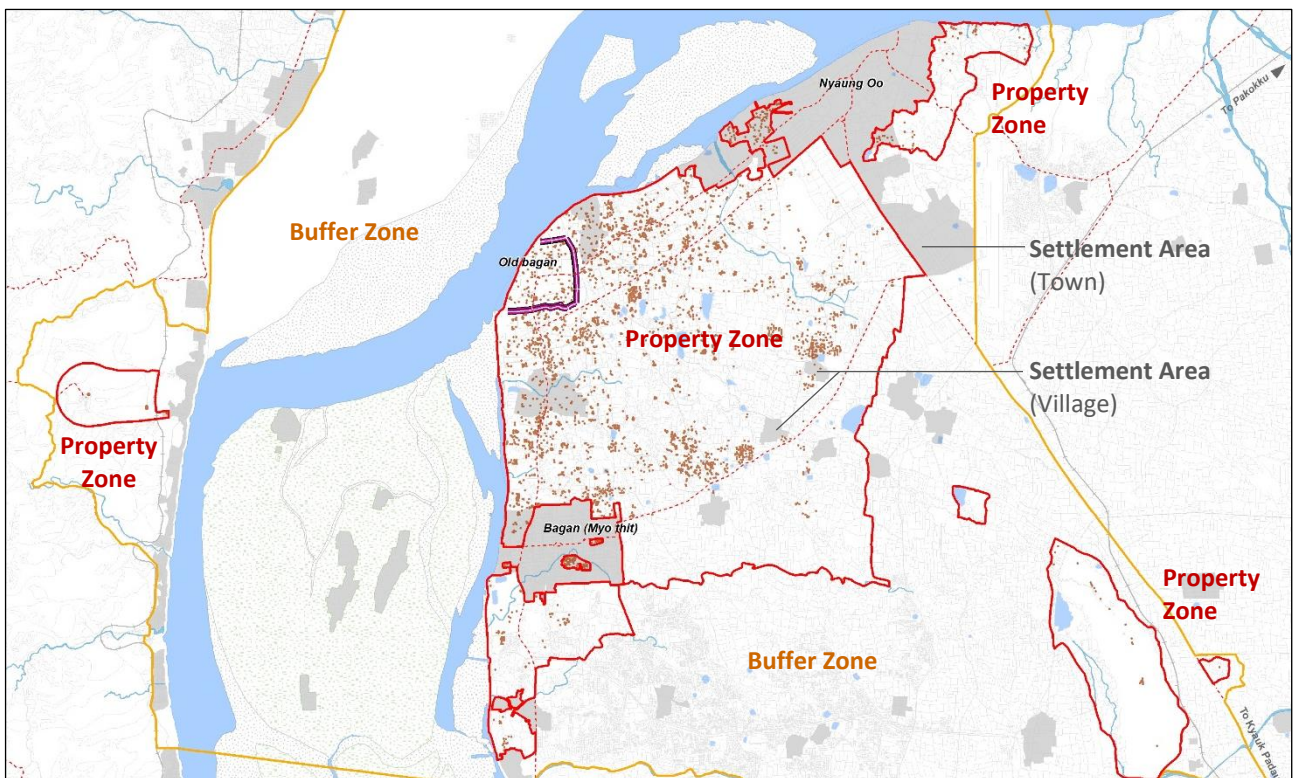


Figure: Boundaries of Nominated Property and Buffer Zone of Bagan, MoRAC

Types of signage and advertisement allowed to erect in each respective zone are as follows.

Table: List of Signage, Advertising Acceptable in Each Zone

Types of Signage, Advertising	Property Zone	Buffer Zone	Settlement	Settlement
			Area (Village)	Area (Town)
1 Public Directional Sign	○	○	○	○
2 Prohibited Sign	○	○	○	○
3 Monument Sign / Parking Sign	○	○	○	○
4 Private Directional Sign	×	×	×	○
5 Shopfront Sign / Awning Sign	×	×	△	○
6 Fence Sign	×	×	×	×
7 ATM (Automated Teller Machine)	×	×	△	△
8 A-Frame/ Menu Board (Temporary)	×	×	○	○
9 Temporary Sign	×	×	×	×

○ Acceptable

△ Acceptable after consultation with GAD committee

× Unacceptable

In each area, outdoor advertising should not disturb the representative views toward the monuments. Before installation of the public signage or outdoor advertising, the applicant should consult to Department of Archaeology and the management committee.

Note: This draft guideline should be finalized through the Bagan Management Committee held in General Administration Department of Nyaung U District, Mandalay Region.