3.2. Measures for Adequately Managing Tourism Resources

3.2.1. Tourism Use of Archaeological Heritage

(1) Review and evaluation of tourism use conditions

Guatemala's archaeological heritage has been evaluated as having a high tourism potential, although it is not adequately utilized. Principal reasons are the lack of management programs, adequate access, facilities, services and interpretation of site, monuments, and artifacts, as well as poor awareness of Guatemala's archeological sites among the potential markets.

a. Tourism market considerations

- The market survey conducted by JICA Study Team shows that Guatemala's principal attraction for its current international visitors is centered on archaeological sites.

- Most of the visitors to Guatemala are independent. Hence, visiting archaeological sites other than Tikal is difficult due to the lack of services and information. It is urgent to implement measures for improving the satisfaction level, length of stay, and amount of spending of this market segment.

- Organized groups constitute 11% of the tourists to Guatemala. Tour operators generally arrange tour conductor or guide for the groups. They provide information, foods and beverage therefore tour groups are less affected by the lack of services than independent tourists. However this reduces the opportunities for a wider distribution of tourism income and benefits, limiting local consumption in archaeological sites.

- Visitors are increasingly demanding with regard to the environmental quality of tourism destinations, and are ready to participate in natural and cultural conservation programs. In this sense, it is possible and desirable to involve them in conservation programs at the sites.

b. Institutional framework for management and tourism use of archaeological heritage

- Management of archaeological heritage in Guatemala is in charge of Institute of Anthropology and History (IDAEH) under the Ministry of Culture and Sports (MICUDE).

- There is not a system of qualification, evaluation, and selection, with which priority would be given to the potential sites and development actions necessary for conservation. Decisions for the tourism use of archaeological sites tend to be discretionally taken whether it is by IDAEH or INGUAT.

- Due to the scarce human, technical, and economic resources of the government institutions, it is necessary to develop alternative models that will allow the participation of new actors in conservation and tourism use of archaeological heritage, without loosing technical control over conservation.

- It is vital to concentrate institutional resources and actions in the sites that are already being visited, and those with better conditions to be visited, and to exclude those with the risks of deterioration.

c. Conservation and security of archaeological heritage
Tourism use and visitor flow control in archaeological sites

- The most visited archaeological sites do no have mechanisms for visitor flow control and, therefore, the number of visitors who arrive at specific sites in peak time, in particular at Tikal, may exceed the carrying capacity. Visitors are allowed to walk around fragile zones and there are no awareness programs that promote caution and respect for monuments. Therefore, visitors and their guides may damage fragile monuments and sculptures.

- Vulnerability of archaeological sites increases at the initial stage of excavation, during which precious objects tend to be left without surveillance and protection. Therefore it is not recommendable to promote visits to sites that have not been consolidated and that do not have adequate security and management systems.

Communities participation

- Most of the protection and conservation programs of archaeological sites do not get cooperation from neighboring communities since they don't perceive any tangible benefits from tourism use and conservation.

- The lack of awareness and the economic situation of the communities drive them to expand agricultural frontier and sack the sites.

- Consession of tourism services to local communities will promote the development and improvement of services and infrastructure and, at the same time, provide communities with an alternative for economic development. This formula should be perceived as a tool for achieving the incorporation of communities in the co-management scheme, in which local people have greater participation in the conservation of sites.

Natural resources

- The presence of archaeological sites have, in many cases, resulted in the conservation of nature-based tourism resources in the surrounding areas, which increases tourism value and market opportunities, although it is necessary to strengthen reforestation and conservation programs.

Land tenure

- The Government owns vast areas of land, in particular, in El Petén Department. This situation makes it relatively easy to establish protected areas surrounding

archaeological sites and implement management plans. In spite of this, due to the lack of institutional resources and adequate management plans, archaeological sites such as Ceibal, Aguateca, Dos Pilas as well as some in the south of El Peten and in the Maya Biosphere Reserve, have been invaded. Tourism development in these sites should be interpreted as a tool of utilization and control, to ensure conservation. However, it will be necessary to consider and solve the possible social conflicts as a prerequisite to integrate these sites in the tourism system.

- Not a small number of archaeological sites are located in private property, as is the case of the archaeological sites in the Pacific Coast. In many cases, investigation and control of such sites by government authorities have been hindered, and intensive agriculture has eliminated original vegetation of the area and damaged archaeological remains, although in some cases sites were saved from sacking. At present, consensus building and voluntary assistance to property owners have been intensified to set up research, rescue, and utilization programs. The example of Abaj Takalik Archaeological Park is a successful case to have achieved to set up a research and development program with the collaboration of finca owners, which could be utilized as a model for other sites.

- Private Nature Reserve Association of Guatemala has had a significant growth in recent years, and significant progresses have been achieved in research and tourism use of these areas. It is recommendable to set up measures to facilitate the incorporation of cultural-archaeological reserves into this group, or to create a special association for promoting a better tourism use and conservation of the said reserves.

d. Access, tourism facilities and services

- The lack of accessibility to archaeological sites is not only a reality but it is also a matter of perception. There are archaeological sites with poor accessibility but other archaeological sites have good roads but perceived as remote and inaccessible due to the lack of information.

- Most of the archaeological sites lack in basic servicesto cater for the visitors, which reduces satisfaction as well as the possibility to increase visitors' spending thus generating income for the country and local communities.

- INGUAT, in agreement with IDAEH, made efforts for some archaeological sites to develop visitor services such as the construction of visitor centers, toilets, etc. These facilities did not have the adequate follow up and therefore they are not functioning properly. Investments in infrastructure and facilities should accompany long-term programs for operation.

e. Security for visitors

- Public security is one of the principal problems for tourism development in Guatemala. Furthermore, most of the archaeological sites do not have security programs. Establishment of security systems in archaeological sites is essential for its tourism use.

(2) Market segmentation and specialization for tourism use

Based on the evaluation of the present conditions, potential of archaeological sites, and requirements of tourism market, JICA Study Team proposes the following directions to improve the tourism use of archaeological sites in Guatemala.

- Market segmentation and specialization,

- Selection of priority archaeological sites for tourism use,

- Spatial organization of archaeological sites,

- Improvement of interpretation and on-site visitor management,

- Tourism operation in archaeological site with co-management,

- Low impact infrastructure and facilities, and

- Considerations for the tourism promotion.

a. Market segmentation and specialization

The archaeological sites have to develop tourism at different levels of specialization according to their possibility of receiving and satisfying tourists as follows:

- As complementary attractions for the touring of traditional tourists,

- As added value for other segments of interest,

- As principal attractions for a learning experience related with the Mayan culture and/or archaeology, and

- As research destinations for specialized tourists.

<u>Complementary attraction for touring</u>

Traditional tourists tend to visit a combination of the most representative sites of Guatemala such as Tikal, Antigua, Lake Atitlán and Chichicastenango. For these visitors, the archaeological sites are not the only reason to visit the country, but they are an important complement that differentiate and enhance their experience. The traditional tourists can be induced to visit other archaeological sites, if adequate services are developed and information is provided about the sites where tourism development is intended.

It is possible to develop more specialized products considering that specialized tourism products may obtain higher rates.

Added value for other segments of interest

Archaeological sites are worth visiting for travelers with different interests ranging from archaeology to traditional touring. For these market segments, it will be necessary to consider the previously discussed measures as well as the followings:

Table 3.11   Possibilities of combination with archaeological tourism

Segment	Measures/considerations
Nature	Nature-based tourism resources tend to be conserved well in the periphery of archaeological sites. Therefore the market segments interested in bird watching, reptiles, insects (butterflies), flora etc. could be interested in doing the activities in the periphery of archaeological sites, which is an added value for their experience.
Business	International travelers who visit Guatemala for business usually stay in Guatemala City. They have only limited time during their stay but special one-day tours to various archaeological sites can be developed, and even motivate them to stay one more day combining business with leisure or knowledge.
Living cultures	For visitors interested in living cultures, it is possible to offer visits that allows for an interpretation to compare and contrast the living cultures and the ancient Mayan culture, and the anthropological relationship of the local residents with the archaeological site. Archaeological sites that are considered as sacred for indigenous communities and playing an important role in their spiritual life will be of great importance for this market segment, regardless of it's architectural value.

Source: JICA Study Team

Learning tourists

Guatemala has great potential for developing learning experiences in archaeological sites. There is a growing market segment of tourists interested in learning various subjects while traveling. These tourists do not necessarily have special interests in Mayan archaeology but are interested in participating in various programs such as horseback riding, a seminar of modern art, a course of astronomy, or archaeological expedition. Guatemala can offer these tourists with an archaeological experience by developing programs to explore and learn near the Mayan homeland.

Researchers

Archaeology is a subject that includes various fields of research including anthropology, architecture, ecology, hieroglyphology and so forth. To invite and facilitate researchers to work for the interpretation of various archaeological sites could be a source of income and a possibility of improving the services for long-haul visitors, and also strengthen the image of Guatemala as a cultural destination.

b. Establishment of an evaluation and selection system of archaeological sites

From the viewpoint of conservation and tourism use of archaeological resources, it is indispensable to have an evaluation and selection system of archaeological sites, which allow it to concentrate actions and available resources taking into account the following factors.

Table 3.12   Factors of evaluation and selection for the tourism use of archaeological sites

Considerations	Rationale
Visitor flow	Archaeological sites that are already visited without a visitor management system or visitor services will have priority for developing programs of tourism use. Market segmentation and specialization are needed in accordance with market potential.
Inherent attractiveness	Although tourism attractions can be built or developed, intrinsic value of *archaeological areas is essential to set its tourism potential and vocation;* therefore monumentality of buildings, quality of hieroglyphs and frescos, historical importance and natural tourism resources should be taken into account.
Accessibility from Tourism Center or Sub-center	Most of the archaeological sites function as excursion areas due to the difficulty to develop accommodation within the sites. Better accessibility from Tourism Center or Sub-Center increases the possibility of receiving visitors. For the development of archaeological sites that are inaccessible at present, it will be necessary to consider the risk of constructing access road as part of tourism development.
Conditions of conservation	The status of conservation is fundamental for tourism development; therefore participation of various actors should be encouraged. The quality of nature tourism resources and its level of conservation are important elements of attractiveness for the visitors to archaeological sites.
Image and perception among potential visitors	Archaeological sites that are better known with a positive image in potential visitors' mind have more possibility to be visited. However, it should be considered to strengthen the image of archaeological sites that are intended for tourism use, taking into account the level of consolidation. The image of archaeological sites that are not prepared to receive tourism should be handled with care.
Services and facilities	Some archaeological sites already have facilities for visitors but they are not functioning. The operation of these facilities will have to take into account the involvement of neighboring communities. Design of the facilities should be environmentally adequate in architectural and technological terms.
Research and interpretation	Archaeological sites with better interpretation will have greater possibility of development. Therefore a good knowledge base is an important resource for attracting visitors.
Other cultural values of neighboring communities	Artifacts created in its locality, local clothes, traditional ceremonies, costumes and legends can be part of attractiveness of an area and, therefore, will have to be evaluated as an additional value for tourism attractiveness, and considered in the conservation strategy of the archaeological sites.

Source: JICA Study Team

Based on the previously discussed parameters, the following archaeological sites have been chosen as having priority for tourism development in the short-term.

Table 3.13   Priority archaeological sites for tourism development

Name	Department	Center/Sub-center	Remarks
Tikal	Petén	Flores	Visitor number could exceed the carrying capacity and there exists no adequate visitor management plan.
Uaxactún	Petén	Flores	It could function as the exploration base for the archaeological sites in Northern Peten.
Yaxhá	Petén	Flores	It has the conditions to be an alternative accessible attraction for visitors to Tikal.
Nakúm	Petén	Flores	Its proximity to Yaxhá allows it to create an alternative that adds value to the archaeological zone, and distribute visitors.
Quiriguá	Izabal	Rio Dulce/ Livingston	For its intrinsic value and for having been declared as World Heritage, the site has a strong appeal to the tourism market.
Iximché	Chimaltenango	Guatemala City	Its proximity to Guatemala City makes it an important archaeological site for short-haul, visitors. It is necessary to set up a visitors' management system.
Mixco Viejo	Chimaltenango	Guatemala City	Its proximity to Guatemala City makes it an important archaeological site for short-haul, visitors. It is necessary to set up a visitors' management system.
Abaj Takalik	Retalhuleu	Quetzaltenango	Its historical value and its geographic location make it an important destination, in particular, for domestic visitors.
Ceibal Aguateca	Petén	Sayaxché	Its location between Cobán and Flores makes it an important archaeological site in the tourism development strategy.

Source: JICA Study Team

On the other hand, there are various archaeological sites with high tourism potential but require investigation and consolidation, as well as development of access roads and services so that they would be incorporated into the tourist system in the long term:

Table 3.14   Major archaeological sites that need archaeological consolidation and infrastructure development in order to be included into the tourism system

Name	Department	Center/ Sub-center	Remarks
El Naranjo	Petén	Flores	It is important as part of the Yaxhá – Nakúm – Naranjo triangle. However, it requires archaeological consolidation.
Cancuén	Petén	Chisec	Although it occupies a strategic location as part of the Antigua – Cobán – Flores Tourism Corridor, it is still in the stage of exploration.
El Perú	Petén	Flores	It is an complementary archaeological site for diversify tourism products in the vicinity of Flores.
Rio Azul, Piedras Negras, El Zotz	Petén	Flores	Due to the remoteness, it is necessary to consider developing accommodation and roadside amenities.
El Mirador	Petén	Flores	Due to the remoteness and its current stage of archaeological consolidation, it is better to leave it for the long-term.
Dos Pilas, Aguateca	Petén	Sayaxché	Its development is important as part of the Sayaxché tourism system and as a complementary tourism attraction of the Antigua – Cobán – Flores Tourism Corridor.
Tayasal, Motul, Paxcaman, Ixlú	Petén	Flores	These archaeological sites located on the lakeshore of Peten Itza are visited as complementary attractions for visitors who stay in the lakeside area.

Source: JICA Study Team

c. Space organization

The establishment of an Archaeological Systems for Tourism Use (ASTU) intends to organize archeological sites into groups or corridors. It has the following strategic advantages:

- To create synergy effects to facilitate joint exploration, interpretation, and management of a group of sites,

- To improve the control and management of visitor flow,

- To make a better use of services and infrastructure,

- To improve the satisfaction of visitors

The following issues should be considered to establish an ASTU:

Table 3.15   Main issues to formulate an Archaeological Systems for Tourism Use

Considerations	Rationale
Segmentation of products/ markets	Archaeological sites that are more accessible and developed can receive traditional tourists of various types. More remote archaeological sites work for to special interest tourists in adventure or archaeology. For learning tourists, it is necessary to increase the level of on-site interpretation.
Linkage	For the effectiveness of tourism use, it is necessary to consider the linkage of archaeological sites, and to establish systems and corridors that can cater to different groups of interest.
Archaeological congruity	Each group of archaeological sites will have to be interpreted as a whole, by finding the linkage that groups the sites in time and their interrelationship of commerce, family, religion, art etc.

Source: JICA Study Team

The following archaeological systems have been strategically identified in terms of the factors mentioned previously for the tourism development of Guatemala.

Table 3.16   Principal Archaeological Systems for Tourism Use (ASTU)

Name of System	Sites composing system	Considerations	
		Market	Linkage
Mayan Empire	Tikal, Uaxactún, Yaxhá	Domestic and international visitors Complement to traditional touring	The access and linkage of these sites are good; therefore they can be set up in the short-term.
Mayan Triangle	Tikal, Yaxhá, Naranjo, Topoxte, Nakum	Domestic and international visitors	It is necessary to improve the interconnection of the sites by creating a road system inside archaeological parks.
Mayan Forest	Uaxactún, El Mirador, Río Azúl-Kinal, Manantial, Chochkitan, La Honradez, Xmacabatun	Domestic and international visitors with special interest in archaeology, nature and adventure	It is necessary to improve the access and interconnection through the network of unpaved roads and trails.
Mayan Jade Route	Ceibal, Aguateca, Dos Pilas, el Caribe, Cancuén	The number of visitors to the regions is expected to increase with the completion of the Cobán – Flores road. Attractiveness of this system is based on the combination of nature and archaeology.	Strategic points in the Antigua – Cobán – Flores Corridor. Access via river gives an added value to the visit to these sites.
Mayas of the Lake, or The Maya Itza	Ixlu, Jacpeten, Motul de San José	Excursion sites for the visitors to the Peten Itza Lake	As part of the Peten Itza Resort Development
Usumacinta Maya	Yaxilán (Mex), Piedras Negras	International visitors with interest in soft adventure, archaeology, and ecotourism. Its position facilitates the flow of visitors from Palenque to El Peten.	As part of the Usumacinta River Basin.
Mayas in the Center	Iximché- Mixco Viejo	Domestic visitors One-day trip for tourists and business travelers in Guatemala City	Its proximity to Guatemala City guarantees easy access.

Fuente: Equipo de Estudio de JICA

d. Improvement of interpretation and on-site visitor management

Interpretation and organization at each archaeological site has to be strengthened not only for the satisfaction of visitors but also for the control and management of visitor flows within the site. For this purpose, it is necessary to consider the following measures:

Museography

There is a large difference between the passive observation of the ruins of a Mayan city and the experience of the Mayan culture walking through an archaeological site. To know why, how, when, and who of the ancient culture make the visitors appreciate more and enjoy their experience.

Museography is the art of displaying objects and valuable collections to offer a better understanding and entertainment to the public, while exhibited objects can be conserved. Although archaeological constructions cannot be moved, the concept can be applied to archaeological sites by setting up routes based on specific scripts and by implementing interpretation tools.

* A leading concept should be chosen for the design of museography. It can be based on: a) time horizon by choosing the most representative areas of different periods, b) themes by choosing a central topic such as cosmogony, domesticated and sacred animals, daily life, rituals, c) architecture by analyzing technical differences of construction and their practical and emotional motives.

* Sites should be mapped to develop paths and circuits for visitors with different needs and interests including time availability. The paths should also be used as mechanisms for managing visitor flows and for avoiding over-use of the most visited sites, in particular, during the peak hours.

Zoning

Zoning of the archaeological sites will be the basis for the visitor management system and should be consistent with the selected concept of museography. In general terms, the following zones should be identified:

Zones for a large number of visitors

* Gateway areas of archaeological site, and

* Areas with tourism attractiveness: monumental architecture, well-conserved hieroglyphs and stelae, areas with significance.

Zones for restricted visits

* Fragile and under-consolidation zones

Zones for diversification of visitor flow

* Areas with potential to attract visitors, based on the possibility of interpretation and management of events.

Zones for walking

* Paths that interconnect different zones.

Development of scripts and interpretative trails

* Interpretation scripts should be designed to be consistent with the leading concept, and to guide the visitor flow. It is desirable to propose different circuits that take into account different interests and time availability of visitors, for example, emphasizing some aspects of the sites such as the most important historical monuments, architectural design, anthropological relationship of the archaeological site and local community, and legends and myths of the site.

* The script should encourage visitors to move from the most congested areas to the less visited areas.

- The scripts should be assisted by maps and signing systems in different languages, to enable the understanding of diverse aspects of archaeological sites, buildings, plazas, stelae, sac-be, as well as visitors' location, by indicating the site layout and access to buildings from different perspectives.

Visitor center

All the archaeological sites open to the public should have a visitor center, through which all the visitors should enter into the site. It should include the followings elements, as well as other elements that are considered convenient for respective archaeological sites:

- A board that contain the regulation of conducts in the archaeological site such as what to do with garbage, not to touch stelae and carved or colored stones, structures where climbing is not allowed, etc. This information will not only create awareness among visitors about how to behave in the site, but also will ensure their security, and promote among visitors a sense of respect for, and trust in, the site and responsible authority.

- Basic information about the site and a model or map where visitors can locate themselves, plan their route, and have an overall vision of the site. It is advisable that information would be provided in Spanish as well as in languages of major visitor-generating countries and local Mayan language.

- All the visitor centers should have at least one well-trained staff capable of providing general information to visitors. This person should be in charge of welcoming visitors and encouraging them to follow the rules and regulations.

- It is recommended to set up a cashier inside the visitor center. In small sites that are not visited very often, the person in charge of providing information and interpretation of the site could also assume the role of cashier.

- Visitor centers should have basic services such as clean toilet, souvenir shops, food and beverage etc..

Resting and interpretation centers

These centers should be designed according to the concept of museography:

- To set up resting and interpretation centers in different areas of the archaeological sites, which provide information, food and beverage services, shops and entertainment events (music, handicraft shows, conferences etc.), has strategic advantages. If an archaeological site provides these services only at the entrance, visitors would concentrate in the trails that lead to the area.

- To locate various resting centers promotes the dispersal of visitors and, thus, increases their satisfaction (the number of the centers should depend on the number of visitors).

Control and distribution of visitor flow

- Resting and interpretation areas can be utilized to provide music concerts, lectures and presentations to encourage visitors to leave the most congested areas during the peak hours. For example, if the great plaza of Tikal is over-crowded between 11:00 and 12:00, an audiovisual presentation about Mayan cosmogony in an area located behind the Complex P, or a local music concert in the Mundo Perdido area can be hosted to cope with this situation.

- On the other hand, it is necessary to set up measures to discourage visits to fragile zones, such as setting up maximum limit of entry, increasing entrance fees, etc..

Pricing system

- Prices set for products and services have a significant impact on the recognition of its practical and perceptual value. It is essential to review the pricing system in accordance to the quality of archaeological sites, in terms of tourism attractiveness and on-site services. However, it will be necessary to introduce special prices for domestic visitors as well as exemption of charge for local people.

- Entrance fees can be managed as donation for the conservation of the site, and visitors could be invited to participate in donation campaigns.

- Prices are also a tool to control visitor flows. Fragile areas should be visited only under the supervision of specialized guides. In that case higher fees should be charged and the number of visitors should be limited. Likewise, it would be possible to set up higher entrance fees during the peak seasons and peak hours.

e. Tourism operation in archaeological sites

Success in the tourism use of Guatemala's archaeological assets depends largely on the possibility to share the objectives and strategies, as well to organize the activities of different stakeholders to avoid duplication of efforts, and to balance the interests of conservation, socioeconomic development of local communities, and visitors' satisfaction.

Main actors for the tourism use of archaeological sites

The clear definition of roles and ranges of each stakeholder who participates in the tourism use of archaeological sites will be the basis for the efficient operation of the programs.

Table 3.17   Main actors that participate in the conservation and tourism use of archaeological sites

Organization	Functions
INGUAT/ Local Tourism Committee	To coordinate the participation of tourism entrepreneurs, local communities, other government agencies and NGOs in order to consolidate tourism services, both in the formation stage as well as in the implementation and operation stages in the mid and long-term. To participate actively in the programs of maintenance and conservation.
	The participation of Local Tourism Committees is necessary to promote the archaeological tourism development according with the national tourism strategy and regional policies, as well as to provide technical assistance and to include pilot projects in the regional strategy of development.
MICUDE/ IDAEH	To coordinate the works of research, excavation, restoration, and consolidation of archaeological sites. To provide interpretation tools of the sites and the Mayan culture in general.
	To ensure that the tourism program is consistent with the national strategies of conservation and cultural development.
Representatives of the community	To represent the community and to promote the participation of community members in the operation and development to obtain benefits through salary and commercial activities. To promote tourism culture and environmentally-responsible activities in the community.
	Municipal government and traditional authorities need to participate.
Private sector	To promote visits to the sites and advise the committee about marketing strategies. To encourage the participation of visitors in conservation. To participate in movements towards the conservation of sites and to encourage other entrepreneurs to participate in the programs.
Research institutions and NGOs	To assist archaeological research in accordance with the requirements of the responsible authorities. It would be necessary to act as advisers and mediators between the government and the community, both in the planning and implementation stages, providing skills and experiences to local community members until they are able to take the full responsibility. The involvement of donor institutions in the co-management could be negotiated case by case.

Source: JICA Study Team

Co-management

At the early stages of the co-management programs, it is unlikely that local communities would make large efforts for conservation or for enforcing regulations against illegal activities. Nevertheless participation of communities in sharing tourism benefits and in the decision-making process will increase their management capability and their will to participate in the conservation of archaeological sites.

It will be necessary to consider the double mission of development and conservation involving all the principal stakeholders since the early stages. In this sense, tourism co-management programs in archaeological sites should consider the three basic areas: a) conservation of the tourism resources, b) catering to visitors, and c) relationship with community.

At the early stages, co-management schemes should be related with tourism use of archaeological sites as an immediate objective to control tourism activities adequately, to generate direct benefits to communities, to improve their management capability, and to increase their interest in participating in conservation.

f. Low impact infrastructure and facilities
Accessibility

- It is necessary to improve the road network, and essential to support tourism transportation enterprises to connect different archaeological sites. This will help

diversify tourism flows and reduce the risk of over-use. Likewise, it will be necessary to take into account the risk of constructing roads to archaeological sites that are not ready for tourism use.

- It is necessary to consider the establishment of "green accommodations" near the archaeological sites with high tourism potential located within 3 hours from a Tourism Center or Sub-Center. This program will be conducive to the diversification of tourist flow and the better tourism use and control of archaeological sites that are not currently accessible and productive (see "3.2.3 Green Accommodation Program for the Formulation of Eco-Corridors").

Other services for visitors

- Accessibility conditions to certain archaeological sites makes it necessary to consider the use of alternative technologies for energy generation, water supply and waste management. Although initial investment would be larger, it will be recovered in the long-term and produce a positive image of the tourism destinations.

- For the tourism use of archaeological sites, it is essential to have infrastructure and facilities to provide the following basic services for visitors:
  - Sanitary services,
  - Food and drinks,
  - Information and interpretation, and
  - Sales of photographic articles, interpretation materials, and souvenirs.

These services are not only indispensable for ensuring visitors' satisfaction, but also for providing a possibility to involve local communities in getting tourism benefits that encourage them for conservation.

The architectural concept for all facilities should be integrated with the local landscape using local materials. No investment should be made if there is no operation proposal that ensures the maintenance of the services in the long-term.

g. Considerations for the tourism promotion

- Tikal is one of the most important tourism symbols of Guatemala. Due to its present positioning, Tikal should still be used as the main archeological symbol, while the image of other archeological sites should be reinforced.

- Taking into account the fact that the greater part of the visitors to Guatemala are independent travelers, it is important to strengthen the promotion activities of archaeological sites at the international gateways, as well as at Tourism Centers and Sub-Centers with an intention to disperse visitors from Tikal. Information should be more detailed at locations near the archaeological sites, and include messages to encourage visitors to participate in conservation.

- All the visitor centers of archaeological sites should present general information about the Mayan culture as well as information about other archaeological sites using political and commercial relationship that connect them, thus creating a network of information and promotion. It is recommendable to establish alliances with other archaeological sites in Mundo Maya countries to promote repeat visits to the region.

- Hosting archeological expositions in museums and public places in Tourism Centers will provoke the interest to visit alternative archaeological sites.

(3) Projects and Programs for the tourism use of archaeological sites

A summary of projects and programs for the tourism use of archaeological sites is shown as follows. For the details, please see the chapters for the regional plans of PTDA.

a. Permanent programs

Name of sites	Program	Responsible institution
Tikal, Quiriguá, Abaj Takalik, Mixco Viejo, Iximché	Visitors' management system	IDAEH, INGUAT
Whole country	Construction regulation and management of visitor services in the bordering zones of archaeological sites	IDAEH, INGUAT
Whole country	Awareness creation for the conservation of, and respect for, archaeological sites	IDAEH, INGUAT
Whole country	Organization and follow-up of co-management committees	INGUAT, IDAEH
Whole country	Training local guides	INGUAT, IDAEH
Central government	Strengthening and institutional coordination	INGUAT, IDAEH

Source: JICA Study Team

b. Short-term pilot projects

Name of site(s)	Project	Responsible institution
Uaxactún	Consolidation of the site as the exploration base for Northern Peten and Maya Biosphere Reserve	INGUAT
	Archaeological interpretation	IDAEH, INGUAT
Yaxhá - Nakúm	Access road, visitor facilities	INGUAT
	Research and Learning Center at La Máquina	IDAEH, INGUAT
	Archaeological interpretation	IDAEH, INGUAT
Ceibal	Visitor facilities and archaeological interpretation	INGUAT
	Archaeological interpretation	IDAEH, INGUAT
Petén Itza lakeside: Tayasal, Motul, Paxcaman, Ixlú	Visitor facilities	INGUAT, Municipalities
	Archaeological interpretation	IDAEH, INGUAT

Source: JICA Study Team

c. Short-term archeological projects

Name of site	Project	Responsible institution
El Naranjo	Archaeological exploration and consolidation	IDAEH
Cancuén	Archaeological exploration and consolidation	IDAEH
El Mirador, Río Azul, Piedras Negras	Archaeological exploration, consolidation, access, accommodation, tourism equipments	IDAEH

Source: JICA Study Team

d. Long-term projects

Program	Remarks	Responsible Institution
Aguateca and Dos Pilas	Improve facilities, access via river and visitor facilities	INGUAT
El Perú	Access road and visitor facilities	INGUAT, Caminos
Cancuén	Access road and visitor facilities	INGUAT, IDAEH
El Mirador, Río Azul, Piedras Negras, El Zotz	Access road, accommodation, visitor facilities	IDAEH, INGUAT

Source: JICA Study Team

3.2.2. Wise Use of Historical Cities

Many cities in Guatemala have colonial churches and monuments, as well as streets and traditional zones that conserve historical or vernacular architecture. Although currently the main reason to visit Guatemala for long haul tourists might not only be related to colonial architecture or historical reasons, cities with historical assets can give an important added value to tourists while visiting the country.

Management programs for historical cities should consider basic infrastructure, traffic planning, wastes management, security, and other issues to be determined in studies for each particular case. The measures to enhance tourism value and wise use of historical cities are related to the following objectives:

- Increase the length of stay and expenditure of visitors

- Strengthen Guatemala's identity, historical memory and enhancing the quality of life of its inhabitants.

a. Geographical location of historical towns

Historical cities can be used either as tourism centers, sub centers or for day visits depending on their geographical location, infrastructure and connectivity. This categorization will determine the use of historical assets in each city, as well as the visitors profile and type of activities that must be developed.

- Tourism Centers and Sub-Centers should consider the use of historical buildings as hotels, restaurants and other tourist facilities.

- Cities that define their role as day trip destinations should consider adopting the Community Tourism model to develop better understanding and recreational activities for visitors and a wider distribution of benefits to locals.

b. Institutional development

Local authorities should lead the management, use and development processes of historical cities. Therefore, it is necessary to give Municipalities the resources and technical assistance to plan and establish the necessary projects and programs to conserve and enhance their historical heritage.

A program to strengthen the figure of "Casa de la Cultura", which is the institution in charge of promoting and conserving cultural resources at the municipal level, should also be strengthened.

Community participation is a requirement for the development of any city. The development of a co-management instrument to execute conservation and management of historical cities with the involvement of private sector and civil representatives has proven to be an adequate mechanism in many cities throughout the world [1]. See Co-management in section 4.4.1.

c. Zoning

Structure of most historical cities is similar since they were founded during the colonial period. Distribution of historical assets and land use of different areas of the cities must be understood and highlighted for local and tourist enjoyment. The definition of areas must consider the following issues:

- Community will for hosting tourists

- Inherent attractiveness of different areas of the city

- Interconnection between historical and gathering places

Studies that include the analysis of the previous elements must be conducted for each city. The following diagram shows a zoning strategy that can be adapted to the typical Guatemalan city.

Figure 3.5   Zoning scheme of historical city
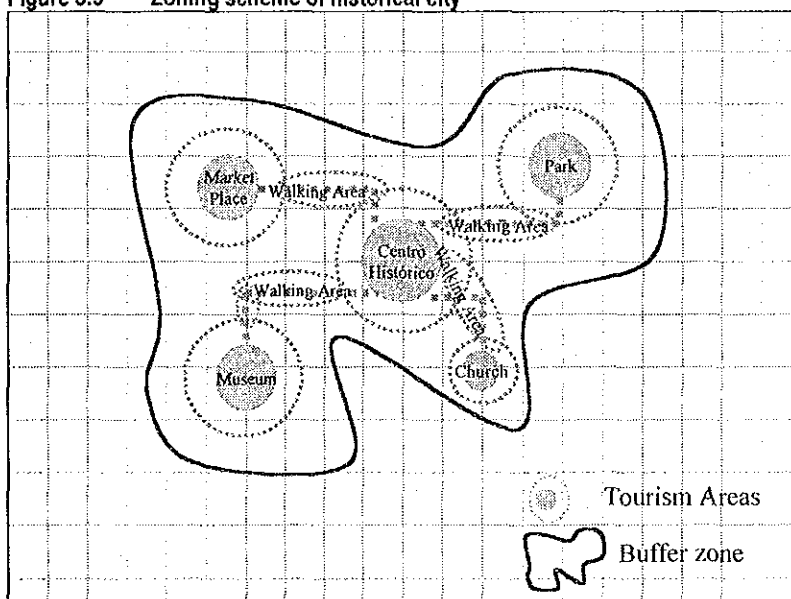
Source: JICA Study Team

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[1] Council for the Management of Antigua's development is a good example.

d. Gathering places for locals and tourists

Lack of adequate places for visitors to interact with locals as well as among themselves is one of Guatemalan cities' weaknesses as tourist destinations. This issue affects tourism satisfaction as well as the possibility for increasing tourism expenditure to spread benefits throughout local communities.

Central parks/ plazas

Most cities and towns constructed in the colonial period in Guatemala have a central park or plaza surrounded by a church, the civil power building and a commercial area. It is necessary to establish architecture control and traffic management programs to improve the use building for locals and visitors and to avoid their deterioration. Special performances or folkloric activities should take place in parks and plazas, to increase use and enjoyment, and to promote a stronger social life among the local population.

Marketplace

Most cities have special market places where indigenous groups from the region come to sell or trade their animals, fruits, vegetable, art crafts, textiles and other goods. Market places are adequate spaces to gather visitors and locals, but it is necessary to increase maintenance and hygiene programs. Since marketplaces are local community spaces, it is important to assure visitors security and respect for local customs. Billboards should be installed at the entrance of market places at least in Spanish, English and the local language, explaining the behavioral rules of the market.

e. Walking zones

A particular study must be made to determine and enhance each city's waking strips taking into consideration the following issues: a) Streets or traditional zones that contain historical or vernacular architecture could be adequate to become walking, eating and shopping places for locals and tourists, b) Streets that link the most visited areas, such as plazas and market places. c) It is very important to give incentives for owners of historical buildings to supply tourist services such as restaurants, stores and galleries, and to provide them with technical assistance and financial aid. d) Commercial development should consider local and visitors flows by having an adequate mix that serves both groups. An adequate commercial blend will increase economic opportunities and assure that tourists will not displace locals. e) Closing a street to motor vehicle traffic can enhance its attractiveness and commercial use, but alternative routes should be seriously considered before taking any action along these lines. An alternative would be to close selected streets on weekends and provide traditional local entertaining for the enjoyment of locals and visitors.

f. Urban landscape conservation of cultural and historical buildings

Since most municipalities lack of urban management programs, and generally speaking governmental employees do not have technical knowledge of planning or maintenance and conservation of historical buildings, projects are designed with little or no technical

methods and construction or remodeling licenses are approved in the base of personal criteria. The following measures should be urgently taken in order to decrease deterioration and increase tourism value of historical cities: a) Develop and spread technical guidelines for urban landscape management and conservation of historical buildings, b) Provide technical assistance to municipalities in order to adapt guidelines to local necessities and establish an efficient and operative legal frame work, c) Give historical buildings a productive use adapting them to provide tourism services such as hotels, restaurants, museums, shops, galleries, etc. This will provide financial resources for maintaining and conserving them, and d) Create awareness programs for locals and visitors, and provide them with information on how to protect historical heritage.

g. Historical and folkloric interpretation

The understanding and enjoyment of a historical city or monument is also related to imagination and knowledge of the place's history, legends and locals points of view, which can enrich a tourist experience and transform a simple building into and exciting encounter with culture. But other than Antigua and in an incipient way in Guatemala City and Quetzaltenango, no information is available for locals or tourists. "Casas de la cultura" should be supported to gather information about history, legends, rituals, customs, costumes and local activities. With the help of community members the development of scripts and the creation of maps, for printing guides, boards, signaling, city tours and other interpretative information will give new significance to buildings, monuments and the city as a whole for locals and visitors.

h. Cultural and recreational activities

Cultural and recreational activities and facilities must be created in most historical cities

Museums

Supporting the creation of local and communitarian interactive museums should be a basic strategy for all historical cities. Museums will help visitors and locals to understand the history and importance of the site and surrounding areas. Galleries and workshops can also work as museums if correct museography is applied to them.

Spectacles

Special events and spectacles using local dances, music and traditions should be recovered and performed to strengthen tourism. In cities where special festivities are held periodically, it is necessary to establish a workshop or museum where visitors can enjoy the events throughout the year. The creation of a Model Culture that highlights traditions and historical values of the place could also contribute to strengthen the identity and pride of local communities.

Gastronomy

Gastronomy is also an important matter for tourism development, tourist satisfaction, increasing tourist expenditures and strengthening local traditions. Although Guatemala has extensive traditional gastronomy, it is hard to find local dishes served in restaurants.

Culinary festivals and training programs should be developed to induce the use of traditional and the development of new local gastronomy with regional ingredients.

Shopping

Popular art crafts and textiles are commonly found in marketplaces and street vendors all over Guatemala, but there is a need to develop and incorporate to the market new products focused on tourists' taste and needs from specific regions and historical cities based on their rich traditions.

Workshops

Tourism oriented workshops that can offer visitors the experience of observing and even participating in the creation of pottery, glass articles, textiles and jewelry are also attractive to different market segments. This type of places are effective mechanisms to draw tourists and increase sales of local products.

3.2.3. Green Accommodation Program for the Formulation of Eco-Corridors

(1) Background

a. Lack of green accommodation

"Green accommodations" means accommodation facilities located in "green" areas such as rural areas and nature areas.

A result of the tourism resources evaluation proves that Guatemala has attractive natural tourism resources that could rival with those in Costa Rica. In addition, like the case of coffee farms, Guatemala has opportunities to utilize its agriculture for tourism. These tourism resources are expected to play important roles to enrich Guatemalan tourism.

Although accommodation facilities in urban areas are comparatively of good quality, those in rural areas and surroundings of protected areas are quite limited in terms of both quality and quantity. This situation imposes a serious constraint on the utilization of above-mentioned tourism resources.

To cope with this situation, JICA Study Team proposes to promote green accommodation development.

b. Ecological Corridor, agriculture, and tourism

Isolated protected area weakens the vitality of wildlife. This problem is greatly relieved if protected areas are connected by Ecological Corridors to facilitate migration of wildlife. The efforts to establish Ecological Corridors are already made in Guatemala lead by Ministry of Environment and Natural Resources (MARN).

Ecological Corridor is a nature area connecting different protected areas and they are mostly private lands. These private lands are mainly used for agriculture or reserved for the future agricultural use. Therefore, the cooperation of finca (farm) owners is essential to establish Ecological Corridors. As has been discussed previously, it is necessary to control deforestation in remaining nature areas in private lands with the following strategies: to restrict deforestation at steep slopes that have high risk of soil erosion, and

to give priority to conserve forests in highlands where the conditions are not very suitable for agriculture.

In recent years, tourism is increasingly viewed as an economic incentive to promote forest conservation. If a proper mechanism is established so that forest conservation would bring tourism income, forest conservation would be promoted greatly.

For finca owners whose income is heavily dependent on international agro-products such as coffee and cardamom, introduction of tourism would reduce business risks by diversifying their income sources. Additional and constant employment opportunities generated by tourism could reduce seasonal fluctuation of labor demands, which implies that agricultural workers employed on a long-term basis would increase.

For the travel trade, they need private lands like remaining nature areas in farms to build tourist accommodations and attractions. Although attractive, it is often difficult to use government protected areas for the above-mentioned purposes due to strict and inflexible regulations.

c. Private reserves

Private reserves have played crucial roles in developing nature tourism in countries like Costa Rica and Peru. There are people in Guatemala who are trying to establish private reserves like the case of the surroundings of Biotopo del Quetzal in Baja Verapaz. Private reserves may be regarded as a variation of agro-tourism, in that private reserve places greater importance on tourism and nature conservation while agro-tourism places importance of both nature conservation and agriculture. Private reserves are expected to play important roles for the development of nature tourism in Guatemala.

There are several types of private reserves; those owned by environmental NGO or individuals for nature conservation, and those owned for economic reasons like operating nature viewing lodges, and those owned for the mixed purposes. The regulation in private reserves is less strict than in public protected areas therefore the development of attractive tourism products is easier in private reserves. It is a received knowledge that foreigners and international NGOs who invested in Costa Rica to operate private reserves have greatly contributed to the development of eco-tourism in Costa Rica.

In this sense, aside from promoting agro-tourism, it would be worth a consideration to promote investment for private reserves in Guatemala.

d. Development directions

Ecological Corridors, agriculture, and tourism have a close relationship; therefore it is important to support tourism development in rural areas involving the agriculture sector to establish Ecological Corridors. Following three items would be necessary measures.

- Agro-tourism development,
- Strengthening of the lodge sector, and

* Promotion of private reserves.

(2) Formulation of Ecological Corridors

a. Concepts of Ecological Corridor for tourism

Ecological significance of the Biological Corridors

Biological Corridor is a concept, which aims at connecting important ecosystems in order to prevent the severance of ecosystems and habitats such as the forest ecological functions and wildlife nesting. Animals use biological corridors to move between forests, which allows migrations and intermixing of other separate populations. For example, Biological Corridors could be created to facilitate the migrations of many fruits-eating birds including Quetzal, from a protected area to other protected areas in Guatemala and other neighboring countries.

Governments in Central America are making efforts with supports from NASA to apply the concept to the region.

Biological Corridor and Ecological Corridor

Since Biological Corridor is purely an environmental concept, a new concept of "Ecological Corridor" was created in Guatemala by focusing more on socio-economic contributions to, and socio-cultural aspects for, local people. The concept of "Ecological Corridor" should be widely applied in Guatemala for protecting the natural environments, alleviating the poverty, and conserving the indigenous cultures. Tourism is expected to play an important role to sustain Ecological Corridors.

b. Requirements for establishing the Ecological Corridors

Needs for private initiatives

Ecological Corridor could not be managed only by the governmental agency because many candidate areas for Ecological Corridor belong to private lands. "Private Nature Reserve" belongs to individuals or *finca* owners, who are interested in nature-based tourism. "Private Nature Reserve" is a measure to supplement the present *SIGAP* that is not covering all the areas that has ecological significance and uniqueness.

On the other hand, the development of profitable community-based tourism products, coordination across sectors, regulation setting, and international promotion and marketing are the keys to the successful nature based-tourism. The responsibility for successful nature-based tourism management lies not only on governmental agencies, but also on the private sector, communities, and NGOs. Likewise, implementation of the Ecological Corridor needs more private initiatives based on a profitable business model with economic contributions to the local people.

Needs for legal bases

In order to conduct Ecological Corridor projects with minimized management conflicts between the private owners and management agencies, legal basis for the Ecological Corridor are needed. Almost all of the designated Ecological Corridor areas are not

authorized by a governmental regulation. Under the current situation, Ecological Corridor areas still have possibilities to be completely converted into agriculture lands.

c. Strategic areas of the Ecological Corridors

CONAP has already designated and prioritized Ecological Corridors as shown in Table 3.18. The priority corridors were identified by the following three ecological factors: i) ecological importance of the relevant SIGAP area, ii) sustainability of the natural resources uses, and iii) ecological restoration needs.

However, this prioritization is still focused on the ecological functions and restoration, which are the level of habitat conditions of the fauna/flora and of repairing damage to the diversity and dynamics of ecosystems.

Table 3.18   Priority Ecological Corridors of CONAP

No.	Name of the Relevant Protected Areas or Tourism Sites
1	Chiquibul/Yaxhá/Dos Lagunas/Mlrador
2	Mirador/Chocop/Laguna del Tigre/Sierra de Lacandón
3	Mayan Montaña/Machaquila/Ceibal/Petexbatún/San Roman
4	San Roman/Sierra Chinaja/Chama/Sierra de Ssnta Cruise
5	Laguna Lachua/Visis-Caba/Cuchumatnes
6	Cutumatanes/Yolnabaj/Lagartero
7	Volcán Tecaná/San Martin/Chicabal/San Pedro/Tolimán/Volcán de Agua
8	Manchon-Guamuchal/Siete Orejas
9	Panimaquin/Tecpan/Visis/-Caba
10	Volcan de Pacaya/Rio Maria Linda/Monterrico
11	Rio Los Esclavos/El Jiote/Hawai
12	Machaquila/Refugio de Xutilha/Sierra Santa Cruz/Rio Dulce
13	El Golfete/Cerro San Gil/Rio Motagua/Sierra Caral
14	Punta de Manabique/Rio San Francisco/Sierra Caral/Cumbre Alta
15	Trifinio/Rio Grande de Zacapa/Sierra de Las Minas
16	Sierra de Las Minas/Rio Motagua/Rio Grande/Tecpan
17	Huite/Rio Ovejas/Tambor
18	Sierra Santa Cruz/Bocas del Polochic/Sierra de Las Minas
19	El Golfete/Chocon-Machacas/Rio Sarstun
20	Cuchumatanes/Cuilco/Volcan/Tacana
21	Cerro Pinalon/Barrancos de Fraijanes/Volcan de Pacaya
22	Santa Elena Barillas/Rio Grande
23	Visis-Caba/Chixoy/BUCQ/Sierra de Las Minas
24	Manchon/Tulate/Sipacate/Monterrico/Barra del Jiote/Garita Chapina

Note: Above number is not corresponding to the priority.
Source: "Politica National y Estrangias para el Desarrollo del Sistema Guatemalteco de Areas
            Protegiadas", CONAP, 1999

It is necessary to reconsider the priority Ecological Corridors based on the potentials of the nature-based tourism as well as the location of the PTDA of this Study. It is recommended that the following three areas should be focused as the highest priority Ecological Corridors for this Study.

- Ecological Corridor between Mirador to Laguna del Tigre.

- Ecological Corridor between the Sierra de las Minas to Biotopo de Quetzaal

- Ecological Corridor within Parque Regional "Reserva Natural Zunil"

Figure 3.6 shows the proposed priority Ecological Corridors.

Figure 3.6 Proposed priority Ecological Corridors
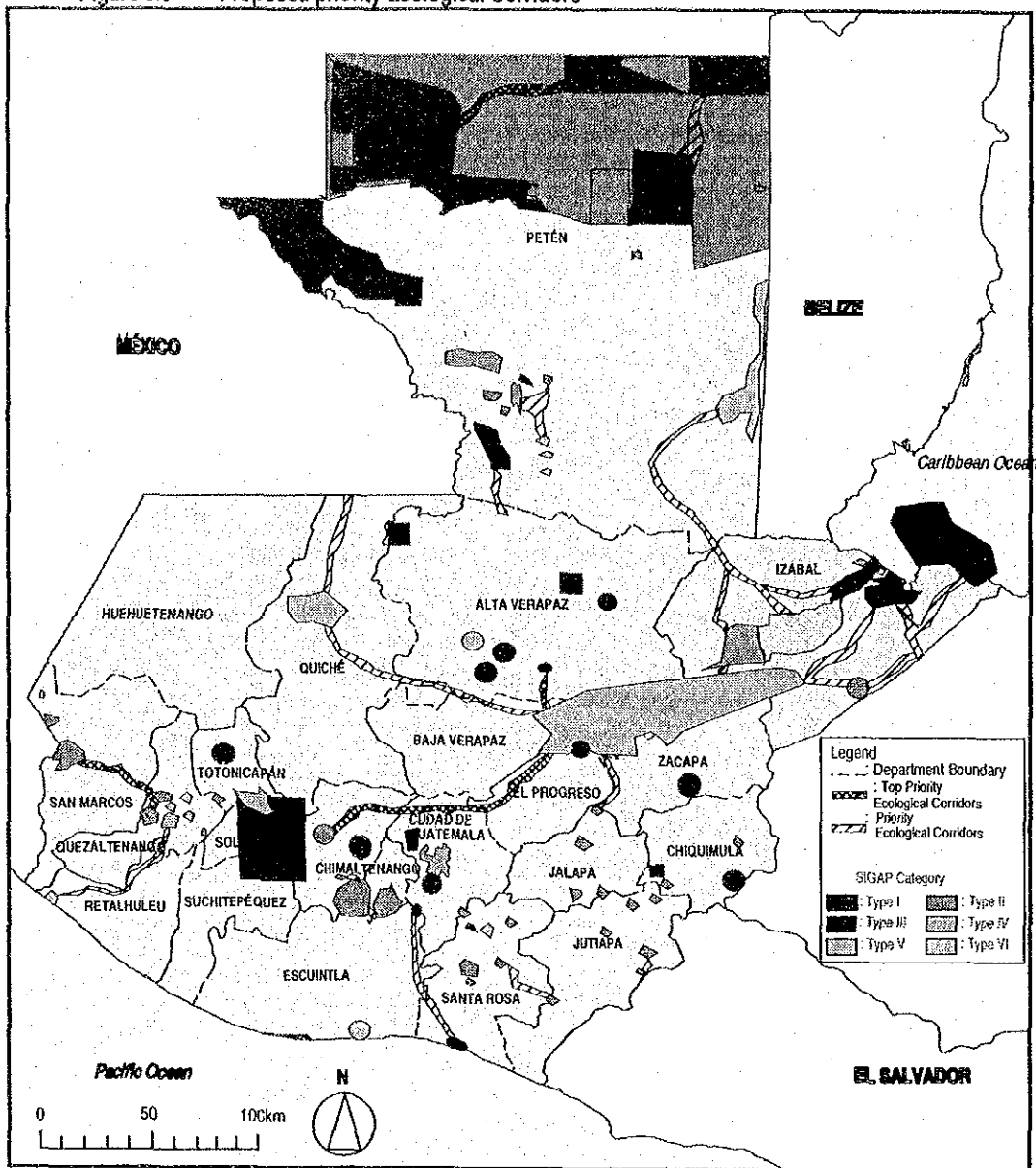
Note: SIGAP Areas do not include Special Protected Areas, Buffer Zone, and Proposed Areas.
Source: JICA Study Team

(3) Agro-tourism development

a. Objectives of agro-tourism

Followings are the objectives for promoting agro-tourism:

* To diversify *fincas'* income sources in order to distribute business risks from the price fluctuation of agricultural products,

* To provide job opportunities to *finca* workers in order that *finca* owners can employ more workers on a permanent basis,

- To provide comfortable accommodation facilities in rural and nature areas not only for agro-tourism but also for distributing visitors to areas where accommodations are scarce,

- To conserve remaining nature areas in *fincas and help establish the Biological Corridors* by utilizing tourism as an economic incentive,

- To conserve rural traditional culture.

b. Tourism attractions to enjoy agro-tourism

It is necessary to identify and evaluate tourism resources in *fincas* and their surroundings. Following are possible tourism attractions that can be developed.

Nature tours

Many *finca* owners have huge lands including not only cultivating lands but also the nature areas that may include waterfalls, springs, rivers, caves, forests, unique flora and fauna etc. Those are one of the most important tourism resources for agro-tourism. Tourists can enjoy the nature in various ways such as hiking, horseback riding, fishing, swimming, camping, boating/canoeing, and bird watching.

It is necessary to develop hiking trails and signposts considering sustainable utilization of those natural resources. Finca workers could work as guides for the nature tours.

Meals made from farm products

Meals are one of the most important factors of agro-tourism. Tourists expect dishes made from fresh and quality farm products, unique local dishes such as kak'ik, tamales, bacha, etc. and home-style dishes. To have meals in the open air with outdoor cooking like barbecue attracts tourists come from urban areas. It is also a possible attraction that tourists process farm products by themselves, such as cheese, chocolate, jam, etc.

Observation and experience of farm works

To observe how to grow and process agricultural products, in particular, agricultural products that are typical of Guatemala such as coffee, cacao, cardamom, etc. can be an interesting attraction for tourists who come from countries with different climate. Explanation of the historical background of agricultural products in Guatemala will increase visitors' interest. To experience agricultural activities such as harvesting, caring of animals, milking, and producing of handicrafts can be also attractions.

Historical architecture and facilities

Old coffee *fincas* have historical architecture such as farmhouse, coffee roasting facility, church, fountain, etc. Those are important tourism resources that should be maintained to show to tourists. Rooms of the farmhouses can be utilized to accommodate tourists after remodeling.

Stay in the nature

Agro-tourism mainly attracts urban dwellers who are longing for the nature, quiet environment, and rural life. To provide comfortable accommodation facilities to make them relax is essential. Accommodation facilities should have necessary amenities such as private bathroom, hot water, clean bed linen, and towels. Setting relaxation opportunities such as hammocks in quiet atmosphere with a view of the farm and the surrounding landscapes will also attract tourists.

Shopping

To buy farm products and processed foods as souvenir will be attraction for tourists. This brings additional income from tourists.

Excursion to neighboring tourism sites

Tourists can enjoy nature not only by staying in *fincas* but also by making excursion to surrounding nature. Some of *fincas* are located near tourism resources, such as caves, lakes and quetzal habitats. To make excursion to towns to see the culture of local people can be also an attraction.

c. Target market

Agro-tourism should target at the following markets:

Short-term:

* Short-haul international tourists who come to Guatemala seeking for cool weather and nature, and

* Domestic tourists from urban areas like Guatemala City.

Long-term:

* Long-haul international tourists who are interested in Guatemalan rural life, and

* Long-haul international tourists who make an overland trip around Mundo Maya, and use agro-tourism destination for stopover.

d. Necessary actions and measures

Assessment of potential of agro-tourism

There are several types of *fincas* that have different conditions in terms of locations, accessibilities, established years (histories), tourism resources inside *finca*, and the surroundings. It is helpful that specialists from outside of the region such as volunteers and international NGOs would assess each *finca* from the viewpoint of tourism potential, and advise on development directions.

Loan for accommodation facility development

It is necessary to set up a financial system that promotes the development of tourism facilities for agro-tourism, in particular, for small and medium-sized *finca* owners.

Accommodation can be developed not only by constructing new lodges but also by remodeling the rooms of farmhouses.

Setting standards of facilities and services

Required qualities of facilities and services for agro-tourism are high. INGUAT should set a standard of facilities and services for agro-tourism, by hiring experts from the private sector. The standard should include level of accommodation facilities, amenities, nature activity facilities such as camp sites and hiking trails, services such as meals, guiding, information provision, language skills, hospitalities, etc. Efforts to improve and maintain the quality of facilities and services should be made in accordance with the guideline, and the level of those qualities should be evaluated periodically by INGUAT.

Conservation and utilization of remaining nature areas

Remaining forests in/around *fincas* are important resources for agro-tourism. Many of *finca* properties cover nature areas. To conserve the nature and to utilize them for agro-tourism, it is recommendable to designate them as private reserves and establish a management plans which includes not only land use guidelines for conservation but also development of tourism activity facilities such as hiking trails and signposts.

Training of *finca* owners and workers

To provide opportunities for finca owners to learn about basic tourism business know-how are important in order to improve their services. *Finca* workers also should be trained to be able to work as tour guides, cooks, maids, etc. INGUAT should support by providing training programs for them.

Establishment of an agro-tourism association

To establish an agro-tourism association is necessary to develop and promote agro-tourism. The association needs support from advisers who has expertise in tourism businesses. The functions of the association are the followings:

* To provide information in cooperation with other tourism related organizations such as local tourism committee and chamber of tourism,

* To give information for finca owners how to access to fund,

* To give advice to finca owners when they have problems in financing, marketing, etc.

* To have connection with tourism related central and local government organizations to promote agro-tourism,

* To promote agro-tourism by making closer connections with tour operators, etc.

* To supervise the services of agro-tourism business of finca owners,

* To supervise the conservation and utilization of nature areas, and

* To provide opportunities of training to finca owners and workers.

(4) Strengthening of the lodge Sector

a. Basic directions

* To enhance the lodge development sector in combination with agro-tourism promotion: The measures to enhance the lodge sector are necessary not only for promoting nature tourism but also for improving the quality of accommodation for agro-tourism.

* To support lodge development which meet the needs of tourists from neighboring countries and domestic tourists in the short term, and middle/long haul tourists in the long term.

* To support lodge development which contributes to providing accommodation facilities for archeological tourism in Peten.

b. Necessary actions

Diffusion of the "high standard lodges for nature tourism" concept

The effort to spread the concept of high standard lodges should be made by INGUAT in coordination with related government agencies and experts from the private sector. The followings are the concrete actions to be taken:

* Establishment of construction guidelines,

* Provision of technical information such as alternative energy utilization, waste management, cultivation of organic vegetables, and

* *Implementation of pilot projects by INGUAT.*

Training programs for lodge management

INGUAT should support in providing training programs to lodge managers and workers. Languages, cooking, serving, accounting, reception, bed making and cleaning, maintenance, computers, basic tourism business know-how, etc. are necessary training courses.

Financial system for lodge development/ improvement

It is necessary to set up a financial system that support lodge development/improvement. Detailed scheme of the financial support system is mentioned in 3.3.2. SME and Investment Promotion.

Promotion of green accommodations by INGUAT

It is difficult, in particular for small-scale lodge owners, to promote their business individually. INGUAT should support them in promotion by using internet web-pages and by providing a catalog of green accommodations in Guatemala. It is recommendable to have an evaluation system specifically designed for green accommodation in Guatemala, such as ranking with stars, and supervision of the quality of services and facilities.

(5) Promotion of Private Natural Reserves

a. Strategies

- To invite private reserves in Ecological Corridors and the surroundings of nature protected areas and archeological sites, and to develop tourism attractions such as nature viewing lodges and canopy-walks in private reserves.

- To prioritize the present private reserve areas based on the conservation importance (e.g., the habitats of vulnerable wildlife) and nature-based tourism potentials;

- To provide more actual incentives to the owners and investors of the private natural reserves; and

- To attract foreign investors and international NGOs expecting that foreign investments would give positive influences on domestic enterprises as "model" lodges, and by transferring skills to Guatemalans through spin-offs.

b. Necessary measures and actions

Guarantee of the right of land use

In order to prevent further deterioration such as deforestations, forest burning, illegal hunting of the natural environment, it is necessary for CONAP to authorize/guarantee that the private landowners can utilize their lands for their business purposes after they register their land to private natural reserves. The guidelines for private natural reserves should clarify the conditions/ownership of land use, in particular, land use for tourism.

Formulation of a master plan within the related Ecological Corridors

It is necessary to prepare a master plan in order to develop nature-based tourism as well as to promote environmental conservation. Actually, any development activities could be accepted within the private natural reserves. However, most of the development activities are not successful without a master plan that promotes effective use of natural resources for both nature conservation and tourism development.

Tax incentives for establishing nature reserves

Reduction of property tax and/or exemption of INGUAT tax can be incentives for private landowners to establish private natural reserves and utilize them for nature tourism. In addition, if the private natural reserves are located within Ecological Corridors, government should provide economic supports for the maintenance of the nature areas and reforestation.

Tax incentive for import materials for nature-based tourism facilities

It is possible to consider to reduce custom duties for the imported materials used for nature based tourism facilities like eco-lodges, if the materials only use for nature based tourism development in the approved private natural reserves.

Promotion of retirement in Guatemala

Foreign retirees played important roles for establishing private reserves, and even developing nature tourism in Costa Rica. Although Guatemala is still regarded as a country with a security risk, the situation is expected to improve in the long-term. Since foreign nationals can purchase land in Guatemala under the current regulations, and its temperate climate is one of the bests in the world, Guatemala has potential to attract retirees. Therefore government efforts are necessary to promote foreigners' retirement in Guatemala. Promotion measures would include tax incentive and active promotion activities by INGUAT and other related agencies, in particular, in case of registering purchased land as private reserve.

INGUAT's supports through "Green Accommodation Program"

Green accommodation Program, as discussed previously, should be used to promote nature tourism in private reserves. Provision of training programs for employees of the tourism accommodation in private natural reserves and promotion activities of nature tourism are principal measures to support and promote private reserves.

Establishment of a scheme of environmental services for reserves owners

In Costa Rica, there is a governmental program that provides payments to landowners for the environmental services such as watershed protection, water quality conservation, and carbon dioxide fixation. The Costa Rican government has negotiated a series of loans and grant from the international donors to fund such payments for the environmental services in the nature areas, including private natural reserves. It needs to consider and establish the similar scheme/mechanism of environmental services in order to receive the owners of the private natural reserves.

3.2.4. Visitors Management System

Developing a visitor management system requires to define the roles that visitors or tourists have for Guatemala. Their role as clients is usually clear; their needs, expectations and satisfaction levels can be understood through market research, and generally speaking efforts are focused on these matters. However, in terms of a visitor management system, it is also necessary to consider their role as active agents in Guatemala's tourism system. It is necessary to understand how their behavior will affect different aspects including: a) natural and cultural conservation or deterioration; b) cultural involution or cultural dependency of local communities; c) distribution of benefits; d) destination competitiveness, profile and attractiveness.

A visitor management system will allow stakeholders to have certain control over visitors flows, places they visit, activities they do, and therefore, their interaction with people and nature. All this will reflect on how and to whom they benefit. The way visitors are managed will determine the possibility of the tourism sector to be sustainable and attain its objectives.

A well-developed visitor management system will also reinforce credibility of Guatemala as a destination. It has been proven in many cases that anarchy and lack of clear rules creates a perception of insecurity among people, especially in a foreign place. On the other hand, knowing that there are clear rules reinforces the feeling of certainty and security among locals and visitors.

A visitor management system should be developed as an integral program for the entire country to conduct tourism flows to specific areas in which tourism is to be used as a strategic tool. But specific visitor management systems should be adapted or developed for different types of destination.

Since it is not viable to think that visitors will be monitored and conducted through out their stay in Guatemala, the visitor management system's operations and rules of behavior should be clearly defined and spread between tourist and locals. Awareness and motivational strategies should also be developed.

(1) Objectives

- Maximize visitors positive effects while in the country

- Minimize negative impacts of visitors in Guatemala's destinations

- Strengthen security and perception of security in visitors to Guatemala.

(2) Zoning

In order to have a better wealth distribution it is important to spread out tourists throughout different regions, towns and within communities. However, not all communities may want to develop tourism, and even communities eager to develop tourism will need some privacy especially in residential areas. On the other, hand not all destinations will be suitable for all kinds of clients. Tourism developed in natural regions, should also consider ecosystems conditions and fragility, and when developed in archeological sites or historical cities other considerations to preserve resources should be review. In that sense, organizing the physical space on zones where different type and intensity of tourism is promoted and allowed.

National zoning system: National zoning in terms of visitors management system should be centered in establishing planning zones that: a) take advantage of existing infrastructure and potential centers, b) identify tourism activities that are currently arranged or can be developed, with better impacts to the regions and to national development, and c) help organize the distribution of tourism flows in order to get a better cost-investment ratio for each region and for the country in general, as well as a better distribution of tourism benefits to local communities.

Site zoning system: It is necessary to establish a zoning system for each tourist destination in terms of patterns and types of visitor use. The following categories should be adapted to each particular condition:

- A core tourist area where most tourist services, such as accommodation facilities, restaurants, bars, souvenir shops, galleries and a visitor center are concentrated.

Natural or cultural area	Historical city or town
At the entrance of the site Nearby cities or towns	A central location such as the main plaza Suburb that has special tourism vocation

- Hard traffic areas that visitors can explore openly

Natural or cultural area	Historical city or town
Permanent paths and walking areas should be determine by specialists	Walking areas surrounding core tourist area

- A buffer zone where some tourism activity is encouraged in order to have a wider income and benefit distribution, but more strict controls are required.

Natural or cultural area	Historical city or town
Special paths and walking areas should be determined by specialists.	Suburb or spread home accommodations, local food restaurants and other facilities that can serve tourists and locals alike

- Finally an "out of bound" area where tourists incursion should be discourage and even prohibited in some extreme cases.

Natural or cultural area	Historical city or town
Fragile ecosystems or structures	Privacy areas that local communities decide to keep to themselves

(3) Tourist flow control

Two different levels should be considered to control tourism flows: nationally and on site.

a. National level

- A program to motivate tour operators to develop tourist flow mechanisms should be established. Tour operators have control over what types of activities the tourists embark on, which sites they visit and even where they stay while they are in Guatemala. In this terms efforts should be directed to encourage tour operators to develop programs in accordance with the national strategy.

- Most visitors to Guatemala are independent travelers and have more flexibility to determine their activities once they are in the country. For this type of visitors, information systems and awareness programs should be developed to encourage them determine their routs and schedules so their flow is in accordance to the national strategy. The program should also be an instrument to encourage an adequate behavior of tourists while they are in the country, and increase their spending and length of stay in strategic destinations.

b. On-site

- Participation of different stakeholders is very important for the success of this program. Coordination of efforts will be easier in sites where a co-managed program is established.

- Tourism control on site should also be based on information and motivation programs for visitors. In most cases visitors are wiling to follow the rules, and they are also interested in understanding the benefits that they can bring to the destination community.

- In order to encourage or maintain visitors in designated areas, it is worth considerations to host staged activities adequate for different zones.

- Since one of the biggest problems of natural and cultural resources degradation is related to the number of visitors that stays at the same time in one place, timing should also be considered for planning activities: a) enough paths or waking areas should be developed to avoid crowds, b) flows on paths and specific areas can be controlled by limiting the number of visitors by hour; this will also increase the value of the attraction for visitors, and c) several attractions and activities such as observation points out of endangered areas, specialized talks or presentations, staged events and others, should be promoted to diversify flows.

- Only visitors accompanied by a specialized guide should be allowed into fragile areas, and a special pricing system that discourages massive tourism to enter buffer zones should be implemented. The pricing system should be designed to control flows and increase income.

- A framework for planning and managing recreational opportunities should include on-site management, mechanisms to manage social interaction, understanding of visitors' impacts and access to other non-recreational resource uses.

3.2.5. Other Considerations

(1) Other Considerations for Cultural Tourism

The following measures should also be considered for managing cultural tourism resources:

- Develop and spread policies, regulations and guidelines for ensuring a productive and respectful use of cultural resources.

- Create co-management instruments that allow private and civil participation in managing cultural assets to merge efforts and resources towards conservation of such resources.

- Interpretation of cultural and historical assets to add value to tourism resources and incite respect from locals and visitors.

- An aggressive mechanism to induce travel trade to participate in cultural conservation and spread of Guatemala's culture. a) Awareness programs for the tourist sector, especially tourist guides and tourists, to respect historical sites and local customs. b) Create visitor management programs in fragile zones. c) Establish marketing strategies

to select adequate market segments d) Create incentives for private sector to participate in the conservation of Cultural Resources.

(2) Other considerations for Nature Tourism
a. Natural Environmental Guidelines
Objectives of the natural environmental guidelines

Although CONAP identified the protected areas (*SIGAP*), the concrete management criteria and methods are not clearly defined. Although the Law of the Protected Areas of Guatemala stipulates management and selection criteria of each management category, no scientific and quantitative criteria have not been established. Moreover, Guatemala has many steep areas, which are prone to soil erosion and land slide. Many potential nature-based tourism sites include steep and ecologically vulnerable areas.

It is proposed to create a natural environmental guideline for the protected area in order to implement appropriate and effective management of the tourism sites. The guideline could be used as a natural tourism resources management tool for preventing them from deterioration, and improving the natural environmental quality.

Basic contents of the guidelines
Basic indicators

It is recommended that proposed guideline should have the following basic indicators taking into account the data availability in Guatemala:

* Slope range (0 - 6%, 6 - 12%, 12 - 30%, 30% more),

* Elevation (0 - 300m, 300 - 500m, 500 - 1000m, 1000 - 2000m, and 2000m more), and

* Soil conditions (Soil texture, soil depth, etc.).

First, protected areas should be prioritized based on the above indicators. As there are many steep areas in Guatemala, slope range should be a first criterion for prioritizing the tourism sites.

Second, present deterioration level of natural tourism resources should be investigated. If the deterioration level is high, protection priority should be changed.

Proposed zoning categories and management use

Zoning is the process of applying different management objectives to different parts of a protected area. *SIGAP* needs the establishment and application of simple zoning categories in order to clarify the management purpose and to minimize users conflicts. It is proposed that the following basic zoning categories should be applied for all nature based tourism sites in Guatemala (see Table 3.19).

Table 3.19   Proposed Basic Zoning Categories

Zoning Categories	Definition and Management Purpose
Sanctuary Zone	• In principle, no visitors are allowed to enter. The natural resources must be kept as the pristine ecosystem. Only scientific research and monitoring are permitted. (e.g. nesting place of Quetzal)
Wilderness Zone	• Limited visitor use like building nature trail is permitted, but the management purpose is primarily aimed at maintaining undisturbed nature (e.g. trekking route).
Buffer Zone	• Management areas to mitigate the friction between neighboring incompatible land uses and in which various types of agricultural and forestry activities (e.g. small fire wood collection zone)
Intensive Use Zone	• All visitors are allowed to stay and receive tourism services (e.g. lodges, tourism facilities areas)

Source: JICA Study Team

However, it is not necessary to apply the above zoning categories for tourism site that has a responsible body. Zoning system should be simplified as much as possible taking into account the characteristics of the natural tourism resources and the management capacity.

b. Carrying capacity

Principle and limitation of the carrying capacity

In general, "Tourism Carrying capacity" is defined as the level of visitor use an area can accommodate with high levels of satisfaction for visitors and few negative impacts on environments. Estimation of a tourism carrying capacity needs broad factors, which includes environmental aspects, socio-cultural aspects, tourism aspects, and others.

Tourism carrying capacity could only be examined in a case by case situation because it is sensitive to location, the type of tourist activity, the differences, for example, in sanitary situations between the visitors and the local people, and the speed of tourism growth. Thus, tourism carrying capacity is not a static concept but a dynamic one. Further, Guatemala has very few quantitative data necessary to estimate tourism carrying capacity.

It is recommended to take another approach to maintain the present natural tourism resources as discussed in the following section.

Another approach for the suitable capacity in tourism sites in Guatemala

Instead of estimating a static tourism carrying capacity, setting a threshold of acceptable change for each tourism site is more useful in Guatemala. The threshold could be shown using the following three categories of the indicators:

- Natural Environmental Category: i) area of ecologically vulnerable site within the tourist site; ii) drinking water resources volume; iii) frequency of natural disaster (flood, landslide); etc. and,

- Pollution Category: i) water quality (coliforms, COD, SS, etc.); ii) waste generation volume and collection ratio, etc.

- Social and Cultural Category: i) Local population growth; ii) Affected area of a customary rights; etc.

It is important that the selected indicators should be easy to measure and monitor by local technical staff.

An important thing is not to estimate the thresholds in details, but to monitor the indicators continuously and to utilize the indicators for maximizing the satisfaction of the visitors as well as minimizing adverse impacts on the environment. Also, monitoring itself could be used to find the appropriate measures agaist possible negative impacts. The monitoring should be conducted by the technical staffs of management agencies, which includes NGOs and municipality, of the sites.

c. Prioritized *SIGAP* management

At present, the *SIGAP* areas are divided into 16 management types according to the "Law of the Protected Areas in Guatemala". Although the *SIGAP* concept is integrated all of the protected areas from nature to culture, each definition and management objective are unclear. On the other hand, land tenures and actual users of the *SIGAP* areas are complicated. It is very difficult to manage properly based on the present *SIGAP* and present management capacity by *CONAP* and *IDAEH*.

It is proposed that the present *SIGAP* should be simplified by decreasing the number of the management types. Further, the present *SIGAP* areas should be prioritized based on the proposed natural environmental guidelines.

d. Sanitary and wastewater improvement

Sanitation is an important factor to attract visitors, which makes a prerequisite of the tourism development. Basic waste collection and disposal systems are essential for the potential and developed tourism centers in Guatemala. Further, basic wastewater treatment facilities are needed to improve sanitary conditions and the amenity of major tourism centers.

It is recommended that municipal governments of the prioritized tourism centers, in particular, in Coban and Flores should conduct sanitary and wastewater improvement projects with the cooperation from *INGUAT* and international donor agencies.