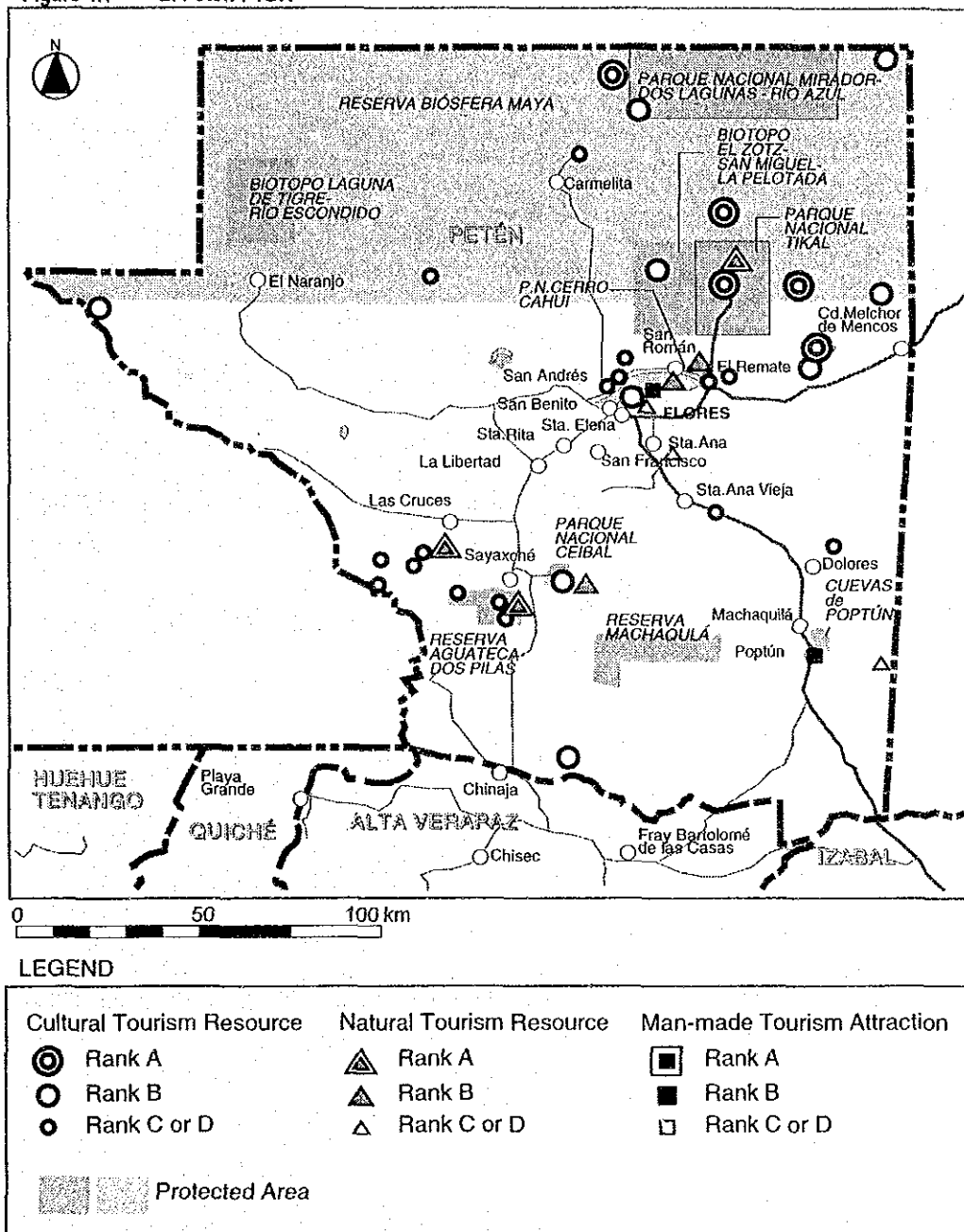


## 4. TOURISM DEVELOPMENT PLAN FOR EL PETÉN PTDA

El Peten PTDA, which corresponds to the El Peten Department and "Mayan Adventure" Tourism Region, occupies the northern part of Guatemala. The PTDA was once a heartland of the Classic Maya Civilization, and has a number of archaeological sites including world-famous Tikal. Despite a rapid population increase, it still preserves a vast expanse of tropical rain forests, which makes another important tourism attraction in the area.

Figure 4.1 El Peten PTDA



Source: JICA Study Team

## 4.1. Regional Context for Tourism Development

### 4.1.1. History

#### (1) Prehispanic times

The Classic Mayan World extends over the Yucatan Peninsula and adjacent highlands to the south. El Peten Department was a heartland of the Mayan civilization and different Mayan states. The most important archaeological sites of the Maya in Guatemala are found in El Peten Department.

The Mayan archaeological sites in El Peten Department cover three periods: the Pre-Classic period from 2000 BC to 300 AD, the Classic period from 300 AD to 900 AD, and the Post-Classic period from 900 AD to 1500 AD. Excavated archaeological sites in the department reveal rich histories of wars and trades between states, as well as droughts and famines. Such histories and mysterious abandonment of the area by the Mayans attract many tourists.

#### (2) Spanish colonial rule

The Spanish conquered much of Yucatan between 1527 and 1546 and the southern part of El Peten and Verapaz between 1524 and 1527. However, the Mayan states of El Peten and Belize were relatively independent from the Spanish colonial rule. It is considered that Flores (previously called Tayasal) was the last ceremonial center of Maya until the Spaniards controlled the Tayasal-Maya by force under the Spanish Empire in 1697. The modern Flores Town was built on Mayan ceremonial buildings destroyed by the Spaniards.

After the fall of the Tayasal state in the end of the 17<sup>th</sup> century, the Tayasal area lost much of its population. El Peten was a remote colony lacking in agricultural products and natural resources to be exploited by the Spaniards. Colonial governments were not very interested in El Peten and did not invest much in infrastructure, because El Peten did not produce much public revenue.

#### (3) After independence

Guatemala proclaimed its independence in 1821. Since then coffee production became prevalent, and coffee beans became the most important export products from Guatemala. Coffee production and export enjoyed a peak period in the 1840s. Coffee beans were the most important export product from Guatemala until the 1870s. Coffee was grown primarily in Alta Verapaz and Pacific mountain areas. El Peten, as well as western highlands, eastern highlands and northeastern region, was not the area for coffee production.

The national government did not pay much attention to El Peten from 1821 to 1895, during which coffee production flourished in the western highlands, eastern highlands and northeastern region.

**(4) Modern era**

Around 1960 Guatemala embarked on frontier development of tropical lowlands in El Peten, like other Latin American countries, for easing the increasing pressure over the lands in the highlands by agricultural colonization, and for exploiting oil, minerals and forest resources.

By 1975, El Peten became a leading producer of maize and black beans in Guatemala. By 1980, cattle raising was prevalent, and there were 150,000 heads of cattle, while the department's population was around 180,000.

**4.1.2. Physical Environment****(1) Location and transportation**

El Peten is the northernmost department, which borders on Mexico to the north and to the west, and Belize to the east. Highway CA-13 runs from Flores to the border with Belize, further leading to Belize City. A road runs from Flores via La Libertad to Bethel, which is a border-crossing point to Mexico.

El Peten Department adjoins Alta Verapaz Department and Izabal Department to the south. Highway CA-13 connects El Peten to Izabal. The road from Flores through Poptun to San Luis (part of CA-13) was developed over the old *Camino Real* (Road of the Mayan King). On the other hand, Highway CA-14 connects the western part of El Peten to Alta Verapaz.

Several daily flights connect Flores with Guatemala City for 30 minutes. Flores receives international flights from Cancun of Mexico and others, too. Highways CA-9 and CA-13 connect Flores with Guatemala City, and its distance is 525 km. The roads, which were paved recently, are quite good, and Flores can be reached in seven hours by car from Guatemala City.

**(2) Major urban centers**

In El Peten Department, there is a rapidly growing urban complex consisting of three towns, Flores, Santa Elena, and San Benito. Flores (population: 2,000), Capital Town of El Peten Department, is located on a small island in Lake Peten Itza connected to the mainland by a causeway. Santa Elena Town (population: 17,000) is located on the lakeside facing Flores, and San Benito Town (population: 22,000) adjoins Santa Elena Town.

Sayaxche Town is a gateway to several archaeological sites. It is located at the junction of the Pasion River and the road between Flores and Coban. Poptun Town (population: 8,000) is located along Highway CA-13 about halfway between Flores and Rio Dulce.

**(3) Rivers**

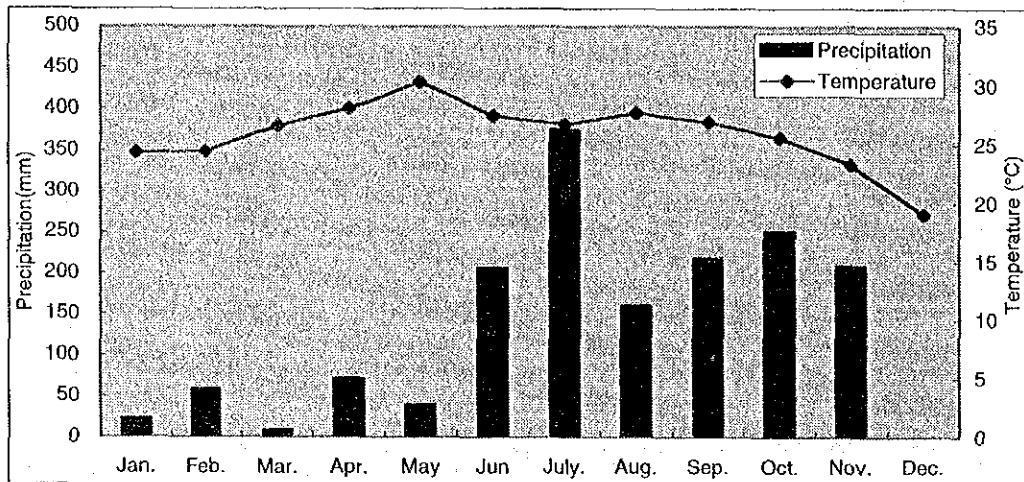
In the western part of El Peten, rivers flow to the Usumacinta River, which forms a boundary between Mexico and Guatemala. In the lowlands of the western part of El Peten along the rivers, there are many and extensive wetlands. In these areas, water

transportation is still more important than roads. In the eastern part of El Peten, rivers flow from the Maya Mountains to Belize.

**(4) Natural environment**

The altitudes of most part of El Peten Department are less than 300 meters, and the department is categorized into Hot Zone (tierra caliente). The average annual rainfall in Flores (altitude: 123 meters) is 1619.5 mm. In Flores, the average maximum temperature is 31.4°C and the average minimum temperature is 25.9°C.

**Figure 4.2** Temperature and precipitation in Flores



	Jan.	Feb.	Mar.	Apr.	May	Jun	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Year
Precipitation	22.4	57.6	9.2	71.7	38.6	206.8	374.6	160.0	218.2	251.1	209.3	0.0	1619.5
Temperature	24.3	24.4	26.6	28.0	30.3	27.4	26.7	27.7	26.9	25.6	23.3	19.0	25.9

Note: Monthly mean temperature  
Source: INSIVUMEH, 1999

The natural environment of El Peten Department is characterized by huge expanses of tropical rain forests. El Peten Department has 23 protected areas including 7 areas for archaeological conservation. The total area of the protected areas in El Peten Department accounts for 80.7% of Guatemala's total protected areas. These protected areas cover more than half of the department. The largest one is the one million hectare Maya Biosphere Reserve, which occupies the northern half of the department. Maya Biosphere Reserve's forests have more than 300 species of birds and more than 50 species of mammals.

In the 1960s, the central government promoted agricultural colonization in El Peten, partly for relieving the increasing demands for land in the highlands. Between 1962 and 1975, as much as 20% of El Peten's forests disappeared. By 1985, about 40% of the department was deforested.

Furthermore, recent road development, which was deep and extensive into the department, accelerates the destruction of forests by expansion of settlers' agriculture and cattle ranching, as well as by logging. Responding to this alarming situation, many

international donors and NGOs have started to conduct forest conservation projects and social development projects for local farmers.

### 4.1.3. Regional Socio-Economy

#### (1) Population

In the last 25 years, El Peten Department has attracted a lot of migrants. El Peten Department is the largest department in area. However, its population accounts for less than 3 % of the total population of Guatemala. Its population density is still as low as 9 persons per km<sup>2</sup>, which is the lowest in Guatemala's departments.

**Table 4.1 Population of El Peten**

Year	Population	Data Source
1839	6,300	1)
1904	10,000	1)
1964	25,000	1)
1973	64,000	1)
1978	121,000	1)
1981	186,000	1)
1995	269,000	2)
1999	322,000	2)

Source: 1) Table 1.1 Population of El Peten, 1714-1986 in Forest Society, by Schwartz (1990)  
2) Guatemala: la fuerza incluyente del desarrollo humano, 2000

#### (2) Indigenous population

The percentage of indigenous population out of El Peten's total population was 36% in 1998. El Peten's rate of indigenous population is not so high as Western Highlands (more than 50%) and it is not so low as Eastern Plains (less than 20%). The percentage of indigenous population in El Peten's urban areas was 23% in 1998, and that in rural areas was 42% in 1998.

The languages used by the indigenous population in El Peten are mostly K'ekchi and Itza. K'ekchi speaking people in El Peten are recent migrants from Alta Verapaz.

#### (3) Major agricultural and forestry products

The major agricultural products are corn, rice, black beans, and black pepper. Local farmers adopt traditional extensive agricultural methods. In recent years, livestock production is also on the increase. Important forest products include logs and chicle. Wood handicrafts are also one of the major products in the region.

#### (4) Poverty situation

Illiterate rates of El Peten were 44% in 1994 and 36% in 1998. El Peten's illiterate rate was a little higher than the national average (39% in 1994, 32% in 1998).

The percentage of the people who live under the poverty line in El Peten was nearly 60% in 1998. El Peten is the third place in Guatemala, following Metropolitan Region (20%) and Central Region (50%) in poverty rate.

## **(5) Regional Development Prospects**

### **a. Creation of the Maya Biosphere Reserve**

One of the significant actions taken by the Guatemalan Government for El Peten's regional development and conservation was the creation of the Maya Biosphere Reserve in 1990. The area of the Maya Biosphere Reserve is 21,130 km<sup>2</sup>, of which core zones account for 36%, multiple use zones for 40% and buffer zones for 24%.

The Maya Biosphere Reserve was established not only for the purpose of nature conservation and scientific research, but also for contributing to sustainable economic development. It is not intended to evict the existing people from the Maya Biosphere Reserve. Within the multiple use zones and buffer zones, the people and the nature are promoted to co-exist for benefiting to the both. In fact, there are many villages even within national park areas of the Maya Biosphere Reserve.

### **b. Integrated Development Plan of El Peten (PDI)**

In the early 1990s, Plan de Desarrollo Integrado de Peten (PDI) was formulated as a 20-year integrated regional development plan for Peten Department under SEGEPLAN. PDI includes a land use plan for sustainable development and recommends basic strategies of four key sectors (forestry, agriculture, tourism, and industry). The plan included a list of projects that requires US\$ 1,300 million. It is still a valid document to guide regional development in Peten. However, few of its projects have been implemented since then.

Major directions of regional development proposed by PDI are as follows:

- To protect forests as a foundation for sustainable economic development by involving rural population in forest resources management and integrating their agriculture with forestry,
- To promote agricultural intensification and diversification in suitable areas identified by PDI,
- To prepare necessary conditions for tourism development so that tourism activities could contribute to conservation of natural and cultural resources, and
- To promote industrial development within the areas delineated by PDI's land use plan and by promoting human resources development.

### **c. Sustainable Development Program (PDS)**

Some of the projects recommended in PDI have been succeeded by Programa de Desarrollo Sostenible (PDS). PDS was started two years ago with funding from Inter-American Development Bank (IDB), and it will continue for 7 more years. PDS has the following four components:

- Legalization of lands for existing population in the buffer zones of the Maya Biosphere Reserve,

- Restoration of cultural heritage and improvement of tourism services, covering the restoration of archaeological sites and the provision of tourism infrastructure in Yaxha and Aguateca,
- Management of natural resources by encouraging small-scale farmers to improve the traditional system of their agriculture, and
- Strengthening of local institutions such as municipalities and regional government offices, and the coordination mechanism among them.

#### d. Limited agricultural potential

The area and population of Peten Department account for 33% and 3% of those of the whole country respectively. However, the agricultural production as shown in Table 4.2 reveals that El Peten does not have special advantages in any kinds of agriculture.

**Table 4.2 Agricultural production in El Peten Department**

	Production in El Peten in 1997	% of the total production of the whole Country
Maize	1,665,900 Quintales	7.6 %
Black Bean	190,200 Quintales	10.3 %
Rice	16,700 Quintales	2.8 %
Cattle	8,000 heads	2.2 %
Pig	7,150 heads	2.4 %

Source: Rene Cardona (1999), *La Distribucion del Producto Interno Bruto (PIB) en Guatemala, Por Region y Departamento*, Universidad Rafael Landivar, Instituto de Investigaciones Economicas y Sociales

Most indigenous people and recent migrants rely on the agricultural methods of slash-and-burn. It is considered that such agriculture of one family requires about 45 hectare of land to maintain sustainable agriculture with adequate fallow cycles. The current population of Peten (estimated as 500,000) needs 2.25 million hectare of land for agricultural production in Peten Department's land area (about 3.6 million hectare). This means that with current levels of agricultural technologies, the Peten Department cannot absorb more people without deteriorating land and forest resources.<sup>10</sup>

#### e. Land administration programs

Lack of formal land titles creates the condition of land insecurity for most small farmers, who are not able to invest in agricultural intensification and diversification due to no access to credits. They tend to exhaust their agricultural lands until their lands are bought up by cattle ranchers for pasture. Then they are obliged to open new lands cutting and burning down natural forests. This is a part of the reasons for expansion of agricultural frontier in the northern Peten. For resolving such land problems, land legalization programs are implemented for the buffer zones of the Maya Biosphere Reserve by PDS

<sup>10</sup> This section's estimate and argument are based on Meredith Fort and Liza Grandia (1999), "Population and Environment in the Peten, Guatemala", in *Thirteen Ways of Looking at a Tropical Forest: Guatemala's Maya Biosphere Reserve*, edited by James D. Nations, Washington, DC: Conservation International

with the fund of IDB and for the areas outside the Maya Biosphere Reserve with the assistance from the World Bank.

**f. Rapid migration and natural population growth**

This kind of expansion of agricultural frontier is continuing at a high speed accelerated by high natural population growth based on the young age structure and high fertility rates, as well as massive immigration.

According to PDI's population forecast (1991), the population of Peten would increase as much as 1.46 million by 2014 if no land use regulations are implemented. If land use regulations have gradual effects after 2000, it is estimated that Peten's population would become 0.98 million in 2014. Conservation International and ProPeten (1999) estimated 1 million population in 2005 for Peten Department.

**g. Forest Incentive Program (PINFOR)**

El Programa de Incentivos Forestales (PINFOR) is a national program implemented by Instituto Nacional de Bosques (INAB) to promote sustainable forest production and reforestation by giving financial incentives to municipalities, landowners, and social organizations. *Peten is one of the priority areas for implementing PINFOR. The other priority departments are Alta Verapaz, Baja Verapaz, Izabal, Escuintla, Retalhuleu and Suchitepequez.*

**h. Oil production and roads**

Guatemala's oil production concentrates in Alta Verapaz and Peten Departments. Peten's oil production started in 1985 when the government gave exploration concessions in Xan field to a French company. In 1992 the government gave new concessions surrounding Xan oil field just two years after the establishment of the Maya Biosphere Reserve. The 1992 contract area covers 55% of the Laguna del Tigre National Park. Peten Department rapidly expanded oil production to be the largest oil producing department in Guatemala. In 1998, Guatemala produced 9.3 million barrels of petroleum, 97 % of which was produced in the Xan oil field of Peten. Oil production will continue to be one of the most important sectors earning foreign currencies.

An increasing number of small migrant farmers have followed the roads that were built for supporting oil fields and pipelines and expanded their agricultural fields along the roads in natural forests.

**i. Road network**

The road from Flores through Sayaxche to Alta Verapaz is classified as part of Central American Highway by the Ministry of Communications, Infrastructure and Human Settlements. However, there is no bridge over the Passion River in front of Sayaxche town.

The departmental roads connect Flores to Uaxactun (No.5), Carmelita (No.14), El Naranjo (No.13), and Cooperativa Bethel (No. 12) in the Maya Biosphere Reserve. And a



departmental road runs the northern side of the Peten Itza Lake. The most of the departmental roads are still earth roads at present except for the road section near El Naranjo. It is considered that gradually the government will improve the pavement of the departmental roads. However, careless improvement of those roads in the Maya Biosphere Reserve would induce unnecessary destruction of forests.

#### **4.1.4. Tourism Conditions**

##### **(1) Tourism resources**

The most important tourism resources in El Petén PTDA are archaeological sites. Tikal, Uaxactún, Yaxhá, Nakún and, El Mirador are evaluated as Rank A out of 26 archaeological sites listed as tourism resources in El Petén PTDA. Most of the archaeological sites, even with Rank A or B, are not well known as Guatemalan tourism attractions, while Tikal is world-famous and one of principle attractions of Guatemalan tourism.

Natural resources are also important attraction in this PTDA. Lake Petexbatún and Río Pasión are evaluated as Rank A, where some B- and C-rank archaeological sites such as Ceibal, Aguateca and Dos Pilas are located. The Tikal National Park, which contains Tikal archaeological site, is also evaluated as Rank A as a nature tourism resource. The combination of archaeological sites and surrounding natural environment is the strength of El Petén PTDA.

Other archaeological sites evaluated as Rank A or Rank B are El Mirador, El Naranjo, El Zotz, Nakúm, Río Azul, and Piedras Negras are isolated and remote, and the accessibility is poor.

Tourism resources besides archaeological sites are very limited in the PTDA. The townscape of Flores, which is the largest accommodation base of this PTDA, is evaluated to be Rank B.

Table 4.3 shows the tourism resources in El Petén PTDA.

**Table 4.3 Tourism resources in El Petén PTDA**

Name	Department	City/Village	Category				Rank
			Cultural	Natural	Man-made	Others	
Tikal (Including Museums)	Petén	-	X				A
Uaxactún	Petén	-	X				A
Yaxhá	Petén	-	X				A
Topoxté	Petén	-	X				B
Nakúm	Petén	-	X				A
El Naranjo	Petén	-	X				B
Aguateca	Petén	-	X				C
Celbal	Petén	-	X				B
Dos Pilas	Petén	-	X				C
El Mirador	Petén	-	X				A
Nakubé	Petén	-	X				B
El Tintal	Petén	-	X				D
El Perú	Petén	-	X				C
El Zotz	Petén	-	X				B
Piedras Negras	Petén	-	X				B
Río Azul	Petén	-	X				B
Cancuén	Petén	-	X				B
El Caribe	Petén	-	X				D
El Chal	Petén	-	X				D
Itzán	Petén	-	X				D
Ixkún	Petén	-	X				D
La Amelia	Petén	-	X				D
Tamarindito	Petén	-	X				D
Alter de Sacrificios	Petén	-	X				D
Motúl de San José	Petén	-	X				C
Ruins of Ixlu	Petén	El Cruce	X				D
Townscape	Petén	Flores	X				B
Village Scenery	Petén	San Andrés	X				C
Village Scenery	Petén	San José	X				C
Wood carving	Petén	El Remate	X				B
Lake Patexbatún	Petén	-		X			A
Río de la Pasión	Petén	-		X			A
Lake Petén Itzá	Petén	-		X			A
Aktun Kan Cave	Petén	-		X			D
Naj Tunich Cave	Petén	-		X			D
Parque Nacional Tikal	Petén	-		X			A
Biotopo Cerro Cahuí	Petén	-		X			C
Parque Nacional Ceibal	Petén	-		X			B
Petécito	Petén	-			X		C
Finca Ixobel&Tierra Grande	Petén	Poptún			X		C
Meats of wild animals (Tepezcuñile, Almadillo etc.)	Petén	-				X	C

Source: Compiled by JICA Study Team

## (2) Tourism supply and demand

Registered accommodations in El Peten PTDA provide a total of 1190 rooms as shown in Table 4.4, which constitutes 7.3% of the county's total room supply. The number of rooms has increased remarkably at 7.6% annually during the 1994–2000 period, which is higher than the national average of 6.5%.

**Table 4.4 Number of rooms in El Peten PTDA**

	1994	1995	1996	1997	1998	1999	2000	Annual growth
Peten PTDA	767	812	946	1,032	1,063	1,149	1,190	7.6%
Guatemala Total	11,152	12,033	13,113	13,854	14,744	15,378	16,230	6.5%

Note: The above figures include INGUAT's "recommended hotels" only.

Source: JICA Study Team

Table 4.5 shows a composition of visitor types based on the result of the visitor survey JICA Study Team conducted in March and July 2001. 63.6% of the international visitors who stayed in El Peten PTDA are "independent tourists" who did not use organized tour and visited Guatemala for holidays. 12.1% of the visitors are "organized tourists" who used organized tour and visited Guatemala for holidays. "Business traveler" and "visit friends and relatives" constitute 10.9% and 11.8%, respectively. Compared with the national average, El Peten PTDA is characterized by high shares of tourists both independent and organized.

Shares of the visitors from North America and Europe are considerably higher than the national average. The higher shares of visitors from the long-haul market are supposed to reflect the competitiveness of tourism products in the PTDA.

**Table 4.5 Visitor characteristics of El Peten PTDA**

Item	El Peten PTDA		Guatemala	
	Response	(%)	Response	(%)
Visitor Type	667	100.0%	3,046	100.0%
Independent	424	63.6%	1,320	43.3%
Organized	81	12.1%	166	5.4%
Business*	73	10.9%	943	31.0%
Friend & Relatives*	79	11.8%	562	18.5%
Others	10	1.5%	55	1.8%
Regional Market	667	100.0%	3,037	100.0%
Neighboring Countries	151	22.7%	1,585	52.2%
North America	231	34.7%	785	25.8%
South America	49	7.4%	142	4.7%
Europe	192	28.8%	402	13.2%
Others	43	6.5%	123	4.1%

Source: Visitor Survey (March and July 2001), JICA Study Team

No statistics is provided as to the number of visitor arrivals to the PTDA as well as the breakdown by domestic and international arrivals. JICA Study Team estimates that there are 136,000 domestic bed-nights as compared to 559,000 international bed-nights based on different sources including the hotel statistics, the visitor survey, and interviews with

hoteliers. The percentage of international bed-nights is the highest in El Peten PTDA among the 7 Tourism Regions.

It is supposed, from interviews with the travel trade, that the greater number of the visitors use flight to get to El Peten from Guatemala City. The high cost for transportation may explain a small volume of the domestic visitors in El Peten. However, according to the interviews with tour operators in El Peten, domestic visitor arrivals to El Peten are on an increasing trend due to the road improvement between Rio Dulce and Flores, which made bus trip from Guatemala City to Flores an acceptable choice. The completion of the road improvement between Coban and Flores is expected to further promote the use of bus to get to El Peten although it is not certain at this stage how extensive the impact of the road improvement would be on the tourism market characteristics and travel itineraries.

## 4.2. Considerations for Sustainable Tourism

### 4.2.1. Natural Environment

#### (1) Ecosystems

- It must be considered that the construction of new roads would trigger further deforestation.
- Present landscape should not be disturbed when canopy walk is introduced.
- The water quality of Peten Itza could worsen, if no appropriate actions are taken. Ministry of the Environment and Natural Resources (*MARN*) should implement a water quality improvement project.
- CONAP should strictly protect endangered species such as Scarlet Macaw, Trogon, and Jaguar.

#### (2) Landscape

- Designs of infrastructure must be harmonized with their surrounding environments.
- Construction of access roads and trails should take into account the measures for minimizing adverse impacts on the natural environment.
- Trees and ornamental flowers planted around infrastructures should be native species.
- Waste management in tourism site should be strengthened.
- Riverbanks should be preserved not only for biodiversity but also for tourism attractiveness, in particular, when river is used for cruise.

#### (3) Environmental management

- CONAP should consider introducing economic incentives to protect forests and wetlands.
- INGUAT should create the riverbank development guidelines in collaboration with CONAP for preserving the landscape of the riverbanks of the major rivers such as La Pasion River, San Pedro River.
- CONAP should support visitor management programs for minimizing adverse natural environmental impacts within national parks such as Tikal and nature reserves in collaboration with INGUAT.
- INGUAT should focus more on nature tourism in their tourism product development and promotion activities.
- Municipalities in the PTDA should conduct environmental awareness programs in collaboration with NGOs.

#### 4.2.2. Social Environment

Tourism can be a tool for strengthening identity, culture and traditions. For the Itza people, who have inhabited the northwestern shores of the Peten-Itza Lake for generations, tourism can work as an incentive for rediscovering their traditional culture. In a similar way tourism can be an incentive for Q'eqchi people, newcomers to the region, to reinvent and strengthen their identity using their old traditional ways and adapting them to their new environment. In the degree that the creation of natural tourism products is approached from the perspective of the newly arrived indigenous populations, their feeling of attachment to the land will grow stronger.

- Creating tourist products based on local indigenous cultural characteristics will help strengthen local identity. Examples of such products are interpretive tours, ceremonial and ritual staging or participation, demonstrations of local productive practices, etc.
- Demonstrations of successful sustainable exploitation of resources such as chicle and xate extractions in Uaxactun could be transformed into tourism products to increase their profitability. These and other sustainable practices could be used as examples to be reproduced in other locations.

The history of most Indigenous communities in Peten has not been long enough for them to develop in-depth Traditional Ecological Knowledge or a clear sense of place. Involving local communities in the management of resources and helping them to participate of the benefits of tourism development will increase their sense of belonging to the area. The objective is to encourage conservation of cultural and natural resources while allowing local people to determine the way in which their communities are developed. It has been proven that the only viable way of attaining conservation is through development of nearby communities. Involving local people in the decision-making process will also provide a sense of belonging necessary for conservation.

- Increasing the level of control of local people over their resources can be attained by developing co-management schemes in which the community fully participates. These schemes, however, have to be developed specifically for each particular case.
- It is necessary to facilitate and support the creation of communitarian and private enterprises controlled by local interests. Micro-credits and technical support are necessary

The current lack of feeling of belonging of cultural and natural patrimony amongst the local population and the poverty conditions of the region make it difficult to implement Co-management schemes. Implementation of Co-management in archaeological sites is especially sensible due to their character of national and international heritage. Also, communities are in general not ready to fully participate in the process; they lack training and understanding of tourism and of the cultural value that others place in resources.

Capacity building is necessary so locals can take responsibility for managing archaeological and other tourist resources in the future.

- Depending on the capabilities of particular communities adjacent to current or potential tourism resources, training and increasing responsibility should be transferred to them. In some cases the process should start from basic training on what is tourism and what are the potential benefits for the community. Other communities are ready to start receiving training on tourist operations and planning.
- Basic training on the meaning of tourism and its potential benefits should start in communities in the way of potential future tourism development attractions. Some of this communities are those near important archaeological sites such as La Maquina, La Felicidad, El Chorro, El Escarbado, El Nacimiento y El Jordan near Yaxha-Nakun-Naranjo triangle, Ceibal, Aguateca and Dos Pilas respectively; small communities around the Lake Peten-Itza such as Jobompiche and Tayasal, and the communities along the roads that connect Alta Verapaz-Sayaxche-Flores, Flores-Betel and Flores-Melchor de Mencos.
- It may be useful to encourage conservation efforts to Appeal to local pride through training on the importance of the area's resources for all Guatemalans and the international community. Training on how to obtain personal and communitarian long term benefits from the safeguarding resources will give them a practical reason for conservation. Governmental institutions such as IDAEH, MICUDE, INGUAT and CONAP should be in charge of this training depending on the specific resources of each area.
- Giving concessions to community organizations for much needed tourist services such as refreshment and souvenir shops, restrooms and guided tours could be appropriate to start building local capacity and allowing the community to understand the potential benefits of tourism and conservation.
- Employing local people in archaeological sites within a career development program will also help to build local capacity.
- As communities build their management capacity more responsibility can be given to them gradually in terms of visitor management, vigilance and maintenance of tourist services and attractions.

The possible sites for the development of Community Tourism are not numerous in Peten. The communities of San Jose and Uaxactun are two of the sites where Community Tourism can be developed as a strategy to take distribute the benefits created by the already existing flow of tourists to Flores and Tikal respectively. The implementation of Community Tourism will help the distribution of tourism benefits among larger segments of the population.

- To start up Community Tourism, an ad hoc community organization can begin with small efforts to standardize the presentation of existing satellites and give an image of a cohesive community through the development of a unified interpretive script.
- Technical support from a resource person in charge of Community Tourism from INGUAT and from NGOs with tourism development experience is necessary.
- Due to the last years' proliferation of international aid funds and the dependency that it has created among Peten communities, financial support, other than small loans or grants, should not be provided until the community has demonstrated their commitment to developing the concept with concrete actions over an appropriate period of time.

Key to reduce negative cultural impacts while strengthening local identity is to present a truthful image of the reality that each region and particular communities live.

- The main tourism resources in Peten are archaeological sites and nature and regional promotion should focus on these issues.
- The local reality of Indigenous communities and what they are capable and willing to show to tourists should be considered in the developing the image of the region.
- The specific characteristics of Indigenous tourism sites should not be exaggerated or modified to attract tourists to the particular communities since that will negatively affect the community in the medium and long term.

#### **4.2.3. Cultural Tourism Resources**

##### **(1) Conservation of archaeological monuments**

Archaeological monuments spread over El Peten PTDA should be conserved with the following measures:

- Not all archaeological sites should be excavated. Inappropriate balance of excavation and conservation should provoke the deterioration of ancient monuments.
- Efforts are needed not only for the conservation of ancient monuments but also for that of surrounding environments.
- Tourism use of archaeological sites must be limited to a certain area that could be managed as a unit of cultural, natural, and social integrity.

##### **(2) Development of archaeological sites**

Archaeological sites spread in PTDA should be used for tourism with the following measures:

- Suggested walking routes and required time should be displayed in large sites.
- Improvement of trail, sign and resting spots is necessary at large sites.



- Congestions would diminish the attractiveness and cause the deterioration of archaeological sites, which should be coped with by introducing visitor management system.
- Interpretation boards should be installed and written, at least, in Spanish, English and local Mayan language so that a wider range of people would be interested in archaeology.
- Admission fee should not be charged to the people who live in the vicinity.

**(3) Conservation of townscape**

Townscape in the PTDA such as Flores and San José should be conserved and used for tourism with the following measures:

- It is necessary to introduce “design standards” for newly constructed buildings based on the elements of existing townscape such as color scheme, pavement texture, roofing material, height of eaves, height restriction of the buildings.
- Suggested walking routes should be introduced, and the efforts for urban beautification should be concentrated along the routes at the initial stage.

**(4) Wise use**

The concept of wise use should be widely applied for conservation of colonial and republican buildings.

- Wise use of historical buildings for such purposes as hotel, local food restaurant, bar, cafe, museum, tourism information center, souvenir shop, concert hall, handicraft or music workshop, discotheque, exhibition hall, is recommendable and should be promoted.
- Modification of colonial buildings for safety and modern comforts such as structural strengthening, fire prevention, fire hydrants, securing evacuation route, water and electricity supply, should be kept minimum but be permitted under certain guidelines to facilitate wise use.

**(5) Conservation of individual buildings**

- Interior of the historical buildings should be conserved, or at least, the original designs should be respected.
- Appropriate protection for historical buildings against acid rain or air pollution is necessary.

**(6) Public education and local Participation**

Local residents, NGOs, the private sector, as well as different government organizations should be encouraged to participate in conservation activities at all stages.

- On-site interpretation boards should be installed for visitors and local residents to arouse interest in, and to create public awareness for, cultural heritage and its conservation.
- Public awareness campaign should be carried out for the general public to promote ethics and responsibility for cultural conservation.
- Seminars for entrepreneurs and business circles about the possibilities and know-how to utilize colonial and vernacular buildings for tourism purposes.

**(7) Others**

- Excavation works should be conducted before new construction works take place, and findings from excavation works should be registered to IDAEH.
- Mirador is not ready to accept tourist at present because of its difficult access and the lack of management system although it has potential for development in the long-term.

### 4.3. Tourism Development Strategy

#### 4.3.1. SWOT Analysis

Development strategy of El Peten PTDA was conceived based on the SWOT analysis, which is a summary of the analysis of existing conditions of tourism and regional contexts. The results are shown in Table 4.6.

Table 4.6 SWOT analysis of tourism in El Peten PTDA

	Positive factors	Negative factors
Present	<p><u>Strengths</u></p> <ul style="list-style-type: none"> <li>• The area abounds in competitive tourism resources of Mayan archaeological sites.</li> <li>• The area is also endowed with different types of nature tourism resources such as tropical rain forests, river, wetlands, and lakes, as well as cultural tourism resources like the colonial city of Flores.</li> <li>• Being located at the crossroad of the Palenque - Belize and Antigua - Flores Tourism Corridors, the area is a node of the transportation network of Mundo Maya.</li> </ul>	<p><u>Weaknesses</u></p> <ul style="list-style-type: none"> <li>• Deforestation is continuing at an alarming rate due to internal migration from the Highlands for agricultural lands.</li> <li>• Average length of stay is too short for its tourism potential.</li> <li>• Tourism in the area depends too much on a single tourism product - Tikal.</li> <li>• Surface transport linkage with neighboring tourism destinations is weak, and transportation cost is high due to the dependency on air services.</li> <li>• Insufficient supply of accommodations for resort and nature tourism would limit the diversification of tourism types.</li> <li>• Many of the attractive archaeological sites in the area do not have adequate access roads, visitor facilities, and site protection from looters, and a system to charge entrance fees.</li> <li>• The lack of historical ties with archaeological sites and the poor economic linkage with tourism make it difficult to motivate local people for the conservation of archaeological sites.</li> </ul>
Future	<p><u>Opportunities</u></p> <ul style="list-style-type: none"> <li>• Combining archaeological tourism with nature tourism would strengthen its appeal to the tourism market that is increasingly nature-oriented.</li> <li>• The area abounds in opportunities for soft adventure and ecotourism such as canopy walk and river cruise, which are the fastest growing market segments.</li> <li>• Peten Itza has good potential for resort development.</li> <li>• Improvement of the road from Coban would result in the increase of visitor arrivals, in particular, from the Guatemalan Highlands and neighboring countries.</li> </ul>	<p><u>Threats</u></p> <ul style="list-style-type: none"> <li>• Failing to establish a system to economically motivate archaeological conservation through tourism would lead to destruction of archaeological sites, which will seriously damage the competitiveness of Guatemalan tourism.</li> <li>• Failing to establish the same system for nature conservation would lead to destruction of nature areas, which would reduce the possibility of tourism diversification.</li> <li>• Improvement of the road from Coban would result in massive arrivals of visitors to Tikal, which would deteriorate the world heritage site and degrade the satisfaction level of visitors.</li> </ul>

Source: JICA Study Team

### 4.3.2. Tourism Development Directions

As has been pointed out in the SWOT analysis, tourism in El Peten PTDA heavily depends on Tikal, and most of its visitors stay only a short period. Taking into account its numerous tourism possibilities, it is viable to make efforts at extending visitors' length of stay through diversification of tourism products. The efforts are also needed to alleviate the congestion and over-use of Tikal, which would become serious without introducing a proper tourism strategy. The development strategy for El Peten PTDA consists of the following 5 pillars:

- Diversification of archaeological tourism products,
- Development of Peten Itza as a resort destination,
- Development of nature tourism products and their integration with archaeological tourism,
- Revitalization of local cultural traditions through tourism, and
- Strengthening of tourism network.

The following sections elaborate on the above five pillars in more details.

#### (1) **Diversification of archaeological tourism**

Visitor survey results clearly show that Mayan archaeological sites are the highlight of Guatemalan tourism, and El Peten is the primary destination for this type of cultural tourism. Archaeological sites developed for tourists are quite limited, however, and Tikal has a risk of over-use. In this context, it is necessary to develop and/or improve visitor facilities for archaeological sites other than Tikal, so that the PTDA would be able to receive more visitors with less impact on Tikal.

##### **a. Tourism improvements of archaeological sites other than Tikal**

Archaeological sites in El Peten, except Tikal, do not have adequate visitor facilities in exchange for free entrance fee. It is needed to develop/improve visitor facilities and basic infrastructure of archaeological sites that are evaluated to be important from the tourism viewpoint and are ready to receive visitors.

It is necessary to improve the management system of the above archaeological sites, in which tourism would function as an incentive for conservation for local people. In this context, co-management is considered to be an effective measure to cope with the situations.

##### **b. Visitor management system in Tikal**

While conducting tourism improvement of less known archaeological sites, an adequate visitor management system to cope with the increasing numbers of visitors should be introduced to Tikal.

**(2) Development of Peten Itza as a resort destination**

The scenic Lake Peten Itza has good potential to be a resort destination like Lake Atitlan. This would make the visitors to stay longer, develop a new market segment that is not linked with visits to archaeological sites, and promote repeats visits, which would assure future sustainable growth. The followings should be done to develop Peten Itza as a resort destination.

**a. Improvement of tourism amenities for resort tourists**

To operate resort hotels needs better services and facilities than to operate accommodations for tourists with archaeological interest. Development efforts should be directed to the improvement of tourism amenities so that visitors would rest and relax while enjoying the lakeside scenery and attractions developed in attractive lakeside communities. More specifically, beautification of communities, development of resort accommodations along the lakeshore, and development and/or improvements of tourism attractions such as museums, workshops, and observatories are needed to cater for resort tourists.

**b. Community Tourism Development in San Jose**

As one of the attractions along the lakeshore, it is proposed to introduce Community Tourism in San Jose, which is a lakeside Itza Maya community. Satellite facilities based on the living culture of Itza Maya should be developed to convert the whole area like an open-air museum.

**c. Tourism improvement of Flores**

Flores is a small but colorful colonial town built on an island in Peten Itza, which used to be a ceremonial center of the last survived prehispanic kingdom in the Americas – Itza Maya. Therefore the town should be viewed as a tourism attraction rather than an accommodation base to visit Tikal. Besides, the town is the core of the Peten Itza Resort and the gateway city of El Peten. Although the land is limited, the town has potential to increase per-visitor income through the efforts at beautifying the townscape, improving tourism amenities, and upgrading the quality of accommodations.

**d. Environmental management of Peten Itza**

Market competitiveness of Peten Itza Resort depends on the healthy environment of the lake. On the contrary, development of Peten Itza Resort would negatively affect the water quality of the lake. It is necessary to conduct an environmental study of Lake Peten Itza to identify necessary measures to protect the lake and to ensure sustainable growth of the tourism sector.

**(3) Development of nature tourism and integration with archaeological tourism**

Being fueled by global concerns for environmental issues, ecotourism is the fastest growing market segment in the world tourism market. El Peten PTDA is endowed with potential nature tourism resources ideal to be used for this type of tourism. Deforestation is a serious environmental issue in El Peten, and tourism is expected to provide an

alternative livelihood for local people to curb the deforestation. Development of nature tourism products would relieve congestion in traditional tourism sites including Tikal. All these point to the necessity to develop nature tourism products. There are basically three directions:

**a. Tourism of rivers and wetlands**

The western part of El Peten abounds in rivers and wetlands such as the Pasion River, the San Pedro River, the Usumacinta River, and the Petexbatun Lake, which are evaluated to be important tourism resources. Rivers and wetlands are rare in the Mundo Maya area and, therefore, are considered to be strength of El Peten over other destinations in the regional tourism circuit.

Use of boats should be promoted as a tourist attraction, which would bring a favorable change for tourists who are tired of lengthy travel by car in other part of Guatemala. Taking into account the fact that construction of new roads has triggered deforestation in the past, use of boats is recommended also from the viewpoint of conservation.

**b. Tropical rain forests**

El Peten PTDA still has attractive forests, which should be used for tourism purposes otherwise they would be converted to agricultural land. Trekking is currently the principal way to enjoy the forests but other tourism products could be developed. Canopy walk is a possible idea.

**c. Integration of nature tourism and archaeological tourism**

Since the Mayan times, rivers have served as an important artery of transport. Therefore many archaeological sites are located along the rivers. Forests are relatively well preserved in the surroundings of archaeological sites, and visiting these archaeological sites can be enjoyed as nature tourism. The tourism products that integrate archaeological and natural attractions could be very competitive in the international tourism market, since it is unique to El Peten and complies with the concept of ecotourism.

This type of tourism products already exists; but they need further improvement of tourism facilities to attract a wider range of people to save a larger area of forests. Archaeological sites such as Yaxha – Nakum, Ceibal – Aguateca, and Uaxactun have good potential to develop this type of tourism products.

**(4) Revitalization of local cultural traditions through tourism**

Although cultural tourism attractions in El Peten PTDA are not as famous as its archaeological sites, the indigenous culture of Itza Maya and local economic activities such as collection of Xate and Chiclero as well as local handicrafts would be important tourism attractions. Community Tourism should be introduced to communities that have potential and willingness for tourism in order to revitalize their cultural identity.

### **a. Community Tourism**

Community Tourism should be planned in the two communities of San Jose and Uaxactun. As has been mentioned, San Jose is an Itza Maya community that is active to conserve their cultural traditions and their Itza language. Uaxactun is a community that strides over the archaeological site of Uaxactun and has a tradition of Chiclero and Xate collection. It is also important as an expedition base for archaeological sites in the north such as Mirador and Rio Azul. Community Tourism should be planned in a participatory manner based on a co-management scheme.

### **b. Handicrafts**

Handicrafts are an expression of cultural identity for many Guatemalan communities; therefore they provide themes for the development of Community Tourism. They are also important from the viewpoint to increase tourist spending.

## **(5) Strengthening of the tourism network**

El Peten is an isolate tourism destination and most of the visitors fly in and out of the Flores Airport. However, taking into account the geographic location of the PTDA in the Mundo Maya Circuit, distribution of anchor tourism products in neighboring countries, progress of road improvements in Guatemala, and moves toward regional integration, it is the timing for El Peten to reconsider its isolated tourism development strategy.

### **a. Formulation of Tourism Corridors**

Flores is in the center of Mundo Maya, and should function as the hub of tourism network in the international tourism system. With the improvement of transport network in Guatemala and neighboring countries, the following three Tourism Corridors would take shape and contribute to tourism development of El Peten PTDA.

- Antigua – Coban – Flores Tourism Corridor,
- Palenque – Flores – Belize Tourism Corridor, and
- Flores – Izabal Tourism Corridor.

These Tourism Corridors bring visitors to El Peten with much lower prices than airlines. They do not only bring visitors into Guatemala, but also produce synergy effects from combining attractive tourism destinations. Flores is the hub of the three Tourism Corridors, therefore should play a vital role in the Mundo Maya Circuit.

### **b. Establishment of Tourism Sub-Centers**

Establishment of Tourism Sub-Centers will promote international and inter-regional tourists movement between Tourism Centers. It is especially important for El Peten PTDA due to its large size and sparse availability of tourism services. Establishment of Tourism Sub-Centers will also promote the distribution of visitors in wider areas to reduce visitors' concentration in the Flores – Tikal area.

**c. Formulation of air transport network**

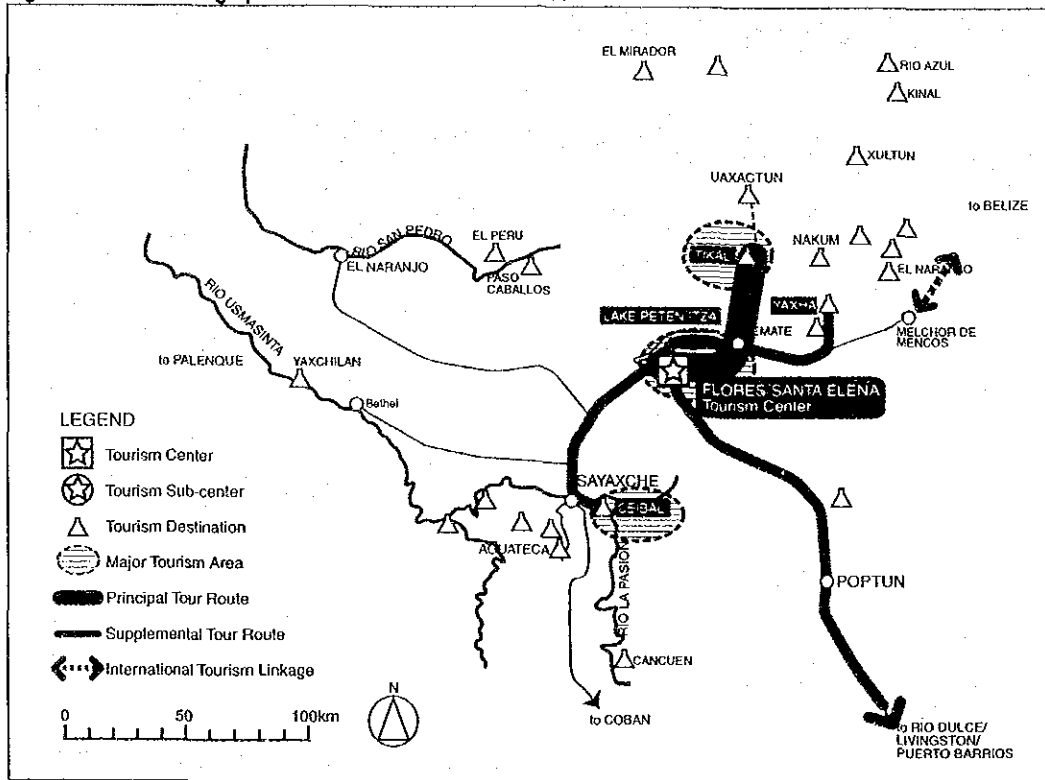
With regard to air transport, Cancun, which has inexpensive flights to and from North America, Central and South America, is actually functioning as the international gateway to whole Mundo Maya. Therefore, Flores should consider strengthening the link with Cancun including efforts at promoting Tikal in the beach destination. There are important urban centers in the southern part of Mexico such as Villahermosa, Campeche, and Merida. El Peten would be able to attract visitors from these cities if air links with these cities are established.

**4.3.3. Tourism Development Scenario and Spatial Structure**

The purposes of setting a development scenario are to identify the priority of actions specified by the development strategy, and to clarify the sequential procedure to achieve the development strategy.

Current tourist activities are heavily concentrated in the area between Flores and Tikal regardless of El Peten’s enormous tourism potentials. Figure 4.3 shows the existing spatial structure of El Peten PTDA.

**Figure 4.3 Existing spatial structure of El Peten PTDA**



Source: JICA Study Team

After evaluating development possibilities as well as marketing possibilities of tourism in El Peten based on various surveys and interviews with the travel trade and relevant government institutions, the following basic directions are set:



- Diversification of archaeological tourism products has the highest priority.
- Development of nature tourism, cultural tourism, and resort tourism is necessary and some needs to be started in the short-term; but the priority is lower than archaeological tourism.

**(1) Short-term Plan**

Archaeological sites of Yaxha – Nakum, Ceibal – Aguateca,, and Uaxactun, are chosen for short-term tourism improvement because they are evaluated to be important from the tourism viewpoint and are ready to receive visitors. The selection of the archaeological sites is made by considering the possibility for tourism diversification and strengthening of linkage with neighboring destinations. Tourism improvement of Yaxha – Nakum will pave the way to introduce forest-based nature tourism in the surrounding areas, while that of Ceibal – Aguateca is to be combined with nature cruise in the Pasion River and Petexbatun Lake. Tourism improvement of Uaxactun provides satellite facilities for the Community Tourism in Uaxactun that would be developed in the long-term. Most of these sites are located between Flores and other principal tourism destinations; therefore their development is conducive to formulate Tourism Corridors.

Other than developing archaeological sites, development of the Community Tourism in San Jose and tourism improvement of Flores should be started, which is a process to start the development of *Peten Itza Resort*. It is necessary to conduct an environmental study of the lake in order to prevent environmental deterioration from anticipated resort development. After completion of the environmental study, investment promotion for resort accommodation development has to be inaugurated. It is necessary to conduct a study to introduce a visitor management system in Tikal.

The followings are actions needed in the short-term

- Tourism improvement of archaeological sites that are important from a tourism viewpoint and are ready to receive visitors.
  - Tourism improvement of Ceibal and Aguateca and development of river cruise facilities,
  - Tourism improvements of Yaxha and Nakum, and
  - Tourism improvement of Uaxactun.
- Development of Peten Itza Resort
  - Development of the Community Tourism in San Jose, and
  - Tourism Improvement of Flores.
  - Peten Itza Environmental Improvement Study,
  - Investment promotion in resort accommodations.

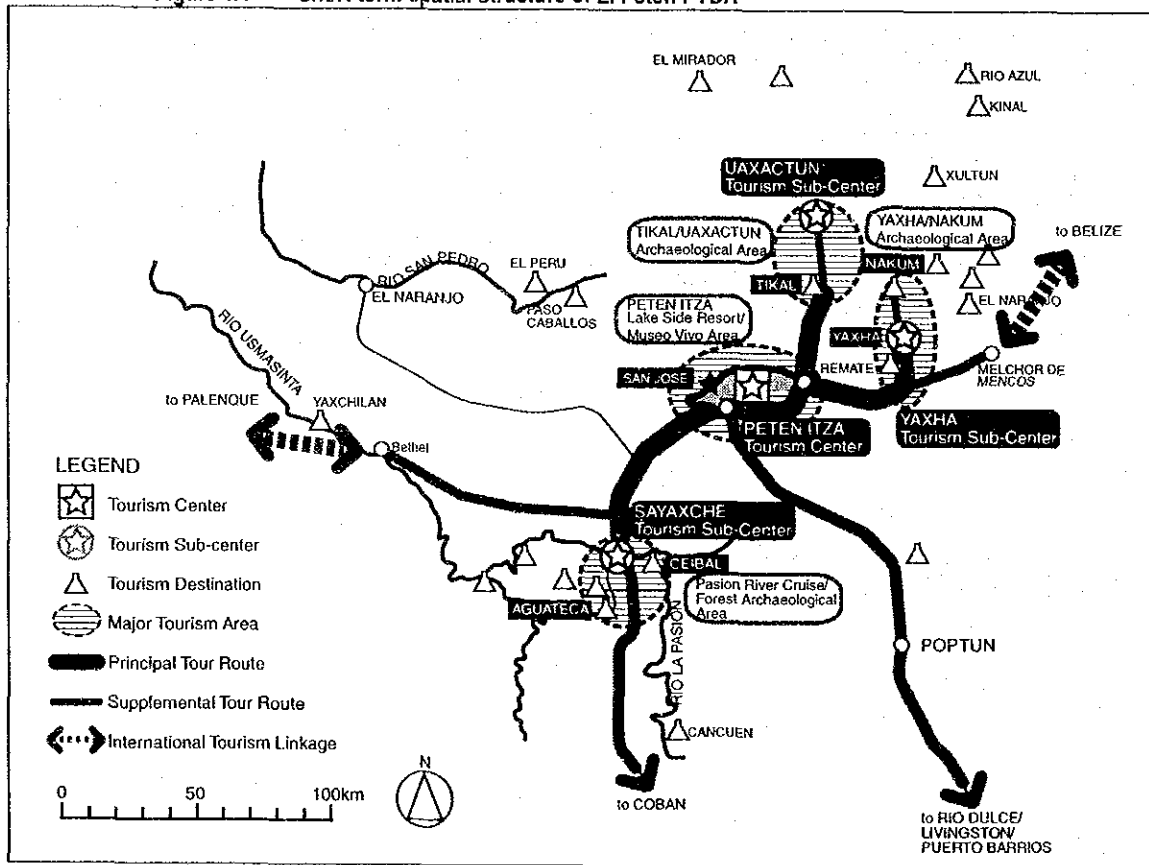
- Study of a visitor management system in Tikal.

The above actions are reflected to the following spatial structure development.

- Tourism Sub-Centers would be formulated in Sayaxche, Yaxha and Uaxactun.
- Existing Flores Tourism Center would be expanded to cover the whole lakeside area to formulate the Peten Itza Resort that has 3 functions of accommodation base, tourism attractions, and one-day touring circuit.
- Pasion River archaeological sites group, Yaxha – Nakum archaeological sites, as well as Peten Itza Resort are principal additions to the existing tourism structure.
- Mundo Maya Circuit would be strengthened by enhancing the linkages of Melchor de Mencos – Belize City, and Sayaxche – Palenque.
- Tourism Corridors of Flores – Sayaxche → Coban, and Flores – Poptun – Puerto Barrios would be established to strengthen international and domestic linkage.

Figure 4.4 shows the short-term spatial structure.

Figure 4.4 Short-term spatial structure of El Peten PTDA



Source: JICA Study Team

## (2) Long-term Plan

Long-term plan places more emphasis on developing tourism products other than archaeological tourism. Peten Itza will have private sector investments and increase the number of resort tourists. Tourist attractions other than the Community Tourism in San Jose would be developed for resort tourists such as tourist-oriented fincas, museums, and handicraft workshops. Visitor facilities would be developed in the area along San Pedro River to cater for bird watchers and nature tourists.

Development of the Community Tourism in Uaxactun should be started as the second Community Tourism site in El Peten. There may be accommodation development in the village as a base for expedition trips to archaeological sites in the northern jungle. Visitor facilities would be developed in archaeological sites in remote areas such as those in the northern jungle including Mirador and Rio Azul, and Cancuen on the way to Coban.

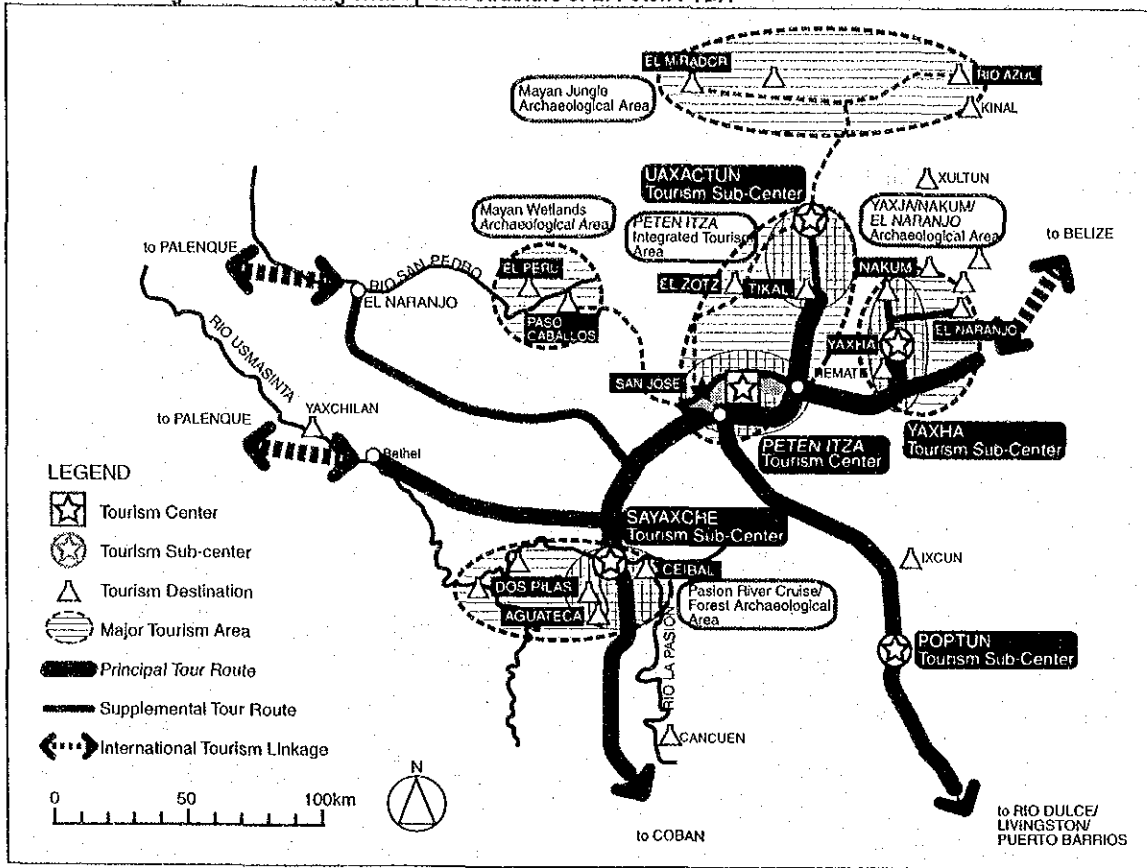
- Development of Peten Itza Resort,
- Development of the Community Tourism in Uaxactun,
- Development of nature tourism facilities along the San Pedro River, and
- Tourism improvement of archaeological sites in remote areas.

The above actions will be reflected to the following spatial structure development.

- Naranjo would be added to formulate the Yaxha – Nakum - Naranjo archaeological triangle.
- Rio Azul, El Mirador would be developed to receive more visitors.
- Dos Pilas would be developed and added to the Mayan Jade Route (Sayaxche – Ceibal - Aguateca – Dos Pilas Pasion River archaeological sites).
- San Pedro River and Laguna del Tigre Reserve would be improved for tourism use.

Figure 4.5 shows the long-term spatial structure of El Peten PTDA.

Figure 4.5 Long-term spatial structure of El Peten PTDA



Source: JICA Study Team

Table 4.7 summarizes the development process of the spatial structure.

Table 4.7 Directions for spatial tourism structure development

	Existing	Short-term	Long-term
Tourism Center	• Flores/Santa Elena	• Peten Itza Resort	
Tourism Sub-center	• None	• Sayaxche • Yaxha • Uaxactun	• Poptun
Major Tourism Area	• Tikal • Ceibal	• Tikal/ Uaxactun • Peten Itza • Ceibal/Aguateca • Yaxja/Nakum	• Yaxha/ Nakum/ Naranjo Triangle • Rio Azul/ El Mirador/ El Zotz • Ceibal/ Aguateca/ Dos Pilas • Paso Caballos/EI Peru
Major Tour Route	• Flores – Tikal • Flores – Sayaxche – Ceibal	• Flores – Tikal – Uaxactun • Peten Itza • Flores – Sayaxche – Pasion River archaeological sites • Flores – Yaxha – Nakum	• Flores – Maya Triangle • Uaxactun – Mayan Jungle • Sayaxche – Ceibal – Aguateca – Dos Pilas • Flores – Maya Wetlands
Mundo Maya Linkage	• Flores – Merchor de Mencos – Belize	• Flores – Sayaxche – Palenque • Flores - Merchor de Mencos – Belize	
Regional Linkage	• None	• Flores – Sayaxche – Coban • Flores - Poptun – Puerto Barrios	

Source: JICA Study Team

#### 4.3.4. Marketing Directions

##### (1) Competitor analysis

Table 4.8 compares El Peten PTDA with the Cusco – Machu Picchu Tourism Corridor in Peru to clarify the characteristics of El Peten PTDA.

**Table 4.8** Comparison of Peten(Tikal) and Cusco – Machu Picchu

	Peten (Tikal)	Cusco – Machu Picchu
Culture	Mostly Mayan Culture	Mostly Inca Culture
Vegetation	Attractive	Ordinary
Security	Good	Good
Resorts and relaxation	Good potential	Altitude sickness is likely
Variation of archeological sites	Extraordinary	Good
Accommodation	Acceptable	Hotels with all price range
Food	Acceptable	Very good
Museum	Poor	Acceptable
Access to/from Capital	Several flights from Guatemala City, and roads are improving)	1 flight /day from Lima, and a few bus services
Excavation works	On going	Non – existent

Source: JICA Study Team

##### (2) Marketing directions

###### a. Mexico and Central America

Unlike Western highlands of Guatemala and Las Verapaces, Peten is not a favorite tourism destination for Salvadorians. The most important short-haul market for Petén is tourists from Mexico. El Peten PTDA is close to important urban centers in Mexico such as Villahermosa and Ciudad del Carmen (two of the most important oil cities in the country), Merida, and Campeche. Cancun, whose population is growing at a remarkable pace, has a sizable population. For these cities, small colonial town like Flores could be an appealing destination for honeymooners and resort-oriented tourists. All this cities total around 3.6 million inhabitants in year 2000, and almost 5.4 million in 2020, Table 4.9 shows the population of the cities in Mexico that are close to El Peten PTDA and regarded as potential tourism markets.

**Table 4.9 Population of Mexican cities with market potential for the Peten PTDA**

City/ Population	2000 1/	2010 1/	% Annualized Rate In Period	2020 2/
<b>Urban &amp; Oil Cities</b>				
Merida, Yucatan	715.0	838.1	1.6%	982.3
Campeche (Campeche)	222.1	251.5	1.3%	286.2
<i>Subtotal</i>	937.1	1,089.6		1,268.5
<b>Oil Cities</b>				
Ciudad del Carmen (Campeche).	213.8	278.6	2.7%	363.6
Villahermosa (Tabasco)	532.0	640.0	1.9%	772.5
Minatitlán (Veracruz)	208.9	212.7	0.2%	217.0
Coatzacoalcos (Veracruz)	282.6	306.8	0.8%	332.3
<i>Subtotal</i>	1,237.3	1,438.1		1,685.4
<b>South Eastern Region</b>				
Cancún	404.6	599.5	4.0%	887.4
Chetumal	203.9	201.3	-0.1%	199.3
<i>Subtotal</i>	608.5	800.8		1,086.7
<b>Total</b>	<b>3,649.1</b>	<b>4,396.4</b>	<b>1.9%</b>	<b>5,365.7</b>

Source: 1/ Consejos Estados de Población. CONAPO. Mexico. 2/ JICA Study Team estimate using inter-decade growth rate.

Strategic development of air access to Flores is needed in order to develop tourism flow from Villahermosa (close to Palenque), and from Merida that would diversify access and exploit the possibilities for the Mexican market. Honeymooners and young people in search of soft adventure and alike are possibilities for the Peten PTDA's tourism products. Mexicans from other major urban areas traveling the Mayan World in Mexico would be also interested in extending their itineraries to Peten (Tikal and others) if transport conditions are improved.

Other Central American countries<sup>11</sup> (Costa Rica, Honduras, Nicaragua, Panamá and Belice) would continue to be marginal markets for the Peten PTDA.

Main actions to promote Peten should be made mainly toward the Mexican market. Since "friends & family" and "previous experience" are the most important reasons to decide to visit Guatemala, efforts should be made to spread good reputations among relatives and friends of both countries.

Direct poster advertisement in bus lines connecting Mexican and Guatemalan locations in the southeast region of Mexico would be worth a consideration. Main appealing points to this market is archaeological sites with nature and wildlife as supplements.

Information materials such as brochures and flyers about Peten's tourism resources and products should be provided at bus terminals in the border areas in Mexico and Salvador, as well as in Flores Airport. Special regional radio programs that reach both countries would also be useful to stimulate interest in Peten's less known tourism resources.

<sup>11</sup> Central American countries, namely Costa Rica, El Salvador, Honduras, Nicaragua, Panama and Belize total around 123.7 millions in year 2000 and United Nations Population Division estimate that will reach 161.5 millions in year 2020.

Influential religious groups would be a channel to promote this PTDA on a mouth to mouth basis. Inviting congress and events of influential religious groups would be a way to develop awareness of tourism in the PTDA through pre and post-congress trips.

Salvadorians staying at the Rio Dulce/ Puerto Barrios area for recreational purposes are a target, which El Peten should make efforts at persuading them to extend their itinerary into El Peten. Providing tourism information in the beach destination emphasizing a relatively short travel time (2 hours) to Flores would be a measure.

#### **b. North America**

According to WTO forecasts<sup>12</sup>, North Americans will travel more frequently for shorter periods, travel more independently, and look for relaxation or experiences that could take them "away from all". Since facilities, quality, and "ambiance" would play an important role to satisfy these consumers, Flores should make efforts at improving its urban amenities, tourism facilities, and services.

According to a WTO report, relevant market segments for North American market would be young people and young couples looking for activities, as well as retired people looking for products such as walking, trekking, cultural, special interest, learning, and beaches. Archaeology will continue to be a main product of the Peten PTDA but efforts should be made to increase the market awareness of nature attractions combined with archaeological interests. Since they are experienced travelers, travel time and the quality of travel experiences will be an important expectation for this market and, therefore, the improvement of access to the PTDA and product diversification would be a key to further develop the market.

There are a number of important American companies selling Guatemala-grown products (like bananas, and so forth). It might be possible and would be worth considerations to negotiate with some of those companies a program to include an additional sticker to the labels they use at their products, promoting some Guatemala tourism resources.

Providing fam trips for university professors engaged in Guatemala, Maya or Latin American studies in exchange for public lecture on their findings in their country is an idea to promote Guatemala by mouth to mouth communication.

#### **c. South America and Caribbean**

Visitors from major South American countries<sup>13</sup> are interested in archaeological sites in Peten PTDA, in particular, magic and mystery of the Mayan cultures. Colonial town of Flores would be also important since they look for, and prefer colonial ambiance and

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Intra-regional programs to improve economic development at regional level, SICA and "Puebla-Panama Plan" would enhance tourism potential of this short haul market region.

<sup>12</sup> North American region inhabitants total around 314.0 millions in year 2000 and United Nations Population Division estimate that will reach 370.0 millions in year 2020.

culture. Supplementary products along lakeshore and alternative products along the Antigua – Coban – Flores and Flores - Izabal Tourism Corridors would enhance travel possibilities to this market.

Since a direct air service to/from the principal markets of South America is not available, indirect approaches such as publicity articles and fam trip for the travel trade would be appropriate for the market.

#### **d. Europe and others**

Europeans<sup>14</sup> travel for longer periods than other market segments. Since archaeology and indigenous cultures are important, Peten PTDA is a main destination for this market segment. If adequate access, facilities, and information are provided, tourism products in El Peten could be combined with beaches and lake resorts in Izabal since Europeans prefer to combine touring with a stay at a resort. Facilities and services are major constraints to develop this market.

Archaeology and indigenous culture are also important for “other” tourism generating countries. Japan<sup>15</sup> is currently the principal tourist-generating country, and other countries that could generate a sizable number of tourists would be Australia, New Zealand, Israel, Taiwan, and Korea. Since they are the most long-haul market, multi-country trip that combine Guatemala with neighboring countries, even with the USA, would be common. Since this market is underdeveloped taking into account its large market volume vs. small numbers of visitors to Guatemala, promoting a few core tourism products has more priority over the diversification of tourism products.

Long haul market should be promoted by indirect methods. Cooperation with airlines is of particular importance. European airlines flying to Cancun, Habana and, in particular, Miami that is the most important hub of European airlines to South and Central America are possible cooperators to promote Guatemala. It is noted that the above airports are also the locations where tourist information about El Peten should be distributed intensively to lure out visitors to El Peten.

#### **e. Domestic**

Peten PTDA is one of the most remote areas of Guatemala, and the promotion of domestic tourism would help reinforce national identity. A program to promote domestic tourism to the area will be a great benefit for the travel trade because it would offset the seasonality of international tourism market.

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<sup>13</sup> Main South American countries, namely Argentina Brazil, Chile, Colombia, Ecuador, Peru and Venezuela total around 327.2 millions in year 2000 and United Nations Population Division estimate that will reach 416.8 millions in year 2020.

<sup>14</sup> Main tourism generating countries for Guatemala in the European region are Germany, France, United Kingdom, Italy and Spain, Netherlands, Belgium and Switzerland. Population in those countries for year 2000 total around 331.4 millions (without Russia Federation) and United Nations Population Division estimate that will reach 459.9 millions in year 2020 (including Russia Federation).



Domestic MICE market may play an important role in the short-term due to its relatively high travel costs. Resort tourism, which are planned in this master plan, would be also important to lure out domestic tourists to El Peten PTDA.

With the improvement of the road between Coban and Flores, domestic market is expected to grow substantially. It is important to publicize the viability of road trip since many people think El Peten is very far and expensive. Special bus fares in the low season may promote student and family market.

### (3) Recommended tourism promotion activities

Table 4.10 summarizes recommended tourism promotion activities by origin market.

**Table 4.10 Recommended tourism promotion activities by origin market**

	C.A./ Mexico	North America	South America	Europe	Remarks
Promotional tools					
Brochure	XX	XX	XX	XX	
Map	X	-	-	X	
Poster	XX	XX	XX	X	
Video	X	X	XX	XX	
Sales Manual	-	-	-	X	
Advertisement					
TV	XX	-	X	X	
Newspaper	-	X	X	X	
Magazine of special interest	XX	XX	XX	XX	
Trade stimulation					
Travel tradeshow	-	X	X	XX	
Familiarization trip	X	XX	XX	XX	
Seminar	-	-	-	XX *	
Public relations					
Press tour	XX	XX	XX	XX	
Press release	XX	XX	XX	XX	
INTERNET	-	XX *	-	X	
Others					
Event	X	X	-	X	
Approach to SIT market	XX	XX	XX	XX	
Approach to MICE market	X	XX	-	X	

Note: XX= Very effective, X= Effective, - = No recommendable

Source: JICA Study Team

<sup>15</sup> It is estimated that Japanese population total around 127.1 millions in year 2000 and United Nations Population Division estimate that figure will be maintain in year 2020 (126.8 millions).

### 4.3.5. Tourism Development Framework

Tourism development framework was set based on the estimation of the bed-nights in El Peten PTDA as shown in Table 4.11. El Peten PTDA is assumed to be the fastest growing Tourism Region in Guatemala due to its abundant tourism resources. It would receive 0.4 million visitors in 2010 (1.7 times from 2000), and some 0.7 million visitors in 2020 (2.7 times from 2000). Short and long haul markets are expected to grow faster in the PTDA.

The room requirements are calculated based on the following assumptions:

- Guest per room: 1.7 persons/room, and
- Occupancy rate: 75% for high class, 65% for middle class, 55% for low class

Numbers of visitor arrivals are calculated with the following assumptions:

- Domestic visitors: 1.5 nights (assumed from the hotel statistics of INGUAT).
- International visitors: the numbers of visitor arrival are calculated by market area (short, middle and long-haul) and by purpose of visit from estimated volume of bed-nights. Average length of stay by market segment was used to calculate the number of arrivals for respective market segments.

These calculated figures are summarized by market segment as shown in the Table 4.11.

**Table 4.11 Tourism framework of El Petén PTDA**

Year		2000		2010		2020	
Frame		Bed-night	Arrival	Bed-night	Arrival	Bed-night	Arrival
Hotel visitor arrivals	Total	694,537	251,553	1,184,879	417,875	1,943,022	698,862
	Domestic	135,629	90,419	198,438	132,292	340,246	226,831
	International	<sup>1)</sup> 558,908	161,134	986,441	285,583	1,602,776	472,032
	Short Haul	107,514	34,744	198,542	64,598	355,579	115,764
	Middle Haul	249,498	67,572	393,256	106,427	606,079	166,522
	Long Haul	201,349	58,544	394,644	114,558	641,117	189,746
Room requirement	Total	1,921		3,111		4,987	
	High Class	72		233		553	
	Middle Class	821		1,518		2,776	
	Low Class	1,028		1,360		1,658	

Note: <sup>1)</sup> Total of international visitor arrivals 2000 includes N.A. figures of the Visitor Survey

Source: Visitor Survey (March and July 2001), JICA Study Team, INGUAT

## 4.4. Projects and Programs

### 4.4.1. Project Evaluation

Existing projects and project ideas proposed by a broad range of organization and individuals in the Study Area as well as by JICA Study Team were evaluated with the following criteria:

- Conformity with development strategy,
- Development effects
- Project maturity, and
- Necessity for the central government development supports.

Each project was evaluated by calculating the total of points given in 3 grades to the respective evaluation criteria. In the El Peten PTDA, tourism improvement of archaeological sites including a museum and research/learning facility is given a relatively high point to comply with its development strategy.

The result of the evaluation is shown in Table 4.12.

**Table 4.12 Result of project evaluation for El Peten PTDA**

No	Project name	Department/ Municipality	Strategy	Effect	Maturity	Support	Total
Short-term pilot projects							
1	Tourism Improvement of Yaxha and Nakum Archaeological Sites	El Peten/ Melchor de Mencos	3	2	3	3	11
2	Development of Maya Research and Learning Center	El Peten/ Melchor de Mencos	3	3	3	3	12
3	Tourism Improvement of Agualeca and El Ceibal archaeological sites	El Peten/ Sayaxche	3	2	2	3	10
4	Tourism Improvement of Uaxactun archaeological site	El Peten/ Flores	3	3	3	3	12
5	Development of Archaeology and Regional Culture Center	El Peten/ Sayaxche	3	2	3	3	11
Short-term projects							
1	Community Tourism Development in San Jose	El Peten/ San Jose	2	3	2	2	9
2	Beautification of Noj Peten	El Peten/ Flores	2	2	2	3	9
2	Peten Itza Lake Environmental Improvement Study	El Peten/ Flores, Sn. Benito, Sn. Andres, Sn. Jose	3	1	2	3	9
3	Planning study of a visitor management system in Tikal	El Peten/ Tikal	2	2	2	3	9
4	Improvement of Sylvanus Archaeological Museum in Tikal	El Peten/ Flores	2	2	2	2	8
5	Development of North-South Tourism Corridor	El Peten/ Flores, S. Benito, S. Francisco, Sayaxche	2	2	1	2	7
6	Development of East-West Tourism Corridor	El Peten/ M. Mencos, La Libertad	2	2	1	2	7
Long-term project							
1	Peten Itza Resort development package	El Peten/ Flores, San Benito, San Andres, San Jose	2	1	1	2	6
1	Community Tourism Development in Uaxactun	El Peten/ Flores	2	2	1	1	6
2	Tourism improvement of El Mirador archaeological site	El Peten/ San Andres	2	1	1	1	5
3	Tourism improvement of El Naranjo archaeological site	El Peten/ Melchor de Mencos	2	1	1	2	6
4	Tourism improvement of Dos Pilas archaeological site	El Peten/ Sayaxche	2	1	1	1	5
5	Tourism improvement of El Peru archaeological site	El Peten/ San Andres	2	1	1	1	5
6	Tourism improvement of El Zotz archaeological site	El Peten/ San Jose	2	1	1	1	5
7	Tourism improvement of Cancuen archaeological site	El Peten/ Sayaxche	2	1	1	1	5
8	Improvement of Community Tourism in San Jose	El Peten/ San Jose	3	1	1	1	6
9	Branch Access Road Improvement	El Peten/Whole Dep't	1	1	1	2	5
10	Development of tourism attractions in tropical forests and wetlands	El Peten/Whole Dep't	3	1	1	1	6

Source: JICA Study Team

#### 4.4.2. Short-term Pilot Projects

##### (1) Tourism improvement of Yaxha and Nakum archaeological sites

###### a. Background and rationale

A group of archaeological sites located to the east of Tikal: Yaxha, Nakum and El Naranjo, is identified by Mundo Maya Organization as having a high priority for tourism development. Among the three sites, Yaxha and Nakum have partly restored and, therefore, are evaluated to be ready for tourism development in the short-term. El Naranjo is included in the list of long-term projects because the site needs further excavation and restoration works to receive visitors.

###### b. Project objectives

The project is planned with the following objectives:

- To promote and encourage tourism activities,
- To improve accessibility, and
- To improve and add tourist attractiveness and convenience

###### c. Site and location

The Yaxha and Nakum sites are located in the Melchor de Mencos Municipality, in El Peten Department. The site is 70km east from Flores. Yaxha is 15km and Nakum is 30km north to La Maquina community on CA13, and Nakum is within the Maya Biosphere Reserve Area.

###### d. Project components

It is recommended to construct a visitor center in Yaxha, an information office, resting areas/ washrooms, a registration office/ security post in Nakum, and, access roads, electric power supply from C.A. Highway 13, water supply, landscaping, signs and information boards for both sites.

###### e. Costs

The direct construction cost is estimated at US\$ 3.6 million, which accounts for 25.7% of the whole costs of short-term pilot projects for the El Peten PTDA.

**Table 4.13 Project components**

Access road	15 km	ROW=12m, gravel pavement
Visitor center (in Yaxha)	200 m <sup>2</sup>	timber structure, single story, landscaping, necessary utilities and equipment
Information office	100 m <sup>2</sup>	timber structure, single story, landscaping, necessary utilities and equipment
Electric power supply	30 km	from CA13 to the both sites
Signs and information		at appropriate spots in both sites

Source: JICA Study Team

###### f. Implementation schedule

The project would be implemented in the early stage of the short-term period (-2010).

**Table 4.14 Implementation schedule**

2002	2003	2004	2005	2006	2007	2008	2009	2010
Pre-stage			Construction			Operation		

Source: JICA Study Team

**g. Implementation setup**

IDAHE should be responsible for the implementation of the project. MICIVI will construct and maintain the access road.

IDAHE should set up a project implementation committee with members from INGUAT, MICIVI, MICUDE, CONAP, INFOM, Mundo Maya Organization, Melchor de Mencos municipality, tourism private sector, and La Maquina community. The committee would be converted to an organization for the co-management of the tourism site after construction works are completed.

**(2) Maya Research and Learning Center (MRLC)**

**a. Background and rationale**

This is the core facility for Mayan archaeological study and exhibition. Proposed site is conveniently located on the Central American Highway 13 at the entrance to the Yaxja, Nakum and Naranjo triangle. MRLC would be a place for research and learning archaeology and a tourist attraction for visitors who come to visit the Yaxha – Nakum – Naranjo triangle and are on their way to Belize.

**b. Project objectives**

The project is planned with the following objectives:

- To motivate researchers and academics to come to Guatemala for learning Mayan culture,
- To create an adequate place for people around the world to learn about Mayan cultures,
- To create a new tourist attraction to encourage tourism activities, and
- To obtain profit from tourism to reinvest on archaeological research and conservation.

**c. Site and location**

The MRLC site is located in the Municipality of Merchol de Mencos in El Peten Department. The site is 60km to the east from Flores at near junction of access road to Yaxha/Nakum and CA13 in La Maquina village.

**d. Project components**

The function of the center is to provide a facility for research and learning on Mayan archaeology, to protect and exhibit archaeological artifacts under a safe condition, and to periodically host exhibitions on relevant themes such as Mayan calendar, astronomy, and

costume. The facility should also function as the administration center for the Yaxha – Nakum – Naranjo triangle.

#### e. Costs

The direct construction cost is estimated at US\$ 1.8 million, which accounts for 13.2% of the whole costs of short-term pilot projects for the El Peten PTDA.

**Table 4.15 Project components**

Center building	1,500	m <sup>2</sup>	concrete structure, 2 stories, landscaping, necessary utilities and equipment
Car parking	1,000	m <sup>2</sup>	asphalt pavement
Landscaping	3,000	m <sup>2</sup>	plants, pavements, lighting, signs and information

Source: JICA Study Team

#### f. Implementation schedule

The project would be implemented in the early stage of the short-term period.

**Table 4.16 Implementation schedule**

2002	2003	2004	2005	2006	2007	2008	2009	2010
Pre-stage			Construction			Operation		

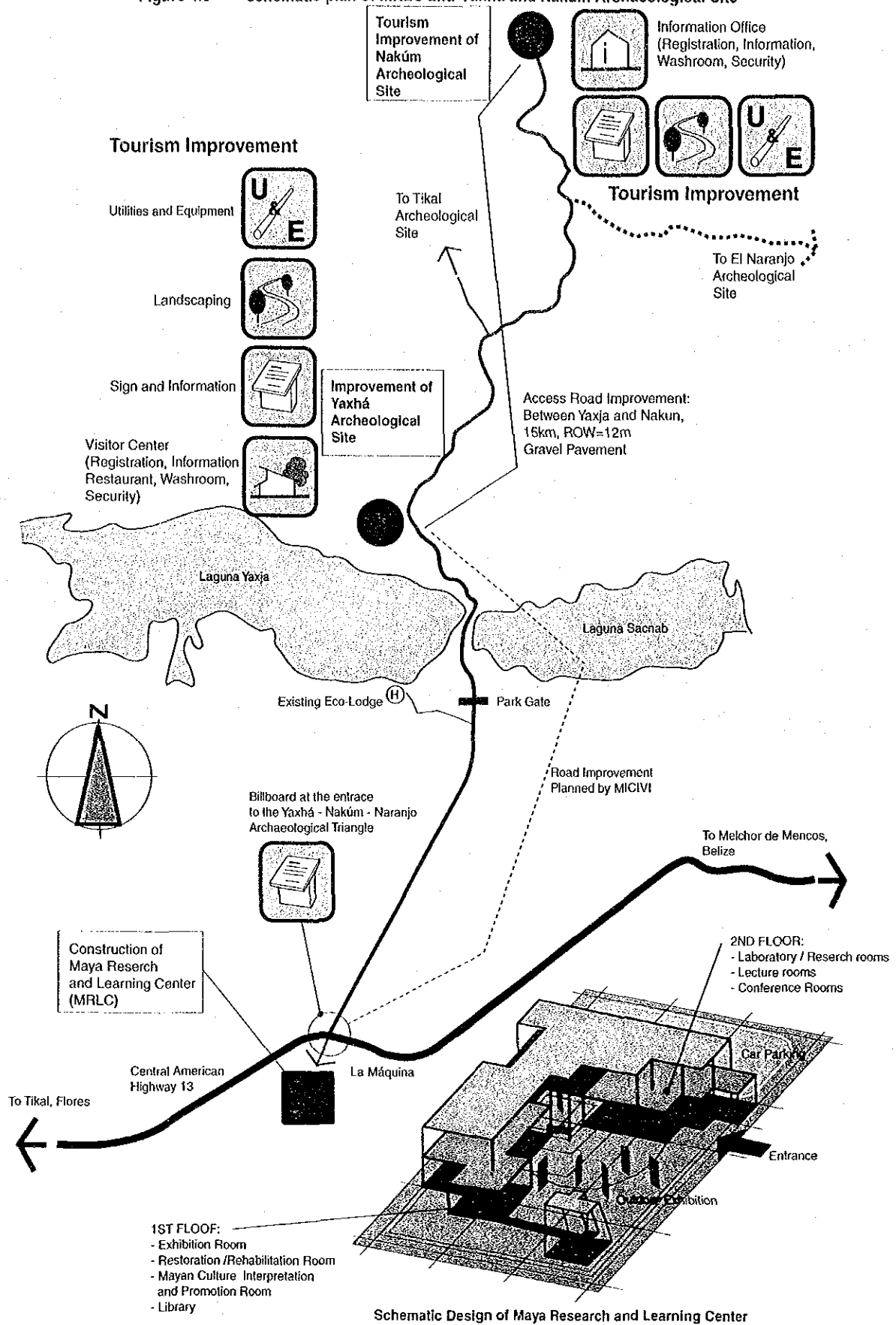
Source: JICA Study Team

#### g. Implementation setup

IDAHE should be responsible for the implementation of the project. MICIVI will construct and maintain the access road.

The project will be managed by the same committee that is in charge of the project for Yaxha and Nakum.

Figure 4.6 Schematic plan of MRLC and Yaxha and Nakum Archaeological Site



Source: JICA Study Team



### **(3) Tourism improvement of Ceibal and Aguateca archaeological sites**

#### **a. Background and rationale**

It is necessary to develop tourism attractions between Coban and Flores to promote overland trip, which is why Sayaxche Tourism Sub-Center has a strategic importance.

Major archaeological sites within the day-trip area of Sayaxche Tourism Sub-Center are El Ceibal and Aguateca. A remarkable characteristic of the archaeological sites are the access by boat, which provides natural attractions of river and lake scenery and opportunity to observe wildlife such as birds, butterflies and crocodiles. The trip by boat is expected to bring a favorable change in the monotonous itineraries of archaeological tourism.

#### **b. Project objectives**

The project is planned with the following objectives:

- To promote and encourage tourism activities,
- To improve accessibility in terms of land and river transport, and
- To improve and add tourist attractiveness and convenience.

#### **c. Site and location**

The Ceibal and Aguateca sites are located in the Sayaxche Municipality in El Peten Department. The site is 60km to the south from Flores on the way to Cobab. El Ceibal is 15km to the east from Sayaxche along the Pasion River and Aguateca is also 15km to the south from Sayaxche overlooking the Laguna Petexbatun.

#### **d. Project components**

It is recommended to develop a site museum in El Ceibal to exhibit archaeological findings from the site. El Ceibals' stelaes are quite attractive from the viewpoint of tourism; therefore they need more adequate presentation and exhibition on site.

Other components include improvement of boat pier facilities, access roads/trail, visitor center with an information office, resting areas/ washrooms, a registration office/security post, water supply, landscaping, and installation of signs and interpretation board for both sites.

#### **e. Costs**

The direct construction cost is estimated at US\$ 2.6 million, which accounts for 18.6% of the whole costs of short-term pilot projects for El Peten PTDA.

**Table 4.17 Project components**

Access pathway	2.0	km	W=1.5m, gravel pavement
Fields museum (outdoor facility)	1,000	m <sup>2</sup>	exhibition, landscaping
Ditto (indoor facility)	100	m <sup>2</sup>	timber structure, single story, elec. power generator
Visitor center	150	m <sup>2</sup>	timber structure, single story, landscaping, sign and information
Sings and information			at appropriate spots in both sites
Boat pier, mooring facilities,			concrete structure
Terminal facilities x3 (Sayaxche, El Ceibal, Aguateca)	50	m <sup>2</sup>	timber structure, single story, (50 m <sup>2</sup> per each)
Souvenir shop (at Sayaxche pier)	30	m <sup>2</sup>	timber structure, single story,

Source: JICA Study Team

#### f. Implementation schedule

The project would be implemented in the early stage of the short-term period.

**Table 4.18 Implementation schedule**

2002	2003	2004	2005	2006	2007	2008	2009	2010
Pre-stage		Construction			Operation			

Source: JICA Study Team

#### g. Implementation setup

IDAHE should be responsible for the implementation of the project.

IDAHE should set up a project implementation committee with members from INGUAT, MICUDE, CONAP, INFOM, Sayaxche municipality, and the Local Tourism Committee. The committee would be converted to an organization for the co-management of the tourism site after construction works are completed.

#### (4) Development of Archaeology and Regional Culture Center

##### a. Background and rationales

The surrounding areas of Sayaxche have many archaeological sites, and excavated artifacts need a place for restoration, preservation, as well as protection against robbery, which is a serious problem in archaeological sites in the area. Since Sayaxche is located on major travel routes to Coban and Palenque, the proposed center is conveniently located to exhibit these artifacts to tourists who are traveling the route. Local Tourism Committee of Sayaxche hopes to have a regional culture center in Sayaxche, which could be integrated into IDAHE's original plan.

##### b. Project objectives

The project is planned with the following objectives.

- To secure a place to keep archaeological artifacts from the area,
- To exhibit archaeological artifacts for visitors as a tourist attraction,
- To obtain profit from tourism to reinvest on archaeological research and conservation.
- To provide tourism information of the surrounding areas, and

- To provide education programs for conservation.

### c. Site and location

Sayaxche Town is located 60km south from Flores in the Sayaxche Municipality, in El Peten Department. There is candidate site for the complex near Sayaxche town.

### d. Project components

Project components are as follows:

- Restoration and exhibition of archaeological findings,
- Regional tourist information,
- Conference room for regional cultural activities, and
- Multi function room for educational programs.

### e. Costs

The direct construction cost is estimated at US\$ 1.0 million, which accounts for 6.7% of the whole costs of short-term pilot projects for El Peten PTDA.

**Table 4.19 Project components**

Center building	1,000	M <sup>2</sup>	concrete structure, 2 stories, landscaping, necessary utilities and equipment
Car parking	600	m <sup>2</sup>	asphalt pavement
Landscaping	1,000	m <sup>2</sup>	plants, pavements, lighting, signs and information

Source: JICA Study Team

### f. Implementation schedule

The project would be implemented in the early stage of the short-term period.

**Table 4.20 Implementation schedule**

2002	2003	2004	2005	2006	2007	2008	2009	2010
Pre-stage			Construction			Operation		

Source: JICA Study Team

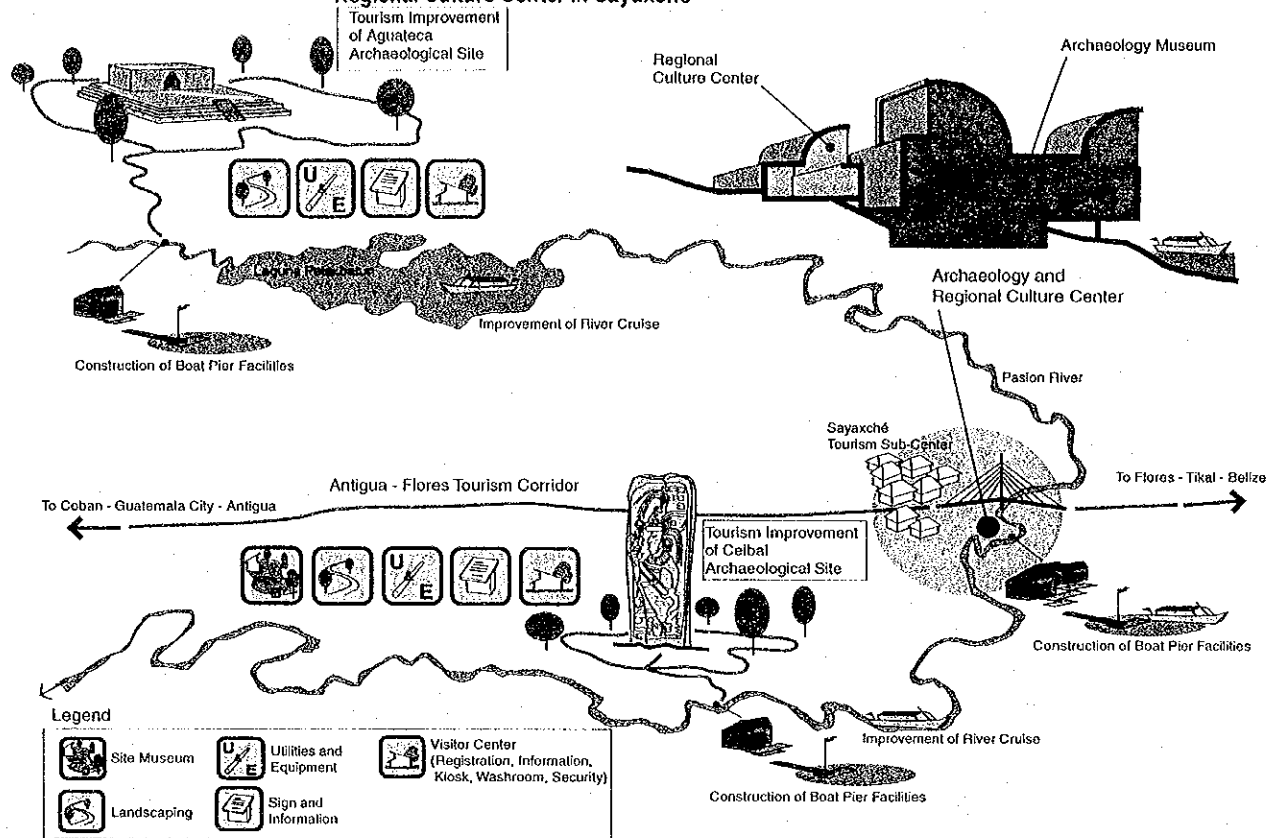
### g. Project implementation setup

Project will be implemented and managed by IDAEH.

Sayaxiche municipality would provide land for IDAEH and IDAEH would provide some space for the municipality as a local tourism information center.

The project will be managed by the same committee that is in charge of the project for Aguateca and Ceibal.

**Figure 4.7 Schematic plan of Celbal and Aguateca archaeological sites and Archaeology and Regional Culture Center in Sayaxche**



Source: JICA Study Team

**(5) Tourism improvement of Uaxactun archaeological site**

**a. Background and rationales**

Uaxactun is a Mayan archaeological site located 20km to the north of Tikal. Therefore, visit to the site could be integrated into the itinerary to visit Tikal. Some 220,000 people visited Tikal National Park in the year 2000 according to IDAEHs' statistics. Most visitors leave the hotel early in the morning (even before sunrise) to visit the site and stay most of the day in one place due to the lack of other attractions nearby Tikal. To provide more alternative itineraries for the visitors, Uaxactun archaeological site would be developed as an "afternoon destination" combined with Tikal.

This project is also intended to provide satellite facilities for the Community Tourism in Uaxactun, which is to be developed at the long-term stage (2010 – 2020). Uaxactun is also important at a potential accommodation base for soft adventures visiting archaeological sites in the northern jungle including Mirador.

**b. Project objectives**

The project is planned with the following objectives:

- To promote and encourage tourism activities,
- To improve accessibility, and

- To improve tourism attractiveness and amenities.

### c. Site and location

Uaxactun archaeological site is located in the Flores Municipality in El Peten Department. The site is 18km to the north from Tikal and within the Maya Biosphere Reserve.

### d. Project components

It is recommended to improve the access road and construct parking areas, resting areas/washrooms, water supply, power supply from C.A. Highway 13 via Tikal, a registration office/ security post, landscaping, installment of signs and interpretation boards.

### e. Costs

The direct construction cost is estimated at US\$ 5.0 million, which accounts for 35.8% of the whole costs of short-term pilot projects for the El Peten PTDA.

**Table 4.21 Project components**

Access road	20	km	ROW=12m, gravel pavement
Visitor center	200	m <sup>2</sup>	timber structure, single story, parking, landscaping, necessary utilities and equipment
Information office	100	m <sup>2</sup>	timber structure, single story, landscaping, necessary utilities and equipment
Electric power supply	50	km	from El Remate via Tikal archaeo. site
Signs and information			at appropriate spots in the park

Source: JICA Study Team

### f. Implementation schedule

The project would be implemented in the early stage of the short-term period.

**Table 4.22 Implementation schedule**

2002	2003	2004	2005	2006	2007	2008	2009	2010
Pre-stage		Construction				Operation		

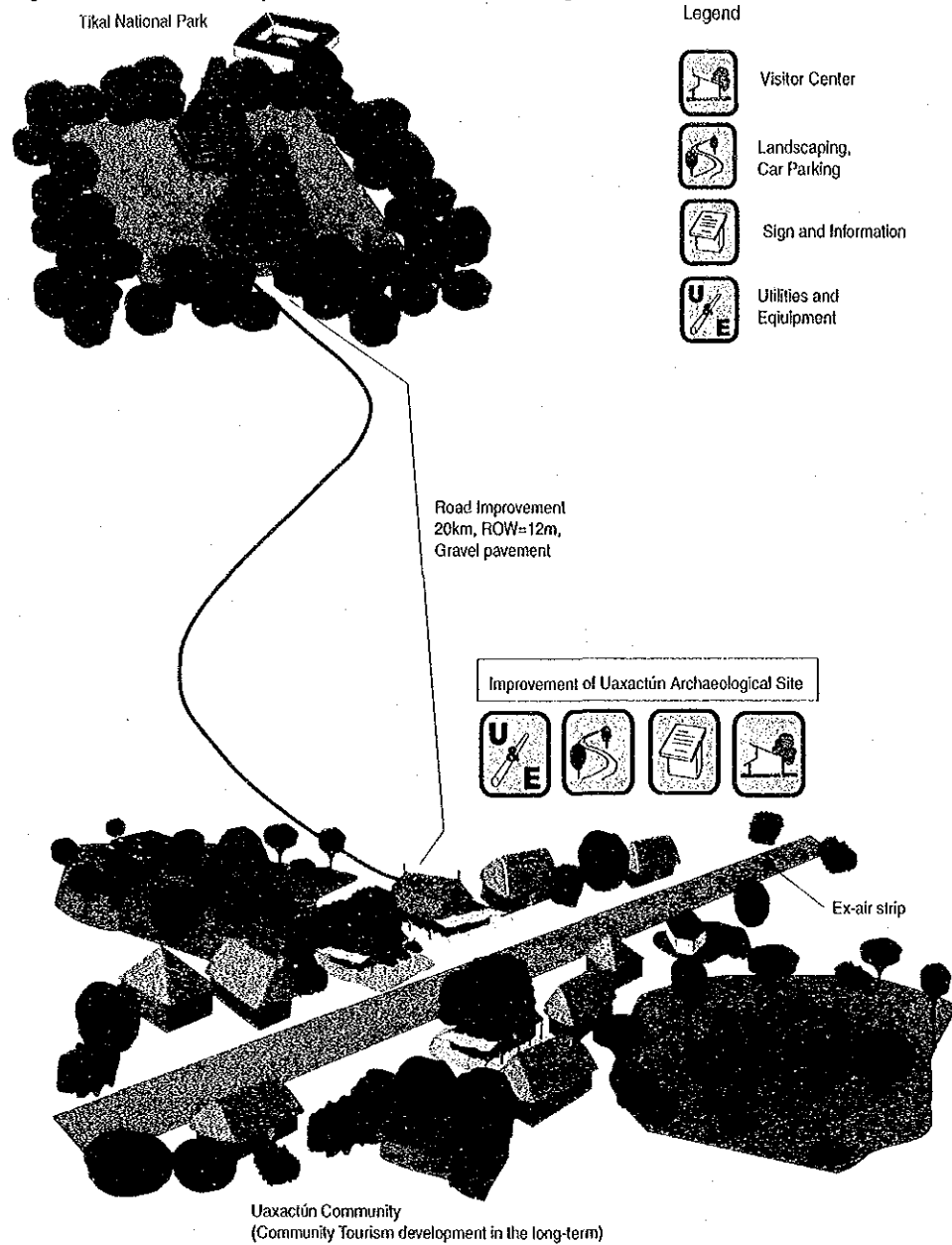
Source: JICA Study Team

### g. Implementation setup

IDAEH should implement the project and takes the charge of its operation and maintenance.

IDAEH should set up a project implementation committee with members from INGUAT, CONAP, Ministry of Culture and Sports, Municipality of Flores, Uaxactun community. After the completion of the construction works, the committee would be converted to the one for developing Community Tourism in Uaxactun.

Figure 4.8 Schematic plan of the Uaxactun archaeological site



Source: JICA Study Team

#### 4.4.3. Other Short-term Projects

##### (1) Development of Community Tourism in San Jose

###### a. Background and rationale

*San Jose Municipality is considered to be the most suitable location to introduce Community Tourism in the early stage from the followings reasons:*

- *Communities efforts for the conservation of the Itza Maya culture including the establishment of an academy of the Itza language,*
- *Active women's group for research and diffusion of pharmaceuticals and herbs,*
- *Presence of handicrafts workshops for wood carving,*
- *Spanish school operation for foreigners,*
- *Easy access to/from Flores by boat across the lake,*
- *Scenic location on the lakeside, and*
- *Motul archaeological site in the vicinity*

###### b. Project objectives

This project is planned with the following objectives:

- *To revitalize and activate the Itza Maya culture using tourism as a catalyst,*
- *To promote cultural exchange and interaction between locals and visitors, and*
- *To improve local economic conditions by introducing tourism.*

###### c. Site and location

*San Jose Municipality in located in El Peten Departament. The project site is the lakeside area of the municipality.*

###### d. Project components

Contents for proposed satellite facilities are as follows:

###### Induction Center

*Community Tourism consists of 1) an Induction Center, 2) Satellites/ Comets, and 3) Interpretative Trails that connect Satellites. The functions of the Induction Center are as follows:*

- *To provide an induction program that instruct visitors how to behave in the community,*
- *To provide information materials such as brochure and map, and guiding services by local people,*
- *To provide an encounter place for community members and visitors, and*

- To provide tourism services such as transportation service by land (car/ horse) and boat, selling of souvenirs and refreshments, and washrooms.

The candidate location for the Induction Center is the existing municipal kiosk near Central Park facing the lake.

#### **Satellite-1: Itza Maya Culture Museum**

This satellite exhibits various elements of traditional Mayan culture such as “Temascal” (Mayan traditional sauna bath) as an experimental spa facility, Maya Itzas’ astronomy, calendar, costume, dance, religion/belief, society on their real life.

#### **Satellite-2: Itza Maya Language Inheritor Museum**

There are only 20 old people who can speak Itza language. This satellite provides opportunities for visitors to learn about the Itza language, and to hear folk stories, legends of Itza, poetry, and singing.

#### **Satellite-3: Pharmaceuticals and Herbs Museum**

This satellite exhibits traditional medical herbs. A women’s group in San Jose is organized to research the potency of traditional herbs. Their activities will be integrated into this Satellite. It is recommended to exhibit, explain, and sell medical herbs with stories related to Mayan traditions and their lives.

#### **Satellite-4: Horseback Riding Center**

Motul archaeological site is planned to be a comet (far satellite). It is recommended to introduce horseback tours to visit the archaeological site, which combines nature attractions on the way. The community of Nuevo San Jose is a candidate site for this attraction.

#### **Satellite-5: Handicrafts showcase**

This satellite demonstrates and sells handicrafts of Guatemala, in particular, those produced in El Peten.

#### **Satellite-6: Indigenous cookery restaurant and café**

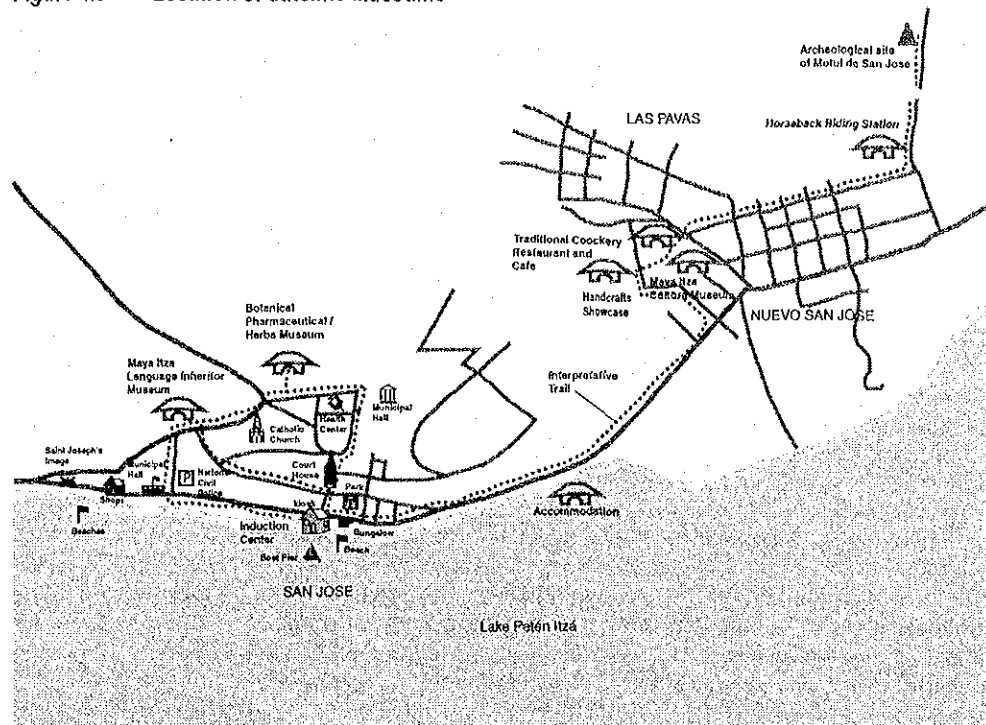
This satellite serves variety of traditional cuisine, local coffee, and liqueurs prepared by traditional methods together with suitable natural landscape within the municipal park.

#### **Comet: Motul archaeological site**

Motul archaeological site is called a Comet because it is a bit far compared with other Satellite. The archaeological site belong to the classic period of Maya, and structures found in the site have a similar style to Tikal. Further excavation and restoration works by IDAEH would improve the attractiveness of the site. Recommended projects include the improvement of access road from Nuevo San Jose, car parking, tourist service facilities (information, security, registration, resting space, washrooms), passage and landscaping within the site.



Figure 4.9 Location of Satellite Museums



Source: JICA Study Team

## (2) Beautification of Noj Peten

Flores Island, its ancient name is Noj Peten, is a colonial city on an island in the Lake Peten Itza, which is built on a ceremonial center of the last Mayan kingdom of Tayasal conquered by Spaniards in 1697. Although often overlooked, the town has a good tourism potential as a historical city with a resort ambience due to its island setting. It is strongly recommended to make the town as an independent tourism destination rather than a service town for archaeological tourism.

Since there is no land for building new facilities, it is recommended to beautify existing building and the surrounding environment. The following are possible measures to increase the attractiveness of the town.

- Improvement of building roofs: The island is slightly elevated in the center; therefore roofs of houses are visible from anywhere. Replacing the current galvanized steel sheet (even tin laminate sheet or grooved tin) with Spanish roof tiles (tejas) would improve the attractiveness of the town considerably.
- Municipal Regulation for building standards (i.e. maximum building height up to 3 stories) should be respected integrating the above-mentioned scenery control measure.
- Public access to the lakefront needed to be improved. Lakefront areas need beautification.
- It is recommendable to standardize color scheme, materials, design, and lighting of signs, information and advertisement at building and roadsides.

### **(3) Peten Itza Environmental Improvement Project**

#### **a. Background and Rational**

Although the surrounding areas of Peten Itza Lake such as Flores, San Jose, and El Remate are planned to be an anchor lakeside resort destination in Guatemala, there is no municipal sewerage and waste water treatment systems in the areas. Only recently built small hotels are equipped with septic tank. Most of the wastewaters are discharged without treatment into the Lake.

According to MARN in 1999, more than 17 tons of the white fish died in Peten Iza mainly due to the water contamination. Although there is no water sampling data, which could identify the pollution sources, the local fishermen are still out of work due to the ban on commercial fishing in the lake since the incidents. Moreover, illegal washing activities, which may degrade the water quality, are found in many places of its beaches. Tourism development expected in the near future could also give negative environmental impacts without adequate measures for environmental conservation.

The future of communities surrounding Peten Itza Lake depends on its environmental quality since there are no major economic activities other than tourism in the area. Hence, failing to provide appropriate measures to conserve the environment would lead to the decline of tourism. It implies that many of those living in the Flores and other surrounding areas would lose their main sources of income.

In this context, a comprehensive water quality improvement project is necessary that would solve the water contamination and related environmental issues in Peten Iza Lake surrounding areas.

#### **b. Project objectives**

The objectives of the Project are:

- To conduct a water quality monitoring in order to identify water pollution sources,
- To establish sewerage/ waste water treatment systems and related regulations in order to enhance the water improvement of the Peten Iza, and
- To improve the water quality for preventing from the deterioration of the water sources in Peten Itza Lake in order to conserve the natural tourism resources as well as the living conditions of the local peoples.

#### **c. Site and location**

The surrounding areas of Peten Itza Lake in the Peten Department

#### **d. Project components**

The following components shall be planned in the course of the Project:

Phase	Components
Phase I	Conduct water quality monitoring at representative sampling points in Peten Iza Lake
Phase II	Establish sewerage/waste water treatment systems and relating regulations
Phase III	Formulate a master plan for improving water and natural resources quality of Peten Iza Lake

**e. Costs**

Estimated direct cost for the Project will be US\$ 1,700,000. This cost includes water quality monitoring equipments, foreign and local consultants fee, and other management costs.

**f. Implementation schedule**

The Project will be commenced to implement from January 2003 to August 2005 (Total 20 months).

**g. Implementation setup**

**Responsible implementation body**

Peten Regional Office, Ministry of the Environment and Natural Resources (MARN)

**Supplementary implementation body**

Municipalities of Flores, San Jose, San Andres, and San Benito in the Peten Department

**Other stakeholders**

Other stakeholders of the Project will be Local Tourism Committee of El Peten, and international and local conservation NGOs, which conducts relating projects in the Project surrounding areas.

**(4) Planning Study of a Visitor Management System in Tikal National Park**

**a. Background and rationales**

The Tikal National Park is a World Heritage site, and is the primary tourism attraction in El Peten Department. With the anticipated growth of tourism in El Peten PTDA, a visitor management system will be needed to cope with the increase of visitor arrivals and to address the security issues in the archaeological park. In this context, a study is required to design a visitor management system for the Tikal National Park to minimize negative impacts on the archaeological site and the surrounding forest without sacrificing visitor satisfaction.

**b. Project objectives**

The followings are the objectives of the study:

- To reduce the hourly, weekly, and seasonal fluctuation of visitation,
- To regulate visitor's activities in the park.
- To protect the archaeological sites, the surrounding forests, and visitors.

**c. Site and location**

Tikal National Park in El Peten Department.

**d. Project components**

Following studies are proposed for the project.

- Study for the existing visitor arrivals and dynamics in the park
- Demand forecast of the park.
- Zoning study
- Study of carrying capacity of the park
- Visitor management plan
- Physical plan for required facilities

**e. Implementation setup**

**Responsible implementation body**

IDAEH (National Institute of Anthropology and History)

**Other stakeholders**

CONAP, INGUAT, AECL, and IDB

**(5) Sylvanus Archaeological Museum in Tikal**

Sylvanus Archaeological Museum is located in the Tikal National Park. It is recommended to improve the facility.

**4.4.4. Long-term Projects**

**(1) Peten Itza Resort Development Package (PIR)**

Converting the surroundings of Peten Itza Lake to an anchor resort destination is a long-term goal for El Peten PTDA, and the development of Community Tourism in San Jose and the beautification of Flores Island that are to be implemented in the short-term stage are part of the plan. *There are many possibilities to create new tourism attractions along the lake to cater for resort tourists as well as archaeological tourists.*

**a. PIR-1: Circumferential road improvement around Lago Peten Itza**

Northern part of the circumferential road around the lake is not paved. *It is necessary to improve the circumferential road connecting the communities along the north shore of the lake.*

**b. PIR-2: Development of handicrafts showcase**

Redevelopment of a souvenir complex in El Cruce as a handicrafts showcase is recommended due to its advantage in location that is on the way to Tikal.

**c. PIR-3: Development of Tayasal archaeological site**

Tayasal is a less known archaeological site with a superb view of the lake. A further excavation and renovation is required together with boat pier at landing point and landscaping works.

**d. PIR-4: Convention center**

This facility is built to attract MICE since there is no convention facility other than conference rooms in some hotels. There may be opportunities to invite conventions and conferences of archaeology, ornithology, and other natural-related themes.

**e. PIR-5: Peten Itza cruise boat piers**

It is recommended to promote the use of boats for visiting tourism attractinos around the lake. It should be developed not only as an alternative to land transport, but also as tourism products such as "Cruise around the Lake with Lunch" and "Star Watching Boat Tours."

**f. PIR-6: Petencito**

The existing Zoological Park of Petencito operated by the University of San Carlos needs to improve the facilities with the following measures:

- To improve observation facilities of animals,
- To improve paved passages,
- To make new attractions for example, trained animal shows, animal petting areas, and
- To install signs and interpretation boards at least in Spanish, English, and Itza

**g. PIR-7: Cerro Cahui National Park**

Cerro Cahui National Park is located on the north shore of the lake. There are trekking trails, a couple of small ruins and two thatched observation facilities on the hill overlooking the lake. The biotope is currently well maintained, and there is little need to add or improve the existing facilities.

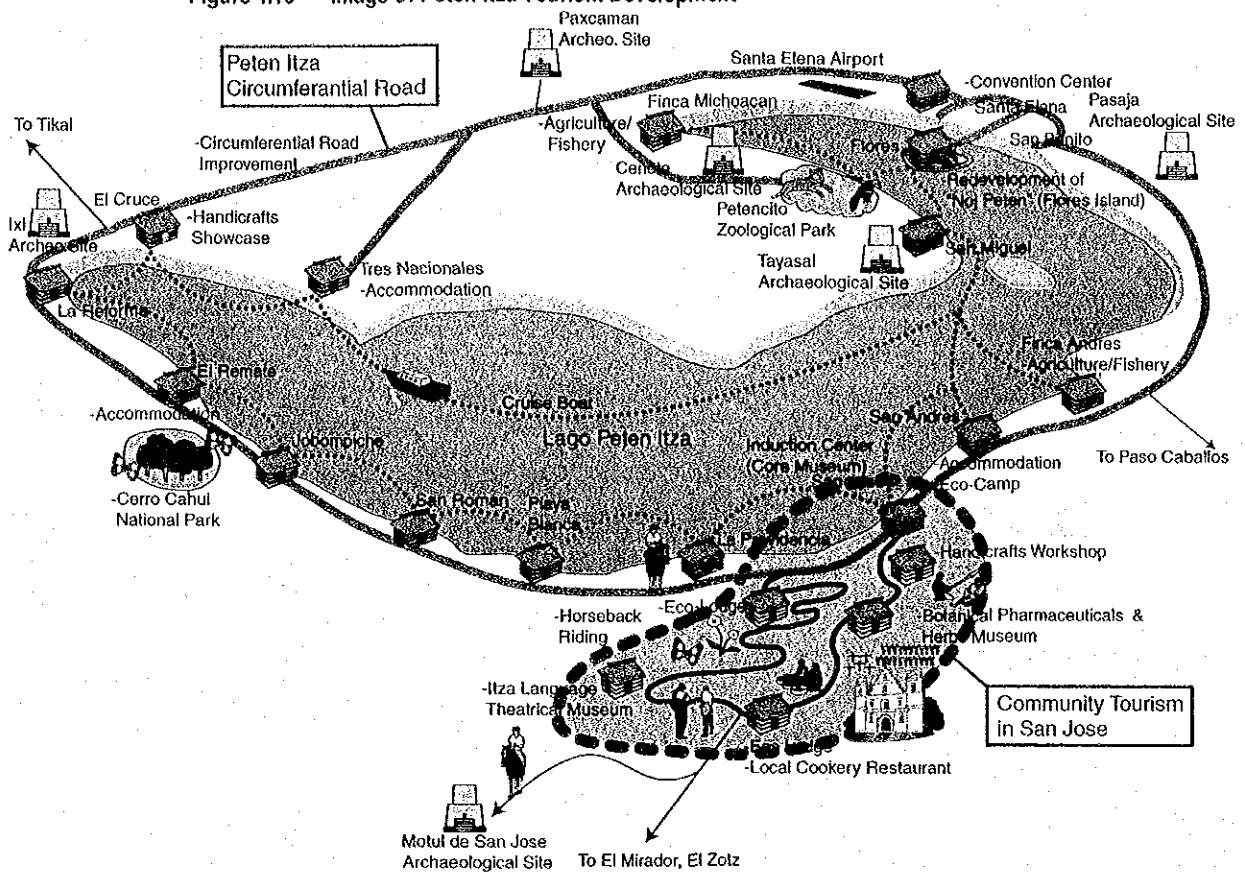
**h. PIR-8: Accommodation**

Peten has 122 hotels (Year 2000) with 1,921 rooms in total. If "not recommendable hotels," according to INGUAT, are excluded, the number of hotels is 49 with 890 rooms and 2,280 beds in total. It is estimated that the number of tourists will increase 1.7 times by 2010, and 2.7 times by 2020 ("with" case, estimated by the JICA Study Team). Therefore, additional hotel rooms are needed.

With the development of lakeside resort accommodations, tourism in the PTDA is expected to evolve from the "short-stay no repeat" type, typical of which is archaeological tourism, to the "long-stay repeat visit" type of resort destination. Fortunately, sufficient lands for constructing new accommodation are available around the lake.

Construction of accommodation is basically the role of the private sector. Therefore the public sector should support and promote the private sector investment. It is recommended to build low to middle scale hotels near communities around the lake in such manners to harmonize with the environment.

Figure 4.10 Image of Peten Itza Tourism Development



Source: JICA Study Team

**(2) Diversification of archaeological tourism**

There are important archaeological sites that are ranked “B,” which needs tourism improvement other than those included in the short-term-projects.

**a. El Mirador**

Mirador is close to the border with Mexico, and due to its remote location, transit accommodation is required. Security is a constraint at present, and the possibility of constructing access roads need further discussion since the archaeological site is located in the Mayan Biosphere Reserve and the Sierra de Lacandon National Park. The development, if there is any, should be kept minimal target at soft adventure and special interest tourism.

**b. El Naranjo**

It is recommended to develop an access road (approx, 15km, gravel pavement), and a road that connects El Naranjo, Yaxha, and Nakum (approx. 15km, gravel pavement) to formulate a triangle of the 3 archaeological sites.

**c. Dos Pilas**

It is recommended to improve tourism facilities at the archaeological sites of Dos Pilas, which would include the improvement of the boat pier, access roads, other visitor facilities and park landscape.

**d. El Peru**

It is recommended to improve an access road from San Benito to Paso Caballos (approx. 55km, gravel pavement), the boat pier on the San Pedro River at Paso Caballos and El Peru, another road from El Peru to the archaeological site (approx. 3km, gravel pavement). Improvement of visitor facilities and park landscape is also required.

**e. El Zotz**

This archaeological site is located in the Biotopo El Zotz – San Miguel – La Pelotada beside of Tikal National Park. It is recommended to improve an access road from San Miguel to the site (approx. 25km, gravel pavement) together with visitor facilities and park landscaping are also required.

**(3) Development of the east – west tourism corridor**

It is recommendable to improve the road between Melchor de Mencos, which borders on Belize, and Coop Bethel, which borders on Mexco across the Usmacinta River. With this development, an international tourism circuit that connects Cancun, Merida, Campeche, and Palenque (Mexco), Flores/ Tikal, and Belize is established. The tourism circuit is expected not only to visitors from neighboring countries but also to generate a synergy to increase the visitor in the Mundo Maya as a whole.

The development includes pavement of unpaved sections between Flores and Melchor de Mencos, and the sections between La Libertad, Sayaxche, and Bethel.

**(4) Development of the north-south tourism corridor**

*Antigua- Coban- Flores tourism corridor, which will be new north-south axis of Guatemala, is important in that it is expected to bring visitors from the Guatemalan Highlands to El Peten by surface transport. The Tourism Corridor is also important for Las Verapaces PTDA, which is expected to be a stopover for visitors who make overland trips from the Highlands to Peten Lowlands.*

Unpaved section of the Tourism Corridor is between Chisec, which is located to the north of Coban, and Sayaxche. MICIVI is paving the section, which is scheduled to complete by 2002. After completion of the construction works, the road is to be upgraded to the Central American Highway 14.

Ferry is used at Sayaxche to cross the Pasion River, and it is planned to build a bridge to facilitate the traffic between Coban and Flores. Local government and tourism committee in Sayaxche is also demanding the construction of the bridge. It is, however, noted that the planned bridge support diverse economic activities than tourism, and the economic benefit from tourism is not large enough to justify the construction costs.

**(5) Improvement of Community Tourism**

Community Tourism is expected to develop reflecting the dynamism of the target community. Therefore, there is no completed form of Community Tourism. The followings should be implemented in the long-term.

- Review and renewal of existing facilities to maintain the quality of services,
- Development of new facilities and attractions, and
- Training of personnel to inherit traditions and culture.

**(6) Branch access road**

It is necessary to develop access roads to strengthen the tourism network in El Peten to increase variations of tour itineraries. Possible road sections are those from Poputum to Machaquila Reserve, from Uaxactun to Mirrador – Dos Lagunas – Rio Azul National Park.

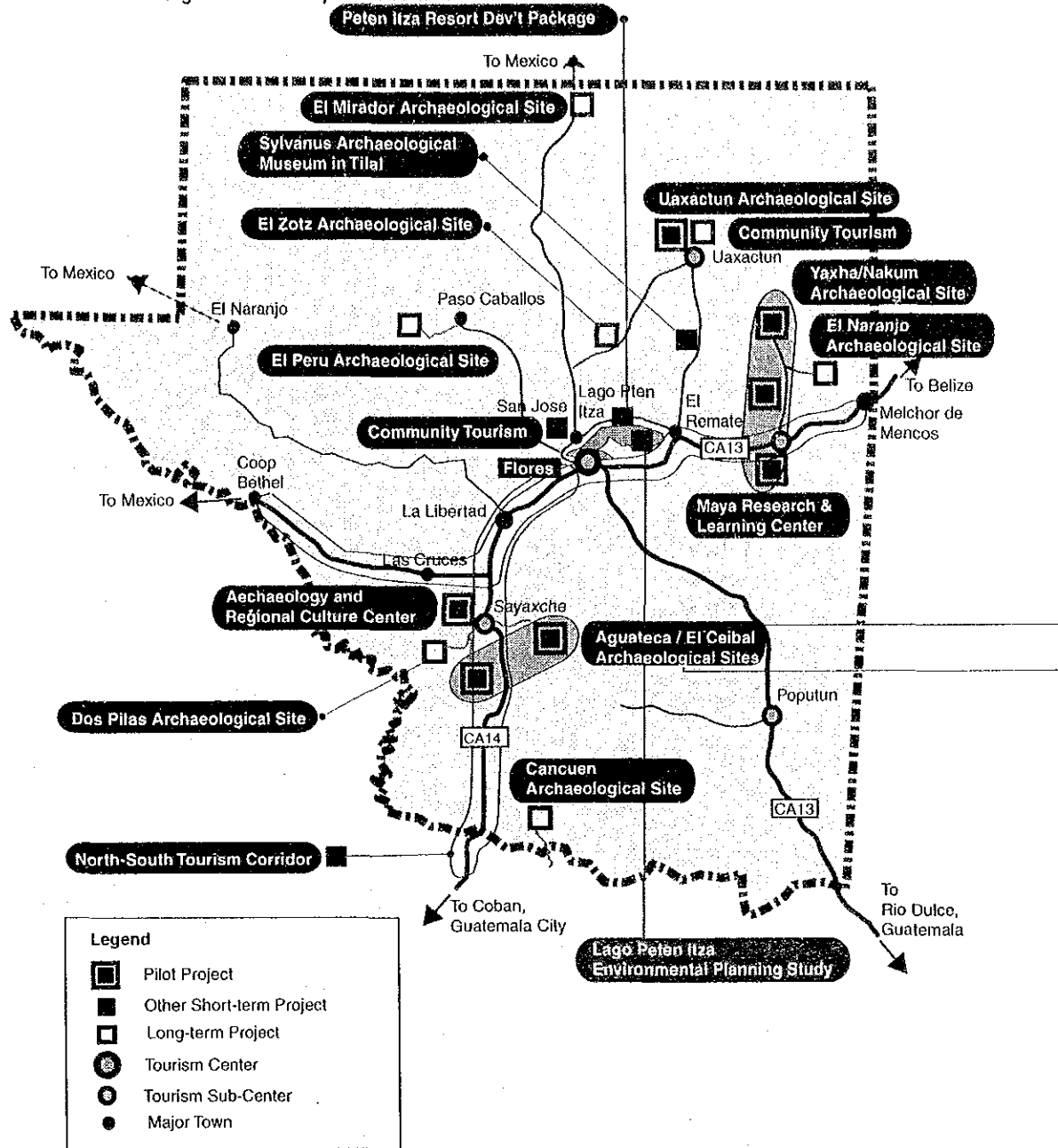
**(7) Tourism attraction in tropical rainforest, wetlands and river**

The wetland in the western part of Peten, which is the largest in the Central America, abounds in attractive places for nature lovers. These people, in particular birdwatchers, include a large number of aged people who would require quality accommodations. Therefore, tourist stations (accommodation, guide offices, security stations) should be built to care for the high-spending market segment. Candidate sites are the areas between Paso Caballos and Naranjo that is close to the Mexican border, and the other is the Petexbatun Lake and its surrounding wetlands.

Demanding for rafting is increasing as adventure and sports tourism are becoming popular worldwide. Mopan River close to Melchor de Mencos is a potential site, and safety management of rafting and necessary facilities should be developed and reinforced.



Figure 4.11 Project location of El Peten PTDA



#### 4.5. Construction Cost

Total direct construction cost for the pilot projects is US\$ 14.0 million. Breakdown of the cost is summarized in Table 4.23.

**Table 4.23 Construction cost for pilot project of El Peten PTDA**

No.	Pilot projects and components	Cost (US\$1,000)	Remarks
	Total of El Peten PTDA	14,043	
PSP-01	Tourism Improvement of Uaxactun Archaeological Site		
	a. Access road	3,600	ROW=12m, Gravel pavement
	b. Electricity power supply	1,320	Including community
	c. Visitor center building	60	Single story, timber structure
	d. Landscaping, parking	20	Surrounding of the building and parking
	e. Utilities	8	Septic tank and well water
	f. Equipment	6	For the building
	g. Sign & information boards	16	Sign system in the site
	Construction cost total	5,030	
PSP-02	Tourism Improvement of Yaxha and Nakum Archaeological Site		
	a. Access road	2,700	ROW=12m, Gravel pavement
	b. Electricity power supply	720	From the CA13
	c. Visitor Center Building	100	Single story, timber structure
	d. Information center	50	Single story, timber structure
	e. Landscaping, Parking	12	Surrounding of the buildings and parking
	f. Utilities	8	Septic tank and well water
	g. Equipment	6	For the buildings
	h. Sign & information boards	8	Sign system in the sites
	Construction cost total	3,604	
PSP-03	Development of Maya Research and Learning Center		
	a. Regional center building	1,200	2 stories, reinforced concrete structure
	b. Landscaping, parking	168	Surrounding of the building and parking
	c. Utilities	40	Septic tank, piped water
	d. Equipment	240	For the buildings
	e. Special equipment	200	For laboratory, library, etc.
	Construction cost total	1,848	
PSP-04	1) Tourism Improvement of Aguateca and El Ceibal Archaeological Site and Field Museum		
	a. Access pathway	80	Asphalt pavement
	b. Site museum building	80	Single story, timber structure
	c. Site museum	200	Displaying replica of treasure
	d. Visitor center	75	Single story, timber structure
	e. Landscaping, parking	40	Surrounding of the buildings and parking
	f. Utilities	18	Septic tank, well water, generator
	g. Equipment	14	For the building
	h. Sign & information boards	13	Sign system in the site
	Construction cost total	520	
	2) Development of Pasion River Cruise Facilities		
	a. Boat piers	400	3 locations (Sayaxché, Aguateca, El Ceibal)
	b. Mooring facilities	1,000	Both side
	c. Terminal buildings	75	Single story, timber structure
	d. Souvenir shops	15	Single story, timber structure
	e. Equipment	10	For the buildings
	f. Toilet	40	Timber and concrete block structure
	g. Utilities	16	Septic tank
	h. Landscaping, parking	240	Surrounding of the buildings and parking
	i. Site preparation	300	Within riverbank (public area)
	Construction cost total	2,096	
PSP-05	Construction of Archaeology and Regional Culture Center		
	a. Exhibition building	800	2 stories, reinforced concrete structure
	b. Landscaping, parking	60	Surrounding of the building and parking
	c. Utilities	5	Septic tank, piped water
	d. Equipment	80	For the building
	Construction cost total	945	

Note: a) Official tax is not included.  
b) Price escalation, contingency, engineering and approval costs, and inflation are not included.

Source: JICA Study Team

Total direct construction cost for other short-term projects is US\$19.1 million. Breakdown of the costs is summarized in Table 4.24.

Table 4.24 Construction cost of other short-term project in El Peten PTDA

No.	Short-term projects and components	Cost (US\$1,000)	Remarks
Total of other short-term projects		19,064	
PSN-01a	Development of Induction Center		
	a. Center Facility	20	Renovation of existing kiosk building, 2 stories, concrete structure
	b. Utilities	5	Septic tank, piped water, elect.
	c. Toilet	20	50m <sup>2</sup> , concrete block, timber roof
	d. Equipment	4	For the building, Audio visual information system
	Construction cost total	49	
PSN-01b	Community Tourism Satellite-1: Itza Maya Culture Museum		
	a. Exhibition building	75	150m <sup>2</sup> , single story, timber structure, land 300m <sup>2</sup>
	b. Utilities	5	Septic tank, piped water, elect.
	c. Equipment	8	For the building
	d. Landscaping and car parking	6	
	Construction cost total	94	
PSN-01c	Community Tourism Satellite-2: Itza Maya Language Inferior Museum		
	a. Interpretation center building	100	200m <sup>2</sup> , single story, timber structure, land 500m <sup>2</sup>
	b. Utilities	5	Septic tank, piped water, elect.
	c. Equipment	10	For the building
	d. Landscaping and car parking	12	
	Construction cost total	127	
PSN-01d	Community Tourism Satellite-3: Botanical Pharmaceuticals and Herbs Museum		
	a. Interpretation center building	75	150m <sup>2</sup> , single story, timber structure, land 1ha + 2ha for herbs fields with trails
	b. Herbs fields	40	With interpretative trails
	c. Landscaping	4	With car parking
	d. Utilities	5	Septic tank, piped water, elect.
	e. Equipment	8	For the building
	Construction cost total	132	
PSN-01e	Community Tourism Satellite-4: Horseback Riding Center		
	a. Stable building	20	100m <sup>2</sup> , single story, timber structure
	b. Toilets and shelter	18	50m <sup>2</sup> , timber structure
	c. Land clearance and horse trails	50	Land 2,000m <sup>2</sup> , horse trail
	d. Utilities	5	Septic tank, piped water, elect.
	e. Equipment	10	For the building
	Construction cost total	103	
PSN-01f	Community Tourism Satellite-5: Handcrafts Showcase		
	a. Workshop and sale building x 2	100	100m <sup>2</sup> each (total 200m <sup>2</sup> ), single story, timber structure, land 400m <sup>2</sup> , horse trail
	b. Landscaping	8	With car parking
	c. Utilities	10	Septic tank, piped water, elect.
	d. Equipment	10	For the building
	Construction cost total	128	
PSN-01g	Community Tourism Satellite-6: Local Cookery Restaurant and Café in the Park		
	a. Restaurant building	75	100m <sup>2</sup> (50 seats), single story, timber structure, land 500m <sup>2</sup>
	b. Utilities	5	Septic tank, piped water, elect.
	c. Equipment	15	For the building
	d. Landscaping	14	With car parking
	Construction cost total	110	
PSN-01h	Community Tourism Satellite-7: Development of Interpretative Trail		
	a. Walking trails	60	ROW=1.5-3m, 3km
	b. Information and sign boards	25	
	c. Resting huts and toilets	32	3 places, 30m <sup>2</sup> each
	d. Utilities	15	Septic tank, piped water, elect.
	Construction cost total	132	
PSN-01i	Community Tourism Satellite-8: Accommodation Development		
	a. Hotel: middle class	2,000	50 rooms
	b. Hotel: low class	2,000	100 rooms
	Construction cost total	4,000	
PSN-01j	Community Tourism Comet: Archaeological Site of Motul de San Jose		
	a. Access road	720	ROW=12, Asphalt pavement w=6m,
	b. Parking lots	14	300m <sup>2</sup>
	c. Passage and landscaping	12	
	d. Resting huts and toilets	21	Building 30m <sup>2</sup> x 2, timber structure
	e. Utilities	5	Septic tank, piped water, elect.
	Construction cost total	772	
	Total of Community Tourism	5,647	
PSN-02	Beautification of Noj Peten		
	a. Improvement of roof materials	150	Tin roof to ceramic roof tile
	b. Sign and information	10	
	c. Improvement of pavements	125	Stone pavement w=5m x 500m
	d. Landscaping and car parking	200	
	e. Street lighting	20	200 units
	f. Enthusiasts tour market	75	Building 150m <sup>2</sup>
	g. Utilities	50	Septic tank, piped water, elect.
	h. Equipment	15	For the building
	Construction cost total	645	
PSN-03	Peten Itza Environmental Improvement Study		
	a. Planning study	700	1 year period
	b. Monitoring survey	850	For lako water, flora and fauna
	c. Laboratory check	100	
	d. Reporting	30	
	e. Seminar	20	
	Study cost total	1,700	
PSN-04	Planning Study of a Visitor Management System in Tikal National Park		
	Total	200	Zoning control, access and circulation control, and administrative control
PSN-05	Improvement of Sylvanus Archaeological Museum in Tikal		
	a. Building works	120	Improvement of building structure, re-painting
	b. Utilities	10	
	c. Equipment	12	
	d. Landscaping and car parking	80	
	e. Exhibition materials	50	
	Improvement cost total	272	
PSN-Add	Accommodation development		
	a. Hotel: middle class	8,000	200 rooms
	b. Hotel: low class	2,600	130 rooms
	Construction cost total	10,600	

Note: a) Official taxes and development permission costs are not included  
b) Price escalation and inflation are not included

Source: JICA Study Team