

5. The Tumbes – Piura Tourism Corridor Development Plan

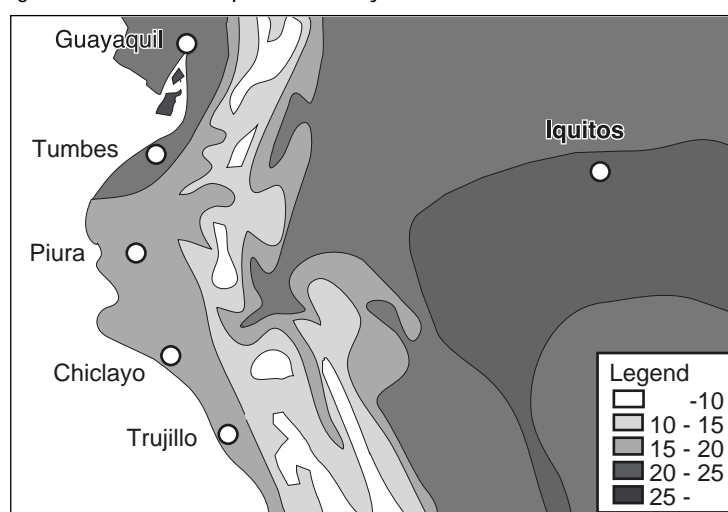
5.1. Regional Context

5.1.1. Geographic overview

The Tumbes - Piura Tourism Corridor is located in the northeastern corner of Peru bordering on Ecuador. The distance between Lima and Tumbes is some 1000km. It is defined as an area covering the coastal provinces of the Tumbes and Piura Departments. Tumbes and Piura are the capital cities of the Departments with the same names.

The Tourism Corridor's climate is from arid to semi-arid. Tumbes has more precipitation than Piura. The Humboldt Current is less influential, in particular in the Tumbes Department, compared with other Peruvian coastal cities. The temperature is from temperate to subtropical. Like other Peruvian coastal areas, temperature is the highest in the “summer” months from January to March, and the lowest from June to September. As shown in Figure 5.1, Seasonal fluctuation of temperature becomes less significant in the Tumbes Department. Mangrove forests in Tumbes are a witness to a warm climate.

Figure 5.1 Temperature in July



Source: National Geographic and ESRI

5.1.2. Historical background

The Tumbes - Piura Tourism Corridor has been within the periphery of Peruvian Prehispanic Cultures; therefore there are several archaeological sites worth mentioning. However, the area's most significant characteristics is that it was the meeting place for the Incas and the Spaniards.

Francisco Pizarro first encountered the Incas during his expedition in 1532 near present-day Hermosa Beach in Tumbes, which led to his campaign to Cajamarca. San Miguel de Tangarara is the first city built by the Spaniards in 1532, which later moved to Piura la Vieja (Matanza District - Morropon Province). In 1588, Piura was founded at the current place with the name of San Miguel del Villar. San Lucas de Colan was the first Christian Church in South America built in the mid-16 century.

5.1.3. Socioeconomic Conditions

Tumbes Department has a total population of 183,609 in 1998, which ranks 22nd among the 24 Departments. Piura Department has a total population of 1,506,716 in 1998, and is the 2nd populous Department in Peru. Per capita GRDP of Tumbes is US\$1,415 in 1996, while that of Piura is US\$1619. They ranks the 14th and 12th, respectively.

Tourism is estimated to generate 16,000 employments in the Tumbes – Piura Tourism Corridor at present.

Table 5.1 Estimated tourism-related employment

	Tumbes	Piura
(1) Direct Employment in Hotel Sector	822	3,268
(2) Direct Employment Outside Hotel Sector (1) x 1.31	1,077	4,281
(3) Total Direct Employment (1) + (2)	1,899	7,549
(4) Indirect Employment (1) x 1.6	1,315	5,229
(5) Total Estimated Employment (3) + (4)	3,214	12,778

Source: JICA Study Team

5.1.4. Natural Environment

The Study Area has the following two major habitat types according to Dinerstein et. al. (1995).

- Tumbes/ Piura dry forests
- Sechura desert

There are 4 protected nature areas in the Tumbes – Piura Tourism Corridor:

- Cerros de Amotape National Park,
- Tumbes Reserve Zone, and
- El Angolo Hunting Site, and
- Tumbes Mangrove Sanctuary,

There is a proposal to create two marine protected areas in this Study Area (GTZ – INRENA 1996). One is off coast of Máncora and the other one is off coast from Península Illescas to Puerto Eten. A proposal to designate Estuario Virrilá as a new Ramsar site is in consideration by INRENA.

MITINCI designated four National Tourism Reserves in the Study Area:

- Tumbes/ Piura Coast Tourism Reserve Zone,
- El Angolo Tourism Reserve Zone,
- Cerros de Amotape Tourism Park Zone, and
- Los Ejidos Tourism Center Zone.

5.2. Tourism Conditions

5.2.1. Tourism Resources

Beaches in the Tumbes Department and northern part of the Piura Department are evaluated to be the most important tourism resources in the Tumbes – Piura Tourism Corridor due to its location less affected by the cold Humboldt Current.

Other tourism resources in Tumbes are Tumbes Mangrove National Sanctuary, Tumbes Reserve Zone, Cerros de Amotape National Park, and the Hervideros Hot Spring. Piura Department has Punta Balcones (the western end of the South America), Iglesia San Lucas (oldest church in the South America), and handicrafts in Chulucanas and Catacaos. Inexpensive shopping in the Peru-Ecuadorian Border area is important for domestic tourists. Table 5.2 shows the list of principal tourism resources in the Tumbes – Piura Tourism Corridor.

Table 5.2 Major tourism resources in the Tumbes – Piura Tourism Corridor

Dept.	Province	District	No	Ev	Name of the resources	Ctg	Era	Remarks
Tumbes	Tumbes	Tumbes	1	B	Casa Fejoo	HS	RP	Historical blg.
Tumbes	Tumbes	Tumbes	2	B	Mirador "El Hualtaco"	NA	-	Panorama
Tumbes	Tumbes	Corrales	3	A	Hermosa Beach	NA		Beach
Tumbes	Tumbes	Corrales	4	B	Conj. Arq. Cabeza de Vaca	HS	Ph	Arq. ruins
Tumbes	Tumbes	Tumbes	5	A	Pto. Pizarro y Maglares	NA	-	Mangrove tour
Tumbes	Tumbes	Zarumilla	6	B	La Cruz Beach	NA	-	Beach
Tumbes	Tumbes	Zarumilla	7	B	Tumbes Mangrove Sanctuary	NA	-	Mangrove
Tumbes	Cont. Villar	Zorritos	9	B	Hervideros Hot Spring	NA	-	Hot spring
Tumbes	Cont. Villar	Zorritos	10	A	Punta Sal Beach (Grande y Chico)	NA	-	Beaches
Piura	Piura	Catacaos	13	B	Simbila	CL	-	Pottery village
Piura	Piura	Catacaos	14	B	Shopping Street in Catacaos	MA	-	Shopping street
Piura	Piura	Catacaos	15	B	Fortaleza de Narihualá	HS	Ph	Arc. ruin
Piura	Sechura	Sechura	20	B	Virrilá Estuary	NA	-	Birds, canal
Piura	Sechura	Sechura	22	A	Nunura Beach	NA	-	Beach
Piura	Sechura	Sechura	23	B	Pta. Shode Beach	NA	-	Beach
Piura	Sechura	Vice	24	B	San Pedro Mangrove	NA	-	Mangrove, Birds
Piura	Morropón	Chulcanas	25	A	Chulcanas Ceramic Center	CL	-	Ceramic
Piura	Morropón	Chulcanas	26	A	La Encantada	CL	-	Ceramic
Piura	Paita	Paita	29	B	Yasila y los Cangrejos Beaches	NA	-	Beaches
Piura	Paita	Paita	30	A	Grande Beach	NA	-	Beach
Piura	Paita	Vichayai	31	B	Colán Beach	NA	-	Beach
Piura	Paita	Vichayai	32	A	Iglesia San Lucas de Colán	HS	-	Church
Piura	Talara	Negritos	33	B	Pta. Balcones	NA	-	Cape
Piura	Talara	Máncora	34	A	Máncora Beach	NA	-	Beach
Piura	Talara	El Alto	35	B	Cabo Blanco	NA	-	Beach, pier

Notes: 1) Evaluation: A=very important, B=important,
 2) Category: NA=Natural, HS=Historical, CL=Cultural, LF=Tribal village & lifestyle, MA=Man-made.
 3) Era: Ph = Prehispanic, Cl=Colonial, Rp=Republican,
 4) Huancabamba and Ayabaca Provinces are not included in the Study Area.

Source: JICA Study Team

5.2.2. Tourism Market

Visitor arrivals to Tumbes reached 60,018 in 1998, while those to Piura recorded 148,995 in the same year. In both departments, more than 90% of the visitor arrivals are from the

domestic market. International visitors account for 5% on the bed-night basis.

Tourism to Tumbes and Piura is mostly domestic. They arrive mainly for business purposes. A minor portion of the domestic visitors comes to Tumbes and Piura for holiday and relaxation on the beach. From the airport, they usually go directly to Punta Sal (in Tumbes Department) or Máncora (in Piura Department), and rarely stay in Tumbes and Piura cities. In the late 80's, a lot of people came to Tumbes to buy inexpensive articles; this is still an important purpose to visit Tumbes. There are some domestic visitors who arrive to Piura for "mystic" or "esoteric" tourism, since Piura city is the nearest place to "Huarinas" where shamans practice various rites favorable for different imaginary or real ailments in the Huancabamba mountains.

Table 5.3 Major tourism indices: Tumbes

Year		1992	1993	1994	1995	1996	1997	1998
Arrivals	Total	70,782	71,720	72,035	60,873	65,745	60,331	60,018
	Domestic	66,846	67,130	67,148	56,651	60,535	55,779	55,892
	International	3,936	4,590	4,887	4,222	5,210	4,552	4,126
Guest-nights	Total	114,630	117,918	112,842	99,648	109,871	98,316	88,508
	Domestic	108,302	111,682	105,110	93,611	100,770	91,312	81,856
	International	6,328	6,236	7,732	6,037	9,101	7,004	66,052
Average Length of Stay	Total	1.62	1.64	1.57	1.64	1.67	1.63	1.47
	Domestic	1.62	1.66	1.57	1.65	1.66	1.64	1.46
	International	1.61	1.36	1.58	1.43	1.75	1.54	1.61
Occupancy Rate		24.37%	26.03%	25.97%	23.43%	24.22%	22.60%	20.20%
Stock of Accommodations	Hotels	39	39	40	39	41	34	44
	Rooms	812	794	807	831	857	674	822
	Beds	1,623	1,544	1,583	1,618	1,624	1,261	1,473

Source: National statistics institute (INEI)

Table 5.4 Major tourism indices: Piura

Year		1992	1993	1994	1995	1996	1997	1998
Arrivals	Total	151,792	171,824	148,459	162,355	170,697	155,966	148,995
	Domestic	146,678	167,430	144,295	158,366	163,752	150,632	143,283
	International	5,114	4,394	4,164	3,989	6,945	5,334	5,712
Guest-nights	Total	234,509	260,030	231,708	249,322	266,908	262,980	225,486
	Domestic	228,227	253,611	225,873	242,892	255,847	248,942	215,426
	International	6,282	6,419	5,835	6,430	11,061	14,038	10,060
Average Length of Stay	Total	1.54	1.51	1.56	1.54	1.56	1.69	1.51
	Domestic	1.56	1.51	1.57	1.53	1.56	1.65	1.50
	International	1.23	1.46	1.40	1.61	1.59	2.63	1.76
Occupancy Rate		24.18%	25.79%	31.02%	31.40%	30.88%	31.40%	22.50%
Stock of Accommodations	Hotels	109	112	120	113	133	175	178
	Rooms	2,339	2,367	2,478	2,416	2,731	3,112	3,268
	Beds	4,146	4,226	4,362	4,269	4,640	5,027	5,222

Source: National statistics institute (INEI)

Ecuadorians living in the southern part of that country is an important source of international tourism to Tumbes. Beaches in the northern part of Ecuador are farther than Tumbes from some Ecuadorian cities such as Cuenca (4 hour by car) and Guayaquil (6 hours). Due to economic problems and the political uncertainty, Ecuadorian visitor arrivals has dropped sharply. The Ecuadorian market largely depends on the exchange rate of currencies.

Although small in number, the Tourism Corridor receives long-haul international tourists. They are youth tourists from countries like Brazil for surfing, backpackers who make an overland trip from Quito in Ecuador to Cusco, and nature tourists who visit Tumbes Reserve Zone and Cerros de Amotape National Park.

5.3. Considerations for Sustainable Tourism

The following considerations have to be paid to ensure sustainable development of the tourism sector.

(1) Natural environment

- Designs of infrastructure must be harmonized with their surrounding environments.
- Any trees and ornamental flowers planted around infrastructure should be native species.
- Trashes need to be carefully treated in and around buildings, along roads/ walking trails and rivers / creeks.
- The coastal cliffs of the northern part of this Study Area are prone to landslide especially after heavy rains. Careful considerations on designing buildings on the cliffs are necessary.
- Master plans must be respected in any tourism development in protected areas.
- San Pedro mangrove forest is the southern edge of the distribution of a mangrove species on the American Pacific coast, and thousands of seabirds were observed. Careful considerations need to be paid for any projects of the area.
- There is a clear seasonal difference, and the impacts on the ecosystems are also different. Appropriate management measures to meet the difference need to be required.
- Since it is very dry in the Study Area, prevention of bush fire has a high priority.
- It is strongly recommended not to fell mangrove trees in order to create routes for tours. Boat trips using existing creeks are recommended. Bird population should not be disturbed so often, which is the one of the major attractions of the mangrove forests, and it is necessary for the tour operators to have a “code of environmental ethics”.
- When an access road to a tourist attraction is planned, an existing road should be improved instead of constructing a new one.
- Extracting any wildlife and wild plants should be strictly prohibited.

(2) Cultural tourism resource

- The only archaeological sites in the Tourism Corridor that is recommendable for tourism use are Cabeza de Vaca, Narihuala, and Chusis.
- Some archaeological remains are found in La Encantada, at the place where the Ceramic Art Center is planned. It is necessary to conduct “rescue archaeology” and the things recovered could be exhibited in the Art Center to show the continuity with the actual ceramic makers.
- Adequate conservation measures should be introduced to historical/old buildings in cities in the Tourism Corridor.

(3) Social considerations/ local participation

- Sub-project Implementation Committees should be established for respective sub-projects included in the priority project. The committee should work as a catalyst for establishing Local Tourism Organizations.
- Participatory Tourism Support Program would be provided for communities that are interested in introducing tourism to conceive, plan, and implement community-based tourism plans. There would a strong demand for training for employment in the proposed resort development.
- Promotion of handicraft production and sales would be necessary to distribute tourism benefit to a wider range of people.
- In case of integrated beach resort development, development site should be planned in an agglomerated manner, and secure a certain space for local small businesses such as souvenirs shop, restaurants, and boat trip. In this sense, all-inclusive resort is not recommendable within the development site.

5.4. Tourism Development Strategy

The followings are the result of the SWOT (strengths, weaknesses, opportunities, and threats) analysis of the Trujillo - Chiclayo Tourism Corridor.

5.4.1. SWOT Analysis of the Tumbes – Piura Tourism Corridor

(1) Strengths

- Tumbes/ Piura beaches are the most competitive among the beaches in Peru due to its warm climate all year round.
- Tumbes/ Piura beaches have price competitiveness with Caribbean destinations for those live in Peru. They are easily accessible for Peruvians for it takes only 1.5 hour to fly from Lima and no visa nor passport is needed to go there.
- Natural disaster is rare compared with the Caribbean, and there is not significant off-season.
- There are opportunities for shopping inexpensive goods at the Ecuadorian border and famous handicrafts in Catacaos and Chulucanas.
- Peace treaty concluded between Peru and Ecuador would encourage tourism to the border area, in particular, those related to MICE.

(2) Weaknesses

- There is only a limited number of resort hotels in a real sense in the Tumbes – Piura Tourism Corridor. There is not a sufficient agglomeration of beach resort hotels that would generate a synergy effect.
- The beaches are not competitive enough to attract the long-haul international market unless they are combined with other tourism destinations like Galapagos, Amazon and archaeological sites in Northern Peru.
- Tourism products that would supplement beach resort tourism are scarce, and need development.

(3) Opportunities

- Beaches in the Tumbes Department and the northern part of Piura have good tourism potential to attract tourists from all over Peru and the southern part of Ecuador.
- Beaches in the Study Area may cater to the long-haul market if quality beach resorts hotels are built, and they are combined with archaeological tourism in Peru or nature tourism in Amazon and Galapagos.

(4) Threats

- Unless inexpensive beach resort packages are provided, beaches in the Study Area may lose in the market competition with the Caribbean.

5.4.2. Market Strategy

Market strategy has been established as follows based on the analysis of existing conditions and the SWOT analysis.

(1) Domestic market

- Whole country of Peru could be the target market. It is crucial to appeal to the domestic market that Tumbes/ Piura beaches are cheaper than the Caribbean, and less congested and more exclusive than beaches in Lima.
- Supplementary tourism products should be developed to cater to the needs of Peruvian resort tourists.
- The MICE (meeting, incentive, convention, and event) market should be strategically developed to stimulate tourism demand to the Tourism Corridor.

(2) International market

- The Ecuadorian market is the primary target for the international market. Ecuadorian cities in the southern part of the country such as Machala, Cuenca, and Guayaquil, for which Tumbes is one of the nearest beach destinations, are considered to be the most important.
- In the long-term perspective, the beaches would be combined with archaeological tourism in Peru or nature tourism in Galapagos and Amazon to be sold to the long-haul market.

5.4.3. Tourism Product Development Strategy

Based on the above-mentioned market strategy, the following directions for developing tourism products have been identified.

- A beach resort complex would be built at the Hermosa Beach close to the Tumbes Airport targeting primarily at affluent Peruvian and Ecuadorian tourists.
- In the long-term perspective, the complex should have a convention center to develop the MICE market.
- Supplementary tourism attractions within the one-day trip area from the beach complex need development/ improvement so that they would cater to the needs of the target market. They would include Mangrove cruise in Puerto Pizarro, shopping at the Ecuadorian border, mud bath in Hervideros, and hiking in a series of protected areas of the tropical dry forests.

- The principal tourism possibilities in the vicinity of the Piura City would be handicrafts in Chulucanas/ La Encantada and Catacaos.
- Another beach resort complex might be developed near Máncora in the long-term in case the first resort complex development turned out to be successful. The resort complex should target at more up-market clientele than the first tourism complex taking into account its location that is far from the airport.
- The “three extremes in South America” would be developed in the long-term. They are important, along with beaches in Máncora, from the viewpoint of Tourism Corridor formulation.

5.4.4. Spatial Development Strategy

The followings are priority issues for the development of spatial structure of the Tumbes - Piura Tourism Corridor.

- In the short-term, tourism development would be focused in and around the two tourism centers of Tumbes and Piura rather than formulating a tourism corridor.
- Punta Sal and Mancora beaches are designated as another tourism center. The tourism center and Punta Balcones would be developed in the long-term, which would promote visitor flows between the two tourism centers resulting in tourism corridor formulation.

Figure 5.2 shows the spatial development structure of the Tourism Corridor.

5.5. Tourism Demand Framework

Tourism development framework for the respective Tourism Corridors are set based on the national development framework that is proposed in the Phase 1 Study. The target number of visitor bed-nights in the Tumbes - Piura Tourism Corridor in 2005 is 4,319,000, of which 117,000 or 2.7% is occupied by international visitors. The target number of visitor bed-nights in 2015 is 6,719,000, of which 224,000 or 3.3% are by international visitors.

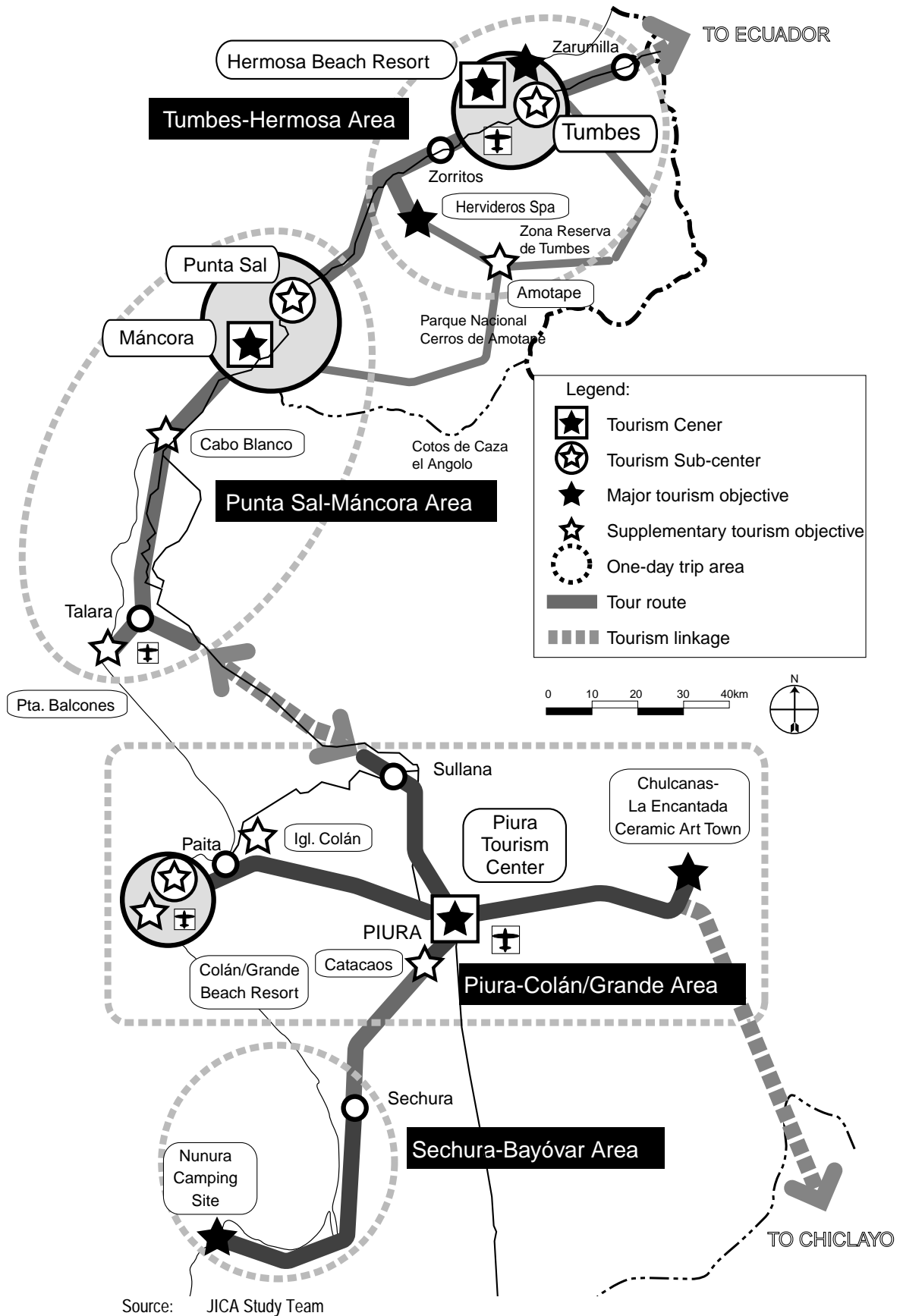
It is noted that the figures are on the estimation basis as has been discussed in the Chapter 2. Therefore, the figures in 1997 do not agree with the figures in the hotel statistics except the number of hotel rooms.

Table 5.5 Development framework for the Tumbes - Piura Tourism Corridor

	1997	2005	2015
Int'l arrivals	35,000	81,000	133,000
Domestic arrivals	748,000	2,767,000	4,320,000
Total arrivals	783,000	2,848,000	4,453,000
Int'l bednights	49,000	117,000	224,000
Domestic bednights	1,186,000	4,201,000	6,495,000
Total bednights	1,235,000	4,319,000	6,719,000
Available rooms	4,200	10,600	16,500

Source: JICA Study Team

Figure 5.2 Tourism spatial structure in the Tumbes - Piura Tourism Corridor



5.6. Projects and Programs

5.6.1. Project Evaluation

Existing projects and project ideas proposed by a broad range of organizations and individuals in the Study Area, and by JICA Study Team were evaluated based on the criteria as described in the Chapter 2, namely, conformity with the development strategy, urgency and impact, and project maturity. Each project was evaluated by calculating the total of points given in 3 grades to the respective evaluation criteria. Projects that are given more than 8 points are chosen as “priority sub-projects”

Taking into account the development risk, tourism development in the Tumbes Department should be centered on Hermosa Beach, which is evaluated to have the highest development potential due to its beautiful sandy beach and vacant large hinterland, and short distance from the Tumbes airport. Development of La Encantada is given a high score due to its immediate tourism opportunity and effects on social development.

Table 5.6 shows the result of project evaluation.

Table 5.6 Result of project evaluation in the Tumbes - Piura Tourism Corridor

No	Subproject	Department/ Province/ District	Strategy	Effects	Maturity	Total
Priority sub-projects						
1	Development of a Beach Resort Estate in Hermosa Beach	Tumbes/Tumbes/ Corrales, La Cluz	3	3	2	8
2	Mangrove tourism improvement in Puerto Pizarro	Tumbes/ Tumbes/ Tumbes	3	3	2	8
3	Improvement of Tumbes Airport	Tumbes/ Tumbes/ Tumbes	3	3	2	8
4	Community Development of La Encantada Ceramic Art Town	Piura/ Morropon/ Chulucanas	3	3	3	9
5	Sign System Program	Whole Tourism Corridor/ /	3	3	3	9
6	Participatory Tourism Support Program	Whole Tourism Corridor/ /	3	3	3	9
Long-term project						
1	Rehabilitation and tourism use of Cabeza de Vaca	Tumbes/ Tumbes/ Corrales	1	2	2	5
2	Road construction for Hermosa beach resort	Tumbes/ Tumbes/ Corrales	2	2	2	6
3	Improvement of access road and utilities at Caveza de Vaca	Tumbes/ Tumbes/ Corrales	1	2	2	5
4	Improvement of La Cruz beach (breakwater, sports facilities)	Tumbes/ Tumbes/ La Cruz	3	2	2	7
5	Breeding facility of crocodiles in the Esterola Chepa zone	Tumbes/ Tumbes/ La Cruz	2	2	2	6
6	Restoration and tourism use of "Casa Hacienda el Limon"	Tumbes/ Tumbes/ Pampas	2	2	2	6
7	Construction of basic infrastructure at Puerto Pizarro	Tumbes/ Tumbes/ Puerto Pizarro	2	2	2	6
8	Improvement of Puerto Pizarro	Tumbes/ Tumbes/ Puerto Pizarro	2	2	2	6
9	Rehabilitation and tourism use of Guineal	Tumbes/ Tumbes/ San Jacinto	1	2	2	5
10	Tumbes Regional Park Museum	Tumbes/ Tumbes/ Tumbes	2	2	3	7
11	Tourism promenade and breakwater of Tumbes	Tumbes/ Tumbes/ Tumbes	2	2	2	6
12	Restoration and tourism use of "Casona Feijoo"	Tumbes/ Tumbes/ Tumbes	2	2	2	6
13	Improvement of infrastructure for Tumbes city	Tumbes/ Tumbes/ Tumbes	2	1	2	5
14	Improvement for National Park of Amotape Mountains	Tumbes/ Tumbes-Contralmirante/	2	2	2	6
15	Zorritos tourism sea wall rehabilitation	Tumbes/ Contralmirante/ Zorritos	3	2	2	7
16	Improvement of Bocapan - Hervideros highway (for hot spring)	Tumbes/ Contralmirante/ Zorritos	3	2	2	7
17	Power supply for Puerto Pizarro and Zorritos beach	Tumbes/ Contralmirante/ Zorritos	2	2	2	6
18	La Tucilla watchtower lodge	Tumbes/ Contralmirante/ Zorritos	2	2	2	6
19	Improvement and tourism use of Hervideros Hot Springs	Tumbes/ Contralmirante/ Zorritos	3	2	2	7
20	Los Pelicanos tourism development	Tumbes/ Contralmirante/ Zorritos	2	2	2	6
21	Development of Florida beach resort	Tumbes/ Contralmirante/ Zorritos	3	2	2	7
22	Construction of paved highway (Bendo-Jeli Zar beach)	Tumbes/ Zarumilla/ Zarumilla	2	2	2	6
23	Rehabilitation of Bendito highway - ecological interpretation center of San Pablo	Tumbes/ Zarumilla/ Zarumilla	2	2	2	6

24	El Bendito tourism complex: beach and village	Tumbes/ Zarumilla/ Zarumilla	3	2	2	7
25	Improvement of infrastructure for Zarumilla city	Tumbes/ Zarumilla/ Zarumilla	2	1	2	5
26	Tourism development in Natural Reserve	Whole Tourism Corridor	2	2	2	6
27	Road improvement in protected natural areas	Whole Tourism Corridor	2	2	2	6
28	Construction of tourism information centers (7 sites)	Whole Tourism Corridor	2	2	2	6
29	Solid wastes plant in Piura and Castilla	Tumbes, Piura	2	2	2	6
30	Improvement and beautification of Catacaos handicrafts city	Piura/ Piura/ Catacaos	3	2	2	7
31	Improvement of access road to Huaca Narihuara	Piura/ Piura/ Catacaos	1	2	2	5
32	Tourism center In Los Ejidos	Piura/ Piura/ Piura	1	2	2	5
33	El Oasis Country Complex	Piura/ Piura/ Piura	2	2	2	6
34	Improvement of infrastructure for Piura city	Piura/ Piura/ Piura	1	2	2	5
35	Promotion of cultural circuit	Piura/ Piura, Sechura, Catacaos	3	2	2	7
36	Improvement of infrastructure for Sechura town	Piura/ Sechura/ Sechura	2	2	2	6
37	Access road construction to Mata Caballo beach	Piura/ Sechura/ Sechura	2	2	2	6
38	Construction of Nunura camping site	Piura/ Sechura/ Sechura	2	2	2	6
39	Study of ecology and tourism in Sechura area	Piura/ Sechura/ Sechura	3	2	2	7
40	Coastal highway Paita - Sechura	Piura/ Sechura/ (Several)	2	2	2	6
41	Access road & sign system improvement for Sechura beaches	Piura/ Sechura/ (Several)	3	2	2	7
42	Narihuara archeological site: organization and operation	Piura/ Sechura/ Catacaos	2	2	2	6
43	Chusis : recovery and tourism use of the archeological zone	Piura/ Sechura/ Sechura	1	2	2	5
44	Improvement of life and health quality including water supply	Piura/ Sechura/ Sechura	1	1	2	4
45	Improvement of the health condition	Piura/ Sechura/ Sechura	1	1	2	4
46	Improvement of the basic health condition and attendance	Piura/ Sechura/ Sechura	1	1	2	4
47	Potable water supply for Sechura city	Piura/ Sechura/ Sechura	1	1	2	4
48	Restration of San Martin Church	Piura/ Sechura/ Sechura	1	1	2	4
49	Chusis: Site Museum	Piura/ Sechura/ Sechura	2	2	2	6
50	Construction of camp site in Virrila	Piura/ Sechura/ Sechura	2	2	2	6
51	Mangroves of San Pedro in the Vice district	Piura/ Sechura/ Vice	2	2	2	6
52	Potable water supply for the Vice district	Piura/ Sechura/ Vice	1	2	2	5
53	Incorporation of San Pedro Mangroves Reserve	Piura/ Sechura/ Vice	3	2	2	7
54	Construction of Sullana-Querecotillo-Lancones-El Alamo Road	Piura/ Sullana/ (Several)	1	1	2	4
55	Improvement of access road from Sullana to Sauce Grande	Piura/ Sullana/ Marcavelica	1	1	2	4
56	Improvement of infrastructure for Sullana town	Piura/ Sullana/ Sullana	1	1	2	4
57	Improvement of infrastructure at Cabo Blanco beach	Piura/ Talara/ El Alto	3	2	1	6
58	Construction of access road (La Brea-Punta Balconas)	Piura/ Talara/ La Brea	3	2	2	7
59	Most End of South America Park (Punta Barconas)	Piura/ Talara/ La Brea (Negritos)	3	2	2	7
60	Construction of access road (Panamericana-Lobitos)	Piura/ Talara/ Lobitos	3	2	2	7
61	Construction of visitor center in the Forest Reserve	Piura/ Talara/ Los Organos	2	2	2	6
62	Improvement of potable water supply for Mancora town	Piura/ Talara/ Mancora	3	2	2	7
63	Improvement of Mancora beach and town (Part of No.47)	Piura/ Talara/ Mancora	3	2	2	7
64	Improvement of infrastructure for Talara city (Parinas)	Piura/ Talara/ Parinas	1	1	2	4
65	Extension of potable water reservoir for Colan beach	Piura/ Paita/ Colan	3	2	2	7
66	Access road construction to Colan Beach (San Lucas)	Piura/ Paita/ Colan	3	1	2	6
67	Site improvement of Iglesia San Lucas de Colan	Piura/ Paita/ Colan	3	2	2	7
68	Improvement of infrastructure for Paita city	Piura/ Paita/ Paita	1	2	2	5
69	Access road improvement to Punta Yasila beach	Piura/ Paita/ Paita	3	2	2	7
70	Access road construction to Los Cangrejos beach	Piura/ Paita/ Paita	3	2	2	7
71	Development of beach resort estate in Playa Grande	Piura/ Paita/ Paita	3	2	2	7

Source: JICA Study Team

5.6.2. Priority Project

The Tumbes - Piura Tourism Corridor Development Plan is a priority project for the Master Plan Study, which is to be implemented by year 2005. A total of 6 sub-projects

are chosen for the priority project. The following section outlines the respective priority sub-projects, and the Volume 3 of this report discusses the sub-projects in details.

(1) Development of a Beach Resort Estate in Hermosa Beach

a. Outline of sub-projects

Hermosa Beach Resort Development is a pilot project for introducing an integrated resort tourism development. Since this is a first attempt of this type of tourism development in Peru, and needs a large amount of investment, intervention of the public sector is required. Although domestic visitors are the principal target for the beach resort complex, the Ecuadorian market is considered also important due to the peace pact recently concluded between the two countries. In the long-term, visitors from the long-haul market may be attracted by combining the beach complex with archaeological tourism in Peru, Amazon, and Galapagos in Ecuador.

Development should be in an agglomerated manner in order to reduce the development cost of infrastructure, to provide opportunities for local small businesses, and to generate synergy effects from the agglomeration.

Components of the projects are as follows:

- Beach resort estate: 10 hotel lots for middle to high-class accommodations, and 4 lots for the low category.
- Tourism park: space spared for local small businesses such as sports center, shopping arcade, and food court.
- Utility services: water supply, sewerage, electricity, access road

b. Sub-project Implementation

Responsible implementation body

Development of the resort estate including internal roads with a utility service network assumes the establishment of the Northern Tourism Development Authority (NTRDA), or an organization or committee that has the same function as NTRDA. The implementation body would develop the land, specify construction guidelines, and sell it to the private sector by lot with contract including an article to keep the guidelines.

Otherwise, the subproject would be implemented by the private sector.

Supplementary implementation body

Infrastructure outside the beach resort estate would be developed, operated and maintained by the following entities:

- CTAR - Tumbes would construct the access road.
- The EMPAFA TUMBES would provide water supply and sewerage networks.
- The Electronoriente would prepare electricity.

Other stakeholders

The private sector, local people in and around the project site, MITINCI

c. Local Participation

- Sub-project Implementation Committee should be organized comprised of members from the above-mentioned entities and stakeholder. The committee is tasked to coordinate among different entities, and to incorporate local opinions to the beach resort estate development.

Figure 5.3 Development Plan of Hermosa Beach Resort Complex



Source: JICA Study Team

- Sub-project Implementation Committee would be transformed to the Hermosa Beach

Tourism Organization that aims at tourism destination management and tourism promotion.

- Participatory Tourism Support Program should provide workshops, and seminars to support the establishment of the Local Tourism Organization.
- Agglomerated development is intended to secure space for local small businesses. The resort estate should be designed attract not only tourists but also local people to enjoy the resort ambience.

(2) Mangrove Tourism Improvement in Puerto Pizarro

a. Outline of sub-project

This sub-project aims at improving an access road to Puerto Pizarro, which is the port for the Mangrove Cruise in Tumbes. The cruise is operated by a local cooperative of small-scale fishermen, and the improvement would contribute to their livelihood.

b. Sub-project implementation

Responsible implementation body

CTAR - Tumbes would implement the project, and undertake its operation and maintenance.

Other stakeholders

Tumbes Province, ProNaturaleza, Boatmen's cooperative, MITINCI

c. Local participation

- Mangrove cruise is already introduced in Puerto Pizarro organizing a cooperative of boatmen.
- Participatory Tourism Support Program would be used to provide boatmen with more detailed environmental knowledge and market feedback so that they would act as "ecotourism guide."
- It is worth a consideration to introduce "special cruise" to the estuary near the Ecuadorian border that is famous for tall mangrove trees. It would increase boatmen's profit and a variety of the tourism product.

(3) Improvement of the Tumbes Airport

a. Outline of the sub-project

This sub-project improves the facilities of the Tumbes Airport to cope with an expected increase of visitor arrivals due to the proposed beach resort complex development and the peace pact with Ecuador. The project complies with the concept of the Bi-national Plan for Development of the Border Region of Peru and Ecuador in accordance with the new context of peace. Components of the sub-projects are the followings.

- Construction of a new terminal building, and
- Improvement of access road, parking and landscaping.

b. Sub-project Implementation

Responsible implementation body

The CORPAC (Peruvian Corporation of Airports and Commercial Aviation) would implement the project and undertake its operation and maintenance.

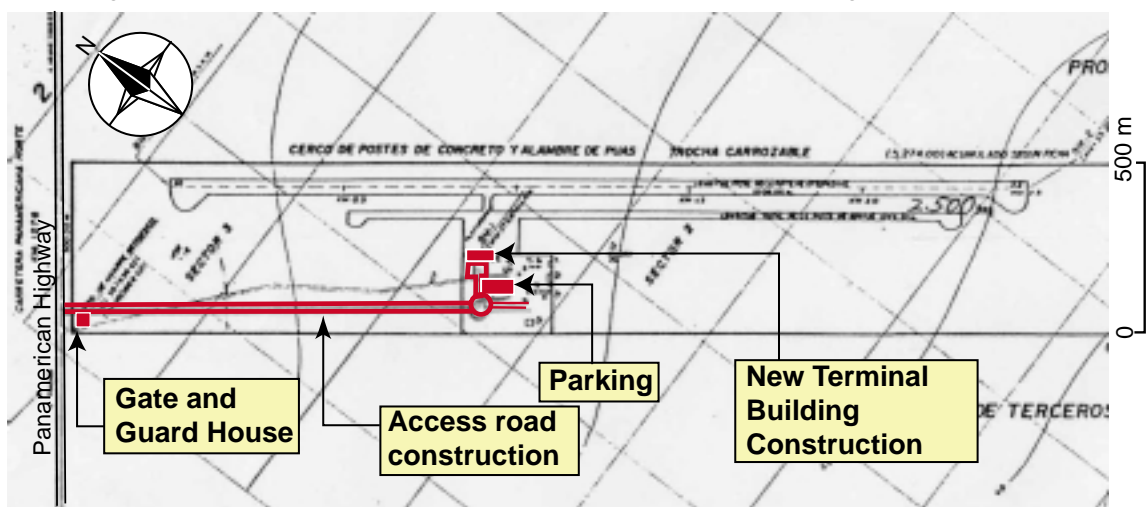
Other stakeholders

MITINCI

c. Local Participaiton

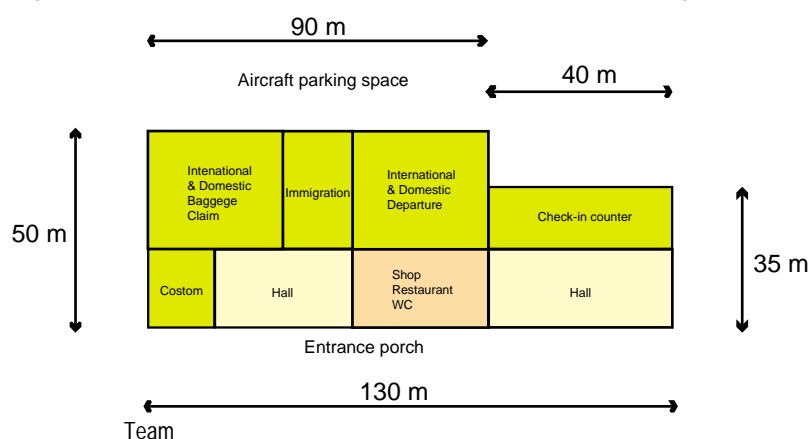
It is proposed for MITINCI to build a shop that displays handicraft in the Tumbes – Piura Tourism Corridor.

Figure 5.4 Improvement of the Access Road and Terminal Building



Source: JICA Study Team

Figure 5.5 Plan of the New International Terminal Building



Source: JICA Study

(4) Improvement of Chulucanas - La Encantada Ceramic Town

a. Outline of the sub-project

La Encatada community, which is famous for being a birthplace of the Chulucanas pottery and with a rustic ambience that may be attractive to tourists, lacks in basic

infrastructure such as paved road, electricity, and water supply. Many of the craftsmen are suffering from poverty deriving from the lack of utility services. This sub-project aims at developing La Encantada community with focuses on tourism and handicraft production. It is proposed to build an art center, which displays master pieces of the Chulucans pottery of the Max Inga School, as the tourism core of the community. Development of basic infrastructure is indispensable for the community as well as to operate the art center. Components of the sub-project are as follows:

- Ceramic Art Center: The functions of an art center are: 1) to integrate the production and sale of handicrafts, 2) to strengthen craftsmanship and upgrade quality, 3) to promote sales for merchants, 4) to carry out research and promote a systematic record system which would produce feedback to keep reliability of products, and 5) to put handicrafts on display for tourists and visitors.
- Construction/ improvement of infrastructures: road landscaping and facade improvement, access road improvement, utility services, water supply, sewerage, electricity.

b. Sub-project Implementation

Responsible implementation body

CTAR – Piura would build the ceramic art center, the access road, and road-side landscaping within La Encantada community, and undertake their operation and maintenance.

Supplementary implementation body

EPS GRAU build water supply and sewerage. The Electro Noroeste SA provides electricity lines and facilities.

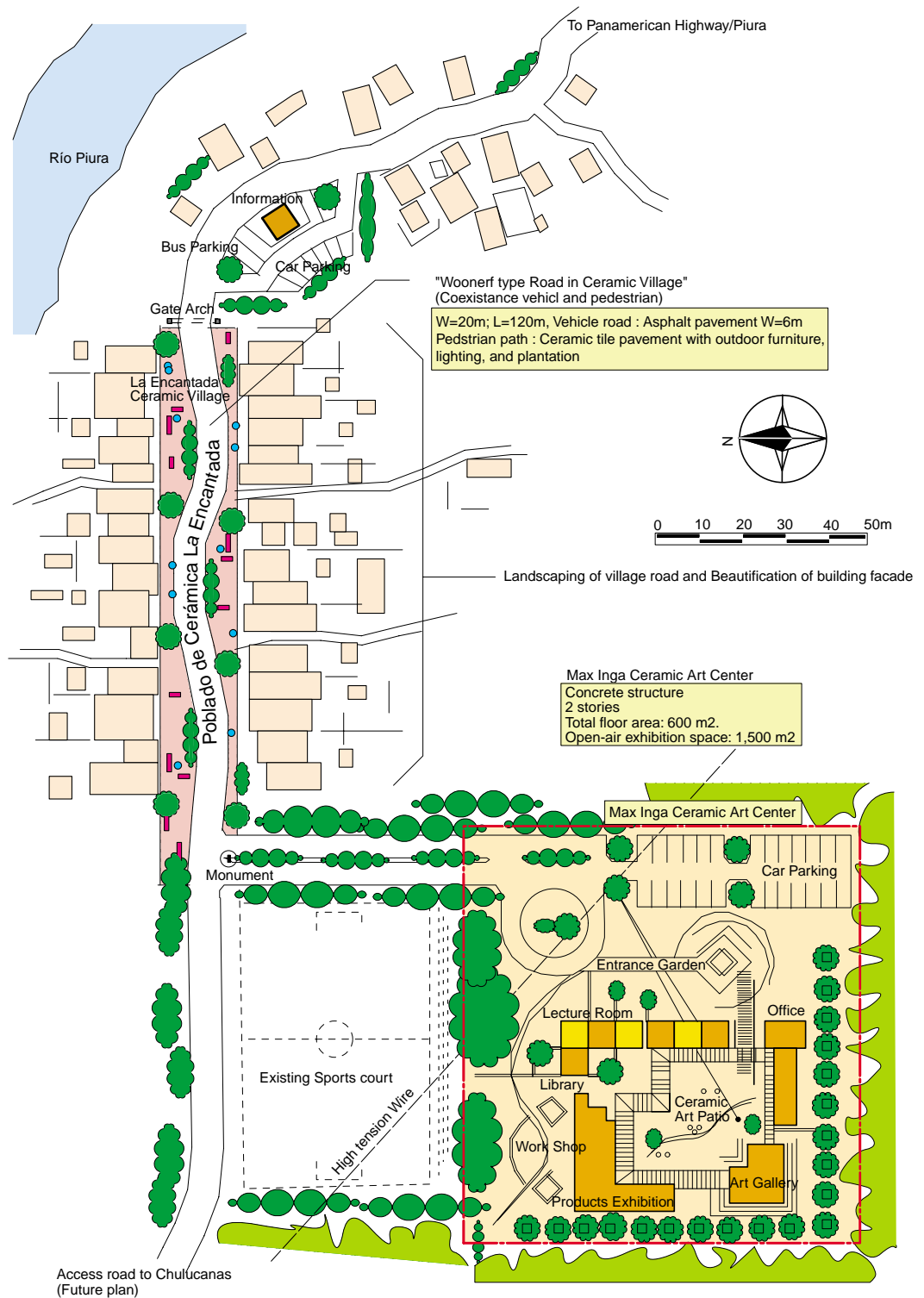
Other stakeholders

Chulucanas District, La Encantada Community, MITINCI.

c. Local participation

- Sub-project Implementation Committee should be formed, which is comprised of the above-mentioned entities and stakeholders.
- The committee would be transformed to the Local Tourism Organization that is responsible for the management of the village as an attractive tourism destination, and the promotion of tourism and handicrafts.
- The proposed Art Center would provide training to local craftsmen to improve their quality and design. Participatory Tourism Support Program should provide tourism know-how through workshops and consultative meetings with La Encantada community.

Figure 5.6 Development Plan of the Encantada Ceramic Art Village



Source: JICA Study Team

(5) Sign System Program

a. Outline of the sub-project

This program systematically installs signs and interpretation boards that are written, at least, in Spanish and English in order to improve visitors’ satisfaction level in the Tumbes – Piura Tourism Corridor.

The signs and interpretation boards should be installed at the following locations.

- Gateways: Tumbes and Piura airports
- Tour Routes: Panamerican highway, major roads (at major intersections)
- Accommodation base: Tumbes, Piura
- Tourism sites: the project sites mentioned above, other appropriate tourism sites

b. Sub-project Implementation

Responsible implementation body

MITINCI would be responsible for implementation, maintenance, and operation of the sub-project. MITINCI should design the signboards for features, materials, colors and etc. in consideration of a character (theme) and unity of respective tourism routes and sites.

Other stakeholders

Sub-project Implementation Committees, MTC, INC, CTARs, Corpac.

MITINCI should coordinate with, and, if necessary, get permission from, the above-mentioned stakeholders.

c. Local participation

Installation of the signs and interpretation boards require cooperation and participation from the above-mentioned stakeholders.

(6) Participatory Tourism Support Program

Participatory Tourism Support Program is a program that would provide tourism know-how to promote local participation in the priority project, and incubate locally conceived tourism projects for implementation after 2005. Details of the program are described in the Chapter 3: National Level Proposals.

5.6.3. Long-term projects

The followings are tourism development ideas preliminarily considered necessary to be implemented in the long-term. The Participatory Tourism Support Program as proposed in the Chapter 3 should provide consultancy and help elaborate these plans for future implementation.

(1) Punta Sal and Mancora Beaches

New beach resort development sites should be sought if the tourism development in Hermosa Beach turned out to be successful. The most prospective sites in the Tumbes - Piura Tourism Corridor would be the Punta Sal and Mancora beaches. Since the sites are less favorable in terms of transportation as it takes a few hours from the Tumbes Airport, a different strategy from that of the Hermosa Beach would be necessary. The project is similar to the Hermosa Beach Resort Development except that it would target at more up-market tourists who prefer more exclusive resort.

(2) Improvement of tourism sites within the one-day trip area from Tumbes

The following tourism sites would be improved or developed to provide beach tourists with supplementary tourism attractions.

- Tumbes Regional Museum Park Development,
- Conservation of historical houses (Casa Feijoo etc.),
- Development of Hervideros Hot Springs, and
- Access road to Tumbes National Park.

(3) Development of the “three extremes in South America”

It is proposed to develop the following “three extremes in South America” in the Piura Department.

- Punta Balcones (the western most point of South America)
- Iglesia San Lucas de Colán (the oldest church in South America)
- San Pedro Mangrove Reserve (the southern most mangrove forest in South America)

(4) Tourism improvement for the Dionisio Romero Market in Catacaos

It is proposed to improve the handicraft market of Dionisio Romero in Catacaos to cater for the needs of tourists, as well as to improve the quality of products, and to maximize the profit of handicraft producers. The project would include development of “producer’s market,” development of a training center, and the improvement of market facilities to receive more tourists.

5.6.4. Tourism Promotion Plan

It is important to publicize the strengths of the Tumbes - Piura Tourism Corridor toward the domestic market; it is less expensive than Caribbean beach destinations and more exclusive than beaches near large Peruvian cities. It is recommendable to introduce inexpensive tour packages, and strategically promote the MICE tourism to initiate its tourism growth.

Similar to the domestic market, the Ecuadorian Market would be promoted by stressing the strengths of Tumbes - Piura: short distance and the quality of beaches. There are basically two approaches to promote international long-haul tourism: to solicit the travel trade both in Peru and Ecuador to cooperate to introduce multi-country tour packages combining Galapagos and Tumbes - Piura, and to promote visitors who come to the Trujillo - Chiclayo Tourism Corridor to extend their itinerary to the further north.

- Tourism promotion program for northern Peru
- Hosting of a tourism event to boost morale among stakeholders, and for media coverage such “Tumbes Ceviche Festival” and “Piura Handcraft Fair.”
- Introduction of new tour packages
- Promotion activities toward the international market
- Promotion activities toward the domestic market

- Promoting MICE market

5.6.5. Project Cost

Total project cost for the priority projects is US\$ 15,501,400. Break down of the cost is summarized in Table 5.7. Economic and financial feasibility of the development cost is evaluated in the Chapter 7: Project Evaluation.

Table 5.7 Project cost

	Department	Province	District	(US\$1000)
Total				15,501.4
Development of a Beach Resort Estate in Hermosa Beach	Tumbes	Tumbes	Corrales/La Cluz	7,027.6
Mangrove Tourism Improvement in Puerto Pizarro	Tumbes	Tumbes	Tumbes	59.0
Improvement of Tumbes Airport	Tumbes	Tumbes	Tumbes	5,296.7
Community Development of La Encantada Ceramic Art Village	Piura	Morropón	Chulcanas	2,443.2
Sign System Program	Whole Tumbes– Piura Tourism Corridor			50.6
Participatory Tourism Support Program	Whole Tumbes– Piura Tourism Corridor			141.3
Tourism Promotion	Whole Tumbes- Piura Tourism Corridor			483.0

Source: JICA Study Team

6. The Amazon River Tourism Corridor Development Plan

6.1. Regional Context

6.1.1. Geographic overview

The Amazon River Tourism Corridor covers an area that extends from Iquitos to Yurimaguas along the Amazon, Marañón, and Hullaga Rivers. It is located in the Loreto Department. Iquitos, which is some 1000km from Lima, is the capital city of the Loreto Department.

The Tourism Corridor's climate is tropical with an annual average temperature is 27.0 degrees (Iquitos). It is hot and humid all year round. The water level of Amazon River fluctuates considerably corresponding to the precipitation in the Andes and the Amazon Basin. Pacaya – Samiria National Reserve is periodically flooded during the rainy season, which developed a unique ecosystem of Verza Forest or flood forest that is expected to be an important tourism objective. The fluctuation is 8-10m in Iquitos and its vicinity, which has to be considered for the construction of piers.

6.1.2. Historical background

It is very hard to find archaeological remains in the Loreto Department. This, however, doesn't mean that the area was not inhabited in the ancient times but because the native people used to make their houses with perishable materials like wood and other plants. Peruvian Prehispanic Cultures had not extended their direct control in the area.

A Jesuits Mission arrived at Iquitos around 1740. The Loreto Department was created in 1866. The small community grew slowly until the 1870s when the town was boomed with rubber production. The boom lasted some 30 years, remnants of which are houses decorated with Portuguese tiled mosaics. Once stagnant local economy revived with the discovery of oil in the Amazon Basin since the 1960s.

6.1.3. Socioeconomic Conditions

Loreto has a total population of 839,748 in 1998. It ranks 11th among the 24 Departments in Peru. The average population density is only 2.28 persons per square kilometer. The per capita GRDP is US\$ 2,812 in 1996, which ranks .the 4th in the country. It is noted that the figures reflect the oil production in the Department, and they do not necessarily imply the economic situation of the people in the Department.

Table 6.1 shows the estimated employment based on the existing number of hotel rooms. It is estimated that tourism creates approximately 13,000 jobs including indirect employment in the Loreto Department.

Table 6.1 Estimated employment related to Tourism in Loreto

(1) Direct Employment in the hotel sector	3,397
(2) Direct employment other than the hotel sector (1) x 1.31	4,450
(3) Total direct employment (1) + (2)	7,847
(4) Indirect employment (1) x 1.6	5,435
(5) Total estimated employment (3) + (4)	13,282

Source: Estimated by JICA Study Team

6.1.4. Natural Environment

Department of Loreto is covered by tropical lowland and evergreen and flooded forests. Complex topography and soils, and the Amazonian river system has made very complex mosaics of habitats (Stattersfield et. al. 1998). The area has the following three major habitat types according to Dinerstein et. al. (1995).

- Napo moist forests
- Western Amazonian swamp forests
- Verza forests

There are two protected areas in the Department.

- Pacaya – Samiria National Reserve, and
- Allpahuayo – Mishana Reserve Zone.

The former is the largest protected area in Peru, and one of the Ramsar sites in Peru. Most of the forest is inundated seasonally (Verza forest), which makes the area as important habitats for many aquatic animals. The latter is a newly established reserve zone conveniently located within a 30 minutes time-distance from Iquitos by car.

There are two National Tourism Reserves in this Study Area: Yacumama Tourism Reserve Zone and Laguna de Quistococha Tourism Park Zone.

6.2. Tourism Conditions

6.2.1. Tourism Resources

The Amazon River Tourism Corridor's principal tourism resources are mostly of natural interest. The ACEER laboratory that maintains Canopy Walkways for observation of the tropical rain forest is a typical tourism attraction in the area. The Pacaya – Samiria National Reserve, which is now conveniently located from a few hours from an international airport by car, is supposed to be the most important untapped tourism resource. Iquitos City has a number of historical buildings that are decorated with imported tiles. Iron House in Iquitos is an early example of prefabricated house, and is designed by French architect Eiffel.

Table 6.2 shows the list of the most important tourism resources.

6.2.2. Tourism Market

The numbers of visitor arrivals and bed-nights in the Loreto Department in 1998 was 140,473 and 303,804, respectively. The share of international visitors has been one third of the total visitor arrivals. The share of international visitors is the highest among the three Study Areas, and is equivalent to that of Cusco. Tourism in the Department enjoyed a healthy growth during the 1980s. However, there are signs of stagnation during the late 1990s.

Domestic visitors to Iquitos and its vicinity have three basic types: a) business travelers, b) vacation oriented families, and c) young budget tourists.

There are three types of international tourists to the Loreto Department: 1) youth and backpackers, 2) general interest package tourists, and 3) SIT/ keen ecotourists. Among the market segments, general interest tourists, who are mostly above the 50s, provide clientele to jungle lodges in the vicinity of Iquitos. They are the market segment that demands the “softest” adventure.

Table 6.2 Major tourism resources in the Amazon River Tourism Corridor

Department	Province	District	No	Ev	Name of the resources	Ctg	Era	Remarks
Loreto	Maynas	Iquitos	2	B	Iglesia Matriz	HS	CI	Church
Loreto	Maynas	Iquitos	3	B	Zoological park in Iquitos	NA	-	Zoo
Loreto	Maynas	Iquitos	5	B	Museo Amazonico	CL	-	Museum
Loreto	Maynas	Iquitos	6	B	Casa de Hierro	HS	RP	Historical blg.
Loreto	Maynas	Iquitos	7	B	Ex-Hotel Palace	HS	-	Colonial blg.
Loreto	Maynas	Iquitos	8	B	Mercado de San Juan	CL	-	Commercial
Loreto	Maynas	Iquitos	9	A	Laguna de Quistococha	NA	-	Lake
Loreto	Maynas	Iquitos	10	B	Compl. Turistico de Quistococha	MA	-	Recreation
Loreto	Maynas	Iquitos	11	A	Lago Zungarococha	NA	-	Lake
Loreto	Maynas	Iquitos	12	A	Zona Reservada Allpahuayo - Mishana	NA	-	Forest , river
Loreto	Maynas	Iquitos	13	A	Río Nanay	NA	-	River, scenery
Loreto	Maynas	Iquitos	15	B	Río Momon	NA	-	River, scenery
Loreto	Maynas	Mazan	16	B	Río Napo	NA	-	River, scenery
Loreto	Loreto	Nauta	18	B	Confluencia Ucayali - Marañon	NA	-	River, scenery
Loreto	Loreto	Nauta	19	A	Río Yanayacu de R. Marañon	NA	-	River, scenery
Loreto	Loreto	Parinari	22	A	Río Samiria de R. Marañon	NA	-	River, scenery
Loreto	Loreto	Parinari	23	B	Río Yanayacu Grande de R. Marañon	NA	-	River, scenery
Loreto	Loreto	Nauta	20	A	Río Nahuapa de R. Marañon	NA	-	River, scenery
Loreto	Loreto	Nauta	21	A	Río Chroyacu de R. Marañon	NA	-	River, scenery
Loreto	Loreto	Tigre	24	A	Río Tigre	NA	-	River, forest
Loreto	Loreto/Requena		25	A	Pacaya Samiria National Reserve	NA	-	Flora and fauna
Loreto	Requena	Requena	27	B	Río Yanayacu de R. Ucayali	NA	-	River, scenery
Loreto	Requena	Requena	28	B	Río Tapiche de R. Ucayali	NA	-	River, scenery
Loreto	Requena	Requena	29	B	Río Pacaya de R. Ucayali	NA	-	River, scenery

Notes: 1) Evaluation; A=very important, B=important,
2) Ctg; Category/ NA=Natural, HS=Historical, CI=Colonial, LF=Tribe village & lifestyle, MA=Man-made, 3) Era/ Ph = Prehispanic, CL=Cultural, Rp=Republican

Source: JICA Study Team

Table 6.3 Major tourism indices in the Loreto Department

Year		1992	1993	1994	1995	1996	1997	1998
Arrivals	Total	97,008	116,985	105,223	128,550	150,755	139,315	140,473
	Domestic	82,855	96,669	81,725	100,495	116,207	102,079	93,570
	International	14,153	20,316	23,498	28,055	34,548	37,236	46,903
bed-nights	Total	190,331	241,730	214,710	223,949	258,527	264,946	303,804
	Domestic	166,025	201,630	171,261	173,272	190,169	194,460	209,375
	International	24,306	40,100	43,449	50,677	68,358	70,486	94,429
Average length of stay	Total	1.96	2.07	2.04	1.74	1.71	1.90	2.16
	Domestic	2.00	2.09	2.10	1.72	1.64	1.90	2.24
	International	1.72	1.97	1.85	1.81	1.98	1.89	2.01
Occupancy Rate		26.20%	32.06%	36.04%	31.99%	32.85%	27.10%	26.80%
Stock of Accommodations	Hotels	65	57	60	72	109	173	200
	Rooms	1,534	1,366	1,437	1,342	2,011	3,078	3,397
	Beds	2,675	2,288	2,459	2,244	3,286	5,193	5,623

Source: National statistics institute (INEI)

6.3. Considerations for Sustainable Tourism

The following considerations should be made to ensure sustainability in tourism development.

(1) Natural Environment

- Designs of infrastructure must be harmonized with their surrounding environments.
- Any trees and ornamental flowers planted around infrastructure should be native species.
- Trashes need to be carefully treated in and around buildings, along roads/ walking trails and rivers / creeks.
- The Pacaya – Samiria National Reserve should be properly zoned in order to conserve the very unique ecosystems. The master plan of INRENA must be respected whenever any tourist developments are planned.
- Allpahuayo – Mishana Reserve Zone is also a very unique and important area in terms of biodiversity conservation. Any tourism development related to the reserve zone should be carefully examined by INRENA and other relevant organizations (e.g. IIAP).
- There is a clear seasonal difference, and the impacts on the ecosystems are also different. Appropriate management measures to meet the difference need to be required.
- Dolphins (Pink and Dray), Amazon Manatee, otters (Giant and Southern River), and other important animals need to be strictly protected. It is necessary for the tour operators to have a “code of environmental ethics” to avoid harassment to the animals.
- Feeding animals: Feeding animals in order to show them to tourists should be adequately guided.
- Waste water: Waste water including oils and fuels should be properly treated in order not to give extra loads to the environment.
- Extracting any wildlife and wild plants should be strictly prohibited.
- When it may be necessary to improve the lighting conditions of the road between Iquitos and Nauta, lighting bulbs/ tubes should carefully be selected not to attract insects from the surrounding areas.
- Aquariums/ zoos: It is essential to consider the best conditions for fishes and animals in aquariums and zoos wherever possible.

(2) Cultural Tourism Resources

- There are some historical buildings in Iquitos because of their antiquity (late 1890s) and their beauty: Wise use of the buildings with sufficient conservation measures is recommendable.

(3) Local participation

- Sub-project Implementation Committee should be established to coordinate among stakeholders.
- Participatory Tourism Support Program would be provided for communities interested

in introducing tourism to conceive, plan, and implement community-based tourism plans. The highest priority should be given to communities in the Pacaya - Samiria National Reserve.

- Promoting handicraft production and sales would increase the spending of visitors, and help distribute tourism income to a wider range of people. Tourism Improvement of the San Juan Market, which is part of the priority project, is conceived for this end.

Following regulations should be introduced that would force investor from the outside to involve local community, and tourism income be distributed to communities that do not receive tourism benefit. The followings are ideas of regulations:

- Regulation on the percentage of local employment,
- Regulation on procurement of local food and materials, and
- Environmental fee: certain percentage of tourism income should be collected as community fee that would be used for development of non-tourism communities.

6.4. Tourism Development Strategy

6.4.1. SWOT Analysis of the Amazon River Tourism Corridor

The followings are the results of SWOT analysis of the Amazon River Tourism Corridor based on the analysis of existing conditions.

(1) Strengths

- A modern city that is equipped with all the modern amenities and interpretation facilities, and a pristine nature destination coexist in a short distance.
- Pacaya – Samiria National Reserve is a very competitive destination that could attract visitors from all over the world. In particular, its aquatic fauna is quite unique and outstanding.
- The Tourism Corridor has an authenticity in that it actually faces the Amazon River unlike other Amazon destinations, and has the confluence where the Amazon River is born.

(2) Weaknesses

- Iquitos is a long-established tourism destination; therefore its tourism attractions tend to be out-dated.
- Pacaya – Samiria National Reserve, on the other hand, lacks in basic infrastructure, facilities, and services to receive visitors.
- Pacaya – Samiria National Reserve does not have sufficient local manpower that supports tourism development.
- The international travel trade tends to associate the Amazon with Brazil, and the Andes with Peru. Peruvian Amazon lacks in market's awareness and needs efforts at establishing a favorable tourism image.

(3) Opportunities

- The complementary relationship of Iquitos and the Pacaya - Samiria National Reserve would lead to an increase of competitiveness.

- A strategy is needed that ensure tourism’s “soft landing” on the Pacaya-Samiria. At least in the short-term, the nature reserve should be marketed toward the SIT and keen ecotourism markets.

(4) Threats

- The construction of the Iquitos – Nauta road would give significant negative impacts on the people and nature of Pacaya – Samiria, which would annihilate the Tourism Corridor’s potential.

6.4.2. Market Strategy

Market strategy has been set as follows based on the analysis of existing conditions.

(1) General

- A two-pronged strategy would be suitable for the Amazon River Tourism Corridor: a gateway resort city of Iquitos and exclusive nature tourism destination of the Pacaya – Samiria National Reserve.

(2) International market

- Efforts should be made to create market awareness of “Peruvian Amazon.”
- Vicinity of Iquitos and Nauta would be marketed to general interest tourists, while the Pacaya - Samiria should be marketed for exclusive ecotourism, at least, in the short-term.
- Considering Pacaya - Samiria’s tourism potential, it is worth efforts to attract international visitors from countries other than the USA.
- Efforts should be made to establish a tourism image that enhances the linkage between Peru and Amazon.

(3) Domestic market

- Iquitos City should be re-positioned as a jungle resort city for the domestic market.
- Tourism attractions as well as jungle resort accommodations should be developed in and around Iquitos that would cater for the needs of domestic tourists.
- Inexpensive tour packages that include accommodation and airfare should be introduced to promote the domestic market.

6.4.3. Tourism Product Development Strategy

Based on the above-mentioned market strategy, the following directions for developing tourism products have been identified.

- Iquitos needs more sophistication as the gateway resort city to the Amazon River Tourism Corridor. It should be equipped with facilities and services that enable its visitors to get necessary information and interpretation for exploring the Amazon, and that make visitors who returned from jungle expedition feel relieved to meet modern urban amenities.
- The Iquitos – Nauta road is expected to be the main tourism artery to the Pacaya Samiria. It is proposed to develop visitor facilities that would provide interpretation of Amazon’s flora and fauna along the artery road.

- Nauta town should be developed as an alternative accommodation base for those who prefer idyllic ambience of a typical Amazonian rural town. It would also function as the jumping off point to the Pacaya – Samiria. Improvement of its port infrastructure would make a prerequisite for the strategy.
- Viewing platform for the birthplace of the Amazon is expected to be a tourist attraction in Nauta.
- Pacaya - Samiria National Reserve should employ a “low impact high income” strategy to attract nature lovers mostly from the long-haul market. Physical development should be kept minimal to cater for the needs of tourists. Instead, deliberate arrangements should be made to facilitate cultural exchanges between the hosts and the guests as well as provision of basic tourism know-how.
- It is recommendable to introduce a nature cruise between Nauta and Yurimaguas visiting the Pacaya – Samiria National Reserve on the way. It would help formulate a “product mix” of nature tourism in the Selva and archaeological tourism in the Sierra.

6.4.4. Spatial Development Strategy

Iquitos - Nauta Road is expected to give significant impacts on the spatial tourism structure of the Amazon River Tourism Corridor. It would facilitate the tourism use of the Pacaya - Samiria National Reserve, which would revitalize the Loreto Department as a nature destination, and increase the importance of the Nauta Port as a tourism hub of river transportation.

- Iquitos is the international gateway city to the Peruvian Amazon, which should also have a function of jungle resort. It is a Tourism Center of the Amazon River Tourism Corridor. Yurimaguas is another Tourism Center for the Tourism Corridor.
- Nauta, which is expected to increase its importance due to the construction of the Iquitos – Nauta road, is designated as a Sub-Center that functions as a base for exploration in the Pacaya – Samiria National Reserve. It is also foreseen that the town would be a departure point for proposed Upper-Amazon Cruise to Yurimaguas.
- Veinte de Enero and San Martin de Tipishca are designated as Ecotourism Centers that function as the places for cultural exchange between visitors and local people.

6.5. Tourism Demand Framework

Target number of visitor arrivals in 2005 is 1,007,000, of which 291,000 or 29% are international visitors. Target number of visitor arrivals in 2015 is 1,705,000, of which 500,000 or 29% are international visitors.

It is noted that the figures are on the estimation basis as has been discussed in the Chapter 2, rather than on a statistics basis. Therefore, the figures in 1997 do not agree with the hotel statistics except the number of hotel rooms.

Table 6.4 Development framework for the Amazon River Tourism Corridor

	1997	2005	2015
Int'l arrivals	106,000	291,000	500,000
Domestic arrivals	282,000	787,000	1,204,000
Total arrivals	388,000	1,077,000	1,705,000
Int'l bednights	165,000	467,000	945,000

Domestic bednights	512,000	1,372,000	2,080,000
Total bednights	676,000	1,839,000	3,024,000
Available rooms	2,100	4,500	7,300

Source: JICA Study Team

Figure 6.1 shows the spatial development structure of this corridor.

Sub-projects that would contribute to the improvement of nature tourism are generally given high scores. In particular, development of interpretation facilities in and around Iquitos, port facility development in Nauta that is to function as the transportation hub for nature tourism in the Amazon, and education and training support for the people in Pacaya – Samiria are given high priority. The private sector is assumed to develop resort accommodations in and around Iquitos.

Table 6.5 shows the result of project evaluation.

6.6.2. Priority Project

The Amazon River Tourism Corridor Development Plan is a priority project for the Master Plan Study on National Tourism Development (Phase 2), which is to be implemented by year 2005. A total of 7 sub-projects are included in the priority project. The followings outline the respective priority sub-projects. Volume 3 of this report describes the priority sub-projects in more detail.

Table 6.5 Result of project evaluation in the Amazon River Tourism Corridor

No	Subproject	Department/ Province/ District	Strategy	Effect	Maturity	Total
	Priority sub-project					
1	Construction of Alpahuayo - Mishana Museum	Loreto/ Maynas/ Iquitos	3	3	2	8
2	Improvement of Quistococha Tourism Complex	Loreto/ Maynas/ Iquitos	3	3	2	8
3	San Juan Market Tourism Improvement	Loreto/ Maynas/ Iquitos	3	3	2	8
4	Construction of Nauta Tourists Pier	Loreto/ Loreto/ Nauta	3	3	3	9
5	Construction of Training Lodges for the Pacaya-Samiria N. R.	Loreto/ Loreto/ Nauta	3	3	2	8
6	Sign System Program	Loreto/ Loreto/ Iquitos	3	3	3	9
7	Participatory Tourism Support Program	Loreto/ Maynas, Loreto/	3	3	3	9
	Long-term project					
1	Tourist amenities improvement for pier of ENAPU	Loreto/ Maynas/ Iquitos	2	2	1	5
2	Rehabilitation and conservation of historical center	Loreto/ Maynas/ Iquitos	2	2	2	6
3	Ethnography and history museum in Iquitos	Loreto/ Maynas/ Iquitos	3	2	2	7
4	Tourism training center	Loreto/ Maynas/ Iquitos	3	2	2	7
5	Rio Amazonas aquarium	Loreto/ Maynas/ Punchana	3	2	2	7
6	Road side beautification of the Iquitos - Nauta road	Loreto/ Maynas, Loreto	2	2	2	6
7	Construction of a mirador for the birth of the Amazon River	Loreto/ Loreto/ Nauta	3	2	1	6
8	Beautification of Nauta town	Loreto/ Loreto/ Nauta	3	2	2	7
9	Security and tourist service improvement	Loreto/ Loreto/ Nauta	3	2	1	6
10	Improvement of infrastructure service	Loreto/ Loreto/ Nauta	2	2	2	6
11	Construction of tourist pier at Veinte de Enero	Loreto/ Loreto/ Nauta	3	2	2	7
12	Construction of interpretation and tourism center in Nauta	Loreto/ Loreto/ Nauta	3	2	1	6
13	Construction of tourist pier at San Martin Tipishca	Loreto/ Loreto/ Puinahua	3	2	1	6
14	Improvement of the control posts in the Pacaya-Samiria	Loreto/ Loreto, Requena	3	2	2	7

Source: JICA Study Team

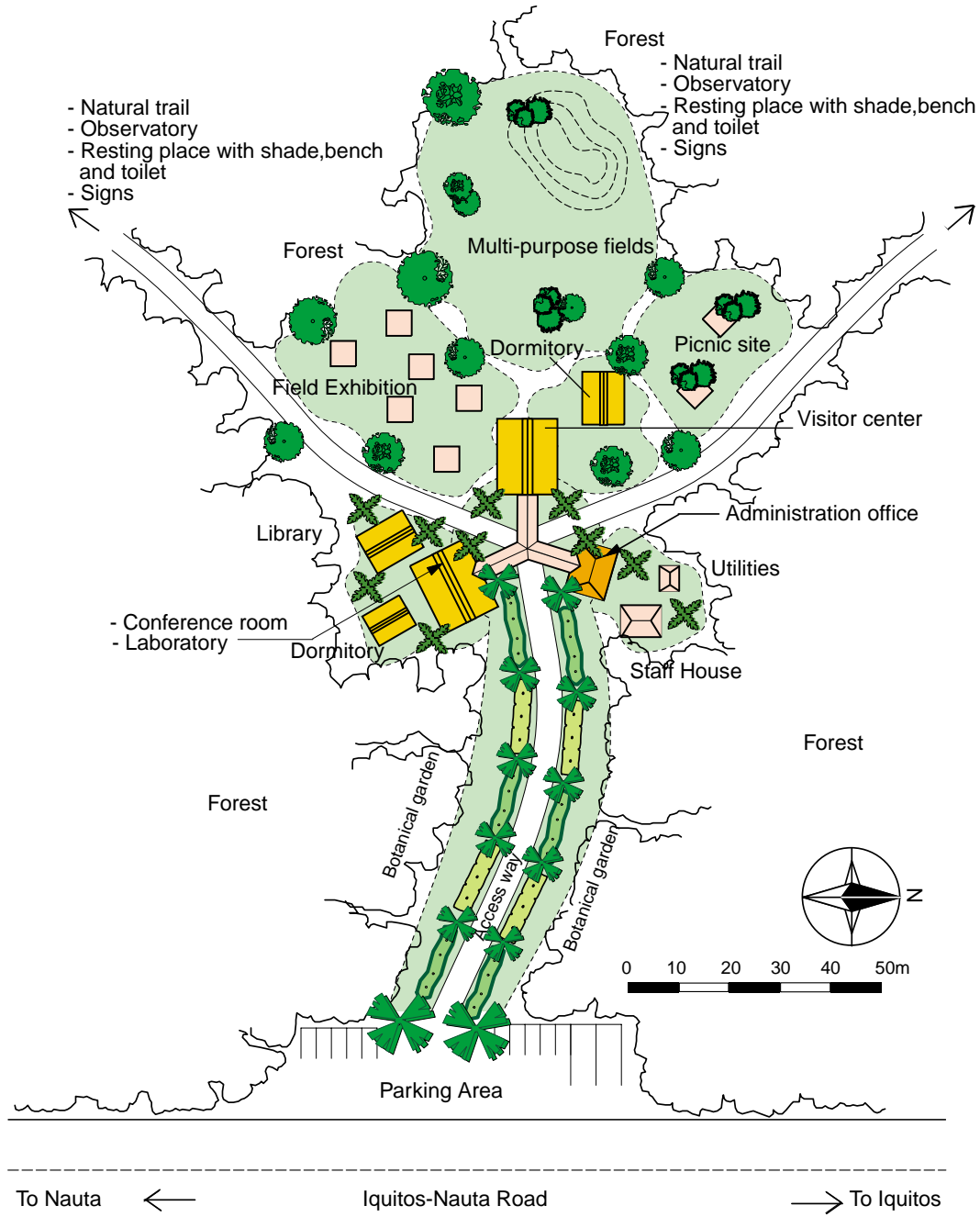
(1) Alpahuayo-Mishana Museum

a. Outline of sub-project

“Amazonium: Memorial of Man and Bio-diversity in the Amazon Region” is a plan that surfaced in the Bi-national Plan for Development of the Borders Region of Peru and Ecuador with objectives to promote understandings of the Amazon Area and to encourage social participation of the people in the Amazon. It is a plan to develop a huge outdoor museum in the Amazon with a network of “satellite” museums. This sub-project is to

build a museum in the newly created Allpahyayo – Mishana Reserve as the headquarters of the Amazonium.

Figure 6.2 – Layout Plan of the Visitor Center Area



Source: JICA Study Team

The sub project includes the following components.

Interpretation Center

- Visitor center
- Laboratory and Library
- Conference room and Dormitories

- Picnic site and Multi-purpose field
- Botanical gardens
- Administration office
- Parking area
- Access way

Forest Site

- Nature trail
- Resting place with shade, bench and toilet
- Observatory
- Signs

b. Sub-project implementation

Responsible implementation body

INRENA would implement the sub-project.

Supplementary implementation body

INRENA would commission the operation and maintenance of the museum to the consortium for Amazonium, which is made up of IIAP, the Amazon Theological Studies Center, and National University of the Peruvian Amazon.

Other stakeholders

INC, local people in and around the nature reserve, MITINCI.

c. Local participation

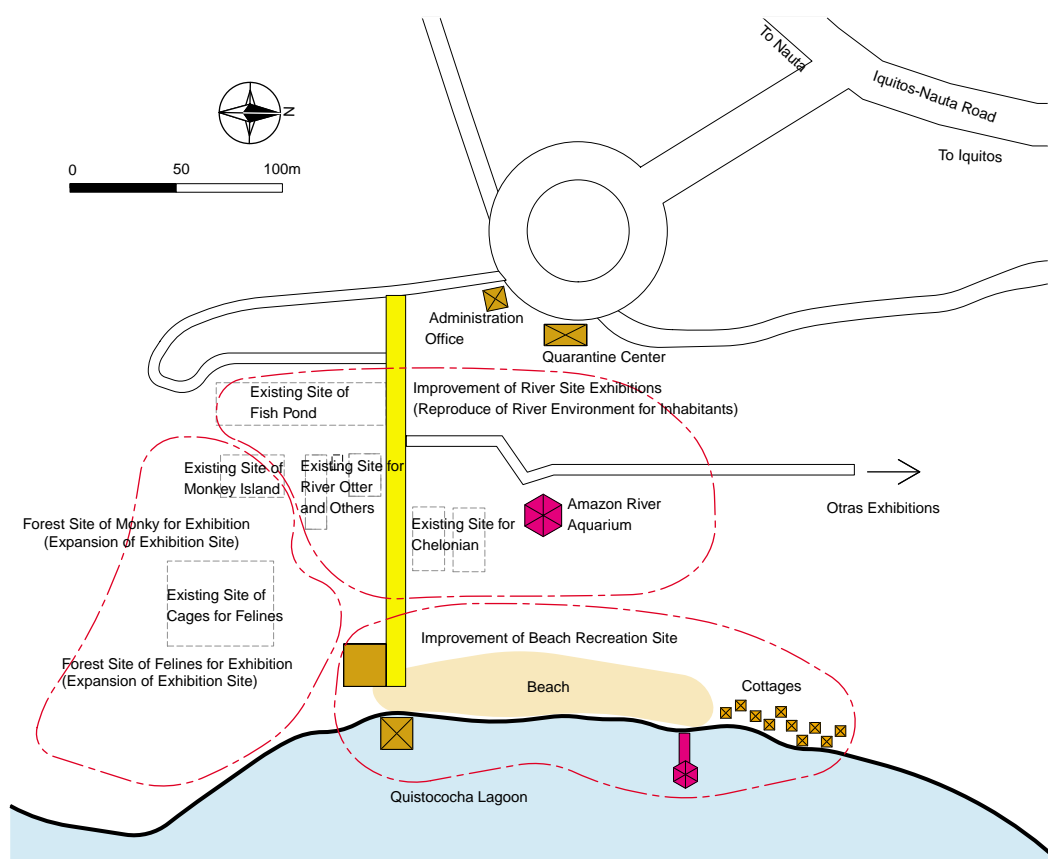
- Sub-project Implementation Committee should be formed, which is comprised of the above-mentioned entities and stakeholders.
- The museum is ideal site to train nature tourism guides for exploring the Pacaya – Samiria.
- The museum and the Amazonium as a whole should play the central role for the environmental education for the local community.

(2) Improvement of the Quistococha Tourism Complex

a. Outline of sub-project

Conveniently located in the suburb of Iquitos, Quistococha Tourism Complex is considered to be ideal to provide visitors with the knowledge of Amazon's fauna. However, its facilities need improvements for visitors as well as for wildlife kept in the complex. This sub-projects intends to enhance Iquitos' function to provide the interpretation of Amazon's ecosystem, and to provide its wildlife with more healthy living environment.

Figure 6.3 – Layout Plan of the Quistococha Tourism Complex



Source: JICA Study Team

The followings are components of the sub-project.

- Improvement of Existing Facilities: ponds for the Paiches, cages for birds, water pits or pond for aquatics, feline center, and monkey island and others.
- Construction of New Facilities: Amazon River Aquarium, pond for Manatees, lodges.

b. Sub-project Implementation

Responsible implementation body

The CTAR-Loreto would implement the project and take the responsibility of operation and maintenance.

Other stakeholders

INRENA, ProNaturaleza, local people, MITINCI

INRENA and NGOs should provide advices on the operation and maintenance of the Tourism Complex.

c. Local participation

- Sub-project Implementation Committee should be formed, which is comprised of the above-mentioned entities and stakeholders.
- Local community members are encouraged to work for the complex as well as its

tourist facilities.

(3) San Juan Market Tourism Improvement

a. Sub-project outline

This sub-project intends to improve the facilities of the San Juan Market, which is one of the major tourist attractions in Iquitos, to increase tourist spending and distribute tourism benefit to a wider range of people. A training center is to be build to sophisticate the design and quality. Components of the sub-project are as follows:

Market

- Handicraft training center
- Handicraft shops with workshops
- Promenade and Resting place with pavilion, bench and garden
- Restaurants and coffee shops.

Administration and Transportation

- Parking area
- Access way for maintenance and emergency vehicles.

b. Sub-project Implementation

Responsible implementation body

The CTAR-Loreto would implement the project and take the charge of operation and maintenance of the market. Shops, workshops, restaurants, and cafes would be leased to artisans and the private sector.

Other stakeholders

Artisans, the private sector, MITINCI.

c. Local participation

- Sub-project Implementation Committee should be formed, which is comprised of the above-mentioned entities and stakeholders.
- The committee would be restructured after the completion of the sub-project to the San Juan Handicraft Market Organization that is tasked to promote tourism and improve product quality.
- Participatory Tourism Support Program should advise handicraft producers and vendors on tourism know-how, in particular, on tourism promotion activities.
- The proposed training center is expected to play an important role to improve the quality of the handicrafts produced in Iquitos.

Figure 6.4 – Layout Plan of the San Juan Market



Source: JICA Study Team

(4) Nauta Tourist Pier

a. General

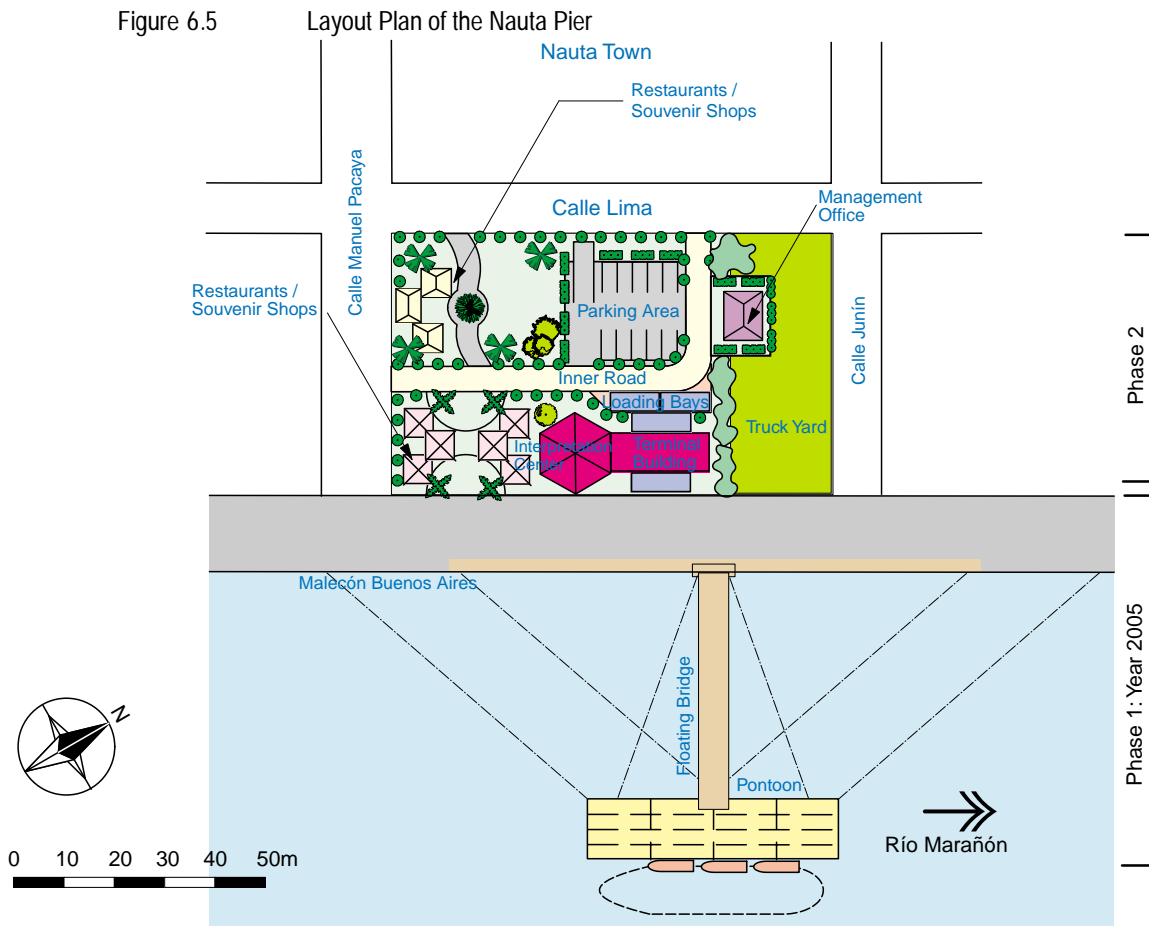
With the completion of the Iquitos – Nauta Road, Nauta will be the exploration base for the Pacaya – Samiria National Reserve, and an important port for the Upper Amazon cruise to Yurimaguas. This sub-project will develop a pier in Nauta that considers the use of tourists. The components of the sub-project are the followings:

Pier Facilities

- Pontoon
- Access bridge
- Substructure works.

Promenade

A promenade is an important facility for the scenery on the embankment of rivers and people to stroll. For setting of the pontoon and the access bridge, underworks to settle wires are required. In addition, a level of the Malecón should be lifted at least 1m from the existing level. A promenade should be constructed with these works.



Source: JICA Study Team

b. Project implementation

Responsible implementation body

CTAR-Loreto would implement the sub-project and take the charge of operation and maintenance.

Other stakeholders

Capitania de Puertos, Servicio de Hidrografía y Navegación de la Amazonia, MITINCI.

c. Local participation

Adequate considerations should be paid to local vendors near the proposed construction site. It is advisable to build a shopping complex for tourism-oriented vendors in the long-term.

(5) Construction of “Training Lodges” for the Pacaya–Samiria National Reserve

a. Outline of sub-projects

“Training hotel” is a hotel school that also functions as a hotel. Students are given on-the-job training in training hotel working as a hotel staff. A merit of this system is keep education fee lower than ordinary hotel schools.

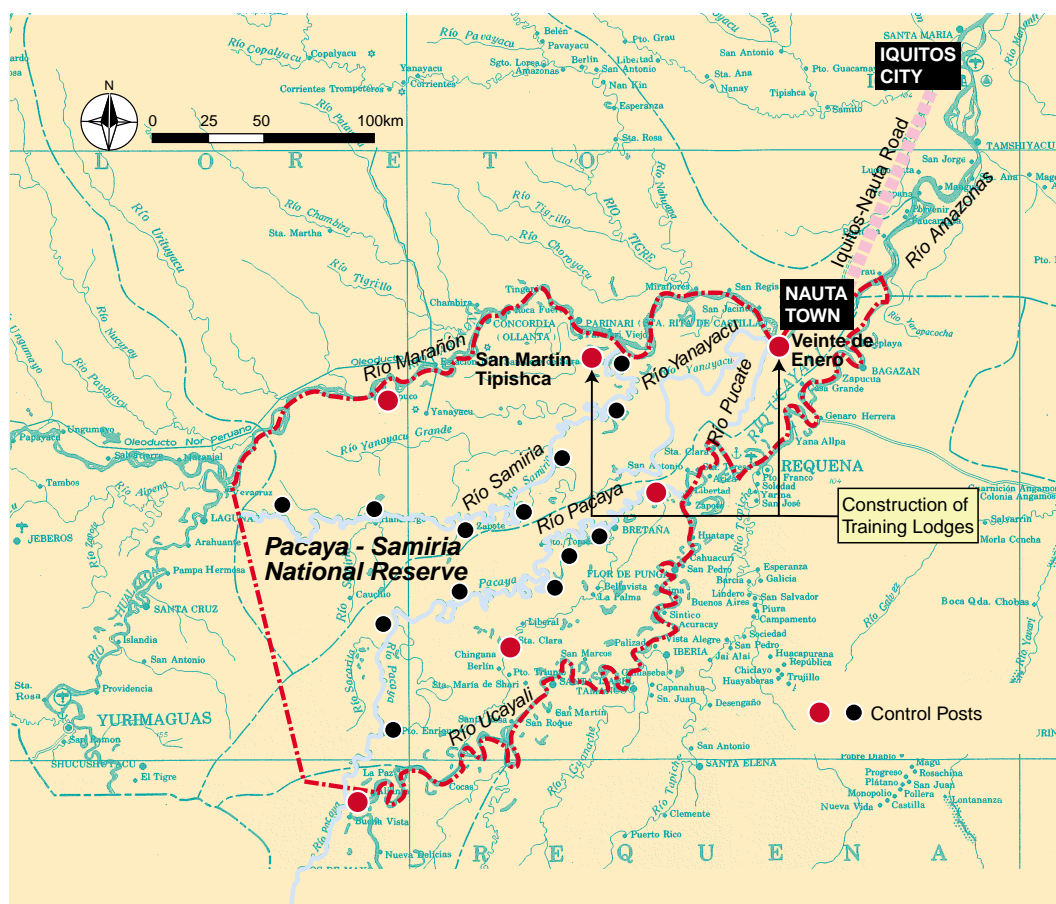
It is proposed to introduce the system with the name of “training lodge” to Pacaya –

Samiria to provide tourism training for people interested in this new economic opportunity. The training lodges would also cope with the lack of adequate accommodation in the Pacaya – Samiria. INRENA has a number of control posts in the Pacaya – Samiria for the management of the largest nature reserve in Peru. The control posts in Veinte de Enero and San Martin de Tipishca should be converted to the training lodges with some additional construction works.

The components of the sub-project are as follows:

- Lodge: 10 rooms with local architecture
- Utilities: solar electricity, water tanks, septic tanks, and toilet
- Pier: floating platform with access bridge.

Figure 6.6 Location of Training Lodges at Veinte de Enero and San Martin Tipishca



Source: JICA Study Team

b. Sub-project Implementation

Responsible implementation body

INRENA would commission Northern Tourism Region Development Authority to implement the sub-project.

Supplementary implementation body

INRENA would commission proposed Northern Tourism Region Development Authority

(NTRDA) to operate and maintain the training lodges.

Other stakeholders

ProNaturaleza, CENFOTUR, MITINCI.

ProNaturaleza and CENFOTUR would provide assistance to NTRDA to operate the training lodges.

c. Local participation

- Participatory Tourism Support Program should dispatch personnel who can operate jungle lodge and provide basic training for students/lodge staff with the cooperation from CENFOTUR.
- The training lodges should function as a classroom for community-based tourism plans. The Program should send specialist in different fields of tourism periodically to cope with different needs of training.
- The lodges should function as the places for cultural exchange between visitors and people in Pacaya – Samiria.

(6) Sign System Program

a. Outline of sub-project

This program intends to systematically install signs and interpretation boards that are written in Spanish and English in order to cater for the needs of tourists. The signs and interpretation boards should be installed at the following locations.

- Gate ways: Iquitos airport
- Tour Routes: Iquitos-Nauta Road, major roads (at major intersections)
- Major stopover cities: Iquitos, Nauta
- Tourism sites: the project sites mentioned above, other appropriate tourism sites and Iquitos historical center.

b. Sub-project Implementation

Responsible implementation body

MITINCI would be responsible for implementation, maintenance, and operation of the sub-project. MITINCI should design the signboards for features, materials, colors and etc. in consideration of a character (theme) and unity of respective routes or sites.

Other stakeholders

Sub-project Implementation Committees, MTC, INC, CTARs, Corpac.

MITINCI should coordinate with, and, if necessary, get permission from, the above-mentioned stakeholders.

c. Local participation

Installation of the signs and interpretation boards require cooperation and participation from the above-mentioned stakeholders.

(7) Participatory Tourism Support Program

Participatory Tourism Support Program is a program that would provide tourism know-how to promote local participation in the priority project, and incubate locally conceived tourism projects for implementation after 2005. Details of the program are described in the Chapter 3: National Level Proposals.

6.6.3. Long-term Projects

The followings are tourism development ideas preliminarily considered necessary to be implemented after 2005. The Participatory Tourism Support Program is expected to provide consultancy and help elaborate these tourism ideas.

(1) Mirador in Nauta

The confluence of the Ucayali and Marañon Rivers, which is where the Amazon River is born, considered to be important for tourists. It is proposed to built a viewing tower of the confluence in Nauta as a new tourist attraction.

(2) Beautification and conservation of the historic center of Iquitos

The historic center of Iquitos needs beautification and conservation of historical buildings such as Iron House and many tiled buildings to establish its tourism identity as the gateway city to the Amazon. It also needs to install signs and interpretation boards both in Spanish and English.

(3) Tourism improvement for control posts in the Pacaya – Samiria Reserve

INRENA and Pro-Naturaleza jointly operates a dozen of cost posts all over the Pacaya – Samiria. Although the principal function of the control posts is to check illegal exploitation of the reserve, they could be utilized for tourists to take some rest during their trip in the Pacaya – Samiria. It is proposed for the control posts to improve some of its facilities for tourism use such as toilet, drinking water, radio system, first aid, and even restaurant. Since tourism facilities and services do not exist in the Pacaya – Samiria, this would be a practical and the fastest way to facilitate travel in the reserve.

6.6.4. Tourism Promotion Plan

People living outside Peru tend to associate the Amazon with Brazil ignorant of the beauty and the bio-diversity in the Peruvian Amazon. Hence, it is crucial to increase awareness of the Peruvian Amazon through a number of tourism promotion activities stressing its strengths such as abundant fauna and flora, possibility to combine nature tourism with archaeological tourism, and diverse geological features. The Pacaya – Samiria National Reserve, which is considered to be the anchor tourism resource of this Tourism Corridor, would be marketed to the SIT and specialist markets rather than the general interest tourist market considering its invaluable ecosystem and the current lack of tourism-related facilities and services.

For the domestic market, Iquitos and its surroundings should be promoted as an attractive and comfortable jungle resort destination.

- Tourism promotion program for northern Peru

- Hosting of events that aim at boosting morale among stakeholders, and for media coverage like “Ecotourism and Reforestation Festival.”
- Awareness creation of the Peruvian Amazon
- Direct approach to overseas SIT market
- Advertisement toward domestic market
- Introduction of a new type tour packages.

6.6.5. Project Cost

Total project cost for the priority projects is US\$ 9,795,000. Break down of the cost is summarized in Table 6.6. Economic and financial feasibility of the cost is evaluated in the next chapter.

Table 6.6 Project cost for the Priority Projects

	Department	Province	District	(US\$1000)
Total				9,795.0
Construction of Allpahuayo - Mishana Museum	Loreto	Maynas	Iquitos	1,468.3
Improvement of Quistococha Tourism Complex	Loreto	Maynas	Iquitos	1,716.8
San Juan Market Tourism Improvement	Loreto	Maynas	Iquitos	1,222.0
Construction of Nauta Tourists Pier	Loreto	Loreto	Nauta	3,609.9
Construction of Training Lodges	Loreto	Loreto	Nauta	337.6
Sign System Program	Whole Tourism Corridor			25.3
Participatory Tourism Support Program	Whole Tourism Corridor			507.1
Tourism Promotion	Whole Tourism Corridor			908.0

Note: Cost is shown in US\$1000
 a) Exchange rates: 1US\$=106yen, 3.5 soles
 b) Official tax is included in each amount.
 c) Price escalation and inflation are not considered.

Source: JICA Study Team

7. Project Evaluation

7.1. Economic and Financial Feasibility

7.1.1. General

For project evaluation, the economic and financial feasibility of the tourism development plans is examined.

The purpose of economic analysis is to evaluate the economic feasibility of the plans from the point of view of the national economy. The benefits and costs are quantified within the context of “with” and “without” assumption in market prices and converted from market prices to economic prices.

In this economic analysis, the objectives of analysis are made in terms of the tourism corridor development plan, namely, Trujillo – Chiclayo, Tumbes - Piura, and Amazon River Tourism Corridor Development Plans.

The purpose of financial analysis is to evaluate the financial viability of the project for the development body. Namely, the plan, which will derive revenues from the implementation of the projects, is evaluated in accordance with the implementation entity. In this financial analysis, considering the characteristics of the projects, the objective of financial analysis is assumed to focus on the categories of the projects related to Northern Tourism Region Development Authority (NTRDA) which is an institutional alternative for project implementation as discussed in Chapter 3, and the projects of visitor facilities that charge entrance fee.

7.1.2. Economic Analysis

(1) General assumptions

a. Benefits

The summary of process of benefits estimation are as follows:

The planning years of benefits estimation are 2005 and 2015.

In the economic analysis, quantitative benefits are estimated based on the incremental visitor expenditures.

The incremental visitor expenditures are obtained as a difference between the visitor expenditures in “with project” situation and those in “without project” situation”. In this case, the “without project” is assumed to be the situation in which the demands in 2005 and 2015 are estimated based on the 1998 demand applying the growth ratio of international arrivals under the minimum target shown in the study results of the Phase 1 Stage Master Plan (4.3% for 1998 – 2005 and 3.3% for 2005 – 2025, respectively).

Regarding the number of visitors, the number of visitors who do not use hotel is estimated as below:

- Domestic visitors : 1.4 times of the number of domestic hotel users.

- International visitor : the same number as that of hotel users.

The assumed unit daily expenditure per visitor is as follows:

Category		Unit Daily Expenditure per Visitor
Domestic Visitors	Hotel Users	US\$ 19
	Non-hotel Users	US\$ 6
International Visitors	Hotel Users	US\$ 119
	Non-hotel Users	US\$ 6

For adjustment a difference of time base between the estimated number of visitors on a basis of “bed-night” and the expenditure per visitor obtained by PromPeru’s survey on a basis of “per day”, expenditures related to “non staying day” is supplemented. The unit expenditure of non staying day is assumed to be US\$ 6, which is the same as the unit expenditure of “non-hotel user in domestic visitor”.

The economic benefits are derived from the incremental visitor expenditures by using a conversion factor.

The details of estimation process of economic benefits is referred to Section 2.2 in Chapter 2 in Main Text.

b. Costs

The prices are those prevailing on January 2000. No inflation is assumed. For economic analysis, a conversion factor of 0.71 is applied to convert from financial costs into economic costs, following the Phase 1 Master Plan Study.

The costs comprise two components of the public sector and the private sector. The public sector covers the development project related to archeological park/site, cultural park/site, museum, and transportation. Regarding the transport related project, it is assumed that it will contribute to other sectors than tourism, then 30% of the development costs are related to tourism, similar to the assumption in the Phase 1 Master Plan Study. The private sector is in charge of hotel development costs, which are estimated through multiplying the incremental number of hotel rooms by the assumed unit price per room.

Operation and maintenance costs are assumed to be 30% of total project costs. In the case of hotels, the operation and maintenance costs are assumed to be 50% of the benefits accrued from the incremental visitor expenditures.

c. Cost-benefit analysis

The cost benefit analysis follows the conventional discounted cash flow methodology. The NPV and B/C ratio are estimated using a discount rate of 12% using standard practices, following the Phase 1 Master Plan Study. The period of evaluation is from 2000 to 2025. The investment costs are distributed in accordance with the assumed implementation schedule (from 2000 to 2005). The operation and maintenance costs are distributed after 2006.

The benefits for years between 2005 and 2015 are estimated by interpolation. The annual distribution of benefits is assumed to start from 2006 and follow the above interpolation until 2010 considering a duration of investment impact, being constant after 2011.

(2) Trujillo – Chiclayo Tourism Corridor Development Plan

a. Estimation of benefits

The incremental visitor expenditures for Trujillo – Chiclayo Tourism Corridor Development Plan are estimated as a difference between expenditures in “with project” situation and “without project” situation. The benefits are estimated using a conversion factor of 0.59.

b. Estimation of costs

The investment costs for Trujillo – Chiclayo Tourism Corridor Development Plan are utilized. Among projects, “Trujillo Bypass” project is regarded as a transport related one considering its characteristic and magnitude of investment, so that an adjustment is made. After the above adjustment, economic costs are obtained using a conversion factor of 0.71.

The investment costs for private sector (hotel investment) are included.

c. Cost-benefit analysis

The cost-benefit analysis is made based on the above estimated benefits and costs. The results are summarized in Table 7.1

Table 7.1 Summary of cost-benefit analysis for Trujillo – Chiclayo Tourism Corridor Development Plan

EIRR	15.3%
NPV (US\$ 1,000) at 12% of Discount Rate	24,575
B/C Ratio at 12% of Discount Rate	1.10

Source: JICA Study Team

The above results show that Trujillo – Chiclayo Tourism Corridor Development Plan is economically feasible.

d. Other benefits (employment effect)

The estimation shows that there will be about 52 and 91 thousands tourism-related employment in 2005 and 2015 respectively, that is, incremental employment of about 21 and 60 thousands are expected in 2005 and 2015 respectively compared to 1998. The share ratio of the above estimated tourism-related employment to the estimated economically active population is calculated to be roughly 6% and 8% in 2005 and 2015 respectively.

(3) Tumbes - Piura Tourism Corridor Development Plan

a. Estimation of benefits

The incremental visitor expenditures for Tumbes – Piura Tourism Corridor Development Plan are estimated as a difference between expenditures in “with project” situation and

“without project” situation, The benefits are estimated using a conversion factor of 0.59.

b. Estimation of costs

The investment costs for Tumbes – Piura Tourism Corridor Development Plan are utilized. Among projects, “Tumbes Airport” project is regarded as a transport related one considering its characteristic and magnitude of investment, so that an adjustment is made. After the above adjustment, economic costs are obtained using a conversion factor of 0.71. The investment costs for private sector (hotel investment) are included.

c. Cost-benefit analysis

The cost-benefit analysis are made based on the above estimated benefits and costs. The results are summarized in Table 7.2.

Table 7.2 Summary of cost-benefit analysis for Tumbes – Piura Tourism Corridor Development Plan

EIRR	12.8%
NPV at 12% of Discount Rate	8,870
B/C Ratio at 12% of Discount Rate	1.03

Source: JICA Study Team

The above results show that Tumbes– Piura Tourism Corridor Development Plan is economically feasible.

d. Other benefits (employment effect)

The estimation shows that there will be about 41 and 65 thousands tourism-related employment in 2005 and 2015 respectively, that is, incremental employment of about 25 and 48 thousands are expected in 2005 and 2015 respectively compared to 1998. The share ratio of the above estimated tourism-related employment to the estimated economically active population is calculated to be roughly 6% and 8% in 2005 and 2015 respectively.

(4) Amazon River Tourism Corridor Development Plan

a. Estimation of benefits

The incremental visitor expenditures for Amazon River Tourism Corridor Development Plan are estimated as a difference between expenditures in “with project” situation and “without project” situation, The benefits are estimated using a conversion factor of 0.59.

b. Estimation of costs

The investment costs for Amazon River Tourism Corridor Development Plan are utilized. Economic costs are obtained using a conversion factor of 0.71.

The investment costs for private sector (hotel investment) are included.

c. Cost-benefit analysis

The cost-benefit analysis is made based on the above estimated benefits and costs. The results are summarized in Table 7.3.

Table 7.3 Summary of cost-benefit analysis for Amazon River Tourism Corridor Development Plan

EIRR	17.0%
NPV at 12% of Discount Rate	29,402
B/C Ratio at 12% of Discount Rate	1.18

Source: JICA Study Team

The above results show that Amazon River Tourism Corridor Development Plan is economically feasible.

d. Other benefits (employment effect)

The estimation shows that there will be about 18 and 29 thousands tourism-related employment in 2005 and 2015 respectively, that is, incremental employment of about 9 and 20 thousands are expected in 2005 and 2015 respectively compared to 1998. The share ratio of the above estimated tourism-related employment to the estimated economically active population is calculated to be roughly 6% and 8% in 2005 and 2015 respectively.

7.1.3. Financial Analysis

(1) General

The financial analysis is made for the following categories:

- Sub-projects related to Northern Tourism Region Development Authority (NTRDA), and
- Sub-projects of visitor facilities that charge entrance fee.

a. Sub-projects related to NTRDA

As discussed previously, NTRDA has two functions of Planning Division and Project Management Division. The Project Management Division is proposed to have a function to carry out the following sub-projects:

- Hermosa Beach Resort Estate Development sub-project in Tumbes,
- Parque de Baluarte sub-project in Trujillo, and
- Traning Lodge sub-project in Pacaya-Samiria.

b. Sub-projects related to visitor facilities that charge entrance fee

Financial analysis will be made for the following sub-projects of visitor facilities that charge entrance fee:

- Chan Chan archaeological site (INC),
- Huacas del Sol y de la Luna archaeological site (INC),
- El Brujo archaeological site (INC),
- Sipan archaeological site (INC),
- Batan Grande national reserve (INRENA),
- Allpshuayo – Mishana field museum (INRENA), and

- Quistococha tourism complex (CTAR Loreto).

The financial analysis will be made from a viewpoint to show whether the estimated revenues including entrance revenues and souvenir sales revenues will cover project costs or not, and in case of deficit in cash flow, revision of entrance fees in order to increase revenues will be examined.

c. Further financial analysis

Since the above financial analyses include several assumptions for some conditions, so that the financial analyses are to be preliminary one. The further financial analyses at detailed stage are to be carried out after when several conditions become certain.

(2) Basic assumption for analysis

The following major basic common assumptions are made:

The calculation period for financial analysis is assumed to be from 2000 to 2025. The prices are those prevailing on January 2000. No inflation is assumed.

The financial sources of the investment cost are assumed to be provided by equity and loan (long-term loan). The equity / loan ratio is assumed as equity : 30% and loan : 70%. Disbursement of equity is assumed to be made prior to that of loan. It is assumed that the long-term loan with the condition of the interest rate of 3.0% and the repayment period of 20 years (2005 to 2024) is basically available. However, for the case of “Hermosa Beach Resort Estate Development sub-project”, different repayment periods are assumed, considering the assumed land sale schedule.

(3) Financial analysis of NTRDA

Hermosa Beach Resort Estate Development sub-project

NTRDA will carry out the land acquisition, land development, infrastructure construction and the land sales which will be related to this sub-project. The developed land will be sold to the private investors who will later construct the hotels on the procured land as a sequential activity.

Parque de Baluarte sub-project in Trujillo

The scope of financial analysis regarding NTRDA is a partial floor in the building of “Local Products Promotion Center and Traditional Food Court” and a building of “Car parking”. NTRDA is assumed to lease these areas to the private sector.

Traning Lodges sub-project in the Pacaya-Samiria

NTRDA is assumed to build and manage the Training Lodge in Pacaya-Samiria, Loreto. The training lodge has two functions of school and lodge hotel. Financial analysis will be made focusing an aspect of hotel operation.

The major related revenues are estimated based on the following factors by sub-project:

- Hermosa : the assumed land sale plan and the assumed unit land price.
- Parque de Baluarte : the assumed lease fee.

- Training Lodge : the assumed room rate and the room occupancy rate.

The related estimated / assumed project costs are used.

As a result, the financial analysis results related to NTRDA are summarized by sub-project as shown in Table 7.4.

Table 7.4 Summary of financial analysis results for NTRDA by sub-project

Sub-project	Hermosa Beach	Parque de Baluarte	Training Lodge	Whole NTRDA
FIRR	5.4%	3.5%	5.0%	4.7%
First Year of Surplus (Year)				
1) Annual Surplus in Profit & Loss	2005	2008	2008	2005
2) Accumulated Surplus in Profit & Loss	2005	2013	2016	2005
3) Annual Surplus in Cash Flow	2009	2011	2011	2009
Short-term Loan				
1) Final Year of Borrow	2008	2010	2010	2008
2) Maximum Annual Amount (US\$ 1,000)	139	239	79	456
3) Year of Maximum Amount (Year)	2006	2006	2006	2006
Note : Corresponding Calculation Case in "Hermosa Beach Resort Estate" sub-project				
Case No.	(1-a)			
Unit Land Sale Price	US\$ 34			
Land Sale Plan	2005 - 2009			
Loan Repayment Period	2005 - 2009			

Source: JICA Study Team

For each sub-projects and the whole NTRDA, FIRR values show over 3.0% which is a level of interest rate in the assumed loan. As a whole, it can be said that financial conditions are acceptable.

(4) Financial analysis of visitor facilities that charge entrance fee

The related revenues including miscellaneous revenues (souvenir sales revenues) are estimated based on the estimated number of visitors and the assumed entrance fee by sub-project.

The related estimated / assumed project costs are used.

As a result, the financial analysis results related to the visitor facilities are obtained.

Under a first assumption of the fee level (base case), financial conditions of sub-projects are generally stable except "El Brujo" and "Sipan" sub-projects and "aggregation of INC sub-projects".

Table 7.5 shows the financial analysis results in the alternative case (alternative case 2) which aims at an improvement of the financial condition of the "aggregation of INC sub-projects", as a whole. That is, by a fee revision of "Chan Chan" instead of individual fee revision about "El Brujo" and "Sipan", an improvement of financial condition of the "aggregation of INC sub-projects" is aimed. Trials reveals that fee revisions for the park

area from US\$ 3.0 to 4.0 and for the special exhibition area from US\$ 2.0 to US\$ 3.0 will make improved the financial condition of the “aggregation of INC sub-projects”. Regarding the “aggregation of INC sub-projects”, FIRR value shows 3.5% (which is over 3.0%, a level of interest rate in the assumed loan). In this case, it can be said that financial condition is acceptable.

Table 7.5 Summary of financial analysis results for visitor facilities (alternative case 2: fee revision of “Chan Chan”)

Visitor Facilities	Chan Chan	Sol / Luna	El Brujo	Sipan	Aggregation of INC	Batan Grande	Allpshua yo Mishana	Aggregation of INRENA	Quisto-cocha
FIRR	15.8%	4.1%	(*1)	(*1)	3.5%	3.8%	18.5%	9.3%	3.4%
First Year of Surplus									
Annual Surplus in Profit & Loss	2005	2007	(*2)	(*2)	2008	2005	2003	2003	2006
Accum. Surplus in Profit & Loss	2005	2011	(*2)	(*2)	2010	2008	2003	2003	2010
Annual Surplus in Cash Flow	2005	2012	(*2)	(*2)	2013	2011	2003	2003	2007
Short-term Loan									
1) Final Year of Borrow	2004	2011	-	-	2012	2010	2002	2002	2003
2) Maximum Annual Amount (US\$ 1000)	41	395	-	-	1,164	197	15	44	18
Year of Maximum Amount (Year)	2004	2007	-	-	2007	2005	2002	2002	2002

Note: Fee revision of “Chan Chan” (park area: US\$ 4.0 from US\$ 3.0, and special exhibition area : US\$ 3.0 from US\$ 2.0)

(*1) : Impossible to be calculated.

(*2) : No first year of surplus within the calculation period.

Source: JICA Study Team

In the case of entrance fee revision of “El Brujo” and “Sipan” (alternative case 1), increase of entrance fees from US\$3 to US\$ 6.8 and 6.1 is required for “El Brujo” and “Sipan,” respectively. (the criteria on FIRR value of 3.0% is assumed.)

7.2. Environmental Impact Assessment

The Environmental Impact Assessment (EIA) has been carried out for the priority projects that are expected to cause positive/negative impacts on the surrounding area concerning social and natural environment, and public pollution. The main objectives of EIA are as follows:

- To identify anticipated environmental impacts in implementing the priority projects based on environmental baseline data and field reconnaissance,
- To make judgements what the critical issues for the priority projects could be,
- To propose mitigation measures and alternatives for anticipated negative environmental impacts, and
- To propose comprehensive environmental management and monitoring plans.

According to EIA, the priority projects will give no serious impact to the surrounding of the project areas. Environmental considerations are, however, needed sincerely for moderate and minor negative impacts. Principal negative impacts for the priority projects are summarized in Table 7.7.

Table 7.6 Principal negative impacts for the priority projects

Priority Project	Highly considered negative impact(s)
Construction of the New Trujillo Bypass Road	Population distribution and resettlement in the planning and construction stages.
Tourism Improvement of Chan Chan Archaeological Complex	Population distribution and resettlement in the planning stage
Tourism Improvement of Huacas del Sol y la Luna	Water pollution and soil contamination in the construction stage
Development of Parque de Baluarte	Traffic and public facilities in the construction stage
Tourism Improvement of El Brujo Archaeological Site	Noise and vibration in the construction stage
Beautification of Historic Center of Pacasmayo	Traffic and public facilities in the construction stage
Development of the Sipan Archaeological Park	Public pollution in the construction stage
Tourism Improvement of Batan Grande Reserve Zone	Flora and fauna in the construction and operation stages
Development of the Hermosa Beach Resort Estate	Coastal zone in the construction and operation stages
Mangrove Tourism Improvement in Puerto Pizarro	Coastal zone in the construction and operation stages
Improvement of the Tumbes Airport	Topography in the construction stage
Community Development of La Encantada Ceramic Village	No highly considered negative impact
Development of Allpahuayo - Mishana Museum	Flora and fauna in the construction and operation stages
Tourism Improvement of the Quistococha Tourist Complex	Flora and fauna in the construction and operation stages
Tourism Improvement of the San Juan Handicraft Market	No highly considered negative impact

Source: JICA Study Team

Project proponents, contractors and Peruvian governmental organizations related to the priority projects are to implement the priority projects in consideration of those environmental impacts. Environmental management plan including mitigation measures and monitoring in implementing the priority projects are described in detail in the Volume 4 of this report.

The obscure points are to be investigated by the subcontracted local consulting firm in the supplemental surveys on social and natural environment, and public pollution in implementing the priority projects.

8. Conclusion and Recommendations

- Three projects, namely, the Trujillo - Chiclayo Tourism Corridor Development Plan, the Tumbes - Piura Tourism Corridor Development Plan, and Amazon River Tourism Corridor Development Plan, are chosen as the priority projects for the Study. They are indispensable for the Peruvian tourism sector, and economically feasible, and environmentally sound. Therefore they should be implemented by relevant organizations by the year 2005.
- JICA Study Team recommends MITINCI to establish the Northern Tourism Development Corporation or a similar governmental or semi-governmental organization, which is capable of planning and implementing tourism projects, to ensure self-sustainable tourism development, and to have the initiative in tourism development among the Peruvian Governmental Agencies. Establishment of the said organization makes a prerequisite to implement the Beach Resort Estate Development in Hermosa Beach.
- Local participation is indispensable for the conservation of cultural and natural heritage, and for tourism products to obtain authenticity. Therefore ample considerations should be made for local community members to participate in implementing the priority projects.
- There are a number of locally conceived projects that are worth considerations for future development strategy. MITINCI should support the planning of these community-based projects by providing consultation and technical advisory.
- Sub-project Implementation Committee should be established at subproject sites as necessary to work as a mechanism for coordination among stakeholders and to promote local community participation.
- MITINCI and PromPeru should jointly conduct periodical visitor surveys to supplement existing tourism statistics. More specifically, the survey should be designed to clarify the percentage of purposes of visit including business, VFR (visit friends and relatives), and holiday.
- MITINCI, PromPeru, INC, and INRENA should introduce a system that allows volunteers to participate in archaeological excavation, restoration works, and research works. The system would contribute to the conservation of Peru's cultural and natural heritage as well as to the increase of competitiveness of the Peruvian tourism sector.
- Peru is a country endowed with a great variety of natural characteristics. Tourism promotion should not only focus on the established Andes image but also on creating distinct and favorable tourism images of the Pacific Coast and the Amazon.
- The "sierra" area of the Northern Tourism Region, which is excluded from the Study Area, has great tourism potential, and its development is expected to multiply the development effects of the Study Area. It is highly recommendable to prepare a regional tourism master plan of the Sierra area when its security conditions improve.
- Taking into account the importance of implementing the priority projects, it is recommendable to conduct a basic designing study of a part of the priority projects, which may be financed as grant by JICA.