

7. Plan Evaluation and Selection of Priority Zones and Projects

7.1 Economic Evaluation

(1) Evaluation methods and procedures

While it is commonly said that the execution of a tourism development plan has various impacts on the national and regional economies, evaluation in this survey was made on the following points with regard to the economical impacts (on the national economy) of the long-term tourism development projects classified by zones.

- Income in foreign currency
- Increase in opportunities of employment
- Increase in governmental revenue

Furthermore, to investigate the effect of investment in the long-term tourism development plan for each zone from the economical viewpoint, analysis of costs and benefits was performed.

(2) Tourism Revenue

1) Tourist Expenditure

Average of tourist expenditure per night in year 2010 classified by foreign tourists and domestic tourists visiting each zone was forecast in consideration of tourism expenditure per night in the past, and tour patterns as described below. (Tab.7.1)

Tab. 7.1 Tourist Expenditure per Night in 2010

| Items | Foreign | Domestic |
|----------------|---------|----------|
| Accommodations | 50 | 15 |
| Food | 25 | 10 |
| Shopping | 30 | 5 |
| Transportation | 20 | 5 |
| Others | 20 | 10 |
| Total (Bl.) | 145 | 45 |

2) Incremental Tourist Demand

Incremental tourist demand is the differences between the target figure established as the future tourist demand target in the previous section and future opportunity tourist demand in the ease of "without project". (Fig. 7.1)

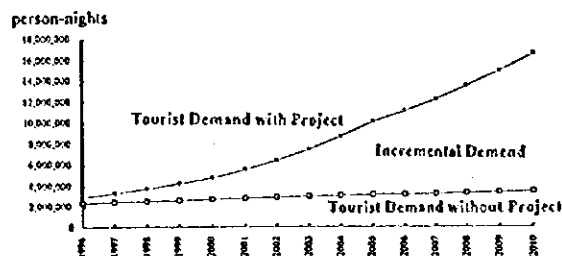


Fig. 7.1 Incremental Tourist Demand (Foreign and Domestic)

3) Tourism Revenue

The total revenues generated from foreign tourists and domestic tourists including the receipts from domestic daytime tourists are estimated to amount to 2,007 million Balboas of which the revenue from foreign tourists will amount to 78 % of the total revenues.

Tab. 7.2 Total Tourist Revenue by Zone in 2010

Unit: Bl. 1,000

| Zones | Total revenue | Incremental revenue |
|---------------|---------------|---------------------|
| Bastimentos | 102,316 | 95,109 |
| Arco Seco | 91,108 | 73,571 |
| Farallón | 342,094 | 302,208 |
| Metropolitana | 802,082 | 549,654 |
| Portobelo | 173,477 | 160,238 |
| Las Perlas | 208,366 | 189,917 |
| Others | 287,584 | 226,963 |
| Total | 2,007,027 | 1,597,660 |

Almost 30 % of the total incremental revenue comes from accommodation expenditure and the share of food, shopping and transportation expenditure is 20 %, 20 % and 12 % of the total respectively.

Tab. 7.3 Incremental Revenue by Expenditure

Unit: Bl. 1,000

| Item | Revenue | Share |
|----------------|-----------|-------|
| Accommodations | 471,699 | 30% |
| Food | 314,514 | 20% |
| Shopping | 312,182 | 20% |
| Transportation | 199,752 | 13% |
| Others | 299,514 | 17% |
| Total | 1,597,660 | 100% |

(2) Tourism Impact

1) Foreign Exchange Earnings

The foreign exchange earnings (FEE) of tourism are estimated to increase with an average growth rate of 15.0 % p.a. and 13.1 % p.a. during the periods from year 1992 to year 2000 and from year 2000 to year 2010 respectively. Its share of the country's GDP will increase from 2.5 % in 1992 to 10.8 % in 2010.

Tab. 7.4 GDP and Tourism Receipts

| Items | 1992 | ~2000 | ~2010 |
|----------------------------|-------|-------|--------|
| GDP: 1992 price (mil. Bl.) | 6,001 | 9,782 | 14,480 |
| Average growth rate p.a. | | 6.3% | 4.0% |
| FEE: Price (million Bl.) | 150 | 458 | 1,563 |
| Average growth rate p.a. | | 15.0% | 13.1% |
| Share of GDP | 2.5% | 4.7% | 10.8% |

2) Increase of Employment Opportunities

The new employment which will be created by the implementation of the Long Term Tourism Development Plan is calculated by Tourism Zone as shown in the Tab.7.5. In 2010, 145,00 positions will be generated by implementation of the Plan.

Tab.7.5 Incremental Employment Opportunities in 2010

| Zones | Direct | Indirect | Total |
|------------------------|---------------|----------------|----------------|
| Bastimentos | 3,053 | 7,634 | 10,687 |
| Arco Seco | 1,546 | 3,866 | 5,412 |
| Farallón | 8,239 | 20,597 | 28,836 |
| Metropolitana | 11,848 | 29,620 | 41,468 |
| Portobelo | 5,339 | 13,346 | 18,685 |
| Las Perlas | 5,768 | 14,419 | 20,187 |
| Others | 5,789 | 14,474 | 20,263 |
| Total (Persons) | 41,582 | 103,956 | 145,538 |

Source: JICA Study

3) Increase of Government Revenues

Government receives revenues in the form of income taxes on tourism enterprises and persons working in the tourism sector, property tax on tourism facilities, import duty on goods and services in the tourism sector. IPAT, as well as the central government, derives income from several sources of tourism activities as tourist taxes. IPAT's income from accommodation charges (Accommodation Rate) is estimated at 52,328 thousand Balboas in 2010.

(4) Cost-Benefit Analysis

1) Estimation of benefits

The economic benefits obtained from the execution of the long-term tourism development plan for each zone was obtained by replacing the increment in the income from tourism business with the increment in the GDP. For the replacement, the conversion factor was set to 0.6 by referring to the factors used in the IPAT/OEA report, etc. Indirect benefits were estimated to be 50% of the direct benefits.

2) Estimation of cost

The total investment amount of the project (economical price) excluding those transfer items, such as taxes, import taxes, and subsidies from the government, was estimated to be 2,667 million Balboa.

3) Results of analysis

Duration of the Cost - Benefit Analysis was set from year 1996 to year 2030 in consideration of long term tourism development characteristics.

It was assumed that the benefit increase up to year 2010, and after year 2010, the benefit was same as year 2010. Even investment cost, it increases up to year 2010. The costs after year 2010 were operation fee and maintenance fee. In year 2030, land cost as a balance value subtracts from the cost. (Fig. 7.2)

The total effect of investments in the long-term tourism development plans for six zones was estimated to have an EIRR of 24% and a net current value (with a discount rate of 12%), of 1,261 million Balboa, so it has been found that the plan is feasible from the economical viewpoint.

As the result of evaluation of each zone, a high EIRR exceeding 20% was obtained in each zone excepting the Bastimentos zone. The development project in the Bastimentos zone yields an EIRR of 11.8%, which indicates that investment should be made in the long term.

(5) Results of evaluation

Results of analyses of the impacts of the execution of the long-term tourism development plan on the national economy and of the analysis of costs and benefits are as shown in Tab 7.6, so it can be judged that the execution of this project is justified from the economical viewpoint.

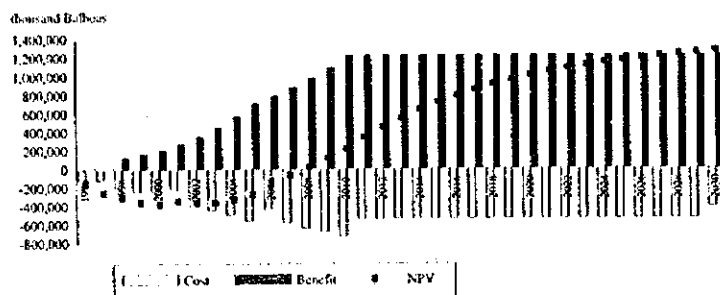
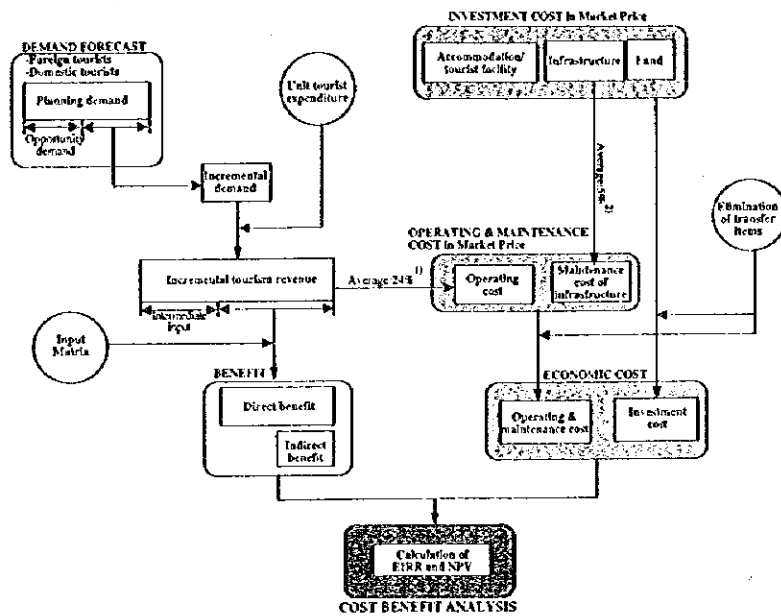


Fig. 7.2 Plan Evaluation: 6-zones Total



Note: 1) 24%: refer to Table 7.0 in Section 7.1.2 (3) of Phase I, Main Text
 2) 5%: refer to Section 7.1.2 (3) of Phase II, Main Text

Fig.7.3 Procedure of Cost Benefit Analysis

Tab.7.6 Plan Evaluation by Zone

(Unit: B1,1,000)

| Zone | Total Economic investment cost (B1,1,000) | EIRR | NPV (12%) (B1,1,000) | Generated direct employment (person) | Investment cost / Employment (B1.) | Economic efficiency of investment |
|---------------|---|-------|----------------------|--------------------------------------|------------------------------------|-----------------------------------|
| Bastimentos | 321,475 | 11.8% | -1,956 | 3,053 | 120,842 | XX |
| Arco Seco | 153,165 | 20.3% | 53,984 | 1,546 | 110,942 | XX |
| Farallón | 547,071 | 24.3% | 255,095 | 8,239 | 73,418 | XXX |
| Metropolitana | 1,015,464 | 25.2% | 619,001 | 11,848 | 85,204 | XXX |
| Portobelo | 281,899 | 24.5% | 142,999 | 5,339 | 59,243 | XXX |
| Las Perlas | 348,091 | 28.3% | 192,263 | 5,768 | 67,684 | XXX |
| Total | 2,667,165 | 23.9% | 1,261,386 | 35,793 | 79,947 | XXX |

XX: Economic efficiency of investment is moderate

XXX: Economic efficiency of investment is high

7.2 Environmental Analysis

Objectives

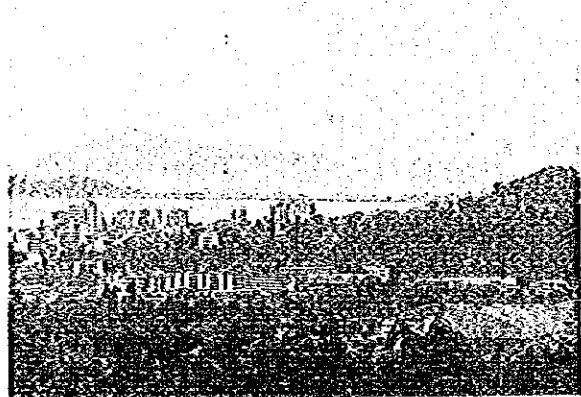
- To identify environmental impacts in accordance with the implementation plans.
- To fulfill the development, environmental considerations are made in order to avoid or mitigate these impacts.

Method

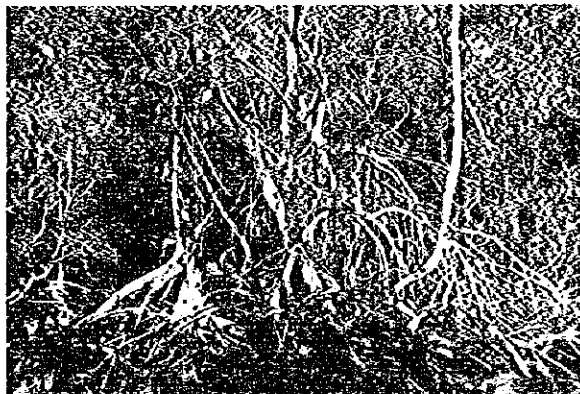
- Project contents are described and present conditions of the environment including social environment, natural environment and pollution are analyzed.
- In association with environmental impact potential, environmental considerations are formulated for further study.



Bastimentos Zone (Native Indians "Gnobe")



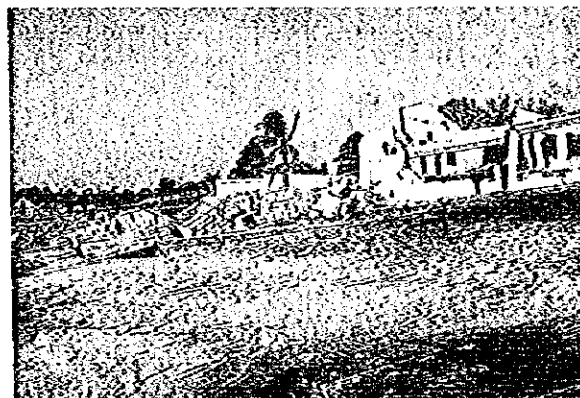
Metropolitana Zone (Abundant flora and fauna)



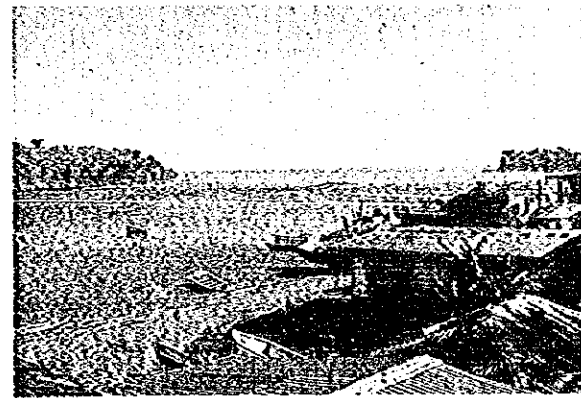
Arco Seco Zone (Mangrove forest remains)



Portobelo Zone (Historical Structures Remain)



Farallón Zone (Coast Erosion)



Las Perlas Zone (Wide range tide system: 7m)

Tab. 9.1 Summary of Environmental Analysis

| Zones | Negative Impact Potentials | Environmental Considerations |
|-----------------------|---|---|
| 1) Bastimentos Zone | <ul style="list-style-type: none"> • Destruction of coral reef for aggregate materials used for construction. • Destruction of wetland, forests, other unique habitats. • Endangered and indigenous species affected. (Manatec, Dwarf Armadillo, Nose bat, Giant Tylomys, Night Autos, White wing vampire, Jaguar) • Sea Turtles (4 of 8 sea turtle species) nesting affected. • Native Indian (Ngobe) culture affected. | <ul style="list-style-type: none"> • Submission of plans in accordance with local ordinance on beach sand mining. • Areas considered for development should have zoning plans to account for natural geographic and socioeconomic conditions. • Monitoring for endangered species protection. Zoning plans and development guidelines to preserve the natural environment should be made. • Beach monitoring for turtle protection coupled with beach zoning and development guidelines to preserve the natural beach environment from the primary dune seaward. • Areas considered for development should have zoning plans to account for their culture. |
| 2) Arco Seco Zone | <ul style="list-style-type: none"> • Water pollution from inappropriate sewage or solid waste disposal. • Destruction of remaining wetland, forests, other unique natural habitats (mouth of the rivers, valleys, Coastal area, Isla Iguana). | <ul style="list-style-type: none"> • Allowance made for use of existing regional disposal system or construction of on-site sewerage treatment plant. • Areas considered for development should have zoning plans to account for natural conditions. |
| 3) Farallón Zone | <ul style="list-style-type: none"> • Eutrophication in Chame Bay by untreated direct discharge water • Erosion of coast for aggregate materials used for construction. • Sea Turtles (2 species) nesting affected. | <ul style="list-style-type: none"> • construction of on-site sewerage treatment plant. • Submission of plans in accordance with local ordinance on beach sand mining. • Beach monitoring for turtle protection coupled with beach zoning and development guidelines to preserve the natural beach environment from the primary dune seaward. |
| 4) Metropolitana Zone | <ul style="list-style-type: none"> • Encouraging Eutrophication by untreated direct discharge water. (Rivers, Panama bay nearby Panama City) • Destruction of wetland, forests, other unique habitats. Adjacent area of designated area and other valuable area) | <ul style="list-style-type: none"> • construction of on-site sewerage treatment plant. • Zoning plans and development guidelines to preserve the natural environment should be made |
| 5) Portobelo Zone | <ul style="list-style-type: none"> • Water pollution from inappropriate sewage or solid waste disposal. • Sea Turtles nesting affected. • Afro-Colonials culture and historical structure affected | <ul style="list-style-type: none"> • Construction of on-site sewerage treatment plant. • Beach monitoring for turtle protection coupled with beach zoning and development guideline to preserve the natural beach environment from the primary dune seaward. • Areas considered for development should have zoning plans to account for their culture and historical structure. |
| 6) Las Perlas Zone | <ul style="list-style-type: none"> • Destruction of reef for aggregate materials used for construction. • Destruction of wetland, forests, other unique habitats. • Afro-colonials culture affected • Water pollution from inappropriate sewage or solid waste disposal. | <ul style="list-style-type: none"> • Submission of plans in accordance with local ordinance on beach sand mining. • Zoning plans and development guidelines to preserve the natural environment should be made. • Areas considered for development should have zoning plans to account for their culture. • Construction of on-site sewerage treatment plant. |

7.3 Selection of Priority Zones and Priority Projects

(1) Selection of Priority Zones

Priority zones have been selected on a reversed "Z" shaped development axis, which includes the metropolitana area to increase the number of tourists within a short term. As short-and medium-term development scenarios, those zones neighboring the metropolitana namely Farallón and Portobelo should be developed to draw tourists to adjacent areas from the metropolitana area.

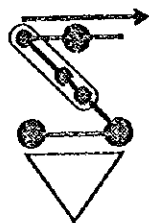
Further, while based on these development scenarios, an overall judgment was made considering the development potential of the zone (importance as a tourism spot, development opportunities, ease of access, environmental capacity, development feasibility of the main tourism spots in each zone, and so on.) As shown in the evaluation of each tourism development zone in the previous section, the Economic Internal Rate of Return (EIRR) of each of these three zones exceed the average value of 23.9%.

(2) Selection of Priority Project

Metropolitana, Farallón and Portobelo were selected as priority zones, and accordingly priority projects should be selected based on the following criteria:

- Project(s) from priority zone
- Development frame considerations
- Optimum development scale
- Projects triggering tourism development
- Effects on regional development
- Land priority

All Projects are connected in the form of a reverse letter 'Z'.



(3) Character of Each Project

Development characteristics of the 6 selected projects are as follows:

- New tourist accommodation oriented development projects, such as Chame, Panama Canal and resort complex of Portobelo.
- Reorganization and reutilization of present tourism resources both natural and cultural, such as flower and green beautification of Panama City and historical township project of Portobelo.
- Development of tourist transportation network projects of Caribbean Costa Arriba road and maritime triangle of Gulf of Panama.

Tab.7.8 Selected Priority Projects and Development Form

| form | Projects |
|------|---|
| | 1. Chame Resort Development Plan (Farallón zone) |
| | 2. Panama Canal Tourism Development Plan (Metropolitana zone) |
| | 3. Flower and Green City Plan (Metropolitana zone) |
| | 4. Portobelo Tourism Development Plan (Portobelo zone) |
| | 5. Caribbean Coast Arriba Road Development Plan (Portobelo zone) |
| | 6. Maritime Triangle Development Plan (Metropolitana, Farallón, Las Perlas zones) |

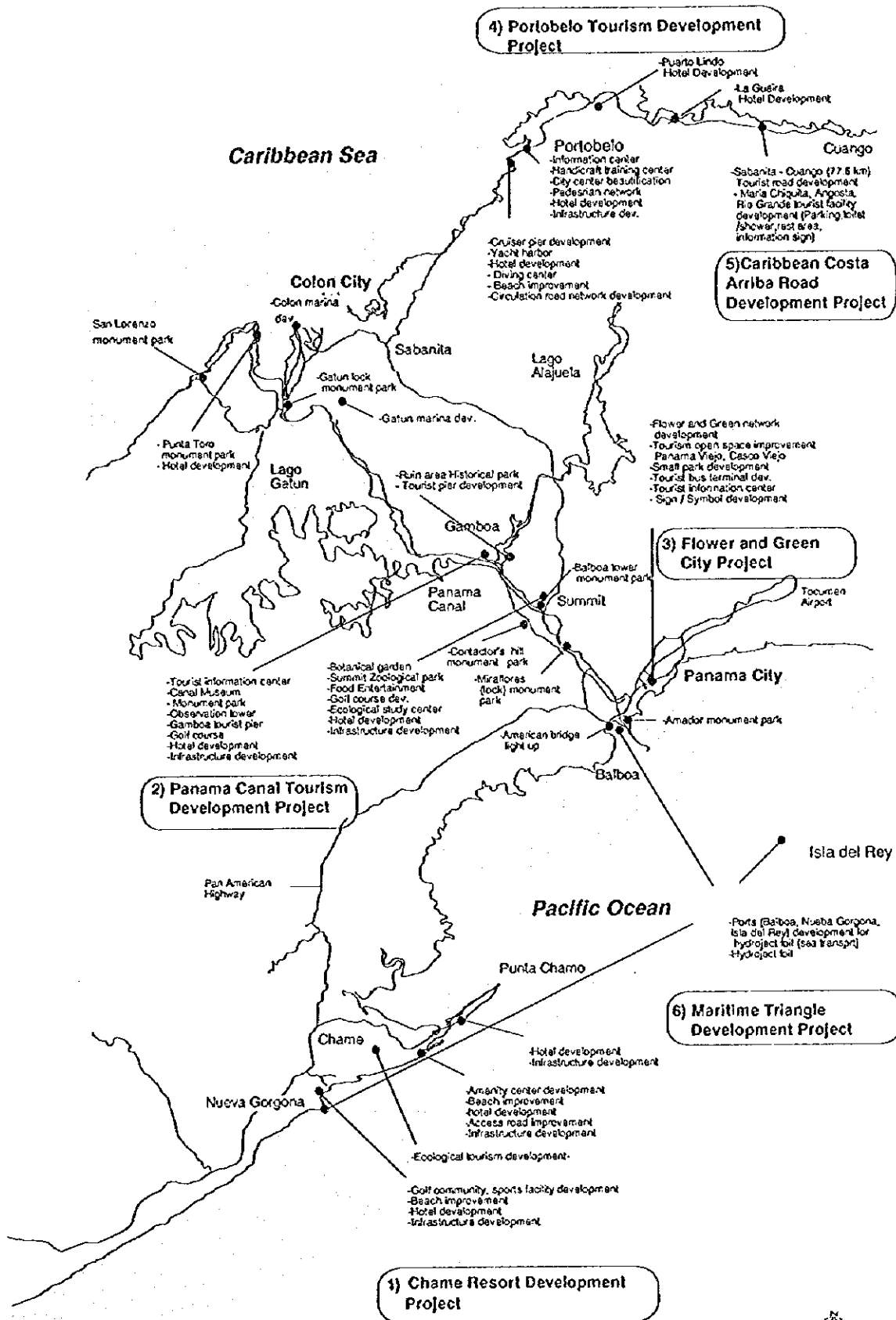


Fig. 7.4 Selected Priority Projects

8. Tourism Promotion Plan and Institutional System and Organization

8.1 Tourism Promotion Plan

(1) Overview of Panamanian Promotion Plan

Because of the Economic recession, the Panamanian government could not afford to make investment for adequate infrastructure for a decade, until 1993. (A specific tourism Promotion Plan has been lacking.) Therefore the Panamanian Tourism Industry has been lagging behind other Caribbean countries. Targeting toward the 2010 Tourism Development Plan, the Promotion strategies proposed are as follows.

- Promotion of Tourism Market
- Maintaining of the quality of Panamanian Tourism.
- Investment Promotion
- Development of IPAT Tourism Information Systems

(2) Promotion Strategy

1) Selecting Target Countries and Establishing IPAT Overseas Offices

The target number of foreign tourist in 2010 is 2 million. According to the existing tourism statistics and the directions of tourism development, the target is to attract vacationers from developed countries and business and shopping travelers from Central and South America and the Caribbean. Selected countries and establishment of IPAT Overseas offices are proposed as follows:

Tab. 8.1 Proposed IPAT Overseas Offices

| | Target countries | Overseas Offices | Establishment |
|------------|---------------------------------|----------------------|---------------|
| 1st target | 1)North America | New York | 1996 |
| | 2)C/S America and the Caribbean | Bogota | 1997 |
| 2nd target | Europe | Frankfurt | 1998 |
| 3rd target | East Asia | (Diplomatic offices) | --- |

2) International Tourism Promotion Campaign

Though Panama is famous for its Panama Canal, Panamanian tourism in the international market is of little note. Also, tourism occupies a low position in the Panamanian economy. It is recommended that Panama holds nation-wide promotional campaigns both domestically and abroad. For example, Panama might consider the following possibilities.

Year 2000: Jan.-Mar.(3 months)

Year 2005: Dec.2005 - Mar.2006 (4 months)

Year 2010: Dec.2010 - Apr.2011 (5 months)

Tab.8.2 Promotion Campaign Plan (Unit: 1,000 tourists)

| year | type | North America | C/S America | Europe | |
|------|------------|---------------|-------------|--------|-----|
| 2000 | By Regular | USA | 90 | 80 | 25 |
| | | Canada | 20 | | |
| | By Charter | USA | 25 | | |
| | | Canada | 10 | | |
| | Total | 350 | 145 | 80 | 25 |
| 2005 | By Regular | USA | 180 | 300 | 45 |
| | | Canada | 40 | | |
| | By Charter | USA | 80 | | 75 |
| | | Canada | 30 | | |
| | Total | 750 | 330 | 300 | 120 |
| 2010 | By Regular | USA | 200 | 330 | 80 |
| | | Canada | 60 | | |
| | By Charter | USA | 150 | | 130 |
| | | Canada | 50 | | |
| | Total | 1,000 | 460 | 330 | 210 |

To implement the campaigns, for instance, these kinds of activities should be carried out:

- Establishment of an executive committee-Support of the expense of tour operators
- Involvement of airlines and hotels
- Model tours including newly developed areas
- Advertisement in travel trade publications
- Dispatching caravans to target countries and holding of seminars

3) Cooperation with major travel agencies

To achieve the targets, IPAT and travel agencies should cooperate with operators in each country and ask them to set up tours to Panama. Also, they are potential investors for major hotel and other facilities.

Major travel agencies in target countries are shown below.

America: AMEX, Carlson, Thomas Cook, Woodside, Travel, TUI, NUR, LTU, ITS

England: Thomson. Owners Abroad, Air Tours, Cosmos and Best travel

France: Club Med., Nouvelles, Frontieres, MVM, etc.

(3) Maintaining the Quality of Panamanian Tourism and Security

Tourism is surely a peacetime industry, Many countries have been experiencing a decrease in inflows of tourists because of disorders. Security in Panama seems to have been improved by the tourist police. Equally, the quality of Panamanian tourism facilities is the key for continued success in tourism industry and will enable IPAT to entice potential tourists to visit Panama. Therefore, IPAT must fully cooperate with related organizations for the purpose of main-

taining and improving the quality of tourism products. Especially the following are key factors:

- Security at tourist sites
- Education of employees
- Enlightenment of the people

(4) Investment Promotion

An incentive law had been enacted since 1994 to encourage private investment, but scarcely seemed effective. Promotion of investment by the private sector must be implemented as national policy. IPAT must supply preliminary information for investors by holding investment seminars in target countries in cooperation with its overseas offices and Panamanian diplomatic offices. The target countries are :America, Canada, Mexico, Spain, Germany, France, England, Italy, Japan, Korea, Hong Kong.

(5) Development of IPAT Tourism Information Systems

It is essential that tourists and investors be provided with information to facilitate a pleasant stay and to encourage effective investment. This information must be centralized and maintained appropriately. Therefore, Establishment of IPAT tourism information system is indispensable for tourism promotion. A concept for this is shown below. (Fig. 8.1)

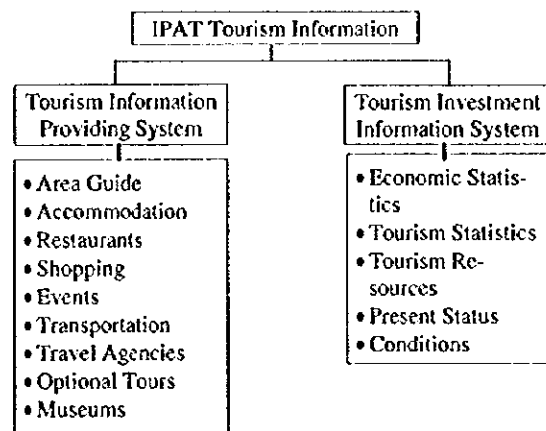


Fig. 8.1 Structure of Tourism Information System

8.2 Institutional Development Plan

(1) Basic Proposal

In order for the Panamanian government to spur the promotion and development of tourism as a national policy, it is important to give priority to tourism in state economic development planning and to devise and implement feasible measures to bring these projects to realization. Based on this recognition, the following proposals should be implemented: Prepa-

ration of Tourism Law, and organizational development plan.

(2) Preparation of Law

1) Enactment of a Tourism Law

To specify the direction of tourism development policy and provide an administrative organ to execute its function, the preparation of a Tourism Law should be implemented.

2) Enactment of Tourism Development Promotion Law

The general functions of Tourism Development Promotion Law are; designation of development districts, granting of preferential rights to use government-owned land, establishing a Development Authority, Tourism Development Corporation (TDC). (Fig. 8.2)

(3) Organizational Development Plan

Tourism development promotion is linked with many sectors, including education, labor, infrastructure development, environment, and local government and governmental administrative bodies which oversee each of these areas. Therefore, there should be the administrative body which organize related administrative bodies and reinforcement of whole administrative institution. This organizational development plan must include the following proposals:

- 1) Elevation of IPAT's Director General to ministerial level
- 2) Establishment of a Tourism Development Corporation which is owned by the government and private sector to control development, recouping of investment, and repayment of loans.

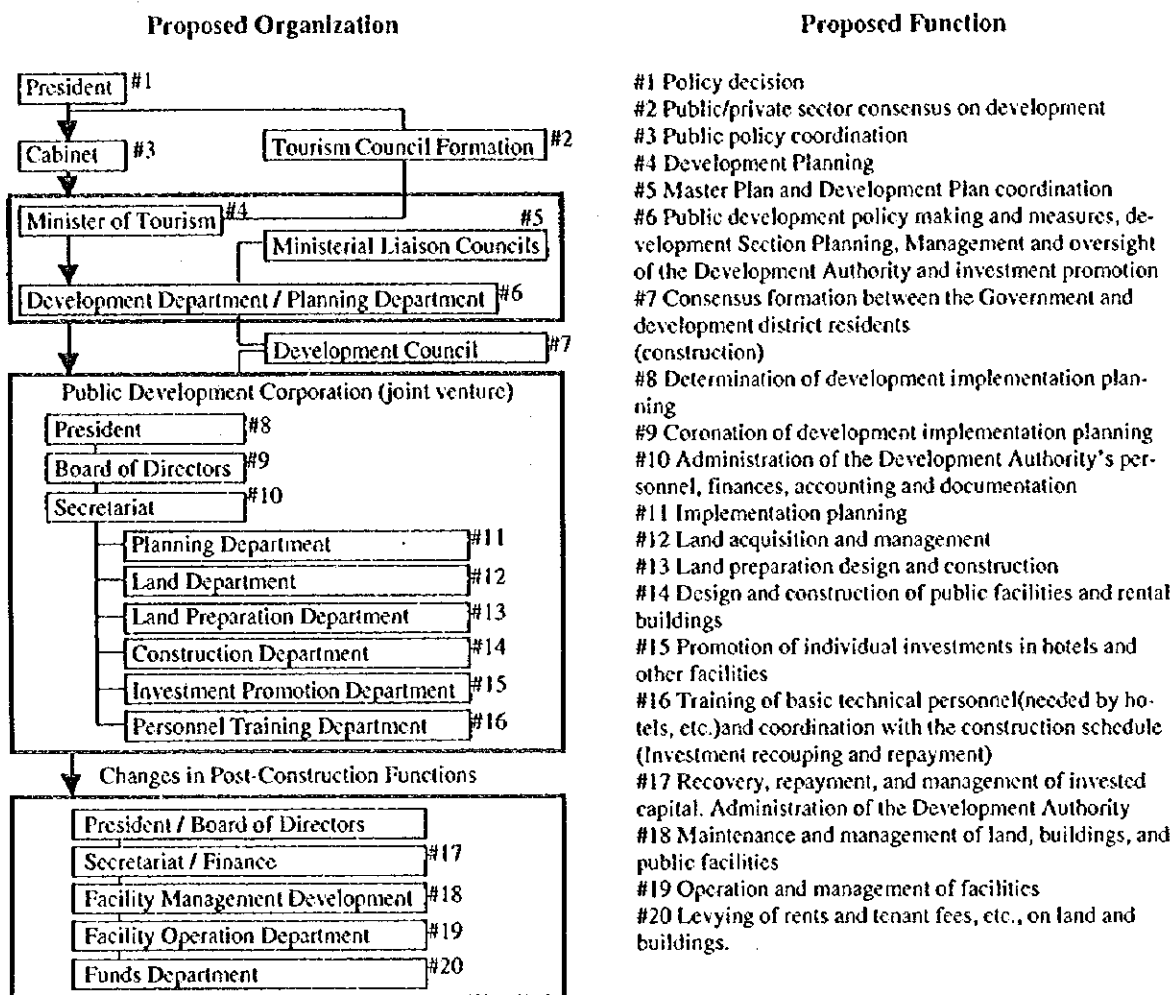


Fig.8.2 Proposed Organization Structure and Functions

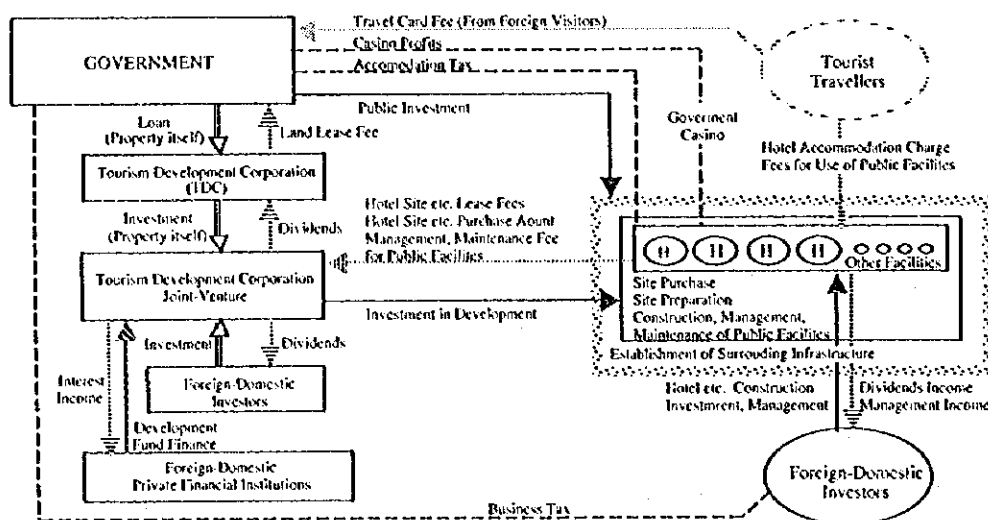


Fig.8.3 Flow of Development Funds and Collection of Funds

9. Conclusion and Recommendation of Long Term Tourism Development Plan

The long term development plan for tourism targets two million of foreign visitors visit to Panama annually by the year 2010 and 1.5 million domestic tourist by the year 2010. To fulfill the target six long term development plans were formulated and feasibility studies on priority projects were carried out.

The key point towards achievement of the target is to implement development plans. Realizing these development plans can only be achieved with the concerted efforts of the Panamanian government, such as cost sharing of investment in infrastructure and tourism facilities, legal system improvement to support the tourism development strategy, tax privileges for private investment in tourism facilities, etc.

Moreover, in order to achieve the target, an improvement of safety and security conditions for tourists in Panama, and increased promotion in principal markets (USA and Europe) are suggested.

Therefore, it is recommended that following items are proposed for realization of the long term tourism development plans.

(1) Improvement of Legal System and Organization

Especially the following three items are very important for achieving tourism development in Panama.

- Enactment of comprehensive tourism development policies and laws.
- Promoting IPAT to ministry level
- Establishment of institutional system and organization for tourism development.

(2) Commencement of the Projects Implementation

1) Establishment of Tourism Development Corporation (TDC)

In order to implement the comprehensive tourism development plan, it is necessary to have land for projects and infrastructure, and to establish a development entity which is responsible for construction of major facilities, leasing and selling the land or facilities, and moreover, for encouragement of private investment and tourist promotion to Panama.

2) Procurement of Investment Funds

Foreign funds especially lower interest funds are essential for encouragement of project implementation by the government, TDC and private sectors.

3) Procurement of Lands for the Development

It was occurred often that large scale of government lands for development were subdivided into small lots and transferred to private sector when large scale tourism projects were planed. Therefore it is recom

mended that the government should procure lands for development (in advance) in order to smooth implementation of at early stage the project.

(2) Execution of Feasibility Studies for Priority Projects

The importance of tourism development is high in Farallón, Metropolitana, and Portbelo selected as priority zones, which configure a reversed "Z" shaped zone, and early execution of the selected priority projects, which have a strategic importance in promoting tourism development in this area is proposed. Therefore, feasibility studies for these priority projects should be executed as the next step following this study.

III. Project Feasibility Study

1. Project Formation, Cost and Evaluation

Feasibility study for 6 priority projects selected in the long term tourism development plan stage were carried out. The results of the study are described as follows:

1.1 Chame Resort Development Plan

Create a Coastal Resort Festooning face to the Pacific Ocean.

Objectives and means

- To establish a coastal resort with 3,000 hotel rooms located immediately outside Panama City area to diversity tourist destinations.
- To provide adequate infrastructure services for tourists in terms of quality and quantity.
- To develop the resort area by improvement of Pan American Highway, establishment of a new sea link, and air transport services at Rio Hato.

Tab. 1.1 Target Number of Visitors (1,000 persons)

| Tourist types | | Short | Medium | Long |
|----------------|----------|-------|--------|-------|
| Overnight stay | Foreign | 171 | 600 | 1,380 |
| | Domestic | 48 | 169 | 409 |
| | Total | 219 | 769 | 1,789 |
| Day visit | Foreign | 155 | 262 | 313 |
| | Domestic | 200 | 364 | 814 |
| | Total | 355 | 626 | 1,127 |

Note: Overnight visitors are total staying overnight

Tab. 1.2 Project Profile of Chame Resort Development Plan

| Development components | Project package | Development schedule | | | | | | | | | | | Dev't body | | | | |
|---------------------------------------|---|--|--------------------|----|----|----|----|----|----|----|----|----|------------|----|----|----|-----|
| | | 96 | 97 | 98 | 99 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | Gov |
| Coastal hotel resort complex projects | West Coast Area | Accommodation development (M: 330rm, 25ha.) | [Gantt chart bars] | | | | | | | | | | | ○ | ● | ● | |
| | | Golf Community development (10ha.) | [Gantt chart bars] | | | | | | | | | | | ○ | ● | ● | |
| | | Sports Facility development (36ha.) | [Gantt chart bars] | | | | | | | | | | | ● | ○ | ○ | |
| | | Beach improvement (1km.) | [Gantt chart bars] | | | | | | | | | | | ● | ○ | ○ | |
| | Central Coast Area | Accommodation development (H: 600, M: 1,450rm, 230ha.) | [Gantt chart bars] | | | | | | | | | | | ○ | ● | ● | |
| | | Amenity Center development (60ha.) | [Gantt chart bars] | | | | | | | | | | | ● | ○ | ○ | |
| | | Sports Facility development (83ha.) | [Gantt chart bars] | | | | | | | | | | | ● | ○ | ○ | |
| | East Coast Area | Accommodation development (M: 160, E: 100rm, 127ha.) | [Gantt chart bars] | | | | | | | | | | | ○ | ● | ● | |
| | | Eco-tourism development, walking path 12km. | [Gantt chart bars] | | | | | | | | | | | ● | ○ | ○ | |
| Cerro Chame Area project | Uco - tourism development, walking path 12km. | [Gantt chart bars] | | | | | | | | | | | ● | ○ | ○ | | |
| Road projects | Access road (Chame - Amenity Center, 13km.) | [Gantt chart bars] | | | | | | | | | | | ● | ○ | ○ | | |
| | Access road (Colonicito - Nueva Gorgona, 5.8km.) | [Gantt chart bars] | | | | | | | | | | | ● | ○ | ○ | | |
| | Access road (Nueva Gorgona - Port Gorgona, 1.2km.) | [Gantt chart bars] | | | | | | | | | | | ● | ○ | ○ | | |
| | Main corridor (Nueva Gorgona - Punta Chame 5.8km.) | [Gantt chart bars] | | | | | | | | | | | ● | ○ | ○ | | |
| | Feeder roads (Main corridor - Beaches, total :2.7km.) | [Gantt chart bars] | | | | | | | | | | | ● | ○ | ○ | | |

Note: H=high class, M=middle class, E=economy class.

●: Leading sector ○: Supporting sector

Tab. 1.3 Financial Development Cost (Bt. 1,000)

| Components | Land | Foreign | Local | Total |
|--------------------|-------|---------|--------|---------|
| Accommodation | 3,820 | 150,658 | 52,707 | 207,185 |
| Marine transport | --- | 304 | 196 | 500 |
| Land transport | 200 | 8,987 | 6,672 | 15,859 |
| Tourist facilities | 2,872 | 15,792 | 7,942 | 26,606 |
| Public utilities | 23 | 19,993 | 14,464 | 34,480 |
| Total | 6,915 | 195,734 | 81,981 | 284,630 |

Tab. 1.5 Economic Evaluation (% , persons)

| Items | |
|---|--------|
| Economic Internal Rate of Return (EIRR) | 19.0% |
| Generated Employment: Direct | 4,620 |
| Indirect | 11,550 |

Tab. 1.4 Investment Cost by Sectors (Bt. 1,000)

| Sectors | Short | Medium | Long | Total |
|------------|--------|---------|---------|---------|
| Land | 6,915 | --- | --- | 6,915 |
| Government | 668 | 6,125 | 8,866 | 15,659 |
| TDC | 10,917 | 29,915 | 10,733 | 51,565 |
| Private | 29,091 | 83,110 | 98,290 | 210,491 |
| Total | 47,591 | 119,150 | 117,889 | 284,630 |

Tab. 1.6 Financial Evaluation of TDC (Bt. 1,000, %)

| Items | |
|--|--------|
| Total investment cost | 58,483 |
| Investment fund: Capital | 23,820 |
| Long-term loan | 20,170 |
| Financial Internal Rate of Return (FIRR) | 19.6% |

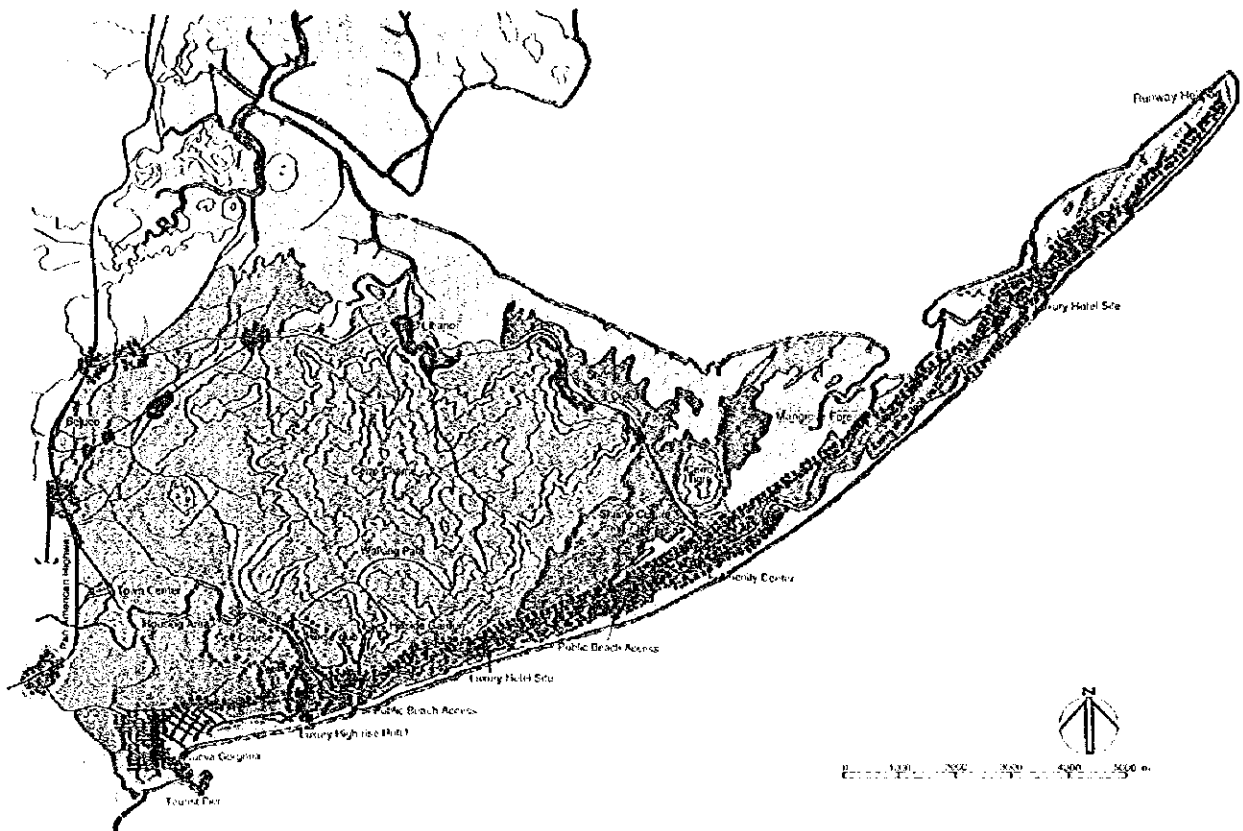


Fig. 1.1 Chame Resort Development Plan

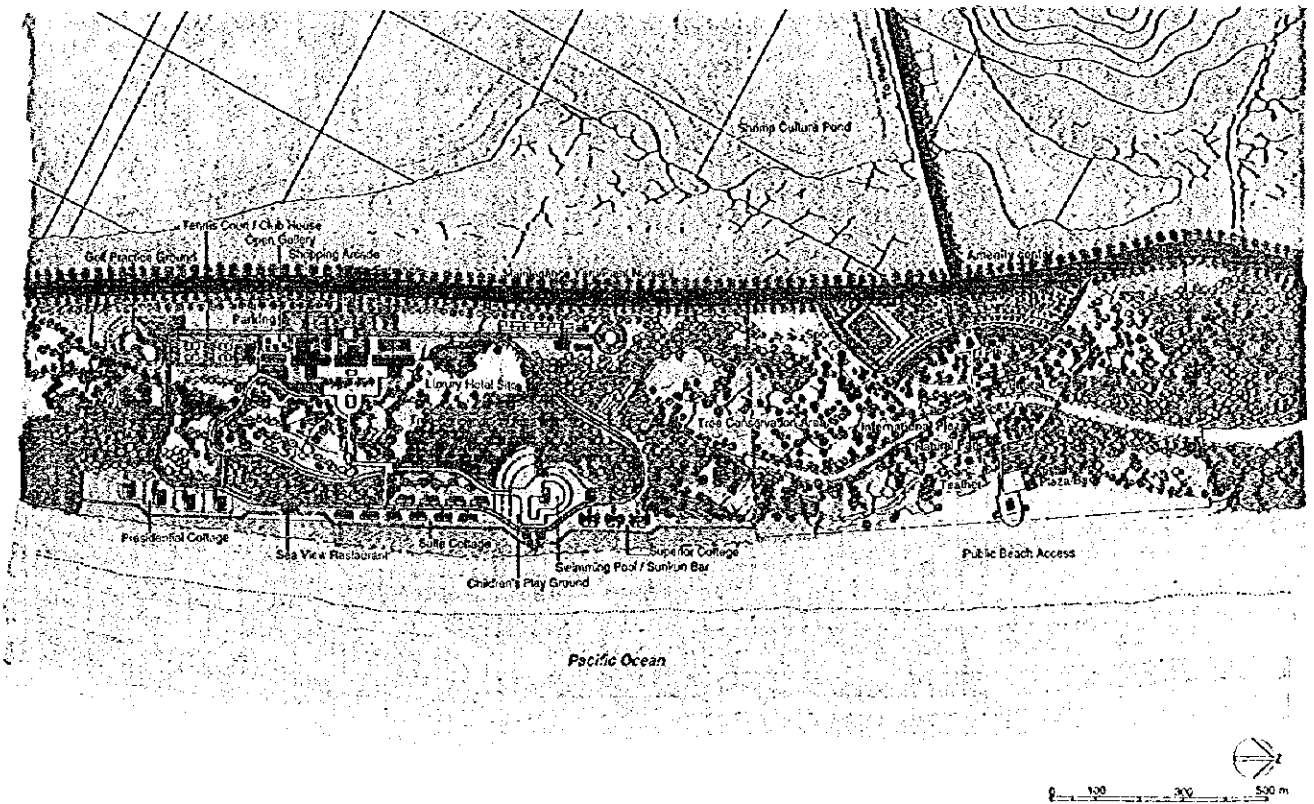


Fig. 1.2 Development Plan of Central Chame Area

1.2 Panama Canal Tourism Development Plan

Create a Canal Tourism Corridor Between Two Oceans

Objectives and Means

- To identify the needs of tourism in the Panama Canal area and to develop tourism facilities accordingly.
- To develop a new tourism base at the central part of the Canal zone with its own identity for supplementing the existing Gatun lake and Rio Chagres.
- To develop the Summit Area as a nature oriented tourism base for the Soberania National Park.
- To develop Punta Toro for business tourism, linked to the Caribbean Sea gateway of Colón.
- To create continuity of tourist attraction places through development of 10 outdoor museums.

Tab.1.7 Target Number of Visitors (1,000 persons)

| Tourist types | | Short | Medium | Laong |
|----------------|----------|---------|--------|-------|
| | | Foreign | 199 | 715 |
| Overnight stay | Domestic | 8 | 111 | 221 |
| | Total | 207 | 826 | 1,081 |
| | Foreign | 397 | 536 | 943 |
| Day visit | Domestic | 466 | 1,031 | 2,062 |
| | Total | 863 | 1,567 | 3,005 |

Note: Overnight visitors are total staying overnight.

Tab.1.8 Project Profile of Panama Canal Tourism Development Plan

| Development components | Project package | Development schedule | | | | | | | | | | Dev't body | | | | | | | | |
|---|--|---|----|----|----|----|----|----|----|----|----|------------|----|----|----|----|-----|-----|------|---|
| | | 96 | 97 | 98 | 99 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | Gov | TDC | Priv | |
| Hotel resort complex projects | Gamboa Area | Accommodation development (H:420, M:230rm, 58ha.) | | | | | | | | | | | | | | | | ● | ● | |
| | | Tourist Center development (2.2ha.) | | | | | | | | | | | | | | | | | ● | ● |
| | | #6: Panama Canal Tower development (4.5ha.) | | | | | | | | | | | | | | | | | ○ | ● |
| | | #7: Panama Canal Museum (00ha.) | | | | | | | | | | | | | | | | | ○ | ● |
| | Summit Area | Access road and bridge development (2.5km.) | | | | | | | | | | | | | | | | | ○ | ● |
| | | Accommodation development (M:130rm, 27.2ha.) | | | | | | | | | | | | | | | | | ○ | ● |
| | | Zoological Park redevelopment (30ha.) | | | | | | | | | | | | | | | | | ○ | ● |
| | | Botanical Garden redevelopment (30ha.) | | | | | | | | | | | | | | | | | ○ | ● |
| | | Ecological Study Center development (20.8ha.) | | | | | | | | | | | | | | | | | ● | ○ |
| Punta Toro Area | Accommodation development (H:150, M:380rm, 37ha.) | | | | | | | | | | | | | | | | | ○ | ● | |
| | Beach improvement (1km.) | | | | | | | | | | | | | | | | | ● | ○ | |
| | #9: Carribean Sea Garden, Punta Toro Monument (1ha.) | | | | | | | | | | | | | | | | | ● | ○ | |
| Panama Canal museum network projects (Ten spots: #No.) | #1: Amador Sea Garden (1ha.) | | | | | | | | | | | | | | | | | ● | ○ | |
| | #2: American Bridge with illumination (2km.) | | | | | | | | | | | | | | | | | ● | ○ | |
| | #3: Miraflores Locks Park (1ha.) | | | | | | | | | | | | | | | | | ● | ○ | |
| | #4: Contractor's Hill Park (1ha.) | | | | | | | | | | | | | | | | | ● | ○ | |
| | #5: Ruina Water Garden (2ha.) | | | | | | | | | | | | | | | | | ● | ○ | |
| | #8: Gatun Locks and Gatun Dam Park (1ha.) | | | | | | | | | | | | | | | | | ● | ○ | |
| #10: San Lorenzo Archeological Park (1ha.) | | | | | | | | | | | | | | | | | ● | ○ | | |

Note: H=high class, M=middle class, E=economy class.

●:Leading sector ○:Supporting sector

Tab.1.9 Financial Development Cost (Bl. 1,000)

| Components | Land | Foreign | Local | Total |
|-------------------|---------------|----------------|---------------|----------------|
| Accommodation | 61,874 | 80,051 | 22,500 | 164,425 |
| Marine transport | ---- | 547 | 353 | 900 |
| Land transport | ---- | 2,080 | 1,187 | 3,267 |
| Gamboa area | 4,910 | 21,606 | 8,468 | 34,984 |
| Summit area | 6,275 | 12,266 | 5,463 | 24,004 |
| Punta Toro area | 200 | 1,341 | 1,170 | 2,711 |
| 10 monument parks | ---- | 6,886 | 2,648 | 9,534 |
| Total | 73,259 | 124,777 | 41,789 | 239,825 |

Tab.1.10 Investment Cost by Sectors (Bl. 1,000)

| Sectors | Short | Medium | Long | Total |
|--------------|----------------|---------------|---------------|----------------|
| Land | 73,259 | -- | --- | 73,259 |
| Government | 1,960 | -- | 1,307 | 3,267 |
| TDC | 32,328 | 14,482 | 6,538 | 53,348 |
| Private | 27,722 | 65,890 | 16,339 | 109,951 |
| Total | 135,269 | 80,372 | 24,184 | 239,825 |

Tab.1.11 Economic Evaluation (%. persons)

| Items | |
|---|-------|
| Economic Internal Rate of Return (EIRR) | 16.6% |
| Generated employment: Direct | 2,649 |
| Indirect | 6,623 |

Tab.1.12 Financial Evaluation of TDC

| Items | (Bl. 1,000, %) |
|--|----------------|
| Total investment cost | 126,607 |
| Investment fund: Capital | 53,528 |
| Long-term loan | 22,670 |
| Financial Internal Rate of Return (FIRR) | 12.9% |

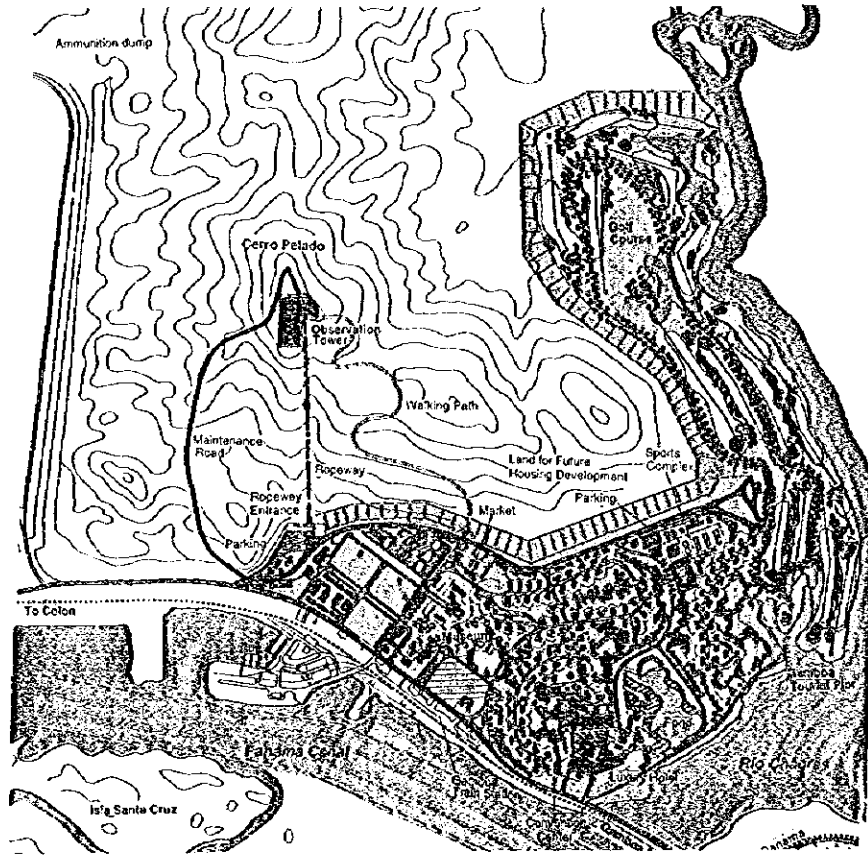


Fig.1.3 Panama Canal Tourism Development Plan: Gamboa Area

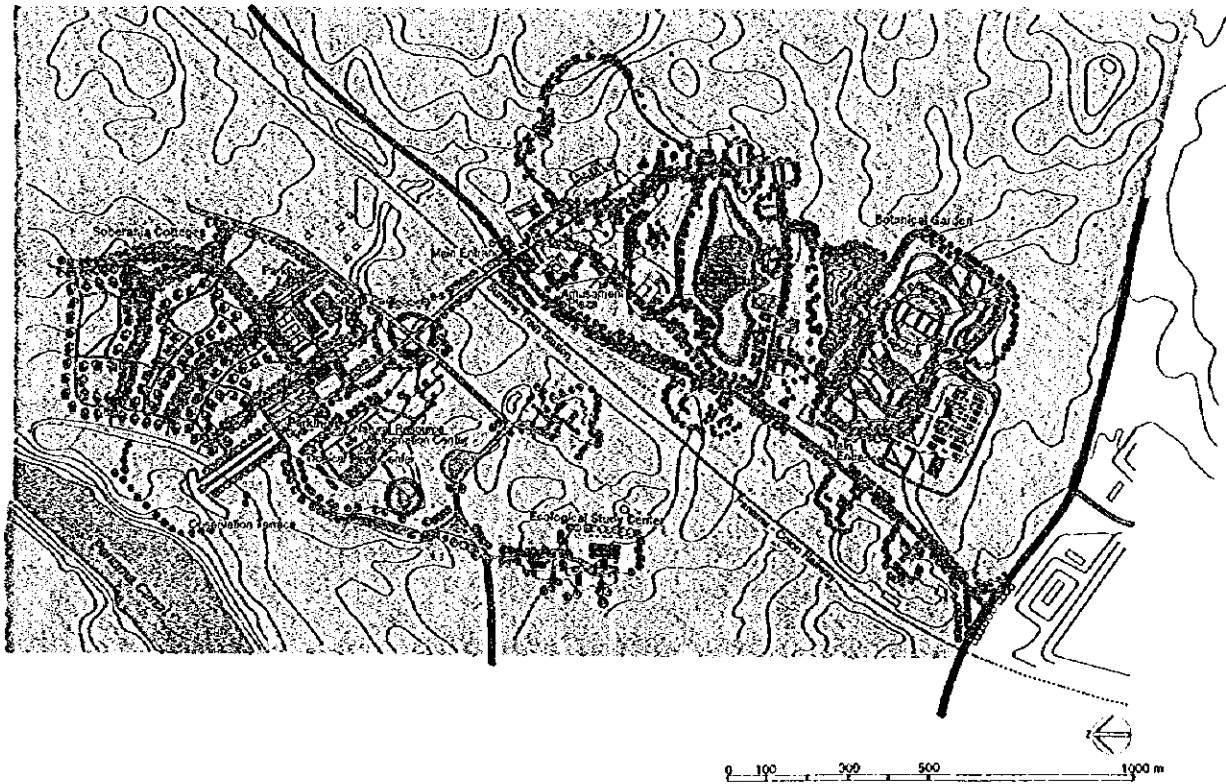


Fig.1.4 Panama Canal Tourism Development Plan: Summit Area

1.3 Flower and Green City Development Plan

Create a Flora Garland in the Tropical Modern City

Objectives and Means

- To create the characteristic urban environment of Panama City
- To maximize the potential of urban amenity in Panama City
- To promote beautification program in cooperation with people who live in the city
- To facilitate visual communication for tourists through signs and symbols

Tab.1.13 Target Number of Visitors (1,000 personas)

| Tourist types | | Short | Medium | Long |
|----------------|----------|-------|--------|-------|
| Overnight stay | Foreign | 171 | 600 | 1,380 |
| | Domestic | 48 | 169 | 409 |
| | Total | 219 | 769 | 1,789 |
| Day visit | Foreign | 155 | 262 | 313 |
| | Domestic | 200 | 364 | 814 |
| | Total | 355 | 626 | 1,127 |

Note: Overnight visitors are total staying overnight.

Tab.1.14 Project Profile of Flower and Green City Plan

| Development components | | Project package | Development schedule | | | | | | | | | | Dev't body | | | | | | | | |
|---|--|--|--------------------------|----|----|----|----|----|----|----|----|----|------------|----|----|----|----|------|-----|-------|--|
| | | | 96 | 97 | 98 | 99 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | Gov. | TDC | Priv. | |
| Towerscape beautification projects | Landscaping of roads and streets (20 routes, total length 70km.) | Main gateways (16.5km.) | <input type="checkbox"/> | | | | | | | | | | | | | | | ● | | | |
| | | Principal sightseeing routes (17.6km.) | <input type="checkbox"/> | | | | | | | | | | | | | | | | ● | | |
| | | Sightseeing routes in Canal Zone (35.9km.) | <input type="checkbox"/> | | | | | | | | | | | | | | | | ● | | |
| Tourist open space improvement | Landscaping of focal tourist areas | Caledonia area (7.6km, 3.9ha.) | <input type="checkbox"/> | | | | | | | | | | | | | | | ● | | | |
| | | Bella Vista north area (2.1km, 2.3ha.) | <input type="checkbox"/> | | | | | | | | | | | | | | | | ● | | |
| | | Bella Vista south area (0.4km) | <input type="checkbox"/> | | | | | | | | | | | | | | | | ● | | |
| Projects for upgrading tourist services | Introduction of a tourist sign information system | Tourist guidemap boards (50 spots) | <input type="checkbox"/> | | | | | | | | | | | | | | | ● | | | |
| | | Tourist sign boards (50 spots) | <input type="checkbox"/> | | | | | | | | | | | | | | | | ● | | |
| | | Mozaic tiles pavement (50 spots) | <input type="checkbox"/> | | | | | | | | | | | | | | | | ● | | |
| Tourist Information Centers development | Tourist Bus Center development | San Felipe area (200m ²) | <input type="checkbox"/> | | | | | | | | | | | | | | | ● | | | |
| | | Bella Vista area (200m ²) | <input type="checkbox"/> | | | | | | | | | | | | | | | | ● | | |
| | | Bus center building | <input type="checkbox"/> | | | | | | | | | | | | | | | ● | | | |
| | | Inter-city bus station | <input type="checkbox"/> | | | | | | | | | | | | | | | ● | | | |

●: Leading sector

Tab.1.15 Financial Development Cost (Bl. 1,000)

| Componentes | Land | Foreign | Local | Total |
|---------------------|------|---------|--------|--------|
| Road landscaping | -- | 8,735 | 9,224 | 17,959 |
| Areal landscaping | -- | 4,466 | 4,185 | 8,651 |
| Tourist open space | -- | 369 | 269 | 638 |
| Sign information | -- | 260 | 230 | 490 |
| Information centers | -- | 789 | 342 | 1,131 |
| Tourist bus center | -- | 1,778 | 1,848 | 3,626 |
| Total | -- | 16,397 | 16,098 | 32,495 |

- Formation of a Tourism City by Participation of Citizens

It is important for the citizens to get to know what is tourism and participate in tourism activities at various levels-personal, commercial to public etc. Improvement of the attitude to tourism of the citizens will promote services for tourism. The concept of tourism city by participation of the citizens in this project is expected to spread to other cities and regions.

Project Evaluation

- Gateway City Panama

Panama city is a gateway not only to the metropolitana area but to the whole of Panama. 1.2 million tourists are forecast to pass through Tocumen airport in 2010. As the first impression gained from the trip from the airport to the city center will have a high effect in the total evaluation of the country, this project is considered very important from the viewpoint of tourism promotion.

- Beautiful and Comfortable City

The beauty and comfortability of Panama city should be enhanced by this project in the short term while the living environment for all citizens will be improved at the same time. The effect will be great as about 50% of population of the whole country live in the zone.

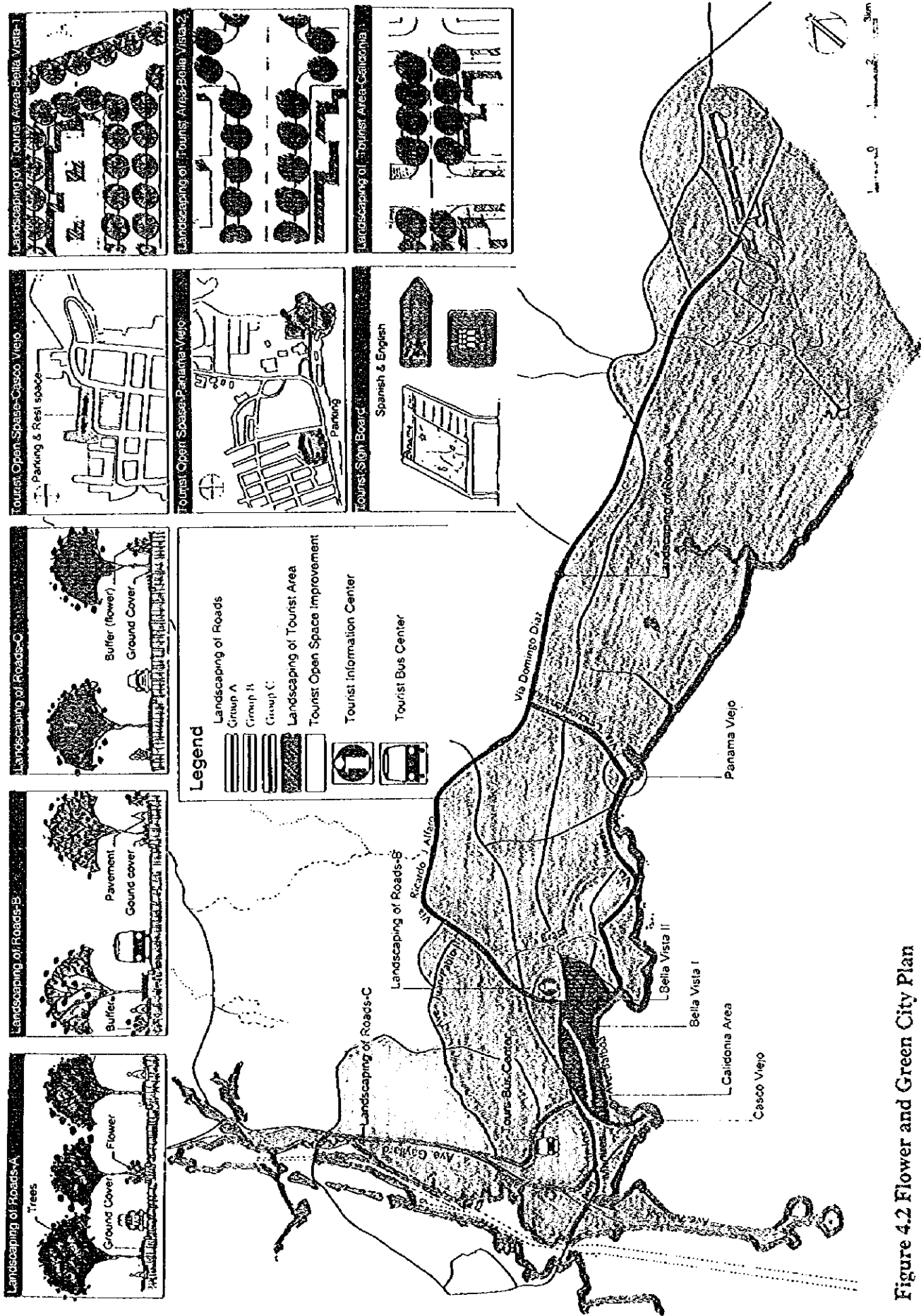


Figure 4.2 Flower and Green City Plan

1.4 Portobelo Tourism Development Plan

Create the Duality of Historical Town and Marine Garden

Objectives and Means

- To conserve Portobelo historical town, objects, unique architectural fabric and their historical importance.
- To integrate with Portobelo National Park as the principal tourist attraction for its natural and historical importance.
- To improve and conserve the coastal belt, to effectively utilize their tourism resources and to provide for tourism based on the coastal belt.
- To integrate historical town conservation and tourist attractions.
- To develop a coastal resort base to support the limited capacity of Isla Grande.

Tab.1.16 Target Number of Visitors (1,000 pers.)

| Tourist types | | Short | Medium | Long |
|----------------|----------|-------|--------|-------|
| Overnight stay | Foreign | 146 | 253 | 517 |
| | Domestic | 94 | 150 | 191 |
| | Total | 240 | 403 | 708 |
| Day visit | Foreign | 418 | 849 | 1,202 |
| | Domestic | 94 | 144 | 262 |
| | Total | 512 | 993 | 1,464 |

Note: Overnight visitors are total staying overnight.

Tab.1.17 Project Profile of Portobelo Tourism Development Plan

| Development components | Project package | Development schedule | | | | | | | | | | Dev't body | | | | | | | | | |
|--|---|---|----|----|----|----|----|----|----|----|----|------------|----|----|----|----|------|-----|-------|---|---|
| | | 96 | 97 | 98 | 99 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | Gov. | TDC | Priv. | | |
| Portobelo Bay Area projects | Old Portobelo Town | Accommodation development (M:85rm, 0.4ha) | | | | | | | | | | | | | ○ | ● | | | | | |
| | Portobelo Town | Portobelo Town Center beautification (5ha.) | | | | | | | | | | | | | | | | | ● | ○ | |
| | Portobelo Area | Portobelo Information Center development (600m ²) | | | | | | | | | | | | | | | | | ● | ○ | |
| | Portobero Area | Portobero Handicraft Training Center development (1,400m ²) | | | | | | | | | | | | | | | | | ○ | ● | |
| Portobelo Peninsula Area Projects | La Escucha Area | Cruiser pier and marine center development (9.8ha.) | | | | | | | | | | | | | ○ | ● | ○ | | | | |
| | Portobelo Area | Accommodation development (H:300rm, 15.9ha.) | | | | | | | | | | | | | | | | | ○ | ● | |
| | Portobelo Area | Beach improvement (0.5km.) | | | | | | | | | | | | | | | | | ● | ○ | |
| Portobelo Peninsula Area Projects | Puerto Lindo Area | Accommodation development (M:300rm, 7ha.) | | | | | | | | | | | | | | | | | ○ | ● | |
| | Puerto Lindo Area | Beach improvement (0.3km.) | | | | | | | | | | | | | | | | | | ● | |
| Road projects | La Guaira Area | Accommodation development (M:300rm, 7ha.) | | | | | | | | | | | | | | | | | ○ | ● | |
| | La Guaira Area | Beach improvement 0.3km.) | | | | | | | | | | | | | | | | | | ● | |
| Road projects | Costal excursion road, new construction (14.0km.) | | | | | | | | | | | | | | | | | | | ● | ○ |
| | Portobelo Town - Cacique - Puerto Lindo | | | | | | | | | | | | | | | | | | | | ○ |
| | Isla Grande access road, improvement (10.5km.) | | | | | | | | | | | | | | | | | | | | ● |
| San antonio - Puerto Lindo - La Guaira | | | | | | | | | | | | | | | | | | | | ○ | |

Note: H=high class, M=middle class, E=economy class.

●:Leading sector ○:Supporting sector

Tab.1.18 Financial Development Cost (Bl. 1,000)

| Components | Land | Foreign | Local | Total |
|--------------------|-------|---------|--------|---------|
| Accommodation | 1,342 | 57,250 | 20,679 | 79,271 |
| Marine transport | --- | 6,067 | 3,502 | 9,569 |
| Land transport | 7 | 7,682 | 4,822 | 12,511 |
| Tourist facilities | 98 | 8,760 | 4,222 | 13,080 |
| Public utilities | 20 | 9,360 | 7,252 | 16,632 |
| Total | 1,467 | 89,119 | 40,477 | 131,063 |

Tab.1.20 Economic Evaluation (% , persons)

| Details | |
|---|-------|
| Economic Internal Rate of Return (EIRR) | 36.9% |
| Generated employment: Direct | 1,838 |
| Indirect | 4,594 |

Tab.1.19 Investment Cost by Sectors (Bl. 1,000)

| Sectors | Short | Medium | Long | Total |
|------------|--------|--------|-------|---------|
| Land | 1,467 | --- | --- | 1,467 |
| Government | 13,659 | 235 | 7,933 | 21,827 |
| TDC | 14,418 | 10,644 | --- | 25,062 |
| Private | 45,766 | 36,941 | --- | 82,707 |
| Total | 75,310 | 47,820 | 7,933 | 131,063 |

Tab.1.21 Financial Evaluation of TDC

| Details | (Bl. 1,000, %) |
|--|----------------|
| Total investment cost | 26,529 |
| Investment fund: Capital | 11,492 |
| Long-term loan | 9,564 |
| Financial Internal Rate of Return (FIRR) | 15.9% |

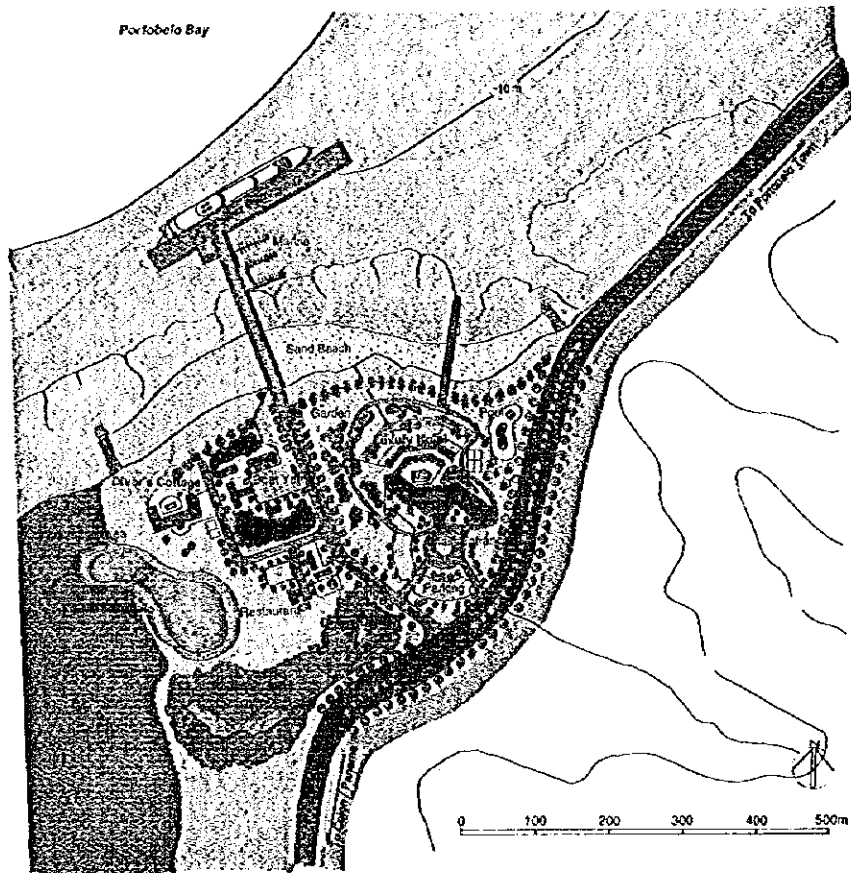


Fig. 1.6 Portobelo Tourism Development Plan : La Escucha Resort Development

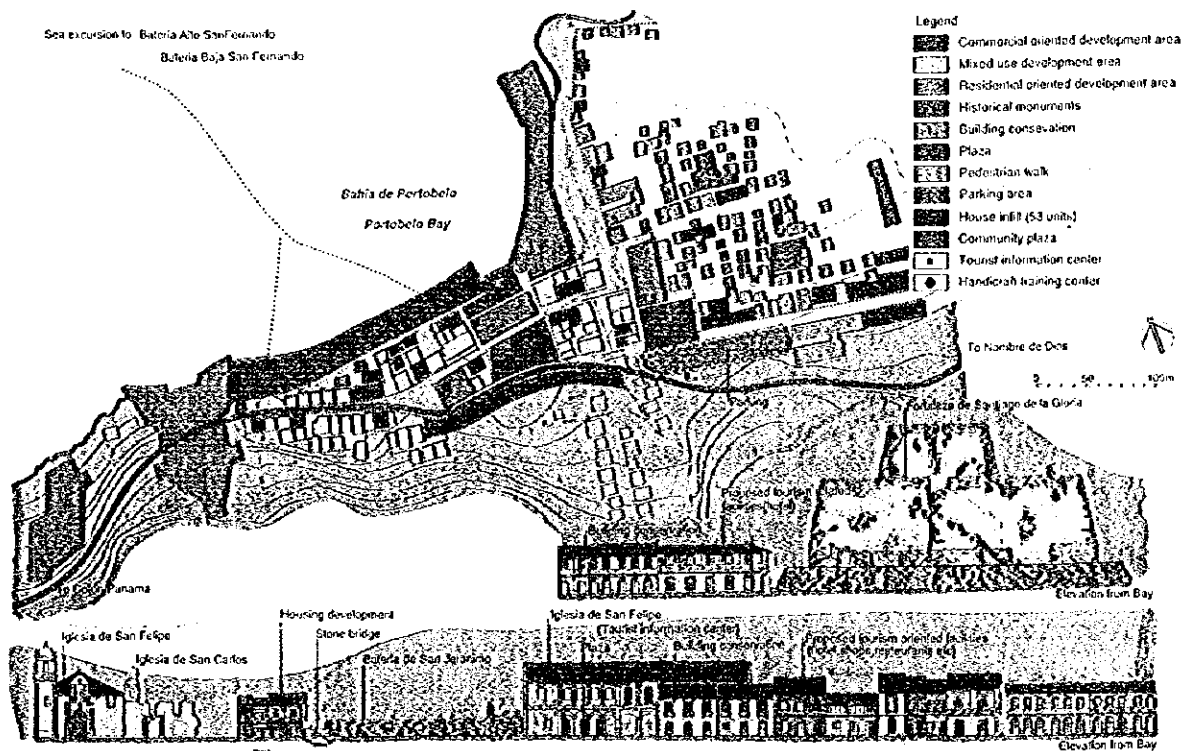


Fig.1.7 Portobelo Tourism Development Plan : City Center Beautification

1.5 Caribbean Costa Arriba Road Development Plan

Create a Coastal Tourism Corridor along the Caribbean Sea.

Objectives and Means

- To improve the access road from Sabanita to Portobelo in the short term.
- To expand and shift to eastern part and to develop tourism in Santa Isabel, so as to limit development within National Park boundary, in the middle term.
- To connect to San Blas by land surface link, and to establish the eastern Panama tourism circuit, Panama - Portobelo - San Blas.

Tab.1.22 Target Number of Visitors (1,000 persons)

| Tourist types | | Short | Medium | Long |
|----------------|----------|-------|--------|-------|
| Overnight stay | Foreign | 200 | 500 | 1,000 |
| | Domestic | 135 | 243 | 492 |
| | Total | 335 | 743 | 1,492 |
| Day visit | Foreign | 292 | 600 | 879 |
| | Domestic | 205 | 350 | 655 |
| | Total | 497 | 950 | 1,534 |

Tab.1.23 Project Profile of Caribbean Costa Arriba Road Development Plan

| Development components | Project package | Development schedule | | | | | | | | | | Dev't body | | | | | |
|--|------------------------------|----------------------|--|----|-----|----|----|----|----|----|----|------------|----|----|----|----|------|
| | | 96 | 97 | 98 | 99 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | Gov. |
| Route of Sabanita - San Antonio (44.2km.) | Sabanita - Rio Alejandro | 4.4km | ROW: 26.0m. Pavement: 7.0m., 4 carriage-ways | | [] | | | | | | | | | | ● | | |
| | Rio Alejandro - La Escucha | 27.8km | ROW: 15.0m., Pavement: 7.0m., 3 parking areas | | [] | | | | | | | | | | ● | | |
| | La Escucha - Portobelo Town | 3.0km | ROW: 15.5m., Pavement: 7.0m., 1 parking area | | [] | | | | | | | | | | ● | | |
| | Portobelo Town - San Antonio | 9.0km | ROW: 15.0m., Pavement: 7.0m., Rio Cascajall bridge | | [] | | | | | | | | | | ● | | |
| Route of San Antonio - Cuango (33.6km.) | San Antonio - Nombre de Dios | 15.0km | ROW: 15.0m., Pavement: 7.0m., Rio Nombre de Dios bridge 1 parking area | | [] | | | | | | | | | | ● | | |
| | Nombre de Dios - Viento Frio | 4.7km | ROW: 14.0m., Pavement: 6.0m., 1 bridge, 2 access roads 2 parking areas | | [] | | | | | | | | | | ● | | |
| | Viento Frio - Cuango | 13.9km | ROW: 14.0m., Pavement: 6.0m., 3 parking areas | | [] | | | | | | | | | | ● | | |

Note: ROW=right of way

●: Leading Sector

tab.1.24 Financial Development Cost (B1, 1,000)

| Components | Land | Foreign | Local | Total |
|---------------------|------------|---------------|---------------|---------------|
| Sabannita-Alejandro | --- | 4,920 | 3,737 | 8,657 |
| Alejandro-Escucha | 6 | 4,253 | 4,877 | 9,136 |
| Esucha-Portobelo | --- | 2,948 | 2,440 | 5,388 |
| Portobelo-Antonio | --- | 1,593 | 1,049 | 2,642 |
| Antonio-Nombre | 8 | 4,293 | 3,009 | 7,310 |
| Nombre-Viento Frio | 153 | 2,521 | 1,756 | 4,430 |
| Viento Frio-Cuango | 3 | 3,034 | 2,208 | 5,245 |
| Total | 170 | 23,562 | 19,076 | 42,808 |

Project Evaluations

The benefit derived from the improvement of the road are the saving in the maintenance cost of the road and vehicle operation cost. The EIRR for the total section is estimated at 13.7% as shown in the table.

Tab.1.24 Investment Cost by Sectors (B1, 1,000)

| Sectors | Short | Medium | Long | Total |
|--------------|---------------|---------------|------------|---------------|
| Land | 170 | --- | --- | 170 |
| Government | 22,325 | 20,313 | --- | 42,638 |
| TDC | --- | --- | --- | --- |
| Private | --- | --- | --- | --- |
| Total | 22,495 | 20,313 | --- | 42,808 |

Tab.1.25 Economic Internal Rate of Return (%)

| Components | EIRR |
|------------------------------|--------------|
| Sabannita - Rio Alejandro | 2.7% |
| Rio Alejandro - La Escucha | 15.3% |
| La Escucha - Portobelo Town | 6.8% |
| Portobelo Tow - San Antonio | 42.9% |
| San Antonio - Nombre de Dios | 11.1% |
| Nombre de Dios - Viento Frio | 5.1% |
| Viento Frio - Cuango | 5.8% |
| Total | 14.0% |

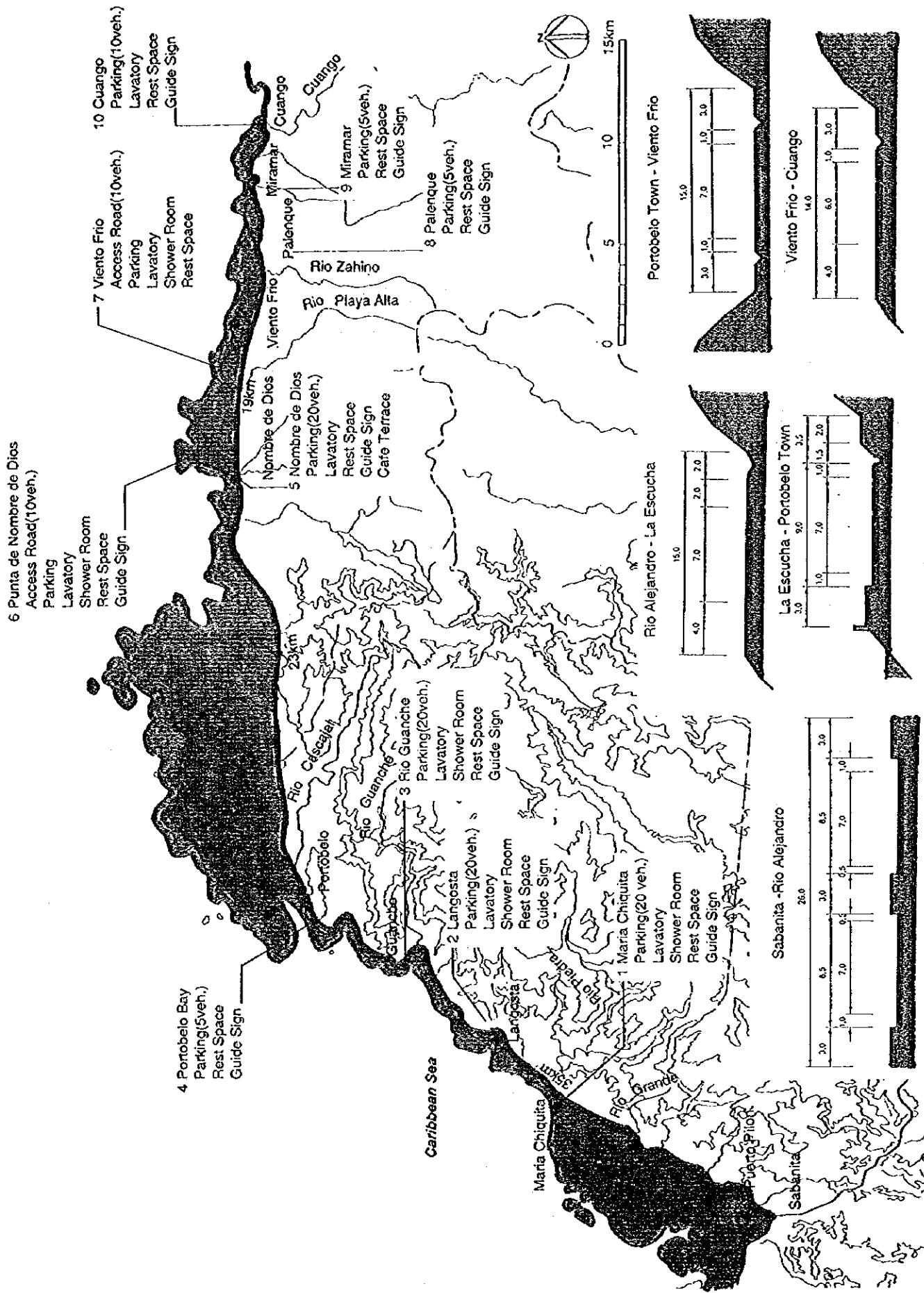


Fig.1.8 Caribbean Costa Arriba Road Development Plan

1.6 Maritime Triangle Development Plan

Create High-speed Voyage on the Gulf of Panama.

Objectives and Means

- To create an opportunity for tourists to visit Las Perlas by sea excursion link considering mass transport, time factors, and safety.
- To operate sea excursion link between Panama City and Las Perlas (San Miguel) in the short term.
- To develop further sea links between Panama City and Farallón, San Miguel and Farallón so that a new coastal tourism circuit comprising a triangular sea link can be introduced in the Gulf of Panama.
- To arrange entertainment on board during trips.

Tab.1.27 Target Number of Passengers

(Unit: 1,000 persons)

| Routes | Short | Medium | Long |
|-------------------|-------|--------|-------|
| Metropolitana ← → | 175.0 | 274.0 | 436.8 |
| Las Perlas | --- | --- | 100.0 |
| Las Perlas ← → | 50.0 | 71.0 | 92.0 |
| Farallón | 79.0 | 93.6 | 207.2 |
| Farallón ← → | 3.6 | 175.0 | 260.0 |
| Metropolitana | 1.5 | 165.0 | 245.0 |

Tab.1.28 Project Profile

| Development components | Project Package | Development schedule | | | | | | | | | | Dev't body | | | | | |
|------------------------|--|----------------------|----|----|----|----|----|----|----|----|----|------------|----|----|----|----|------|
| | | 98 | 97 | 98 | 99 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | Gov. |
| Port facility projects | Nueva Gorgona (Farallón) | | | | | | | | | | | ● | ● | ● | | | |
| | San Miguel (Las Perlas) | | | | | | | | | | | ● | ● | ● | | | |
| | Access road (Port - San Miguel Town, 6km.) | | | | | | | | | | | ● | ● | ● | | | |
| | Boat operation | | | | | | | | | | | ○ | ● | ● | | | |

●: Leading sector ○: Supporting sector

Tab.1.29 Financial Development Cost (Bt 1,000)

| Components | Land | Foreign | Local | Total |
|--------------------|-----------|---------------|--------------|---------------|
| Landing piers | --- | 1,587 | 1,015 | 2,602 |
| Terminal buildings | 4 | 1,457 | 523 | 1,984 |
| Parking areas | 20 | 148 | 107 | 275 |
| Access road | 15 | 5,552 | 3,628 | 9,195 |
| Hydrofoil boats | --- | 54,000 | --- | 54,000 |
| Total | 39 | 62,744 | 5,273 | 68,056 |

Tab.1.30 Financial Evaluation

| Items | |
|--|--------|
| Total investment cost(Bt.1,000) | 68,056 |
| Financial Internal Rate of Return (FIRR) | 22.2% |

Tab.1.30 Investment Cost by Sectors (Bt 1,000)

| Sectors | Short | Medium | Largo | Total |
|--------------|---------------|---------------|---------------|---------------|
| Land | 39 | --- | --- | 39 |
| Government | 6,686 | 6,669 | 662 | 14,017 |
| TDC | --- | --- | --- | --- |
| Private | 18,000 | 18,000 | 18,000 | 54,000 |
| Total | 24,725 | 24,669 | 18,662 | 68,056 |

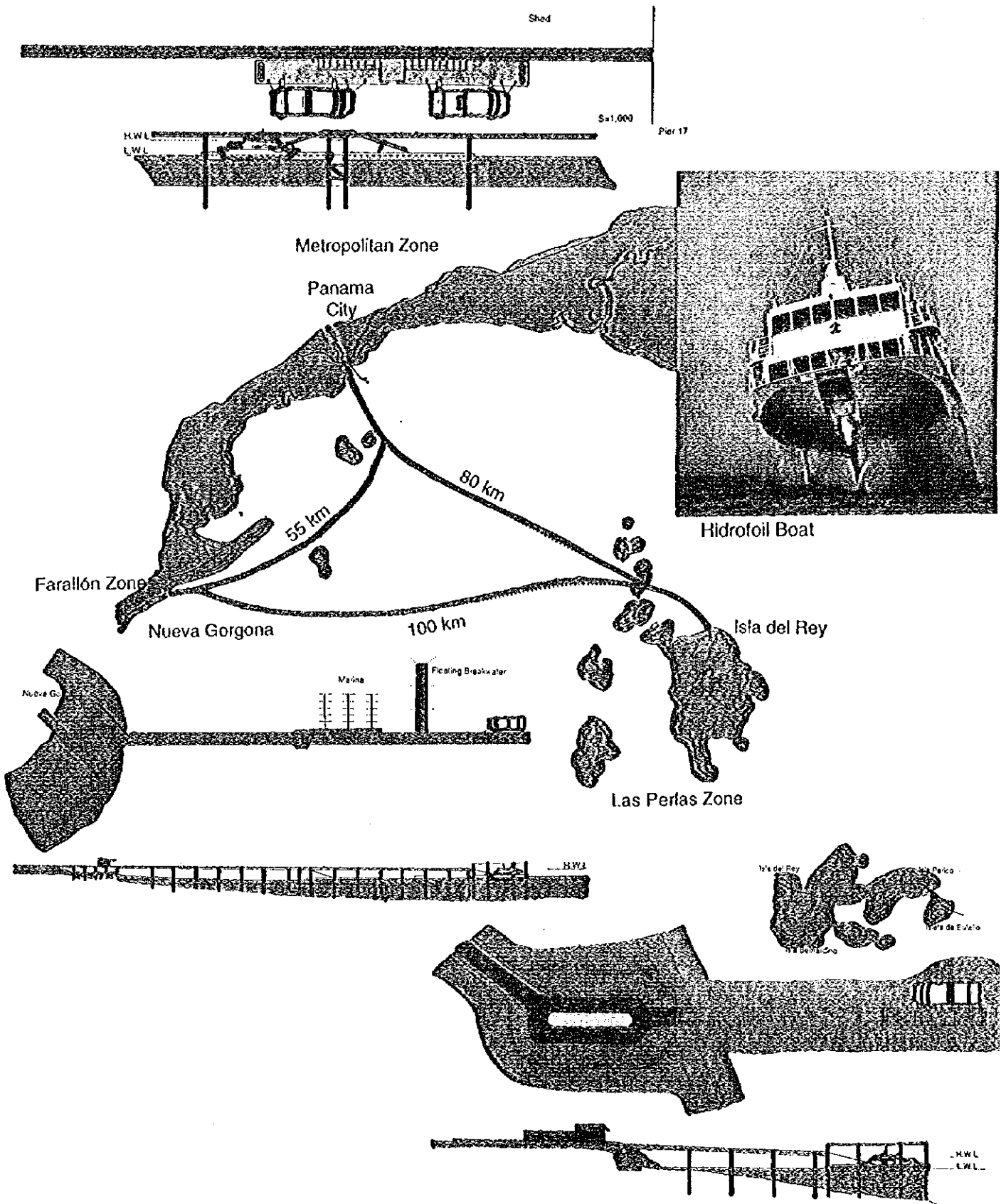


Fig.1.9 Maritime Triangle Development Plan

2. Implementation Entity and Organization

These are based on tourism development public corporations that have been basically proposed as the entities to implement integrated tourism project.

To implement integrated tourism development projects, implementation entities are essential that engage in acquisition of land as the basis of the project, construction of infrastructure and central facilities,

lease or sale of those facilities, and promote private investment and attraction of tourists.

The implementation entities for each project are listed below.

Tab.2.1 Summary of Implementation Entity and Organization of Priority Projects

| Priority Projects | Lands | Facilities | Operations |
|---|---------|------------|------------|
| 1. Chame Resort Development | | | |
| 1) Accommodation | TDC | PRI | PRI |
| 2) Sea Transportation | TDC | TDC | TDC |
| 3) Access Roads | TDC | PUB | PUB |
| 4) Tourism facilities | TDC | PRI | TDC/PRI |
| 5) Infrastructure | TDC | TDC | TDC |
| 2. Panama Canal Tourism Development | | | |
| 1) Accommodation | TDC | PRI | PRI |
| 2) Transportation | TDC | TDC | TDC |
| 3) Access Roads | TDC | TDC | TDC |
| 4) Gamboa Area Tourism Facilities | TDC | TDC | TDC/PRI |
| 5) Summit, Soberania Area Development | TDC | TDC/PRI | PRI/PUB |
| 6) Monument Park Development | TDC | TDC | TDC |
| 7) Punta Toro Area Development | TDC | TDC | TDC |
| 3. Flower and Green City Plan | | | |
| 1) Landscaping of Roads | PUB | PUB | PUB |
| 2) Tourist Area Landscaping | PUB | PUB | PUB |
| 3) Tourist Open Space | PUB | PUB | PUB |
| 4) Tourism Sign Improvement | PUB | PUB | PUB |
| 5) Tourism Information Center | PUB | PUB | PUB |
| 6) Tourist Bus Center | PUB | PUB | PUB |
| 4. Portobelo Tourism Development | | | |
| 1) Accommodation | TDC | PRI | PRI |
| 2) Cruise Pier | PUB/TDC | PUB/TDC | PUB TDC |
| 3) Access Roads | TDC | PUB | PUB |
| 4) Tourism facilities | TDC | TDC | TDC |
| 5) Infrastructure | TDC | TDC | TDC |
| 5. Caribbean Costa Arriba Road Development | | | |
| 1) Sabanita - Rio Alejandro | PUB | PUB | PUB |
| 2) Rio Alejandro - La Escucha | PUB | PUB | PUB |
| 3) La Escucha - Portobelo Town | PUB | PUB | PUB |
| 4) Portobelo Town - San Antonio | PUB | PUB | PUB |
| 5) San Antonio - Nombre de Dios | PUB | PUB | PUB |
| 6) Nombre de Dios - Viento Frio | PUB | PUB | PUB |
| 7) Viento Frio - Cuango | PUB | PUB | PUB |
| 6. Maritime Triangle Development | | | |
| 1) Pier | PUB | PUB | PUB |
| 2) Terminal | PUB | PUB | PUB |
| 3) Parking | PUB | PUB | PUB |
| 4) Access Roads | PUB | PUB | PUB |
| 5) Hydro-Foil Boats | PRI | PRI | PRI |

Note: TDC: Proposed Tourism Development Corporation, PUB: Public sector, PRI: Private sector

3. Project Evaluation

(1) Summary of Selected Projects for Feasibility Study

Summary of selected projects for feasibility study including outlines and development costs classified by implementation entity are shown in Tab.3.1.

(2) Economic and Financial Analysis

Economic and Financial Analysis of the Project was conducted for each project in a way appropriate for

each projects' nature. Especially for general tourism development projects such as Chame Resort, Panama Canal and Portobelo tourism development, economic analysis was conducted taking tourism revenue as income using the same method used for the Long Term tourism Development Plan. The financial analysis of these projects was conducted assuming that the proposed development entity, the Tourism Development Corporation (TDC), was in operation. (Tab.3.2)

Tab 3.1 Summary of Selected Projects for Feasibility Study

| Project name | Project outlines | Development cost(B/.1,000) | |
|--|--|--|---|
| 1. Chame Resort Development | <ul style="list-style-type: none"> As the leading project of Farallón Zone coastal resort hotel complex along the dynamic long beaches facing the Pacific Ocean is initiated. Major components of this project are over 3,000 rooms of international standard accommodations and several sorts of urban -type resort amenity facilities. | Land Gov't TDC Private Total | 6,915 15,659 51,565 210,491 284,630 |
| 2. Panama Canal Tourism Development | <ul style="list-style-type: none"> In principle, accommodation and amenity facilities are to be established in Gambia, Summit and Punta Toro areas as new tourism bases, To create continuous tourist attraction places making use of natural and historical areas through development of 10 Panama Canal focal spots. | Land Gov't TDC Private Total | 73,259 3,267 53,348 109,951 239,825 |
| 3. Flower and Green City Development | <ul style="list-style-type: none"> Creation of a good initial impression at Tocumen Airport and improvement of selected roads and open spaces by landscape , including sign boards and street lights. Establishment of new tourist information centers and a tourist bus center located in the central area is introduced. Tourist areas to be selected and improved. | Land Gov't TDC Private Total | - 32,495 - - 32,495 |
| 4. Portobelo Tourism Development | <ul style="list-style-type: none"> Historical Portobelo Town conservation and re-development and establishment of dispersed tourist resorts (Caribbean coastal belt 9km)are formulated and integrated with Portobelo National Park. The first hotels to be located in La Escucha, Puerto Lindo, La Guaira and Portobelo Town. | Land Gov't TDC Private Total | 1,467 21,827 25,062 82,707 131,063 |
| 5. Caribbean Costa Arriba Road Development | <ul style="list-style-type: none"> Trunk road improvement project 77.8km. long between Sabanita - Cuango along the Caribbean Sea is recommended. Road lane pavement in whole route including new construction of 3 bridges, 10 parking areas and 2 access roads to the beaches to be improved. | Land Gov't TDC Private Total | 170 42,638 - - 42,808 |
| 6. Maritime Triangle Development | <ul style="list-style-type: none"> Establishment of sea excursion links with hydrofoil boats between Panama City, Del Ray Islands and Chame area are recommended, in response to the needs of tourist demand. Improvement or development of each port Facility are proposed, including access road, parking areas and terminal buildings. | Land Gov't TDC Private Total | 39 14,017 - 54,000 68,056 |

Table 3.2 Summary of the Evaluation of the Priority Projects

| Project | Economic Internal Rate of Return | Financial Rate of Return |
|---|----------------------------------|--------------------------|
| 1. Chame Resort Development Plan | 19.0%* ¹ | 19.6%* ² |
| 2. Panama Canal Tourism Development Plan | 16.6%* ¹ | 12.9%* ² |
| 3. Flower and Green City Development Plan | -* ³ | -* ⁴ |
| 4. Portobelo Tourism Development Plan | 36.9%* ¹ | 15.9%* ² |
| 5. Caribbean Coast Arriba Road Development Plan | 14.0%* ⁵ | -* ⁶ |
| 6. Maritime Triangle Development | -* ⁷ | 22.2%* ⁸ |

TDC: Proposed Tourism Development Corporation, PUB: Public Sector, PRI: Private Sector

*¹: Tourism revenue was calculated as a benefit, and compared to development cost

*²: Assuming that the proposed implementation entity, the Tourism Development Corporation (TDC), was in operation

*³: Economic analysis was not applied to the project due to the social benefit of the project

*⁴: Financial analysis did not apply due to non-financial-benefit project

*⁵: Vehicle operating cost and maintenance cost are calculated as a benefits

*⁶: As this road development project has regionally spread benefits, there is no direct profit

*⁷: As transportation infrastructure is essential for tourism development for the Las Perlas Islands, economic analysis was not conducted.

*⁸: A financial analysis considering both port construction and establishment of high speed water transport

(3) Environmental Evaluation

The negative impact of the six projects and the countermeasures which become necessary in the future are shown in Tab.3.3. In conclusion no major

impacts on the implementation of priority projects are identified so that the projects will be feasible if the countermeasures are carried out.

Tab.3.3 Negative Impacts and Countermeasures of Feasibility Study Projects

| Project | Zone | Negative Impacts and Countermeasures |
|--|-------------------------------------|---|
| 1. Chame Resort Development | Farallón | In order to preserve the sea turtle nesting areas and the few remaining mangrove forests, the relevant local governments shall establish preservation zoning and guidelines, and enforce them. |
| 2. Panama Canal Tourism Development | Metropolitana | This is an area possessing abundant flora and fauna, including rain forest. Soil erosion caused by soil structure and rain forest felling will be minimized at the planning stage. |
| 3. Flower and Green City Plan | Metropolitana | This project centers around planting trees to improve cityscapes, so is deemed to have no impact. |
| 4. Portobelo Tourism Development | Portobelo | Preserving the historical town of Portobelo will result in relocation of citizens, so compensation for relocation will be required. In addition, zoning and guidelines for the preservation of the coastline and coral atolls where sea turtles nest, mangrove forests, and historical ruins, are to be established by local governments. |
| 5. Caribbean Costa Arriba Road Development | Portobelo | In order to prevent soil erosion caused by cut and fill operation, treatment of wastewater during construction and the landscaping of slopes will be incorporated into plans. |
| 6. Maritime Triangle Development | Farallón, Metropolitana, Las Perlas | Fishing will be restricted (Farallón) and fishing grounds will be used (Las Perlas), so arranging compensation to fishermen should be necessary for this project. |

(4) Summary of Evaluation

Six priority projects are located in metropolitan area and its adjacent area. These projects are effective to implement in consideration of maximum utilization of existing tourism resources and infrastructure in these areas and high return results of financial and economic analysis.

Chame Resort Development, Portobelo Tourism Development, Caribbean Coasta Arriba Road Development and Maritime Triangle Development can be leading project of rural area development in pa-

cific coast area, Caribbean coast area and Las Perlas archipelago area. Moreover, Panama Canal Tourism Development, Flower and Green City Plan, Portobelo Tourism Development effect on conservation of natural, historical and cultural resources which should be succeeded to next generation and also contribute to social benefit. Furthermore, Flower and Green City Plan effects on formation of a new hub for international interchange based on tourism but also increasing of Panama's Internationality.

Therefore these six priority projects are feasible considered with entire evaluation results.

4. Conclusion and Recommendations of Feasibility Study

Evaluation was made on the six project plans as the pilot and leading projects for a long-term tourism development project and obtained the result that all these projects are feasible.

Therefore, the execution of these six projects is proposed based on this result and particularly the early execution of the following integrated tourism development projects is desirable.

- Chame Resort Development (248 millions Balboas)
- Panama Canal Tourism Development (240 millions Balboas)
- Portobelo Tourism Development (130 millions Balboas)

(1) Early Commencement of Implementation of Six Priority Projects

The Chame resort development, Panama Canal tourism development and Portobelo tourism development are comprehensive tourism development projects and have relatively high economic internal rates of return (19.0%, 16.6% and 36.9%, respectively), so that their implementation is recommended in the sense of the national economy. In the case where a new implementation organization such as the Tourism Development Corporation invests and manages the project, for example by buying raw land, developing necessary infrastructure and facilities and leasing the developed land and facilities to tourism industries, the financial analysis also results in sufficiently high financial internal rates of return (16.6%, 12.9% and 15.9%, respectively).

Within these three projects, the Panama canal tourism development should be given development priority considering the tourism resources of the canal zone, the land ownership and the well developed infrastructure which already exists.

1) Flower and Green City Plan (33 millions Balboas)

The Flower and green city project, has great social benefits, so early implementation by the local government is recommended.

- Beautification of city environment as the main gateway of Panama
- Volunteer citizens will assist in the creation of a city for tourists
- Realization of a clean, attractive and safe city for tourists

2) Caribbean Costa Arriba Road Development (43 million Balboas)

Improvement of the Caribbean Costa Arriba road is recommended for tourism development and local development in the Caribbean coastal region. It has a sufficiently high economic internal rate of return (14%) with road maintenance cost savings and vehicle operating cost savings.

3) Maritime Triangle Development

(68 million Balboas)

The maritime circuit development project has a high financial rate return (22.2%), even if operated by private enterprise. However, for realization of the project, coordination is necessary between the initial investment and the development schedule of Las Perlas zone and also the port development schedule.

(2) Next Steps to be Taken

1) Development Orientation for Rest Peripheral Areas of Six Study Zones

Within the three survey sites, Coiba has high development potential, however it does not have basic infrastructure especially transport access. Therefore a development and conservation plan should be conducted for determination of future tourism development zones.

Development of Escudo de Veraguas Island is included in Bastimentos zone development. In Horconcos, beaches and fishing bases will be developed for local residents of the area.

Since San Blas and Darién have unique and precious tourism resources, they should be developed slowly with careful consideration given to environmental conservation.

2) Adjustment and Up-dating of the Plans

The number of visitors to Panama will be highly affected by economic and other factors in the countries from which the majority of visitors are expected to come, including USA, and European countries.

Therefore, it is important to observe and analyze the conditions and factors in such countries which influence tourist behavior, and frequently adjust and update the development plans to make them most effective given the limited budget for capital investment and promotion.

For adjustment and up-dating of the development plans, the necessary information should be systematically collected and analyzed

3) Further Related Studies

More detailed studies on the priority projects should be conducted to finalize the details for implementation of these projects.

Since institutional and organizational reform was recommended, studies on their strengthening, such as the tourist information center system, should be prepared.

It is recommended that feasibility studies for important projects in areas other than the priority zones, such as Bastimentos and Las Perlas zones, be carried out progressively.

Appendix: Study Organization and Members

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| | |
|------------------------|------------------------------------|
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| Mr. Naoyuki Minami | Urban Infrastructure Plan |
| Mr. Masayuki Tamai | Electricity/Telecommunication Plan |
| Mr. Yasutaka Nagai | Tourism Resources/Landscape Plan |
| Mr. Satoru Nishino | Coastal Area Development Plan |
| Mr. Akitoshi Iio | Environmental Analysis |
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| Mr. Takeharu Koba | Project Administrator |

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