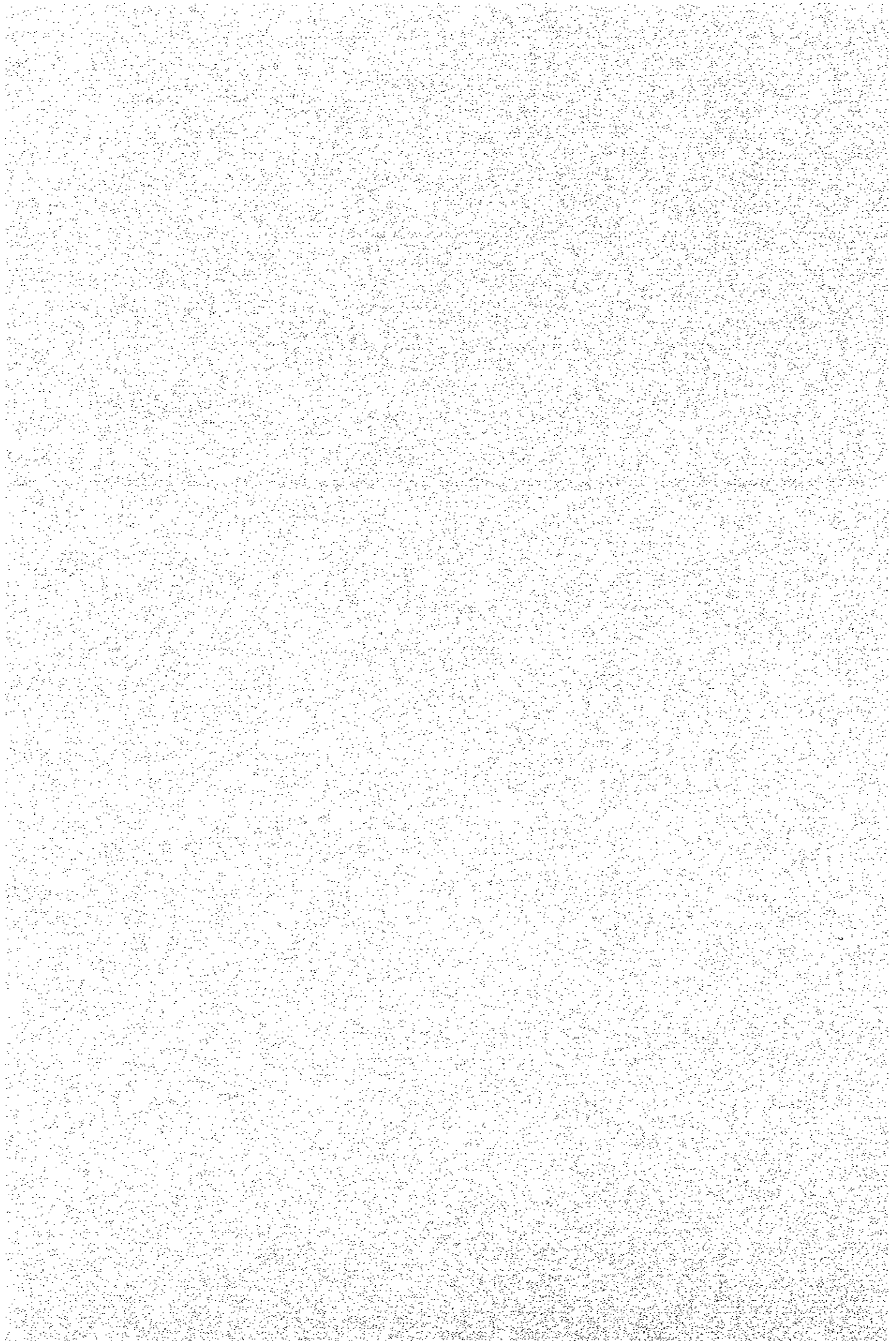


## Appendix

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## **A.1. Analysis of existing conditions and description of projects in Los Cabos tourism region**

### **A.1.1. Tourism structure of Los Cabos tourism center**

Los Cabos tourism region has 4 levels of the tourism structure.

The primary tourism centers in the Baja California Sur state (Los Cabos, La Paz and Loreto) are located in a linear tourism corridor along the Federal highway No.1, facing the Mar de Cortes. The corridor is designated as a priority tourism development area by the National Tourism Sector Development Program 1995-2000. The southern part of the state between Los Cabos and La Paz has two secondary tourism centers of Buena Vista and Todos Santos, which face the Mar de Cortes and the Pacific ocean, respectively.

Across the Mar de Cortes in Copper Canyon of the Chihuahua state, there are significant tourism resources. It is expected to form an inter-state tourism corridor with high tourism potential, connecting Los Cabos, La Paz-Los Mochis and Copper Canyon.

Mar de Cortes itself has good tourism resources in that it has blue and calm sea water and white sand beaches. Mar de Cortes also has many islands, most of which are included in biosphere reserves.

#### **(1) Los Cabos**

Los Cabos is the most developed tourism center in the state. Los Cabos is located at the south end of the California peninsula, mainly facing the Mar de Cortes, but part of which has much influence of the Pacific ocean. Los Cabos tourism center is composed of two sub-centers of Cabo San Lucas and San Jose del Cabo, and Los Cabos corridor between the two sub-centers.

In San Jose del Cabo, FONATUR started land development in 1976, and the hotels there started operation in 1980, while in Cabo San Lucas FONATUR started its development and operation in 1985 and 1986 respectively. They have attracted international investors since their commencement, but still require investments for further development.

Cabo San Lucas has been well developed with many tourism facilities, such as hotels, restaurants, bars, discos, shops and marina. It has acquired characteristics of a cozy entertainment area. On the other hand, San Jose del Cabo is characterized as a peaceful tourism area with an old historical downtown. Most of the San Jose del Cabo area has been developed by FONATUR.

#### **(2) La Paz**

La Paz is located about 220 km north from Los Cabos. La Paz is the oldest traditional beach resort center in the state, and it also had flourished as a free port by the 1980s. However, its status as a high-class beach resort has declined since the beginning of tourism development of Los Cabos and Los Cabos corridor. However, it still has development potential to upgrade tourism attraction of La Paz, based on beach resources along the Mar de Cortes.

#### **(3) Loreto**

Loreto's tourism development was initiated by FONATUR, the state government and private sector in 1980s. It is located about 580 km north from Los Cabos. The Loreto tourism center is composed of three areas of Loreto, Nopolo and Puerto Escondido. However, its development has been much delayed than originally planned because the private group was reluctant to invest.

#### **(4) Buena Vista**

Buena Vista is designated as a secondary tourism center in the state tourism development program, and is located at the point nearly the same distance both from

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Los Cabos and from La Paz through Federal Highway No.1. The center has a small hotels complex which could attract international visitors favoring game fishing.

**(5) Todos Santos**

Todos Santos is one of oasis areas in the state, and the only beach resort facing the Pacific ocean among the tourism centers designated by the state. This tourism center is not well developed at present, but to be developed utilizing the uniqueness as a beach resort of the Pacific ocean side and the oasis with rich green.

**(6) Others**

San Carlos of Bahia Magdalena may have potential as a future tourism center for visitors attracted by whale watching in rich mangrove colonies.

San Ignacio may also have potential as an oasis for land tour visitors from USA through the Baja California state, as well as visitors to canyons and cave paintings of Santa Teresita.

**(7) Mazatlan**

Mazatlan is a famous traditional beach resort and a center of the southern Sinaloa. A ferry transport connects Mazatlan with La Paz.

**(8) Los Mochis**

This is the center of north Sinaloa. Los Mochis has Topolobampo port, which connects Los Cabos/La Paz and Copper Canyon.

**(9) Ensenada, Tijuana and Mexicali**

These are the most prosperous centers of border tourism from USA in the state.

**(10) Ciudad Juarez**

Ciudad Juarez is a tourism center prospered with border tourists from USA in the state. A tourism train from USA to Copper Canyon is being operated through this center.

**(11) Chihuahua**

This is the capital town of the Chihuahua state. The trains come from USA to Copper Canyon through Chihuahua.

**A.1.2. Tourism resources**

The followings briefly describe major tourism resources in the tourism region, while Table A. 1 gives a list of tourism resources in Los Cabos tourism region.

**(1) Beaches and marine sports**

Since the Baja California Sur state is surrounded by the Pacific ocean in the west and by the Mar de Cortes in the east, beaches and marine animals are the most significant tourism resources of Los Cabos tourism region. Other than the tourism centers, there are a lot of islands in Mar de Cortes, which have this type of resources, but the most island are designated as a special biosphere reserve.

Especially Mar de Cortes can compete with the Caribbean Sea in its clean and blue sea water, white sand beaches and calm water, and abundant opportunities of game fishing.

**(2) Desert wildlife and landscape**

The state is mostly covered by dry land, which have a variety of desert wildlife. The desert also can provide unique landscape, which could be tourism resources, which have been underutilized.

### (3) Whale watching

Bahia Magdalena, Laguna San Ignacio and Laguna Ojo de Liebre are places famous for whale watching. It is highly probable for visitors to see whales because gray whales have been regularly coming down to certain places from the northern sea for childbirth from January and March.

### (4) Others

The region has other various tourism resources, such as biosphere reserves for wild life, precious oases in desert areas, mountains/canyons, ancient cave paintings in Santa Teresita, churches built by Spanish missionaries through the state, and ex-mining villages for gold and silver.

The Copper Canyon, which is located in the Chihuahua state, is a significant resource for Los Cabos tourism region. It is competitive with Grand Canyon in the Nevada state of USA in its character and rich green

**Table A. 1 List of tourism resources in Los Cabos tourism region**

| Type of resources         | Location  |  |
|---------------------------|---|--|
|                           | Baja California Sur state   | Neighboring states   |
| Tourism centers           | Los Cabos, La Paz, Loreto, East Cape, Buena Vista, Todos Santos, San Carlos, San Ignacio  | Mazatlan, Los Mochis, Ensenada, Tijuana, Mexicali, Ciudad Juarez, Chihuahua            |
| Beaches and Marine sports | Los Cabos, La Paz, Loreto, East Cape, Buena Vista, Todos Santos   | Mazatlan   |
| Mangrove/bird watching    | Bahia Magdalena, Laguna San Ignacio, Laguna Ojo de Liebre   |  |
| Whale watching            | Bahia Magdalena, Laguna San Ignacio, Laguna Ojo de Liebre   |  |
| Biosphere reserve         | El Vizcaino BR, Cabo Pulmo, Islas del Golfo BSR   | Copper Canyon NP, Isla Tibulon BSR, Sierra del Pincate BR, Alto Golfo de California BR |
| Oases                     | Todos Santos, San Jose del Cabo, San Ignacio, San Isidro, Mulege  |  |
| Mountains and/or Canyons  | Santa Teresita, Sierra de la Laguna,  | Copper Canyon  |
| Cave paintings            | Santa Teresita  |  |
| Missions                  | San Jose del Cabo, La Paz, Todos Santos, Dolores del Sur, San Luis, La Pasion, Loreto, San Javier, San Jose de Comondu, San Isidro, Mulege, Santa Maria Magdalena, Guadalupe, San Ignacio |  |
| Ex-mining villages        | San Antonio, El Rosario, El Triunfo   |  |

Source: JICA study team

## A.1.3. Tourism facilities

### A.1.3.1. Accommodation

#### (1) Accommodation

The number of guest rooms of lodging facilities as of October 1995 is indicated in Table A. 2. Among the six destinations, Los Cabos is ranked lowest with 4,808 rooms.

Regarding a share of hotel guest rooms in the total lodgings, it is around 85% in Los Cabos. Although the number of timesharing condominiums in the S.N.I.T. would be rather small, the role of timesharing condos is increasingly important to supply lodgings. Moreover, the role of trailer parks in lodgings should be taken into consideration in Los Cabos because of its relatively higher share of around 9 %.

**Table A. 2 Guest rooms of lodgings, 1995**

|                                    | Los Cabos    |               |
|------------------------------------|--------------|---------------|
| Hotel                              |              |               |
| (a) Hotel (1 star)                 | 12           | 0.2%          |
| (b) Hotel (2 stars)                | 99           | 2.1%          |
| (c) Hotel (3 stars)                | 233          | 4.8%          |
| (d) Hotel (4 stars)                | 1,072        | 22.3%         |
| (e) Hotel (5 stars)                | 2,564        | 53.3%         |
| (f) Hotel (Without classification) | 84           | 1.7%          |
| (g) Country Houses and Cabins      | 9            | 0.2%          |
| (h) Apartments                     | 19           | 0.4%          |
| (i) Boarding Houses                | 10           | 0.2%          |
| (j) Bungalows                      | 0            | 0.0%          |
| (k) Furnished Rooms                | 0            | 0.0%          |
| (l) Camps                          | 0            | 0.0%          |
| (m) Suites and Condominiums        | 40           | 0.8%          |
| (n) Large farms and House of Maya  | 0            | 0.0%          |
| (o) Trailer Parks                  | 413          | 8.6%          |
| (p) Time Sharing Units             | 253          | 5.3%          |
| <b>Total</b>                       | <b>4,808</b> | <b>100.0%</b> |
| (a) + (b) + (c) + (d) + (e) + (f)  | 4,064        | 84.5%         |
| (a) + (b) + (c) + (d) + (e)        | 3,980        | 82.8%         |
| (d) + (e)                          | 3,636        | 75.6%         |
| (m) + (p)                          | 293          | 6.1%          |

Source: S.N.I.T.

**(2) Timesharing condominiums**

Timeshare programs and sales are shown in Table A. 3 and Table A. 4, which is summarized below. The number of sold weeks in active projects have been increasing steadily in recent several years.

Concerning a share of foreign purchasers in sold weeks, purchasers are almost foreigners in Los Cabos.

The number of timesharing unit differs depending on the data source, but RCI's data deemed to be generally the most reliable. When only timesharing units and hotel guest rooms of one star and more are taken into consideration, percentage of timeshare units in guest rooms deemed to be around 30%.

**Table A.3 Timeshare projects and sales**

|                                   |         | Los Cabos |
|-----------------------------------|---------|-----------|
| Active Projects in Sales in 1994  |         | 17        |
| Estimated Sales                   | 1987    | 527       |
|                                   | 1988    | 600       |
|                                   | 1989    | 800       |
|                                   | 1990    | 3,600     |
|                                   | 1991    | 6,200     |
|                                   | 1992    | 5,930     |
|                                   | 1993    | 6,428     |
|                                   | 1994    | 8,331     |
|                                   | Total** | 32,416    |
| Share of Foreign<br>in Sold Weeks | 1987    | 99        |
|                                   | 1988    | 99        |
|                                   | 1989    | 98        |
|                                   | 1990    | 91        |
|                                   | 1991    | 91        |
|                                   | 1992    | 94        |
|                                   | 1993    | n.a.      |
|                                   | 1994    | 85        |

Note: \* : Sold weeks in active projects, \*\* : Total of sold weeks in active projects from 1987 to 1994  
Source: RCI

**Table A.4 Equivalent role of timeshare projects in lodging supply**

|                                 | Los Cabos |
|---------------------------------|-----------|
| (a) Guest Rooms of Hotels*      | 3,663     |
| (b) Timeshare Units**           | 1,094     |
| (c) Number of Surveyed Projects | 16        |
| (d) = 100 * (b) / (a)           | 29.9%     |

Note: \* : Including hotels of 1 - 5 stars and grand tourism, \*\* : Number of timeshare units in surveyed projects shown in column (c)  
Source: (a) : SECTUR and FONATUR, (b) : RCI

#### A.1.4. Transportation network

##### A.1.4.1. Land transport

In the state, no railway is available.

##### (1) Roads

##### a. Federal Highway

Federal Highway No.1 runs through the California peninsular from the north to the south. The highway constitutes a spine connecting most tourism centers and resource areas, such as Los Cabos, Los Cabos airport, Buena Vista, San Antonio and El Triunfo, La Paz, Loreto, Ciudad, Mulege, Santa Rosalia, San Ignacio and Guerrero Negro. Most sections of the highway go through inland areas except for the section between Loreto and Santa Rosalia, which is along the coastal line of Mar de Cortes.

The project to improve all the sections from Los Cabos to Tijuana to the standard of Autopista (4 lanes) from the existing Type-A2 (2 lanes) is included by the existing action plan of the present administration, while the section of Cabo San Lucas-San Jose del Cabo-Los Cabos airport and the vicinity of La Paz have been at the Autopista standard.

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Another Federal Highway No.9 is running along the coastal line of the Pacific ocean between Los Cabos and La Paz via Todos Santos. The highway has the standard of Type-A2.

**b. Other roads**

Most of the tourism resources in the state are served by state roads or municipal roads, which need substantial improvement.

The roads along Mar de Cortes in the southern area between Los Cabos and La Paz via Buena Vista, is still unpaved with 4-5 m width. The driving on this route would give visitors various panoramic views of Mar de Cortes and desert landscapes.

**(2) Public transport services**

Bus services between Cabo San Lucas and San Jose del Cabo, and those between Los Cabos and La Paz are not so convenient.

Taxi services are available in any primary tourism centers, but not available in secondary tourism centers and other tourism spots.

**A.1.4.2. Air transport**

**(1) Airport facilities**

The access by air to the state is relatively convenient because primary tourism centers, Los Cabos (San Jose del Cabo), La Paz and Loreto, have international airports and flight connections. All of the airports are of good enough to handle international and domestic flights at the present, while ASA has improvement plans for them in its master plans.

Except for the international airports, there is no airport in the state. On the other hand, 54 air strips are exist throughout the state.

**(2) Cities of origin and passenger flow**

The followings outlines current conditions of air flights in the major airports of the region in 1995.

**a. International flight**

|            |  |
|------------|--|
| Los Cabos: | Connected with 26 cities, carried 247,673 passengers in 1995<br>Regular flight: 6 cities with 214,257 passengers<br>Chartered flight: 23 cities with 33,416 passengers<br>Major destinations: Phoenix (71,236 passengers), Los Angels (53,295 passengers), San Francisco (40,750 passengers) |
| La Paz:    | Total: 4 cities with 50,936 passengers for regular flight only, no chartered flight.<br>Major destinations: Los Angels (38,980 passengers), San Tusson (11,445 passengers)   |
| La Paz:    | Total: 1 cities with 11,5166 passengers with Lox Angels for regular flight only.   |
| Mazatlan   | Total: 27 cities with 124,953 passengers<br>Regular flight: 9 cities with 99,584 passengers<br>Chartered flight: 23 cities with 25,369 passengers<br>Major destinations: Phoenix (33,916 passengers), San Francisco (28,770 passengers), Los Angels (16,830 passengers),                     |

**b. Inter-regional domestic flight**

|            |  |
|------------|--|
| Los Cabos: | Regular flight: 3 cities with 39,033 passengers<br>Major destinations: Guadalajara (33,511 passengers), Puerto Vallarta (4,546 passengers), Mexico City (976 passengers) |
|------------|--|



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|           |   |
|-----------|---|
| La Paz:   | Regular flight: 6 cities with 37,745 passengers<br>Major destinations: Mexico City (35,441 passengers), Guadalajara (2,022 passengers), Monterrey (216 passengers)            |
| Loreto:   | Regular flight: 1 city with 977 passengers with Guadalajara.  |
| Mazatlan: | Regular flight: 12 cities with 102,160 passengers<br>Major destinations: Mexico City (45,110 passengers), Aguascalientes (21,479 passengers), Guadalajara (20,542 passengers) |

**c. Intra-regional domestic flight**

|            |  |
|------------|--|
| Los Cabos: | Regular flight: 1 city with 18,640 passengers with Mazatlan  |
| La Paz:    | Regular flight: 10 cities with 68,031 passengers<br>Major destinations: Tijuana (21,252 passengers), Culiacan (16,283 passengers), Los Mochis (7,695 passengers) |
| Loreto:    | Regular flight: 3 cities with 3,980 passengers<br>Major destinations: La Paz (2,806 passengers), Hermosillo (986 passengers), Mazatlan (188 passengers)          |

**A.1.4.3. Sea transport**

**(1) Sea ports**

Major sea ports of the Baja California Sur are Los Cabos (Cabo San Lucas), La Paz (La Paz and Pichilingue), Loreto, Guerrero Negro and Santa Rosalia. Those of the Sinaloa state are Mazatlan and Los Mochis (Topolobampo). Sonora's major port is Guaymas.

In the primary tourism centers of the BCS state, Cabo San Lucas and Loreto have no exact port facilities except marinas and tourism piers, while the La Paz has 2 ports in La Paz and Pichilingue. The La Paz port is old, serving ferry boats connecting to Mazatlan, and is important to import commodities to the BCS state. The Pichilingue port is newly developed one as a core facilities of the industrial and tourism development of the Pichilingue area.

Mazatlan and is one of the largest ports in Mexico especially for exporting agricultural and fishery products to international and domestic markets.

Topolobampo would be increasingly important to export goods from northern Mexico as well as the inland USA brought by Chihuahua - Pacific Railways.

Santa Rosalia, Guerrero Negro, and Guaymas are the traditional port towns and have port facilities in certain standards.

**(2) Sea transport services**

Los Cabos received 174,017 international cruise ship passengers in 1994. Mazatlan received 150, 867 passengers.

**Intra-regional ferry boat passengers**

There are ferry boat services as intra-regional service;

- Santa Rosalia-Guaymas (41,253 passenger in 1994)
- La Paz-Topolobampo (104,900 passengers in 1994)
- La Paz-Mazatlan (171,928 passengers in 1994).

### A.1.5. Infrastructure

Existing situation and future plan are summarized from Table A. 5 to Table A. 10.

It seems that there are no serious obstacles for tourism on the whole, except some points such as necessity of runway extension of San Jose del Cabo Airport and road improvement in Los Cabos urban area.

**Table A. 5 Airport facilities and capacity in Los Cabos (1)**

| Airport                       | Elements   | Unit      | Capacity | Existing 1993 | Demand (High Estimate) |      |      |      |
|-------------------------------|------------|-----------|----------|---------------|------------------------|------|------|------|
|                               |            |           |          |               | 1995                   | 2000 | 2005 | 2010 |
| Los Cabos (San José del Cabo) | Runway     | Op./Hr    | 20       | 10            | 12                     | 15   | 17   | 19   |
|                               | Plataforms | Posic.Sim | 3        | 3             | 5                      | 7    | 9    | 9    |
|                               | Buildings  | Pas/Hr    | 300      | 204           | 252                    | 334  | 387  | 420  |
|                               | Parkings   | Lot       | 222      | 32            | 39                     | 51   | 58   | 64   |

Note: 1.Platforms,Buildings & Parkings are for commercial use only in this Table.

Source: Sistem Estadistico Aeroportuario,1994, ASA.

**Table A. 6 Airport facilities and capacity in Los Cabos (2)**

|   |  |   |
|---|--|---|
| Acces to City Center<br>Distance / time   | <b>A</b>                                     | (4 lanes highway)<br>S.F del Cabo 15 km 20 min.<br>Cabo S.Lucas 48 km 45 min                                    |
| Taxi & bus service  | <b>A</b>                                     | (However no bus service)  |
| Airport Facility<br>Ranway<br>Operable Aircraft<br>Operation Hour<br>Terminal Building. | <b>B</b>                                     | (run way is short, extension is required)<br>220 mx45mx1<br>B-727<br>8:00 -19:00<br>8,580 m <sup>2</sup>        |
| Capacity and Demand.<br>Runway<br>Platform<br>Building<br>Parking                       | <b>A</b><br><b>B</b><br><b>C</b><br><b>A</b> | (however, extension is required)<br>(increasing is required)<br>(increasing is required after 2000)<br>(enough) |
| Future Improvement Plan.<br>Main Improvement  |  | M/P 1991 (1993-2010)<br>Extension of Runway (2200 m--2700m)<br>Increasing of Plataform and Buildings.           |
| Project Cost (Millions \$) (upto 2010)  |  | 129   |

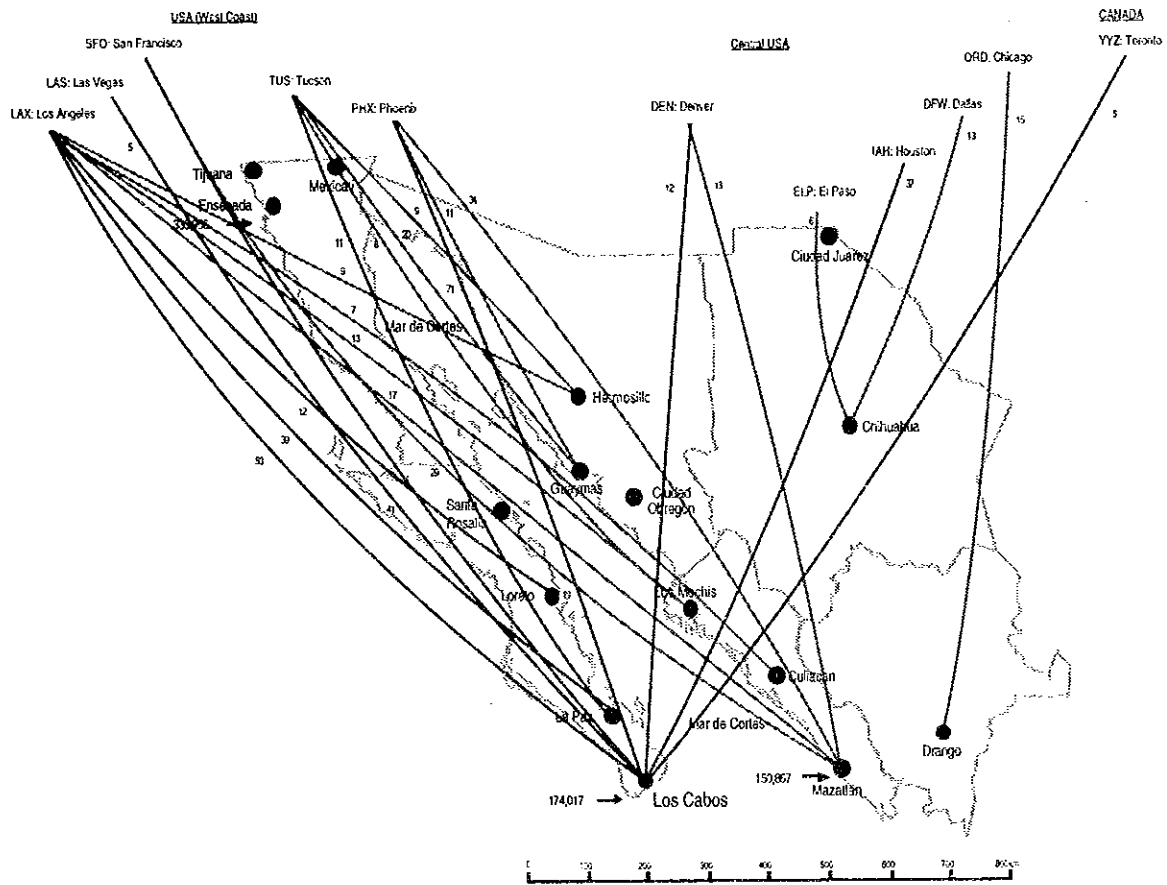
Note: The signs mean as follows: **A**/good and/or enough, **B**/some improvement is required in near future, **C**/improvement and/or countermeasure is required soon.

**Table A. 7 Airport Passenger Changes and Future Demand (San Jose del Cabo)**

| Year                  | Domestic | International | Charter | Transit | Total     |
|-----------------------|----------|---------------|---------|---------|-----------|
| 1980                  | 40,735   | 56,673        | 0       | 0       | 97,408    |
| 1985                  | 135,595  | 119,984       | 25      | 90,276  | 345,880   |
| 1990                  | 128,531  | 329,959       | 46,456  | 78,937  | 583,883   |
| 1993                  | 122,159  | 386,005       | 121,177 | 46,152  | 675,493   |
| 1995 (High Estimate)  | 156,595  | 578,013       | 192,870 | 63,599  | 991,077   |
| 2000 ( ditto )        | 228,924  | 981,302       | 343,450 | 100,244 | 1,653,920 |
| 2005 ( ditto )        | 287,515  | 1,307,990     | 465,430 | 129,928 | 2,190,863 |
| 2010 (High Estimate)  | 336,763  | 1,582,583     | 567,958 | 154,879 | 2,642,183 |
| 2010 ( Low Estimate ) | 246,290  | 969,495       | 360,129 | 98,106  | 1,674,020 |

Source: Sistema Estadistico Aeroportuario, ASA

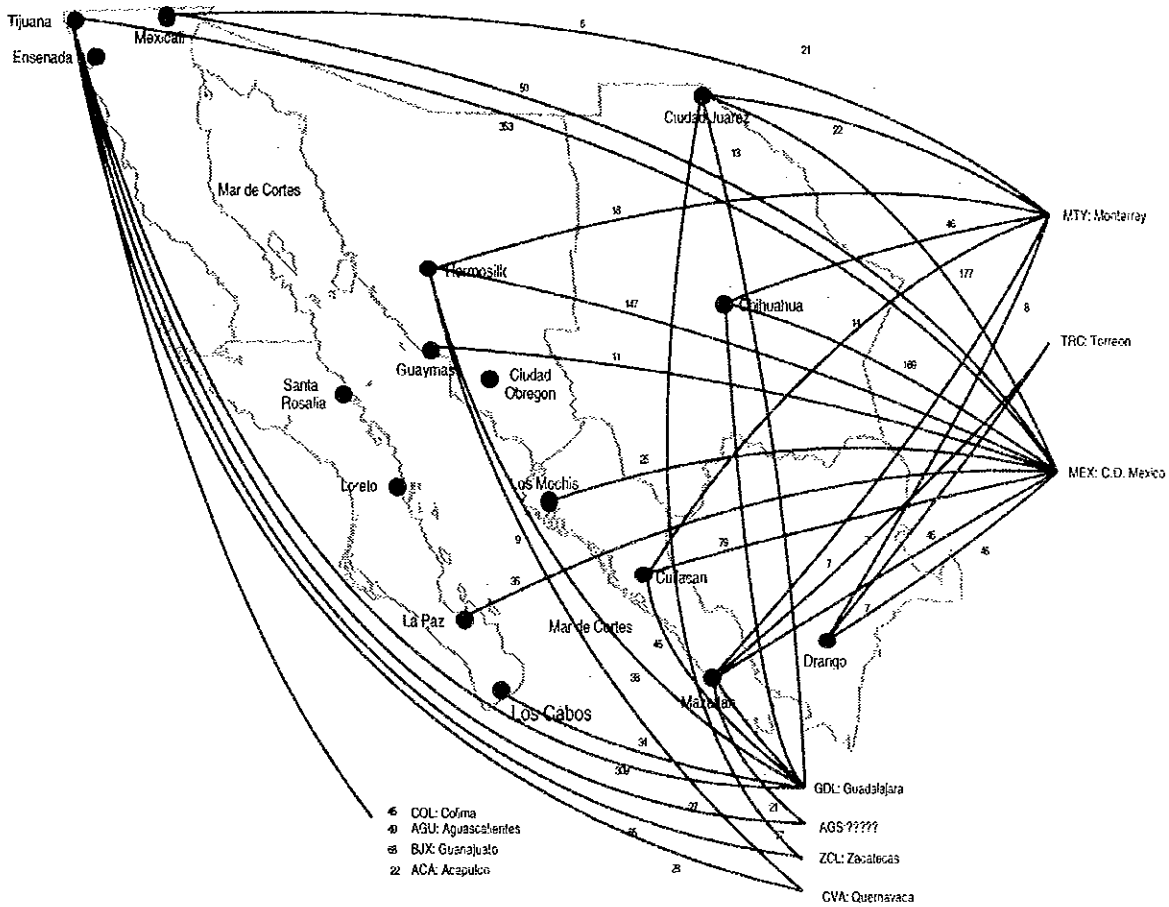
**Figure A.1 O-D flows of passengers of international flights and cruising ships**



Note: (1) Number of Passengers of International Flights in 1995 (Totals of origin and destination, Totals of regular and charter flights, Unit=1,000 passengers, Lines indicated over 5,000 passengers)  
 (2) Number of Visitors by Cruising Ships: 1994

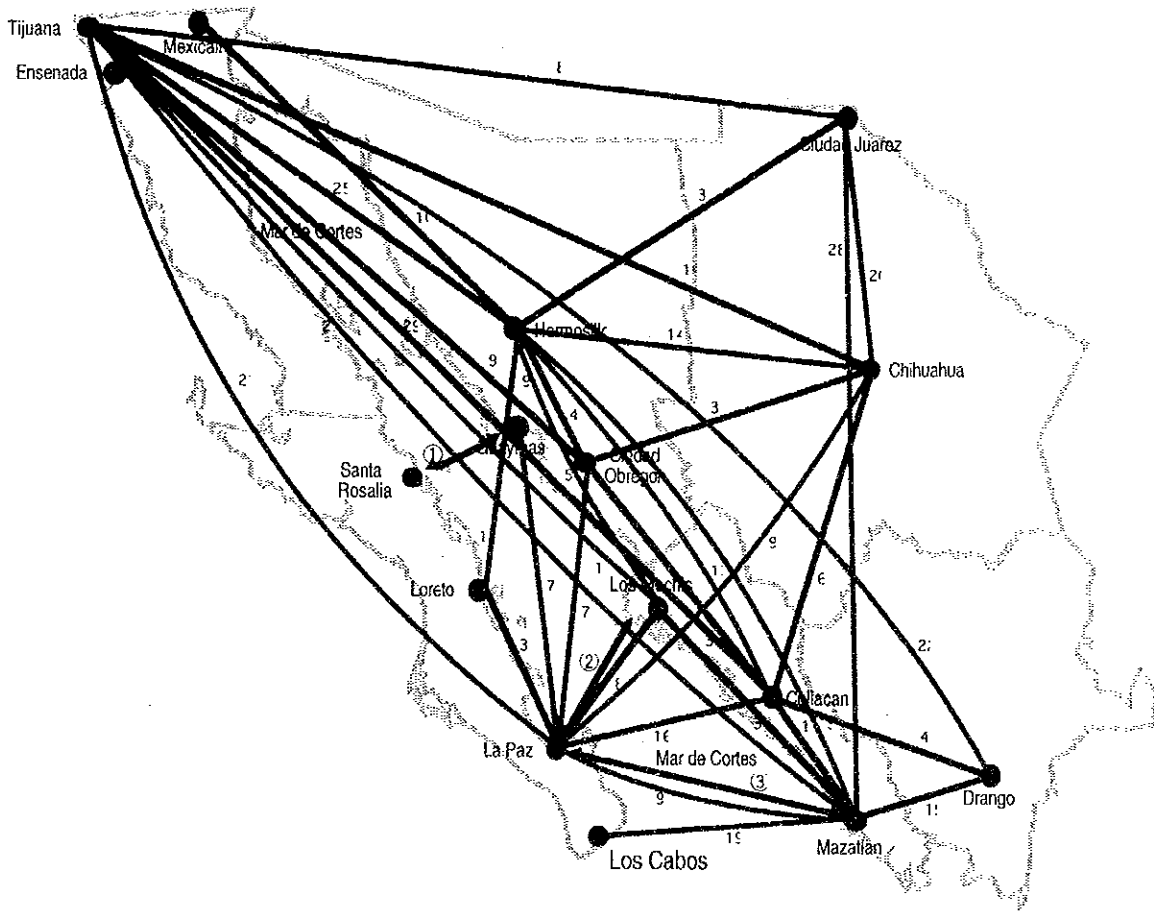
Source: SCT, ASA, compiled by JICA study team

Figure A. 2 O-D flows of passengers of inter-regional domestic flights



Note: Number of passengers of domestic flights in 1995 (Totals of origin and destination, Totals of regular and charter flights, Unit =1,000 passengers, Lines indicated over 5,000 passengers)  
 Source: SCT, ASA, compiled by JICA study team

Figure A. 3 O-D flows of passengers of intra-regional domestic flights and ferryboats



Note: (1) Number of Passengers of Domestic Flights in 1995 (Totals of origin and destination, Totals of regular and charter flights, Unit = 1,000 passengers, Lines indicated over 1,000 passengers)  
 (2) Number of Passengers of Ferryboats: 1994  
 (Circle 1= Santa Rosalia - Guaymas 41,253, Circle 2= La Paz - Topolobampo 104,900, Circle 3= La Paz - Mazatlan 171,928)  
 Source: SCT, ASA, compiled by JICA study team

**Table A. 8 Road facilities in Los Cabos**

|  |   |   |
|--|---|---|
| Principal Road Condition around Tourist Site | B | - Federal No 1 (4 lanes) very good.<br>- Federal No 9 (2 lanes) in urban area pavement broken.  |
| Urban Area Road Condition                    | C | - Cabo San Lucas, very bad, pavement ratio below 10%.<br>- San José del Cabo insufficient, pavement ratio 35%.  |
| Signals & Roads Signs                        | A | - As a whole, good further completion is required as to signals in urban area and road signs for tourists.  |
| Connecting Road to Major cities.             | - | - To La Paz from Cabo San Lucas.<br>Fed. freeway 163Km (2:15 hrs).<br>Fed. freeway 236 Km. (incl. highway)(3:25hrs)   |
| Future Plan                                  | - | - Continuation of Coast Line Road Construction. (2 lanes, 70 Km)<br>- Urban Area Road Improvement (pavement)<br>- Public Bus Network Formation in urban Area. |

Note: The signs mean as follows: **A**/good and/or enough, **B**/some improvement is required in near future, **C**/improvement and/or countermeasure is required soon.

Source: JICA study team

**Table A. 9 Sea transport facilities**

|              |                                  |  |
|--------------|----------------------------------|--|
| Cruiser.     | No. of Embarkation 1994.         | 174  |
|              | No. of passengers in 1994        | 174,380  |
|              | Max No. of Embarkations in past. | 284 (in 1992)  |
|              | Max No. of Passengers in past.   | 260,610 (in 1992)  |
| Future plan. | -                                | Pier Construction at Cabo San Lucas (conceptual plan by private company, at this moment suspended) |

Source: SCT

**Table A. 10 Supporting infrastructure**

|            |   |
|------------|---|
| Electrical | - Service coverage is 74% in Mar. 1990 (6,999 per 9,427 households)                       |
| Water      | - Service coverage is 85% in 1990 (8,021 per 9,427 households)                            |
|            | - Resorts should prepare independently by desalination plant                              |
|            | - 260l/sec potable water supplied to local residents in 1995                              |
|            | - Existing capacity is 563l/sec that is enough volume for local residents up to year 2000 |

### A.1.6. Tourism promotion activities

Following tables show the inventory of tourism promotion activities conducted by Fondo Mixto in Los Cabos.

**Table A. 11 Fondo Mixto Los Cabos**

| Year of establishment                 | 1989    |
|---------------------------------------|---------|
| <b>Members</b>                        |         |
| SECTUR                                | X       |
| STATE GOVERNMENT                      | X       |
| <b>PRIVATE SECTOR</b>                 |         |
| Hotel association                     | 2       |
| - No. of member hotels                | 15      |
| - No. of non-member hotels            | 1       |
| Restaurant association                | 1       |
| Travel agencies association           | 1       |
| Financial institute                   | 7       |
| Others                                |         |
| FONATUR                               | X       |
| OTHERS                                |         |
| <b>Budgets in total (1,000 Pesos)</b> |         |
| 1991                                  | 8,343.0 |
| 1992                                  | 1,976.0 |
| 1993                                  | 758.0   |
| 1994                                  | 4,116.0 |
| 1995                                  | 6,800.0 |

Source: Compiled by JICA study team

**Table A. 12 Inventory of promotion activities (for the international market)**

|  | Yes/No               |
|--|----------------------|
| Emmialization trip for travel agents       | X                    |
| Emmialization trip for mass media          | X                    |
|  |                      |
|  | Fill Airline code of |
| Subsidy to airline(s)                      | X                    |
|  |                      |
|  | Yes/No               |
| Support to events (sports, festival, etc.) | X                    |

Note: "X" shows Yes  
Source: JICA study team

**Table A. 13 Inventory of promotion activities (for the domestic market)**

|  | Yes/No |
|--|--------|
| Organizing travel festival for consumers' sector | X      |

Note: "X" shows Yes  
Source: JICA study team

### A.1.7. Tourism administration and institution

#### A.1.7.1. State level

The tourism administration and institution of Baja California Sur state government level at the present are summarized in Table A. 14. The followings are general outline of them:

Baja California Sur state has its own section to administrating tourism in the government. It also has a committee to prepare the tourism development plan and/or to make consultation and technical support to the private sectors.

Baja California Sur state is following the federal tourism law, because the states does not have their own laws or guidelines for the tourism development.

For the tourism development, the state has its own organization, FIMID which is the same as FONATUR but of BCS state.

For the tourism education or training, the state has courses in the universityies in the state for the middle management level and public training centers (Centro de Capacitacion) as vocational school including personnel of tourism related industries.

**Table A. 14 Inventory of tourism administration (State level)**

|   |                |   |
|---|----------------|---|
| Name of the department or section for the tourism administration                          |                | Coordinacion Estatal de Turismo   |
| Other Organizations related to Tourism Administration                                     | Name           | COPLADE (Committee of Planning and Design of the State developement)                            |
|   | Activity       |   |
| Governmental or sem-governmental organization of the state related to tourism development | Name           | FIMID (Promotion and Real Estate Fund; Fondo Impulsor E Inmobiliario Oara El Desarrollo del Edo |
|   | Activity       |   |
| State laws, guidelines, etc. on tourism Development                                       |                | No specific law,  |
| Training and education system to tourism (No. of facility and students)                   | Superior level | 0   |
|   | Medio-superior | 3   |
|   | Bacico         | 1   |

Source: JICA study team

#### **A.1.7.2. Municipal/destination level**

Table A. 15 shows the existing tourism administration and institution in the municipal or destination level. The followings are outlines of them:

Los Cabos municipality has respective sections for the tourism administration in its organization. Its also has tourism council or the like for the consultation and technical support for the private sector.

State has no specific tourism sub-laws or guidelines after the Federal Tourism Law.

For the tourism training in the destination level, some provide courses by Fondos Mixtos and/or by the associate of hoteliers. Through the country including Los Cabos, a principle tourism education is conducted in the primary and secondary schools using a textbook prepared by SECTUR to teaching pupils the significance of the tourism.



**Table A. 15 Inventory of tourism administration (Municipality & destination level)**

|  |               |   |
|--|---------------|---|
| Name of the department or section for Tourism Administration |               | Direccion General de Turismo                                  |
| Other Organizations related to Tourism Administration        | Name          | COPLADEM (Committee of Planning of the Municipal development) |
|  | Activity      |   |
| Tourist police   |               | No  |
| Municipal laws, guidelines on tourism Development            |               | No specific law   |
| Numbers of Associations and their members (in number)        | Hotelier      | N.A.  |
|  | Travel Agency | N.A.  |
|  | Restaurant    | N.A.  |
| Training and education system                                |               | Municipality coordinates with Tourism capacity centers        |

Source: JICA study team

### A.1.8. Social issues

#### A.1.8.1. Population and labor force

##### (1) Internal migration

In Mexico, over 4 million or 5% of population migrated from 1985 to 1990. Baja California Sur was also net in-flow as well as Quintana Roo and Jalisco, while Guerrero, Oaxaca and Sinaloa were net out-flow. The migration to Baja California Sur is the largest number followed by Quintana Roo.

In municipality level, municipality of Los Cabos attracted the second or the third number of migrants in state.

##### (2) Population structure

###### a. Pre-school and school age population

The national average of school age population (14 years-old or less) ratio is 38.3% in 1990. This ratio of municipality of Los Cabos is 38.6%.

The population ratio of 4 years-old or less is 12.5% in national. Thinking of the ratio of Los Cabos exceeding the national average, more school facilities will be required in future.

###### b. Indiginious population

In Mexico indigenous population is estimated as 8.7 million or 10.7% of total population in 1990. Baja California Sur state is not indigenous people's place, the ratio is under 2%.

##### (3) Labor force

National total economic activities population is 24 million or 43% of 12-years and over population. Among this economic activity population, 660 thousand or 2.7% are unemployment.

In municipality of Los Cabos, participation rate of economic activities is higher(52.3%) than national average. And unemployment ratio is lower than national average. The ratio of municipality of Los Cabos is extremely low, under 2%.

In this municipality, restaurant and hotel service is the most important industry, over 20% of working population engage in this service.

#### A.1.8.2. Housing conditions and development

The availability of basic services in the Mexican homes has increased. Of every ten houses, 9 have electricity, 8 have safety water and 6 have sanitary facilities.

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In municipality of Los Cabos, some services are better and some services are poorer than national level.

Rapid growing of tourism causes un-planned urban expansion because many people come to find job in tourism and related industries. In many cases, they are poor and start live on cheep land which do not have enough basic services.

**a. San Jose del Cabo**

In San Jose del Cabo, housing areas are expanding besides the road to the airport. But some area is low and water-flowing in rain seasons, and was damaged heavily by tropical storm in 1993. Therefore the national housing authority (INFONAVIT: Institute del Fondo Nacional de la Vivienda para los Trabajadores) is developing new houses in safety area for them to settle.

In the other area, road, electricity and water systems were constructd and some peoples are living. But enough social services are not provided by the Municipality, because the land is still owend by *ejido*. Peoples are expecting to buy land through the Municipality and the local authority is conducting negotiation with *ejido*.

**b. Cabo San Lucas**

Tourism facilities area and housing area is very closely in Cabo San Lucas. At present, roads are improved in only tourism area but unpaved and dusty in housing areas. Therefore, tourism and related facilities are not located in housing areas and tourists do not disterb local peoples life.

The Municipality Government has a land use plan to control to develop tourism and other business facilities. However, the Government does not have enogh number of staff to control. In or der to avoid illgal development or illgal busines in housing areas, specific regulation shold be required in the future.

**A.1.8.3. Social services**

**(1) Education**

In Los Cabos, enrollment ratio of primary and secondary schools in municipality is higher than state average.

There are many pre-school age population in Municipality of Los Cabos. In this area, school facilities will be required more in the future.

**(2) Health**

In Mexico, social security institutes provide health and medical services for their members, covered ratio is 55%. The rest of population receive health service from Ministry of Health and Ministry of Social Development.

In Los Cabos, these institutes have own hospitals and cover 73.6% of population.

**Table A. 16 1990 population in Los Cabos by living place in 1985**

| Municipality of Los Cabos |        |
|---------------------------|--------|
| Total                     | 36,821 |
| Same State (BCS)          | 29,120 |
| Out of the State          | 6,859  |
| Guerrero                  | 1,646  |
| Federal District          | 860    |
| Sinaloa                   | 693    |
| Mexico                    | 565    |
| Jalisco                   | 564    |
| Guanajuato                | 366    |
| Oaxaca                    | 237    |
| Other States              | 1,928  |
| Out of Mexico             | 488    |
| Not Specified             | 354    |

Source: National institute of statistics, geography and informatics

**Table A. 17 Population by age structure and indigenous groups in Los Cabos**

|                           | Population by Age Group |       |       |       |        | Indigenous Population(5-) |
|---------------------------|-------------------------|-------|-------|-------|--------|---------------------------|
|                           | Total                   | 0-5   | 6-11  | 12-14 | 15-    |                           |
| Municipality of Los Cabos | 43,920                  | 7,099 | 6,955 | 2,921 | 29,645 | 308                       |

Source: "Annual statistics, 1994" of Baja California Sur state, INEGI

**Table A. 18 Labor force in Los Cabos**

|                           | Population 12 yrs.+ | Economic Activity Population | Working Population |                    |
|---------------------------|---------------------|------------------------------|--------------------|--------------------|
|                           |                     |                              | Total              | Restaurant & Hotel |
| Municipality of Los Cabos | 29,866              | 15,606                       | 15,384             | 3,348              |

Source: "Annual statistics, 1994" of Baja California Sur state, INEGI

**Table A. 19 Housing conditions in Los Cabos**

|                           | Percentage of Houses with Service of |             |          |
|---------------------------|--------------------------------------|-------------|----------|
|                           | Water                                | Electricity | Sewerage |
| Municipality of Los Cabos | 85.1%                                | 74.2%       | 53.2%    |

Source: "Annual statistics, 1994" of Baja California Sur state, INEGI

**Table A. 20 Gross enrollment ratio of school and covering ration of social securities in Los Cabos**

|                           | Number of Students in 1992 |           | Covering Population of Social Security |
|---------------------------|----------------------------|-----------|--|
|                           | Primary                    | Secondary |  |
| Municipality of Los Cabos | 8,108                      | 2,563     | 32,332                                 |

Source: "Annual statistics, 1994" of Baja California Sur state, INEGI

### A.1.9. Past performance of tourism economy

#### A.1.9.1. Investment, financial resources and development entities

In 1974, one credit was authorized to construct a hotel in Cabo San Lucas by FONATUR, though the investment was not generated. In the period from 1980 to 1994, FONATUR invested more than 1 billion pesos in 1995 prices including indirect investment on behalf of Federal Government. FONATUR also credited tourist industries about 0.8 billion pesos, and generated 1.7 billion pesos investment.

As concerns Los Cabos, FONATUR examined the study of economic and financial evaluation of Ex-Post in the period 1981 to 1989. But it was difficult to collect the

data after 1990 to 1994 in the same level, therefore in this chapter, the investment are calculated under the assumptions as follows.

- In 1980 and after 1989 until 1994, the investment of hotel is calculated based on the increment of hotel rooms according to the rank of hotel. Construction costs assumed are as the following table. The investment costs of hotel in the period from 1981 and 1989 are adjusted by the inflation rates of 1994 and 1989.

**Table A. 21 Hotel construction cost (\$1,000/Room)**

| Hotel Rank | 1994 |
|------------|------|
| GT         | 710  |
| 5 star     | 646  |
| 4 star     | 487  |
| 3 star     | 311  |
| 2 star     | 263  |
| 1 star     | 217  |

Source: FONATUR

- Los Cabos has developed after construction and operation of marinas.
- Los Cabos becomes famous of the good golf courses recently.

Therefor the following investment by private companies are added to evaluate the impact of Los Cabos development.

**Table A. 22 Construction cost of marina and golf course**

| Marina                       | Year | Capacity | million \$ |
|------------------------------|------|----------|------------|
| Cabo Isle Marine             | 1990 | 330      | 81.0       |
| Golf course                  | Year | Course   | million \$ |
| San Jose                     | 1987 | 9        | 47.3       |
| Cabo San Lucas Country Club  | 1991 | 36       | 189.0      |
| Palmilla                     | 1993 | 27       | 141.8      |
| Westin Rejina                | 1993 | 9        | 47.3       |
| Westin Rejina*               | 1994 | 9        | 47.3       |
| Cabo del Sol                 | 1994 | 72       | 378.0      |
| Cabo Real                    | 1994 | 18       | 94.5       |
| Cabo San Lucas Country Club* | 1994 | 18       | 94.5       |

Note: \* FONATUR constructed first, and sold to the private companies, therefor they are included in the investment of FONATUR.

Source: FONATUR, Private companies

- Condominiums and villas are assumed to be in proportion to the investment of hotels. But from 1981 to 1989, the investment for these real estate are based on the above-mentioned study.
- Investment for residential houses is assumed in proportion to the investment of hotels, though from 1981 to 1989 the investment for these houses are based on the above-mentioned study.

The result of calculation of investment is summarized in Table A. 23.

**Table A. 23 Past investment of Los Cabos**

unit: million pesos in 1994 price

|         |                  | 1980  | 1980  | 1985  | 1990  | Investment |       | Residual value | Net investment |
|---------|------------------|-------|-------|-------|-------|------------|-------|----------------|----------------|
|         |                  | -1989 | -1984 | -1989 | -1994 | Total      | %     |                |                |
| FONATUR | Infrastructure   | 0     | 295   | 104   | 261   | 661        | 10.4  | -464           | 197            |
|         | Facilities       | 0     | 91    | 30    | 3     | 124        | 2.0   | -75            | 49             |
|         | Indirect         | 0     | 154   | 143   | 96    | 392        | 6.2   | -163           | 229            |
|         | sub-total        | 0     | 540   | 277   | 360   | 1,177      | 18.6  | -702           | 475            |
| Private | Hotel            | 0     | 344   | 594   | 998   | 1,936      | 30.6  | -1,187         | 749            |
|         | Condo. etc.      | 0     | 117   | 393   | 569   | 1,079      | 17.0  | -663           | 417            |
|         | Restaurant & Bar | 0     | 12    | 20    | 34    | 65         | 1.0   | -40            | 25             |
|         | Others           | 0     | 48    | 130   | 1,152 | 1,329      | 21.0  | -1,071         | 258            |
|         | sub-total        | 0     | 520   | 1,137 | 2,753 | 4,410      | 69.6  | -2,961         | 1,449          |
|         | Housing          | 0     | 133   | 230   | 386   | 749        | 11.8  | -460           | 290            |
|         | Investment total | 0     | 1,193 | 1,645 | 3,499 | 6,337      | 100.0 | -4,122         | 2,214          |
| %       | 0.0              | 18.8  | 26.0  | 55.2  | 100.0 |            |       |                |                |

Source: JICA study team

The table shows private sector investment for tourism facilities, infrastructure development cost and housing investment constitute approximately 69.6%, 18.6% and 11.8%, respectively.

The administration cost (ADM) for public from 1981 to 1989 services are based on the before mentioned study and those after 1990 based on the related documents of FONATUR.

In generally ADM costs of private companies depend on the expenditure of tourists, therefore these costs are assumed to be 60 percent of tourist expenditure.

The investment costs and ADM costs from 1980 to 1994 are shown in Table A. 27.

#### A.1.9.2. Expenditure of tourists and revenue of tourism industries

As concern benefit, the viewpoints from regional economy are considered, though economic evaluation is usually used to evaluate projects from the viewpoints of national economy.

The original sources of revenue are the consumption of tourists in the destination. It depends on the number of tourists, unit expenditure and stay-nights.

(total expenditure) = (number of tourists) x (unit expenditure) x (stay-nights)

The Ex-post study in Los Cabos reported the changes of these figures, which is summarized as follows.

**Table A. 24 Changes of number of tourists, unit expenditure and stay-night**

|                                       |               | 1981  | 1989  |
|---------------------------------------|---------------|-------|-------|
| number of tourists (1,000)            | International | 37.0  | 165.2 |
|                                       | Domestic      | 44.7  | 24.7  |
| unit expenditure (peso in 1989 price) | International | 1,299 | 1,306 |
|                                       | Domestic      | 588   | 662   |
| stay-night                            | International | 3.7   | 3.8   |
|                                       | Domestic      | 3.2   | 3.5   |

Source: FONATUR

In order to calculate the economic internal rate of return(EIRR), the unit expenditure from 1990 to 1994 is calculated by the simple regression model of year, though the coefficient rate is very bad.

**Table A. 25 The result of the regression analysis of unit expenditure**

|                                   | International        | Domestic             |
|-----------------------------------|----------------------|----------------------|
| Y(constant term)                  | -98.2182 (55.70212)* | -5404.58 (18.41763)* |
| R2 (coefficient of determination) | 0.000205             | 0.194493             |
| X(regression coefficient)         | 0.248485 (6.132601)* | 2.818182(2.027714)*  |

Note: \* means "standard error"

Source: JICA study team

The result of calculation of 1994, the unit expenditure of foreigners in 1994 is 397 peso in 1989 price, which is about 1,310 peso in 1994. The figures of domestic tourists is 215 peso in 1989, which is about 709 peso in 1994. The average stay-night in Los Cabos in 1994 is reported to be 4.1 nights for foreigner and 3.5 nights for domestic tourists. The average expenditure of hotel guest in 1994 is reported by SECTUR as 2,500 peso for foreigners and 1,610 peso for domestic tourists per person, though the average expenditure of tourists at airport interview survey by FONATUR is 629 USD in 1994, which is about 2,470 peso in 1994. The total expenditure adopted to calculate EIRR is shown in the attached Table A. 27.

### A.1.9.3. Direct and indirect impacts of tourism development

The most important concepts to evaluate the effects for regional economy is the process of economical circulation in region. In Los Cabos, economic viability system has not established, therefor almost all goods are imported from USA or Mexico city.

In the calculation the rate of self sufficient is assumed as follows based on interview survey.

**Table A. 26 Rate of distribution of consumption and self supply in the area**

|                              |          | Los Cabos |
|------------------------------|----------|-----------|
| Distribution of* consumption |          |           |
|                              | Lodge    | 37        |
|                              | Food     | 35        |
|                              | Shopping | 8         |
|                              | Other    | 20        |
| Self supply (%)**            |          |           |
|                              | Lodge    | 50        |
|                              | Food     | 15        |
|                              | Shopping | 15        |
|                              | Other    | 80        |

Source: \* compiled by JICA team based on SECTUR data

\*\* Interview conducted during Site Reconnaissance

Concerning indirect benefits, employment creation and multiplier effects are considered. the benefit of indirect employment of hotel workers, the number of workers in related industries are supposed to be 2.5 times of hotel workers multiplied cumulative hotel rooms. The creation of construction industry workers is assumed in proportion to construction investment. Concerning multiplier effects, both of tourist consumption and construction is considered. According to the input-output table in 1985, the intermediate input of hotel and restaurant is 14%. There was no description of the intermediate input of construction industry in the input-output table in 1985, therefore the intermediate input of the table in 1980 is adopted, that is 53%. To estimate multiplier effects, it is assumed that 30% of intermediate input of hotel and restaurant and 53% of that of construction industry are circulated locally.

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The regional economic effects to calculate EIRR is shown in the attached Table A. 27.

The table shows the regional effects constitute 76% of the benefit while that of employment creation constitutes 10% and multiplier effects constitutes remaining 14%.

#### **A.1.9.4. The result of trial calculation of EIRR**

The calculation of EIRR has been done under the assumption above mentioned and conversion factors to economic prices based on the report of "Socio-Economic Evaluation of Ex-post Cancun" by FONATUR.

- Construction of infrastructure 0.726
- Construction of facilities 0.699
- Operation and maintenance 0.692

The economic internal rate of return (EIRR) in Los Cabos is 2.8% during the 1980-1994 period based primarily on the FONATUR data under the assumption that the residual value of past investment was counted to be a benefit in 1995. This shows the past tourism investment was not so effective in Los Cabos. The cost side analysis shows infrastructure investment cost, private sector investment, and housing investment, and operation costs constitute approximately 3.8%, 14.6%, 2.9%, and 78.7%, respectively. The benefit side analysis shows the regional economic effects constitute 68.7% of the benefit while that of employment creation constitutes 17.9% and multiplier effect constitute remaining 13.4%.

One of the major problems in Los Cabos destination is a low economic impact of tourism attributed to the lack of supporting industries for tourism caused by mainly location and natural conditions and, as a consequence, the dependence of the tourism sector on imported products. Another reason for the low investment effect may be the dispersed development in Cabo San Lucas and San Jose del Cabo.

Table A. 27 Investment and benefit in Los Cabos tourism region

|                          | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990  | 1991  | 1992  | 1993  | 1994  |
|--------------------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
| <b>Investment cost</b>   |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |
| by FONATUR               | 0    | 117  | 51   | 11   | 34   | 22   | 3    | 22   | 14   | 16   | 155   | 6     | 11    | 10    | 8     |
| Infrastructure           |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |
| Facilities               | 0    | 30   | 18   | 4    | 14   | 14   | 1    | 4    | 2    | 1    | 1     | 1     | 1     | 0     | 0     |
| Indirect                 | 0    | 83   | 4    | 13   | 31   | 14   | 15   | 51   | 8    | 16   | 16    | 18    | 14    | 14    | 10    |
| sub-total                | 0    | 210  | 73   | 29   | 79   | 50   | 18   | 77   | 23   | 33   | 172   | 25    | 25    | 22    | 18    |
| by private companies     | 29   | 0    | 196  | 2    | 11   | 0    | 11   | 11   | 185  | 238  | 164   | 118   | 117   | 19    | 200   |
| Hotel                    |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |
| Cond. etc                | 0    | 8    | 70   | 0    | 4    | 22   | 11   | 176  | 61   | 4    | 93    | 67    | 67    | 11    | 159   |
| Restaurate & Bar         | 1    | 0    | 7    | 0    | 0    | 0    | 0    | 0    | 6    | 7    | 6     | 4     | 4     | 1     | 9     |
| Otros                    | 4    | 0    | 27   | 0    | 2    | 0    | 2    | 2    | 59   | 29   | 70    | 141   | 9     | 134   | 451   |
| sub-total                | 34   | 8    | 303  | 2    | 17   | 22   | 25   | 189  | 311  | 248  | 333   | 331   | 196   | 164   | 900   |
| Vivienda                 | 11   | 0    | 77   | 1    | 4    | 0    | 4    | 4    | 72   | 81   | 64    | 46    | 45    | 7     | 103   |
| Invest total             | 45   | 218  | 453  | 31   | 101  | 72   | 48   | 270  | 406  | 361  | 568   | 402   | 266   | 193   | 1,026 |
| ADM cost                 | 0    | 83   | 25   | 22   | 31   | 27   | 13   | 22   | 10   | 10   | 3     | 11    | 15    | 13    | 10    |
| ADM(public)              |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |
| ADM(private)             | 106  | 91   | 155  | 154  | 135  | 135  | 231  | 232  | 271  | 338  | 485   | 630   | 583   | 662   | 832   |
| ADM total                | 106  | 154  | 180  | 176  | 216  | 221  | 244  | 304  | 281  | 347  | 488   | 641   | 638   | 666   | 842   |
| Ground total             | 152  | 372  | 633  | 208  | 317  | 294  | 292  | 574  | 688  | 709  | 1,056 | 1,043 | 874   | 869   | 1,868 |
| <b>Benefit</b>           |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |
| Ext. Consumption         | 188  | 121  | 207  | 300  | 330  | 404  | 482  | 623  | 604  | 746  | 1,091 | 1,390 | 1,253 | 1,381 | 1,854 |
| NAL                      | 88   | 98   | 167  | 71   | 64   | 65   | 64   | 56   | 48   | 68   | 77    | 138   | 176   | 190   | 149   |
| Total                    | 236  | 219  | 374  | 372  | 445  | 469  | 566  | 679  | 652  | 813  | 1,168 | 1,518 | 1,429 | 1,571 | 2,003 |
| regional economic effect | 47   | 41   | 89   | 89   | 82   | 87   | 103  | 126  | 121  | 150  | 216   | 281   | 284   | 281   | 371   |
| Lodg                     |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |
| Food                     | 13   | 12   | 20   | 20   | 23   | 25   | 29   | 36   | 34   | 43   | 61    | 80    | 75    | 82    | 105   |
| Shopping                 | 3    | 3    | 4    | 4    | 5    | 6    | 7    | 8    | 8    | 10   | 14    | 18    | 17    | 19    | 24    |
| Other                    | 41   | 36   | 60   | 59   | 71   | 75   | 80   | 103  | 104  | 130  | 187   | 243   | 229   | 251   | 320   |
| sub-total                | 105  | 90   | 153  | 152  | 182  | 192  | 228  | 278  | 287  | 333  | 478   | 621   | 585   | 643   | 820   |
| Employment creation      | 6    | 29   | 0    | 4    | 13   | 10   | 6    | 35   | 53   | 48   | 75    | 53    | 35    | 25    | 135   |
| construction work        |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |
| indirect employment      | 2    | 9    | 22   | 26   | 26   | 31   | 32   | 33   | 46   | 62   | 74    | 84    | 94    | 96    | 115   |
| sub-total                | 8    | 38   | 81   | 30   | 39   | 40   | 38   | 68   | 99   | 110  | 148   | 137   | 123   | 121   | 250   |
| Multiplier effect        | 6    | 5    | 9    | 9    | 10   | 11   | 13   | 16   | 15   | 19   | 27    | 35    | 33    | 36    | 46    |
| by consumption           |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |
| by investment            | 7    | 36   | 72   | 5    | 16   | 11   | 8    | 43   | 65   | 57   | 90    | 64    | 42    | 31    | 163   |
| sub-total                | 13   | 40   | 81   | 14   | 26   | 22   | 20   | 58   | 80   | 76   | 117   | 99    | 75    | 67    | 209   |
| Ground total             | 126  | 168  | 315  | 196  | 248  | 255  | 286  | 404  | 446  | 519  | 744   | 867   | 788   | 831   | 1,279 |
| EIRR=                    | 2.8% |      |      |      |      |      |      |      |      |      |       |       |       |       |       |

Note: Unit= million pesos in 1994 price  
Source: JICA study team



A.1.10. Supplemental data of economic analysis

Table A. 28 Project cos and benefit in Los Cabos tourism region

| Cost                      | 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 |       |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                           | 0  | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Investment cost           |  |       |      |      |      |      |      |      |      |      |      |      |      |      |      |
| by State and Municipality |  |       |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Infrastructure            | For tourism  | 31    | 31   | 31   | 31   | 31   | 31   | 31   | 31   | 31   | 31   | 31   | 31   | 31   | 31   |
|                           | For region   | 15    | 15   | 15   | 15   | 15   | 15   | 15   | 15   | 15   | 15   | 15   | 15   | 15   | 15   |
|                           | Indirect   | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
|                           | Sub-total  | 32    | 32   | 32   | 32   | 32   | 32   | 32   | 32   | 32   | 32   | 32   | 32   | 32   | 32   |
| by private companies      | Hotel  | 371   | 371  | 371  | 371  | 371  | 371  | 371  | 371  | 371  | 371  | 371  | 371  | 371  | 371  |
|                           | Facilities   | 7     | 7    | 7    | 7    | 7    | 7    | 7    | 7    | 7    | 7    | 7    | 7    | 7    | 7    |
|                           | Sub-total  | 378   | 378  | 378  | 378  | 378  | 378  | 378  | 378  | 378  | 378  | 378  | 378  | 378  | 378  |
|                           | Promotion  | 28    | 28   | 28   | 28   | 28   | 28   | 28   | 28   | 28   | 28   | 28   | 28   | 28   | 28   |
|                           | Investment total   | 406   | 406  | 406  | 406  | 406  | 406  | 406  | 406  | 406  | 406  | 406  | 406  | 406  | 406  |
| ADM cost                  | public   | 438   | 438  | 438  | 438  | 438  | 438  | 438  | 438  | 438  | 438  | 438  | 438  | 438  | 438  |
|                           | private  | 202   | 202  | 202  | 202  | 202  | 202  | 202  | 202  | 202  | 202  | 202  | 202  | 202  | 202  |
|                           | ADM total  | 640   | 640  | 640  | 640  | 640  | 640  | 640  | 640  | 640  | 640  | 640  | 640  | 640  | 640  |
|                           | Ground total   | 1046  | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 | 1046 |
| Benefit                   |  |       |      |      |      |      |      |      |      |      |      |      |      |      |      |
| of Consumption            | Domestic   | 947   | 947  | 947  | 947  | 947  | 947  | 947  | 947  | 947  | 947  | 947  | 947  | 947  | 947  |
| (Consumer's Expenditure)  | Foreigner  | 8038  | 8038 | 8038 | 8038 | 8038 | 8038 | 8038 | 8038 | 8038 | 8038 | 8038 | 8038 | 8038 | 8038 |
|                           | Total  | 8985  | 8985 | 8985 | 8985 | 8985 | 8985 | 8985 | 8985 | 8985 | 8985 | 8985 | 8985 | 8985 | 8985 |
| Regional economic effect  | lodg   | 1883  | 1883 | 1883 | 1883 | 1883 | 1883 | 1883 | 1883 | 1883 | 1883 | 1883 | 1883 | 1883 | 1883 |
| (State revenue)           | food   | 796   | 796  | 796  | 796  | 796  | 796  | 796  | 796  | 796  | 796  | 796  | 796  | 796  | 796  |
|                           | shopping   | 182   | 182  | 182  | 182  | 182  | 182  | 182  | 182  | 182  | 182  | 182  | 182  | 182  | 182  |
|                           | other  | 1455  | 1455 | 1455 | 1455 | 1455 | 1455 | 1455 | 1455 | 1455 | 1455 | 1455 | 1455 | 1455 | 1455 |
|                           | sub-total  | 4116  | 4116 | 4116 | 4116 | 4116 | 4116 | 4116 | 4116 | 4116 | 4116 | 4116 | 4116 | 4116 | 4116 |
| Employment creation       | construction work  | 54    | 54   | 54   | 54   | 54   | 54   | 54   | 54   | 54   | 54   | 54   | 54   | 54   | 54   |
|                           | indirect employment  | 286   | 286  | 286  | 286  | 286  | 286  | 286  | 286  | 286  | 286  | 286  | 286  | 286  | 286  |
|                           | sub-total  | 340   | 340  | 340  | 340  | 340  | 340  | 340  | 340  | 340  | 340  | 340  | 340  | 340  | 340  |
|                           | by consumption   | 230   | 230  | 230  | 230  | 230  | 230  | 230  | 230  | 230  | 230  | 230  | 230  | 230  | 230  |
|                           | by investment  | 66    | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   | 66   |
|                           | sub-total  | 296   | 296  | 296  | 296  | 296  | 296  | 296  | 296  | 296  | 296  | 296  | 296  | 296  | 296  |
|                           | Ground total   | 4752  | 4752 | 4752 | 4752 | 4752 | 4752 | 4752 | 4752 | 4752 | 4752 | 4752 | 4752 | 4752 | 4752 |
| EIRR=                     |  |       |      |      |      |      |      |      |      |      |      |      |      |      |      |
|                           |  | 11.1% |      |      |      |      |      |      |      |      |      |      |      |      |      |

Source: JICA study team

Table A. 29 Financial cost and revenue in Los Cabos tourism region

|                       | 1996                               | 1997 | 1998 | 1999 | 2000 | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  |
|-----------------------|------------------------------------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Private sector</b> |                                    |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| Revenue               |                                    |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| Cost                  |                                    |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| cf. Investment        | 49                                 | 146  | 282  | 486  | 729  | 1,360 | 1,802 | 2,243 | 2,685 | 3,127 | 4,563 | 5,955 | 6,147 | 6,939 | 7,731 |
| O&M                   | 344                                | 287  | 335  | 335  | 335  | 475   | 402   | 402   | 402   | 402   | 636   | 541   | 541   | 541   | 541   |
| Depreciation          | 36                                 | 108  | 216  | 360  | 540  | 1,008 | 1,335 | 1,663 | 1,990 | 2,317 | 3,382 | 3,969 | 4,556 | 5,143 | 5,730 |
| Promotion             | 19                                 | 38   | 61   | 88   | 105  | 132   | 159   | 186   | 213   | 239   | 276   | 312   | 348   | 384   | 420   |
| Interest              | 11                                 | 10   | 10   | 12   | 11   | 9     | 7     | 6     | 4     | 5     | 0     | 0     | 0     | 0     | 0     |
| Total                 | 131                                | 131  | 131  | 112  | 94   | 241   | 223   | 204   | 162   | 119   | 319   | 236   | 272   | 216   | 160   |
| Balance               | 197                                | 288  | 418  | 567  | 750  | 1,391 | 1,724 | 2,059 | 2,369 | 2,681 | 3,977 | 4,576 | 5,176 | 5,743 | 6,310 |
| tax                   | -148                               | -142 | -126 | -81  | -22  | -31   | 78    | 184   | 316   | 446   | 586   | 779   | 972   | 1,196 | 1,421 |
| after reducing tax    | 0                                  | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 10    | 152   | 199   | 265   | 330   | 407   | 483   |
| <b>FIRR</b>           | <b>19.9%</b>                       |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| <b>FIRR2</b>          | <b>17.2%</b>                       |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| <b>Public sector</b>  |                                    |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| Revenue               |                                    |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| Cost                  |                                    |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| VAT                   | 9                                  | 26   | 51   | 86   | 129  | 240   | 318   | 396   | 474   | 552   | 605   | 945   | 1,085 | 1,225 | 1,364 |
| Income tax            | 0                                  | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 10    | 152   | 199   | 265   | 330   | 407   | 483   |
| Total                 | 9                                  | 26   | 51   | 86   | 129  | 240   | 318   | 396   | 483   | 703   | 1,005 | 1,210 | 1,415 | 1,631 | 1,847 |
| cf. Investment        | 32                                 | 0    | 113  | 113  | 113  | 100   | 68    | 68    | 68    | 68    | 56    | 38    | 38    | 38    | 38    |
| O&M                   | 10                                 | 10   | 44   | 78   | 112  | 142   | 162   | 182   | 203   | 223   | 240   | 251   | 263   | 274   | 285   |
| Depreciation          | 0                                  | 0    | 4    | 8    | 11   | 14    | 16    | 18    | 20    | 23    | 24    | 25    | 26    | 28    | 29    |
| Total                 | 10                                 | 10   | 48   | 86   | 123  | 155   | 178   | 201   | 223   | 246   | 264   | 276   | 289   | 302   | 314   |
| Balance               | -1                                 | 16   | 4    | 0    | 5    | 85    | 140   | 195   | 260   | 458   | 741   | 994   | 1,126 | 1,330 | 1,533 |
| <b>R/E</b>            | <b>2.62 (Discount rate = 8.5%)</b> |      |      |      |      |       |       |       |       |       |       |       |       |       |       |

Note: FIRR2 means the FIRR when the business income tax is counted to expenditure.  
Source: JICA study team

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### **A.1.11. Description of projects**

The followings are the brief explanation of the tourism development projects chosen by the JICA study team to be implemented by 2010. The details of each project are given in chapter 3 in this report.

#### **A.1.11.1. Projects at the level of tourism center (level-1) and the level of one-day trip area (level-2)**

The following projects are required in the tourism center of Los Cabos and its one-day trip area.

##### **(1) Cabo San Lucas**

###### **a. Integration of the north and south areas of Cabo San Lucas (LTR CSL-1)**

Cabo San Lucas town is separated into the north-east area and the south area by the marina. At present public transportation is not available to connect the areas. Due to the separation, the development of the southern area may be rather delayed compared to the north/east area and visitors staying in the hotels in the south area have to walk a long distance on the main road to the commercial areas of the north.

This is a project to introduce shuttle services of buses and boats to integrate the downtown of Cabo San Lucas.

###### **b. Whale museum development (LTR CSL-2)**

At present Los Cabos is limited in tourism products other than beaches, marine sports, golf and marina. The gray whale watching in Bahia Magdalena, Laguna San Ignacio and Laguna Ojo de Liebre is significant for further tourism promotion of the region, but the sites are far from the existing tourism centers.

This is project to build a whale museum in Cabo San Lucas to spread the knowledge of whales in Baja and lure out visitors to the whale watching sites, and to provide attractions in Los Cabos.

###### **c. Improvement of public beach of El Medano bay (LTR CSL-3)**

The public beach of the El Medano bay is used by many local people, as well as by international visitors. However, there are no facilities, such as toilets, changing-rooms and shower facilities, as well as parking lots. This is a project to provide these facilities to improve tourism amenity and to promote tourism use of the beach.

###### **d. Tourist amenity improvement of Cabo San Lucas (LTR CSL-4)**

The downtown of Cabo San Lucas needs beautification and improvement of tourist amenity. In particular, the southern part of Cabo San Lucas has not been well developed in terms of tourism facilities.

This is a project to review the urban plan of Cabo San Lucas for the purpose of tourism amenity improvement and revitalization of the town. For the southern area, it is necessary to make streets more attractive to tourists by providing nice sidewalks, shops, restaurants and so on. Traffic problems should be solved by providing roadside parking meters in the short term, and in the long-term, it is necessary to provide parking lots.

###### **e. Tourism accommodation development (LTR CSL-5)**

Cabo San Lucas tourism center needs a large-scale hotel development as much as 2,000 rooms in the long term. There are some vacant lots adjacent the marina, which could be utilized for development of hotels or other tourism facilities.

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**(2) Los Cabos Corridor**

**a. Improvement of inter-city public bus services between Cabo San Lucas and San Jose del Cabo (LTR LCC-1)**

Inter-city public bus services for visitors between Cabo San Lucas and San Jose del Cabo are poor, and the taxi fare is expensive. This is a project to improve bus services between the two centers.

**b. Tourism amenity development in the corridor (LTR LCC-2)**

Los Cabos corridor lacks in tourism facilities except resort hotels. This is a project to improve tourism amenity in the corridor by providing wayside facilities such as view points of sea and desert, cafe and restaurant as well as installing road signs

**c. Tourism accommodation development in (LTR LCC-3)**

Additional 3,000 hotel rooms are planned to be developed in the corridor.

**(3) San Jose del Cabo**

**a. Nature conservation and tourism amenity improvement of San Jose Estuary and old town of San Jose del Cabo (LTR SJD-1)**

Estero de San Jose del Cabo (San Jose del Cabo estuary) is one of the important oases in the state, and it has rich vegetation and wildlife. It is designated as a natural reserve by the state government. It has an advantage in that it is located just adjacent to the hotel zone of San Jose del Cabo.

There are on-going local initiatives to improve urban amenity by encouraging wise use of the estuary and its surrounding area for citizens, as well as visitors. However, their plan is much oriented to use rather than conservation. It is necessary to emphasize conservation in order to promote wise tourism and citizens' use.

In addition, the beauty of the old town district of San Jose del Cabo could be conserved, and its tourism amenity could also be improved by providing public gardens and a foot path connecting the old town and San Jose estuary.

**b. Convention center development in San Jose del Cabo (LTR SJD-2)**

This is a project to build a convention center for further growth of Los Cabos taking the advantage of proximity to the US market. FONATUR's development area is one of the possibilities for the convention center.

**c. Tourism accommodation development in San Jose del Cabo (LTR SJD-3)**

Additional 1,500 rooms area planned for the FONATUR's development area in San Jose del Cabo.

**d. Development of tourism pier in San Jose del Cabo (LTR SJD-4)**

FONATUR has a plan to develop a tourism pier at the beach of San Jose del Cabo.

**e. Development of the southern and western part of the FONATUR area in San Jose del Cabo (LTR SJD-5)**

FONATUR possesses a large portion of land for tourism facility development. This is a project to develop the area. Tourism facilities may need to be introduced to increase the number of tourist attractions in Los Cabos.

**f. Golf course development in San Jose del Cabo (LTR SJD-6)**

FONATUR has large undeveloped area in the south-west of his developed land and he has a plan to develop 2 golf courses of 18 holes and 27-36 holes according to his master plan.

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**g. Sewerage system development in San Jose del Cabo (LTR SJD-7)**

The municipal water company of Los Cabos has a master plan to develop a sewage system consisting of sewers and treatment plant covering San Jose del Cabo area, including rapidly expanding settlement areas toward the airport.

**h. San Jose del Cabo international airport improvement (LTR SJD-8)**

ASA has a plan to improve the existing San Jose del Cabo international airport. The improvement is for the expansion of the run way to 2,700 m from existing 2,000 m, new approach construction, expansion of the terminal building, etc. This improvement should be implemented to contribute the tourism promotion of the region.

Beside the improvement of the airport facilities, it is strongly recommended to improve the "sense of arrival" at the airport including improvement of taxi services and beautification of roads to the downtown.

**(4) Los Cabos-La Paz corridor - central route**

**a. Desert museum complex development in Santiago (LTR LLC-1)**

Wildlife in desert is a significant but less known tourism resource for Los Cabos. This is a project to build a museum in Santiago that focus on the wildlife. It should be combined with the existing zoo famous for a collection of Cobras.

**b. Open air museum development in ex-mining villages of San Antonio, El Rosalio, and El Triunio (LTR LLC-2)**

Along the central route of the corridor, there are three ex-mining villages of San Antonio, El Rosalio and El Triunfo. This is a project to prepare a plan to establish a open-air museum that utilizes the old mining facilities and old buildings in the villages. It is recommended to introduce gold and silver workshops in the villages to represent their past.

**c. Tourism development in the Sierra San Lorenzo area (LTR LLC-3)**

Sierra de Laguna abounds in natural tourism resources. This is a project to utilize the ecological tourism products by developing access roads, nature trails, and a tourist center.

**d. Beautification of tourism spots in San Pedro de la Soledad (LTR LLC-4)**

San Pedro de la Soledad is famous for production of snake skin. This is a project to improve the tourism use of the snake skin factories with financial assistance from the municipality.

**e. Development of the existing fruits farms in San Bartolo (LTR LLC-5)**

San Bartolo is famous for various kinds of tropical fruits. This is a project to improve tourism use of fruits farms with financial assistance from the municipality.

**f. Improvement of Federal Highway No.1: Los Cabos-La Paz section (LTR LLC-6)**

The total length of the road between Los Cabos and La Paz is 183 km. SCT has an action plan to improve the highway from Los Cabos to Tijuana upgrading the standard from Type-A2 to Autopista by 2000.

**(5) Los Cabos-La Paz corridor - Mar de Cortes route**

**a. Preparation of conservation plans for nature reserves along Mar de Cortes (LTR LLM-1)**

There is a national marine park in Cabo Pulmo designated by the federal government. Bahía La Ventana is designated as a protected area by the state government. This is a project to prepare a wise use plan for these nature sites including tourism use with sufficient nature conservation.

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**b. Development of tourism attractions in the desert areas along Mar de Cortes (LTR LLM-2)**

The area along Mar de Cortes abounds in unique land formation and desert wildlife. This is a project to develop desert trekking routes and camp sites. It is recommended to introduce "luxurious camping" in the area to diversify tourism products in Los Cabos.

**c. Tourism accommodation development (LTR LLM-3)**

Additional 651 rooms are planned along the Mar de Cortes route. It is strongly recommended to introduce an alternative development concept of small-scale, nature-oriented, dispersed, and exclusive development.

**d. Road improvement of the San Jose del Cabo - Buena Vista section (LTR LLM-4)**

This is a project to improve the coastal road between San Jose del Cabo and Buena Vista. The road should be the artery of tourism in the East Cape area along Mar de Cortes. It is needed to develop observation decks for panoramic views of Mar de Cortes and land formation of desert mountains.

**(6) Los Cabos-La Paz corridor - Pacific ocean route**

**a. Tourist amenity improvement of San Pedorito beach (LTR LLP-1)**

This is a project to improve tourist amenity at the San Pedorito beach by developing a boat pier, pedestrian walks, parking lots and toilets to attract more visitors. The beach should be combined with tourist attractions in nearby Todos Santos.

**b. Beautification of Todos Santos (LTR LLP-2)**

This is a project to beautify the area around the church of Todos Santos.

**c. Public gallery development in Todos Santos (LTR LLP-3)**

This is a project to facilitate visitor arrivals to Todos Santos which is known as an artist village by building public gallery for display of art works created in Todos Santos.

**d. Hotel accommodation development (LTR LLP-4)**

Additional 130 rooms are planned in the area along the Pacific route of Los Cabos - La Paz corridor.

**(7) La Paz tourism center**

**a. Conservation and beautification of historical buildings in La Paz downtown(LTR LPZ-1)**

The downtown of La Paz has many historical buildings that would have tourism value. This project aims to conserve and promote tourism use historical buildings in the downtown of La Paz.

**b. Development of Pichilingue-La Paz beach resort area (LTR LPZ-2)**

La Paz has seen some cruise ships arrivals but the port of Pichilingue is not so appreciated by the cruise ship tourism due to its isolated location and long distance from the downtown of La Paz. However the Pichilingue area would be increasingly important as a transportation node linking Baja California Sur and Copper Canyon through Topolobampo.

This is a project to improve the port facilities for better tourist amenity, and to develop a beach resort area near the port. The port facilities should serve not only for the cruise ship passengers but also for tourists who participate in the La Paz-Copper Canyon tours.

1,394 rooms of hotels are planned for the La Paz - Pichilingue area.

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**c. Improvement of the existing beach areas (LTR LPZ-3)**

Beside the development of the new beach resort area to Pichilingue, it is proposed to improve the existing beach areas of Playa Palmira, El Coramuel, El Caimancito, La Concha de Balandra and El Tesoro.

**d. Improvement of the existing La Paz marina (LTR LPZ-4)**

The municipality has a plan to expand the existing marina to accommodate more 200 boats with development of a marina plaza with restaurants, shops and so on.

**e. Golf course development near the Infantil park (LTR LPZ-5)**

La Paz has no golf course at present. The municipality has a plan to develop a golf course in the area near the Infantil park together with private sector enterprises.

**f. Water supply development for La Paz down town (LTR LPZ-6)**

The municipality (SAPAL) of La Paz has a plan to develop water supply systems for the area south-west of the downtown of La Paz.

**g. Sewerage treatment system development for La Paz down town (LTR LPZ-7)**

The municipality (SAPAL) of La Paz has a plan to develop a sewerage treatment system for the area south-west of the downtown. The application of the development budget is under process to the Federal government.

**h. Existing solid waste dumping site improvement for La Paz downtown (LTR LPZ-8)**

The municipality has a plan to expand the existing solid waste dumping site by purchasing new machinery.

**i. Improvement of La Paz international airport (LTR LPZ-9)**

ASA has a plan to improve the La Paz international airport. The improvement includes expansion of the terminal building and construction of satellite platforms.

**A.1.11.2. Projects at the level of tourism corridor (level-3) and tourism circuit (level-4)**

**(1) Baja California ecotourism circuit**

**a. Tourist facility development for the whale watching site in Bahia Magdalena (LTR BEC-1)**

This would be the only whale watching site, where day-trip may become possible from La Paz therefore has the highest priority. This is a project to develop visitor facilities such as an information center, sheltered pier for whale watching boats, toilets, parking lots, and a hotel for the whale watching site in Bahia Magdalena. Additional 100 rooms are planned in the site. It is also necessary to develop a air strip.

**b. Tourist facility development for the whale wathing site in Laguna San Ignacio (LTR BEC-1)**

This is a project to develop visitor facilities such as an information center, toilets, parking lots, and a hotel for the whale watching site in Laguna San Ignacio. Additional 100 rooms are planned in the site. It is also necessary to develop a air strip and to improve an access road from Federal Highway No.1 to the site.

**c. Tourist facility development for the whale watching site in Laguna Ojo de Liebre (LTR BEC-1)**

This is a project to develop visitor facilities such as an information center, toilets, parking lots, and a small hotel in Laguna Ojo de Liebre which is a whale watching site. It is also necessary to improve an access road from Guerrero Negro and an air strip.

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**d. Santa Teresita tourism development (LTR BEC-1)**

Rock paintings in Santa Teresita canyon is registered as a world cultural heritage. This is a project to develop or improve tourist facilities necessary for the trekking for the rock paintings such as information center, walking trail, handrails, toilet and water, and camping site facilities, and an access road to Guadalupe that is a base for the trekking.

**e. Up-grading of Federal Highway No. 1 (LTR BEC-1)**

SCT has an action plan to improve Federal Highway No.1 from Los Cabos to Tijuana by year 2000.

**(2) Loreto tourism center**

**a. Hotel accommodation development (LTR LTO-1)**

Additional 648 rooms are planned in Loreto and its vicinity.

**b. Development of port facilities (LTR LTO-2)**

This is a project to develop necessary port facilities in Loreto such as an information center, a fuel station, a ship repairing work shop, a terminal building, car parking lots, and so on to introduce Mar de Cortes eco-cruise.

**(3) La Paz-Copper Canyon corridor**

**a. Introduction of high-speed sea transport between La Paz and Topolobampo (LTR BDC-1)**

This is a project to introduce a high-speed boat between Pichilingue/ La Paz and Topolobampo/ Los Mochis to promote combine Los Cabos with a Copper Canyon rail journey. Necessary port facilities should be developed at the Pichilingue port and the Topolobampo port for the speed boat operation.

**b. Railway improvement for the Copper Canyon journey (LTR BDC-2)**

This is a project to improve the existing rail from Los Mochis to Creel to improve the operation of the rail journey in the Copper Canyon. It is proposed to improve the rail and to operate luxurious trains with new carriages by the private sector.

**c. Improvement of the Creel airport (LTR BDC-3)**

This is a project to improve the Creel airport to provide an alternative transport measure to Copper Canyon.

**(4) Mar de Cortes eco-cruise**

**a. Development of port facilities for eco-cruise (LTR MCC-1)**

This is a project to develop necessary port facilities for base ports used for Mar de Cortes eco-cruise in Santa Rosalia and Guaymas such as an information center, a fuel station, a ship repairing work shop, a terminal building, car parking lots, and so on.

**b. Development of stop over ports for the eco-cruise (LTR MCC-2)**

This is a project to develop a landing pier at Isla Coronado, Isla Carmen, Isla Danzante and other 2 islands for stop-over ports for Mar de Cortes eco-cruise.



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## **A.2. Analysis of existing conditions and description of projects in Puerto Vallarta tourism region**

### **A.2.1. Tourism structure of Puerto Vallarta tourism region**

The Puerto Vallarta tourism region is divide into three areas, namely:

- Pacific Ocean beach resort area,
- inland historical tourism area, and
- mountainous area between the above two areas.

The tourism region has three tourism centers of Puerto Vallarta, Guadalajara, and Manzanillo in the Colima state. The region also has secondary tourism centers of Coastalegre and Chapala in the Jalisco state and the historical towns of Zacatecas, San Luis Potosi, San Miguel de Allende, Guanajuato, Mexico City, Queretaro, Morelia and Patzcuaro in the inland.

The National Tourism Sector Development Program 1995-2000 has appointed a corridor between Puerto Vallarta and Guadalajara as a priority tourism development area in Mexico.

The Jalisco state government has a tourism development concept to formulate two tourism triangles as follows:

- Puerto Vallarta-Guadalajara-Manzanillo tourism triangle, and
- Guadalajara-Zacatecas-Queretaro triangle that includes Aguascalientes, San Luis Potosi, Guanajuato, .San Miguel de Allende, Morelia and Patzcuaro.

#### **(1) Puerto Vallarta**

Puerto Vallarta has been prosperous as one of the famous traditional beach centers in Mexico since the municipality decided to concentrate its efforts on developing tourism in the early 1970's.

Puerto Vallarta boasts of an quaint historic center as well as its beaches and various marine sports opportunities. The town is also the second most popular port of call for cruise ships in Mexico only next to Cozumel.

The hotel zone is divided into two areas. The northern part is a typical high-density tourism development area while the southern part is developed in a dispersed manner. A private enterprise has developed a tourism complex with huge marinas, hotels and condominium and shopping malls north of the downtown area.

#### **(2) Nuevo Vallarta (Nayarit state)**

Nuevo Vallarta is actually a northern extension of Puerto Vallarta therefore the Nayarit state needs close collaboration with the Jalisco state and the Puerto Vallarta municipality. The southern part of the Nayarit state has a variety tourism resources which are receiving visitors who make a day-trip from Puerto Vallarta.

#### **(3) Guadalajara**

This is the second largest city in Mexico, and is prosperous as a business center as well as a tourism center with a variety of tourism products. There are following tourism resources in and around Guadalajara:

- Historical center of Guadalajara with quaint colonial buildings,
- Opportunities to enjoy modern urban amenity such as art, gourmet, fashion, music, and nightlife,
- Handicraft centers of Tlaquepaque and Tonalá
- A pilgrimage center of Zapopan with a beautiful cathedral, and
- Barranca del Oblatos with a natural beauty of canyon of Rio Grade de Santiago.

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(4) **Manzanillo**

Manzanillo, which is a principal port city of Mexico, is also a traditional beach center. Manzanillo, Puerto Vallarta, and Guadalajara formulate the Jalisco tourism triangle.

(5) **Costalegre**

Costalegre is a coastal area between Manzanillo and Puerto Vallarta. Part of the area is designated as an ecological corridor by INE.

The area has different types of tourism resources such as sports fishing, sailing, diving and snorkeling, bird watching in mangrove, turtle camping, and nature walk in Chamela Cuixma Biosphere Reserve.

"Enclave" type development is predominant in the area. Since resort hotels in the area tend to locate in isolation, many have self-sufficient utility system such as water supply and sewerage treatment.

(6) **Chapala lake**

This is the largest lake in Mexico. There is a community of retirees mostly from the USA. It is a popular weekend destination for residents in Guadalajara. Sewerage treatment and waste disposal are serious issues to cope with the water pollution of the lake.

(7) **Tepic**

Tepic is the capital of the Nayarit state with some cultural tourism resources. It is connected with Guadalajara via Federal Highway No.15.

(8) **San Blas**

San Blas is a beach center in the Nayarit state being famous for a boat trip through mangrove forest and a bird colony.

(9) **Inland historical cities**

There is a group of historical cities that abound in cultural tourism resources such as beautiful cathedrals, quaint buildings, and historical monuments. Typical examples include Zacatecas, San Luis Potosi, San Miguel de Allende, Guanajuato, Queretaro, Mexico City, Taxco, Morelia and Patzcuaro. It is possible to make an overland trip visiting most of these cities in a week.

**A.2.2. Tourism resources**

Table A. 30 lists up tourism resources in the tourism region. The following section explains major tourism resources.

(1) **Beaches**

There are beach centers of Puerto Vallarta, Nuevo Vallarta, Costalegre, and Manzanillo along the Pacific coast. There is a number of small and isolated coves surrounded by lush green forest between Boca Tomatlan and Cabo Corrientes as well as parts of Costalegre. These coves are increasingly recognized as sites for exclusive tourism development.

(2) **Historical resources**

The Puerto Vallarta tourism region has the densest concentration of historical cities in Mexico. They include Guadalajara, Lagos de Moreno, San Juan de Los Lagos, Tepatitlan de Morelos in the Jalisco state, Colima in the Colima state, Tepic in the Nayarit state, as well as a "Mexican cities circuit" of Zacatecas, San Luis Potosi, San Miguel de Allende, Guanajuato, Queretaro, Mexico City, Taxco, Morelia, and Patzcuaro.

### (3) Villages

In the Sierra Loma Blanca in the vicinity of Puerto Vallarta, exist three traditional villages of San Sebastian del Oeste, Mascota and Talpa de Allende. In the northern part of the Nayarit state there are indigenous villages of Mesa del Mayor, Santa Teresa and Guadalupe de Ocotlán.

### (4) Other tourism resources

Horseback riding in the jungle east of Puerto Vallarta, rafting in rivers near Cabo Corrientes are popular activities for visitors to Puerto Vallarta. National parks and biosphere reserves in Sierra Madre would have potential for ecotourism.

**Table A. 30 List of Tourism resources in Puerto Vallarta tourism region**

| Type of resources         | Location  |   |
|---------------------------|---|---|
|                           | Jalisco state   | Neighboring states  |
| Tourism centers           | Puerto Vallarta, Guadalajara, Coahuila, Chapala,  | Manzanillo (Colima state), Nuevo Vallarta, Tepic and San Blas (Nayarit state), Zacatecas, San Luis Potosi, San Miguel de Allende, Guanajuato, Queretaro |
| Beaches and marine sports | Puerto Vallarta, Los Arcos, Coahuila, Playas escondidos in Cabo Corrientes                    | Manzanillo (Colima), Nuevo Vallarta, Destiladeras, Punta de Burro, Paraiso Escondido, Punta de Mita, San Blas (Nayarit)                                 |
| Historical cities         | Puerto Vallarta, Guadalajara, Lagos Moreno, San Juan de Los Lagos, Tepic, Tlaxiaco de Morelos | Tepic, Zacatecas, San Luis Potosi, San Miguel de Allende, Guanajuato, Queretaro   |
| Traditional villages      | San Sebastian, Mascota, Talpa, Magdalena, Tequila   | Mesa del Mayor, Santa Teresa, Guadalupe de Ocotlán (Nayarit)  |
| Mountain/forest and lake  | Sierras Cacoma, El Tuito and Loma Blanca, Nevado de Colima, Chapala lake                      | Volcan de Colima  |
| Archeological ruins       | Ixtapa  | Ixtlan del Rio (Nayarit)  |
| Nature and wildlife       | Bahia de Banderas, Coahuila, Sierra de Manantlan BR, Chamela-Cuixmala BR                      | Nevado de Colima NP (Colima), Isla Isabel NP, Islas Marietas (Nayarit),   |

Source: JICA study team

## A.2.3. Tourism facilities

### A.2.3.1. Accommodation

#### (1) Accommodation

The number of guest rooms of lodging facilities as of October 1995 is shown in Table A. 31. From the viewpoint of lodging capacity, Puerto Vallarta is defined as medium class tourism destinations with capacity 12,025 rooms among the six study areas of the JICA study.

Regarding a share of hotel guest rooms in the total lodgings, Puerto Vallarta has a higher share of more than 87%. But the number of timesharing units in the S.N.I.T. would be rather small, although the role of timesharing is very important to supply lodgings.

**Table A. 31 Guest Rooms of Lodgings, 1995**

|                                    | Puerto Vallarta |               |
|------------------------------------|-----------------|---------------|
| Hotel                              |                 |               |
| (a) Hotel (1 star)                 | 223             | 1.9%          |
| (b) Hotel (2 stars)                | 471             | 3.9%          |
| (c) Hotel (3 stars)                | 853             | 7.1%          |
| (d) Hotel (4 stars)                | 2,185           | 18.2%         |
| (e) Hotel (5 stars)                | 6,154           | 51.2%         |
| (f) Hotel (Without classification) | 637             | 5.3%          |
| (g) Country Houses and Cabins      | 0               | 0.0%          |
| (h) Apartments                     | 52              | 0.4%          |
| (i) Boarding Houses                | 62              | 0.5%          |
| (j) Bungalows                      | 22              | 0.2%          |
| (k) Furnished Rooms                | 0               | 0.0%          |
| (l) Camps                          | 0               | 0.0%          |
| (m) Suites and Condominiums        | 863             | 7.2%          |
| (n) Large farms and House of Maya  | 0               | 0.0%          |
| (o) Trailer Parks                  | 209             | 1.7%          |
| (p) Time Sharing Units             | 294             | 2.4%          |
| <b>Total</b>                       | <b>12,025</b>   | <b>100.0%</b> |
| (a) + (b) + (c) + (d) + (e) + (f)  | 10,523          | 87.5%         |
| (a) + (b) + (c) + (d) + (e)        | 9,886           | 82.2%         |
| (d) + (e)                          | 8,339           | 69.3%         |
| (m) + (p)                          | 1,157           | 9.6%          |

Source: S.N.I.T.

## (2) Timesharing

Timeshare programs and sales are shown in Table A. 32 and Table A. 33, which summarized below.

The number of sold weeks in active had increased until 1992 and suddenly took a turn for the worse.

Concerning a share of foreign purchasers in sold weeks, it has been between 30% to 50% for past several years.

The number of timesharing unit differs depending on the data source, but RCI's data deemed to be generally the most reliable. When only timesharing units and hotel guest rooms of one star and more are taken into consideration, percentage of timeshare units in guest rooms deemed to be more 40% in Puerto Vallarta.

**Table A. 32** Timeshare projects and sales

|  |         | P.Vallarta |
|--|---------|------------|
| Active Projects in Sales in 1994         |         | 19         |
| Estimated Sales*                         | 1987    | 15,305     |
|  | 1988    | 21,500     |
|  | 1989    | 21,500     |
|  | 1990    | 23,300     |
|  | 1991    | 27,700     |
|  | 1992    | 28,767     |
|  | 1993    | 18,367     |
|  | 1994    | 12,496     |
|  | Total** | 168,935    |
| Share of Foreigners<br>in Sold Weeks (%) | 1987    | 34         |
|  | 1988    | 47         |
|  | 1989    | 42         |
|  | 1990    | 44         |
|  | 1991    | 34         |
|  | 1992    | 34         |
|  | 1993    | n.a.       |
|  | 1994    | 48         |

Note: \* : Sold weeks in active projects, \*\* : Total of sold weeks in active projects from 1987 to 1994  
Source: RCI

**Table A. 33** Equivalent role of timeshare projects in lodging supply

|                                 | P.Vallarta |
|---------------------------------|------------|
| (a) Guest Rooms of Hotels*      | 8,855      |
| (b) Timeshare Units**           | 3,826      |
| (c) Number of Surveyed Projects | 36         |
| (d) = $100 * (b) / (a)$         | 43.2%      |

Note: \* : Including hotels of 1 - 5 stars and grand tourism, \*\* : Number of timeshare units in surveyed projects shown in column (c)  
Source: (a) : SECTUR and FONATUR, (b) : RCI

### A.2.3.2. Other Tourism related facilities

The number of some tourism related facilities other than lodgings is shown in Table A. 34. General features of these facilities are similar to those of the entire country. Features of Puerto Vallarta are summarized below.

- As for golf courses, there are two golf courses in Puerto Vallarta.
- As for marina, several large facilities such as Marina Vallarta are in operation. Some of them were developed as a component of a huge scale resort complex. In addition, some facilities are under construction or under planning.
- There is an amusement park "Water park" in Puerto Vallarta.
- In these destinations, there are several small museums. These are more important for inhabitants in the regions than for tourists.

**Table A. 34 Tourism-related facilities other than lodgings**

|                   | Puerto Vallarta |
|-------------------|-----------------|
| Golf Course       | 2               |
| Marina            | 3               |
| Amusement Park    | 1               |
| Zoo               | -               |
| Aquarium          | -               |
| Museum            | 2               |
| Convention Center | -               |
| Restaurant        | 93              |
| Bar               | 8               |
| Discotheque       | 4               |

Source: SECTUR, S.N.I.T. and JICA study team

## A.2.4. Transportation network

### A.2.4.1. Land transport

#### (1) Rail

No rail transport is available in the Jalisco state.

#### (2) Road

##### a. Federal highway

The tourism region has a network of Federal highway and high-standard toll roads with Guadalajara as a hub.

The Jalisco tourism triangle is formulated by the federal Highway No.15, 68 (partially toll road) and 200 for the Puerto Vallarta-Guadalajara section, federal highway No.54 (toll road also) for the Guadalajara-Manzanillo section, and federal highway No.200 for the Manzanillo-Puerto Vallarta section.

Federal highways No.80 (toll road), No. 70, No. 54, No.45 (toll road) link Guadalajara with inland historical cities.

##### b. Other roads

In addition to the federal highways network, network of state and municipal roads covers the tourism region except some parts of mountainous area.

#### (3) Public transport services

The bus services in Puerto Vallarta need improvement to reduce car traffic in the downtown area, and to cover newly developed tourism areas like Marina Vallarta which does not have sufficient bus services at present.

### A.2.4.2. Air transport

#### (1) Airport facility

International airports in the Jalisco tourism triangle are located in Puerto Vallarta, Guadalajara, Manzanillo, Colima and Tepic. ASA has a plan to improve the airports of Puerto Vallarta and Guadalajara in a master plan. There are more than 30 air strips in isolated areas.

#### (2) Cities of origin and passenger flow

The conditions of major airports in the tourism region are summarized as follows.

##### a. International flight

Puerto Vallarta: Total: 535,898 passenger between 64 cities  
 Regular flight: 387,788 passenger between 16 cities  
 Chartered flight: 181,120 passengers between 48 cities

Major destinations: Dallas (105,000 passengers), Houston (73,000), San Diego (46,000)

Guadalajara: Total: 734,422 passengers between 20 cities  
 Regular flight: 728,531 passengers between 17 cities  
 Chartered flight: 5,891 passengers between 3 cities  
 Major destinations: San Francisco (148,000), Los Angeles (142,000), Dallas (115,000)

Morelia: Total: 111,048 passengers with 6 cities  
 Regular flight: 110,902 passengers with 4 cities  
 Chartered flight: 146 passengers between 2 cities  
 Major destinations: San Francisco (48,232), Chicago (27,737), Dallas (21,442)

Guanajuato: Total: 88,292 passengers between 10 cities  
 Regular flight: 87,775 between 8 cities  
 Chartered flight: 517 passengers between 2 cities  
 Major destinations: Houston (27,737), Dallas (21,442), Los Angeles (17,856)

Zacatecas: Total: 76,217 passengers between 5 cities  
 Regular flight: 76,217 passengers between 5 cities  
 Chartered flight: no flight  
 Major destinations: Los Angeles (37,113), Chicago (21,728), Oakland (11,532)

**b. Inter-regional domestic flight**

Puerto Vallarta: Regular flight: 105,912 passengers between 12 cities  
 Major destinations: Mexico City (90,981 passengers), Los Cabos (4,568), Tijuana (3,621)

Guadalajara: Regular flight: 1,428,434 passengers between 42 cities  
 Major destinations: Mexico City (729,199), Tijuana (308,490), Monterrey (123,515)

Colima: Regular flight: 62,643 passengers between 2 cities  
 Major destinations: Tijuana (44,565) Mexico City (17,791)

Guanajuato: Regular flight: 199,057 passengers between 17 cities  
 Major destinations: Mexico (119,782), Tijuana (68,105)

Aguascalientes: Regular flight: 165,265 passengers between 9 cities  
 Major destinations: Mexico (114,609), Tijuana (49,001)

Aguascalientes: Regular flight: 146,515 passengers between 8 cities  
 Major destinations: Tijuana (66,766), C.D. Mexico (62,379)

**c. Intra-regional domestic flight**

Puerto Vallarta: Regular flight: 42,867 passengers between 7 cities  
 Major destinations: Guadalajara (21,152 passengers), Guanajuato (14,901), Aguascalientes (6,604)

Guadalajara: Regular flight: 53,193 passengers between 8 cities  
 Major destinations: Puerto Vallarta (21,152), Morelia (9,352), Tepic (8,043)

Manzanillo: Regular flight: 1,745 passengers between 7 cities  
 Major destinations: Guadalajara (993), Tepic (373)

Guanajuato: Regular flight: 16,641 passengers between 5 cities  
 Major destinations: Puerto Vallarta (14,901), Zacatecas (1,581)

### A.2.4.3. Sea transport

Major sea ports in the region are Puerto Vallarta and Manzanillo. Puerto Vallarta is the 2nd cruise destination in Mexico only next to Cozumel. Manzanillo is one of the major commercial ports on the Pacific coast. They received 164,967 and 1,845 cruise passengers in 1994, respectively.

### A.2.5. Infrastructure

Existing situation and future plan are summarized as follows.

It seems that there are no serious obstacles for tourism on the whole.

**Table A. 35 Airport facilities and capacity in Puerto Vallarta (1)**

| Elements   | Unit      | Capacity | Existing 1993 | Demand (High Estimate) |       |       |       |
|------------|-----------|----------|---------------|------------------------|-------|-------|-------|
|            |           |          |               | 1995                   | 2000  | 2005  | 2010  |
| Runway     | OP/Hr     | 35       | 15            | 17                     | 21    | 24    | 26    |
| Plataforms | Posic.Sim | 11       | 9             | 10                     | 13    | 14    | 16    |
| Buildings  | Pas/Hr    | 1,275    | 999           | 1,112                  | 1,415 | 1,611 | 1,787 |
| Parkings   | Lot       | 246      | 160           | 187                    | 235   | 262   | 297   |

Note: 1.Platforms, Buildings & Parkings are for commercial use only in this Table.  
Source: Sistem Estadistico Aeroportuario,1994, ASA.

**Table A. 36 Airport facilities and capacity in Puerto Vallarta (2)**

|   |                      |  |
|---|----------------------|--|
| Acces to City Center                    | A                    | (almost 4 lanes highway)   |
| Distance / time                         |                      | 8 km / 10 min.   |
| Taxi & bus service                      | A                    |  |
| Airport Facility                        | A                    | (some as left)   |
| Ranway operable Aircraft                |                      | 3100mx45mx1.   |
| Operation Hour                          |                      | B-747  |
| Terminal Building.                      |                      | 24 hrs.<br>15,350 m <sup>2</sup>   |
| Capacity and Demand.                    |                      |  |
| Runway                                  | A                    | (enough )  |
| Platform                                | B                    | (increasing is required after 2000)  |
| Building                                | B                    | (increasing is required after 2000)  |
| Parking                                 | B                    | (increasing is required after 2005)  |
| Future Improvement Plan.                | M/P 1991,(1992-2010) |  |
| Main Improvement                        |                      | Increasing of 1 Runway<br>(3100m X45m X 1)<br>Increasing of Plataform and Buildings. |
| Project Cost (Millions N\$) (upto 2010) |                      | (unsettled)  |

Note: The signs mean as follows: **A**/good and/or enough, **B**/some improvement is required in near future, **C**/improvement and/or countermeasure is required soom.

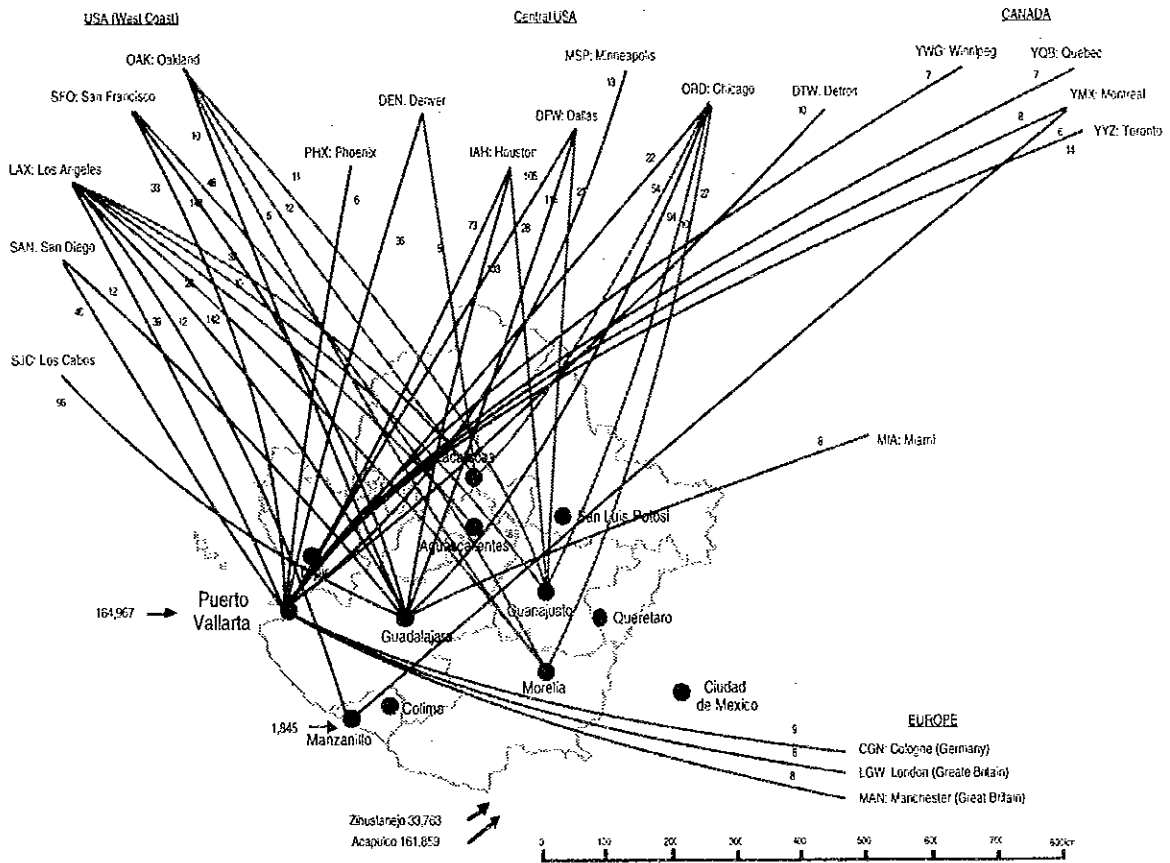
**Table A. 37 Airport passenger changes and future demand (Puerto Vallarta)**

| Year                  | Domestic  | International | Charter | Transit | Total     |
|-----------------------|-----------|---------------|---------|---------|-----------|
| 1980                  | 496,814   | 285,513       | 0       | 0       | 782,327   |
| 1985                  | 621,884   | 450,672       | 81,989  | 179,895 | 1,334,440 |
| 1990                  | 610,981   | 648,142       | 190,729 | 199,072 | 1,648,924 |
| 1993                  | 509,397   | 576,315       | 362,474 | 153,913 | 1,602,099 |
| 1995 (High Estimate ) | 662,594   | 700,252       | 441,612 | 176,530 | 1,980,988 |
| 2000 ( ditto )        | 984,365   | 960,564       | 607,830 | 224,035 | 2,776,794 |
| 2005 ( ditto )        | 1,245,019 | 1,171,433     | 742,427 | 262,517 | 3,421,396 |
| 2010 (High Estimate ) | 1,464,108 | 1,348,676     | 855,653 | 294,862 | 3,963,299 |
| 2010 ( Low Estimate ) | 1,059,057 | 1,032,697     | 522,787 | 219,277 | 2,833,818 |

Source: Sistema Estadistico Aeroportuario, ASA



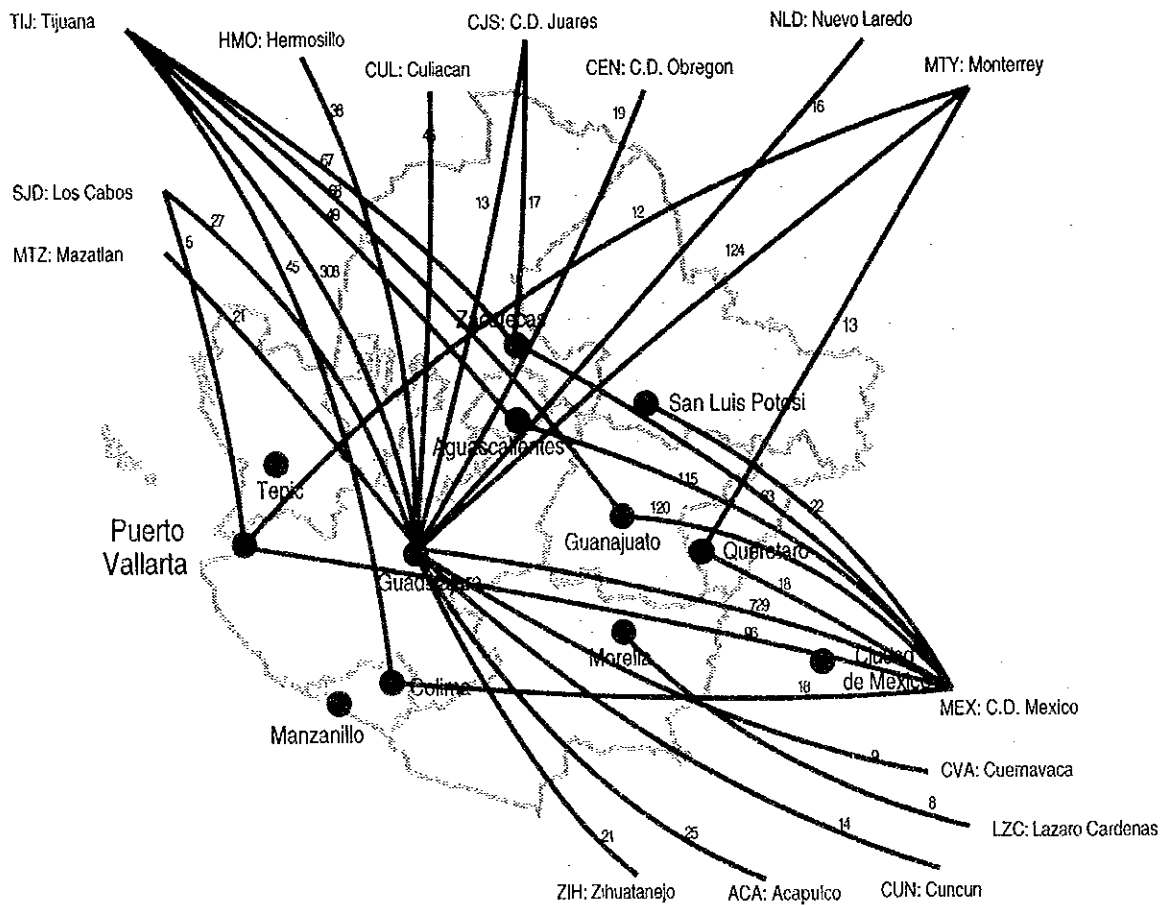
**Figure A. 4 O-D flows of passengers of international flights and cruising ships**



Note: (1)Number of Passengers of International Flights in 1995 (Totals of origin and destination, Totals of regular and charter flights, Unit:=1,000 passengers, Lines indicated over 5,000 passengers)  
 (2)Number of Visitors by Cruising Ships: 1994

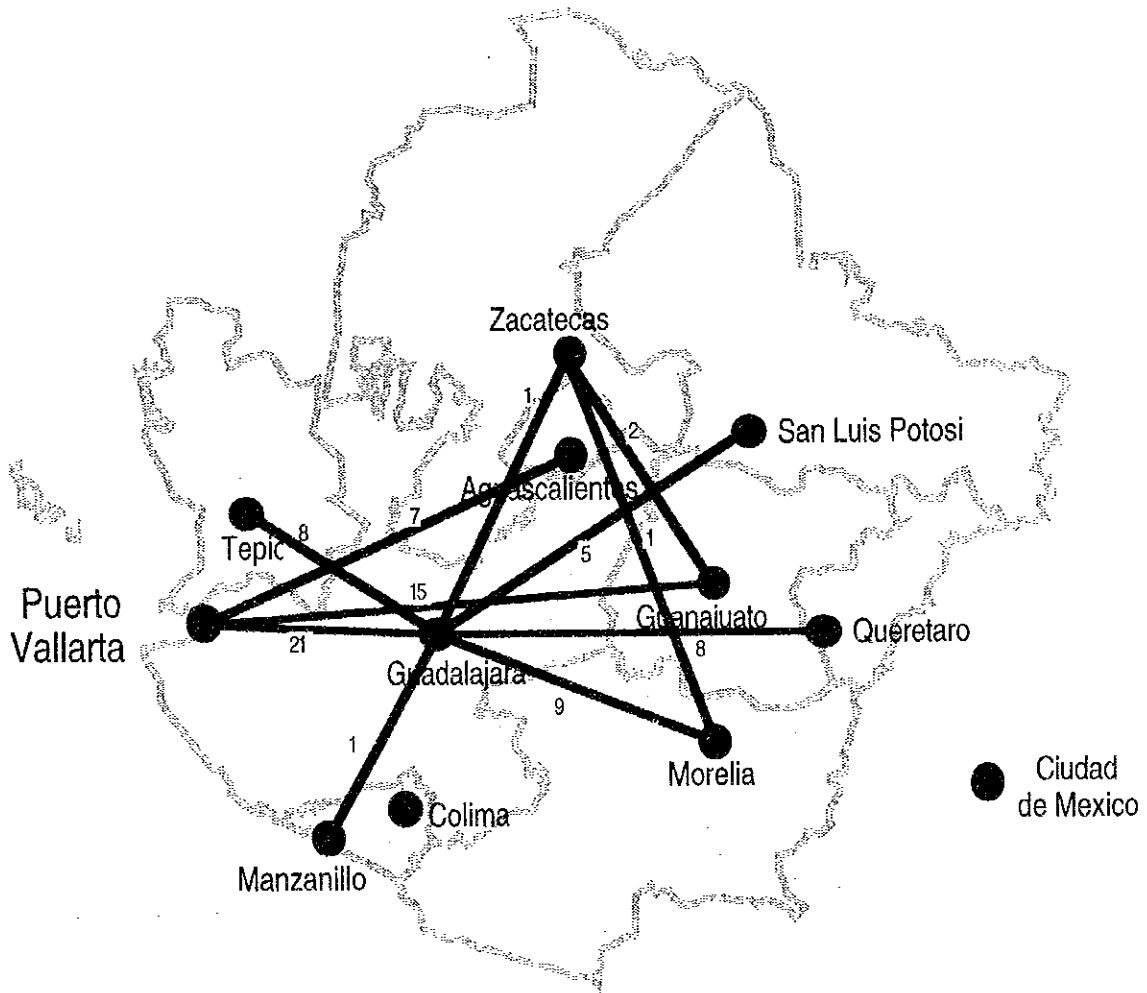
Source: SCT, ASA, compiled by JICA study team

Figure A.5 O-D flows of passengers of inter-regional domestic flights



Note: Number of passengers of domestic flights in 1995 (Totals of origin and destination, Totals of regular and charter flights, Unit =1,000 passengers, Lines indicated over 5,000 passengers)  
 Source: ASA, SCT

Figure A. 6 O-D flows of passengers of intra-regional domestic flights



Note: (1) Number of Passengers of Domestic Flights in 1995 (Totals of origin and destination, Totals of regular and charter flights, Unit = 1,000 passengers, Lines indicated over 1,000 passengers)

Source: SCT, ASA, compiled by JICA study team

**Table A. 38 Road facilities in Puerto Vallarta**

|  |          |   |
|--|----------|---|
| Principal Road Condition around Tourist Site | <b>A</b> | (Some roads under repairing)<br>- Federal No 200 (2 lanes) good, some parts are under repairing.<br>- By pass road of urban area (2 lanes) under repairing. |
| Urban Area Road Condition                    | <b>B</b> | - Most roads paved with pebble, however narrow and steep, lack of parking space.  |
| Signals & Roads Signs                        | <b>A</b> | - As a whole, good further completion is required as to signals in urban area and road signs for tourists.  |
| Connecting Road to Major cities.             | -        | To Guadalajara.<br>Fed. freeway 107 Km.<br>Fed. highway 237 Km (incl. toll road)<br>Total 344 Km (5:00 hrs)   |
| Future Plan                                  | -        | Jala-Pto.Vallarta road construction<br>(2 lanes 113 Km)<br>- Pto. Vallarta Airport. Mismaloya<br>Highway Construction. (of 2 to 4 lanes. 28 Km)             |

Note: The signs mean as follows: **A**/good and/or enough, **B**/some improvement is required in near future, **C**/improvement and/or countermeasure is required soon.

**Table A. 39 Other transport facilities**

|                                |  |                                      |
|--------------------------------|--|--------------------------------------|
| Bus Service                    | Service Level                                | <b>B</b>                             |
| (Long Distance<br>Tourist Bus) | No. of Routes.                               | 6                                    |
|                                | No. of Operating Company                     | 3                                    |
|                                | No. of Operations/day                        | 36                                   |
|                                | Major Destinations.<br>No. of Operations/day | Guadalajara 24<br>México 7<br>Leon 2 |
| Cruiser.                       | No. of Embarkation 1994.                     | 145                                  |
|                                | No. of passengers in 1994                    | 168,530                              |
|                                | Max No. of Embarkations in past.             | 263 (in 1992)                        |
|                                | Max No. of Passengers in past.               | 268,590 (in 1992)                    |

Note: The signs mean as follows: **A**/good and/or enough, **B**/some improvement is required in near future, **C**/improvement and/or countermeasure is required soon.

**Table A. 40 Supporting infrastructure**

|            |   |
|------------|---|
| Electrical | - Service coverage is 95% in Mar. 1990 (21,413 per 22,614 households)         |
| Water      | - Service coverage is 90% in 1990 (20,374 per 22,614 households)              |
|            | - Large hotels should prepare by themselves independently                     |
|            | - Supplied by private company (SEAPAL) to local residents                     |
|            | - Raw water supplied from 27 deep wells & 2 rivers (Rio Cuale, Rio Mismaloya) |

### A.2.6. Tourism promotion activities

Following tables show the inventory of tourism promotion activities conducted by Fondo Mixto in Puerto Vallarta.

**Table A. 41 Fondo Mixto in Puerto Vallarta**

| Items                                 | Puerto Vallarta |          |
|---------------------------------------|-----------------|----------|
| <b>Year of establishment</b>          | 1990            |          |
| <b>Members</b>                        |                 |          |
| SECTUR                                | X               |          |
| STATE GOVERNMENT                      | X               |          |
| PRIVATE SECTOR                        |                 |          |
| Hotel association                     | X               |          |
| - No. of member hotels                |                 |          |
| - No. of non-member hotels            |                 |          |
| Restaurant association                |                 |          |
| Travel agencies association           |                 |          |
| Financial institute                   |                 |          |
| Others                                |                 |          |
| FONATUR                               |                 |          |
| OTHERS                                |                 |          |
| <b>Budgets in total (1,000 Pesos)</b> |                 |          |
|                                       | 1991:           | 0.0      |
|                                       | 1992:           | 0.0      |
|                                       | 1993:           | 10,044.0 |
|                                       | 1994:           | 4,940.0  |
|                                       | 1995:           | 2,617.0  |

Source: Compiled by JICA study team

**Table A. 42 Inventory of promotion activities (for the international market)**

|   | Country name   |
|---|----------------|
| Advertisement in newspapers or magazine | X (USA)        |
| Participation in travel trade show      | X              |
| Seminar or presentation                 | X              |
|   | Countries from |
| Familiarization trip for travel agents  | X              |
| Familiarization trip for mass media     | X              |
| Press release                           | X              |
|   | Yes/No         |
| Production of printed materials         | X              |

Note: "X" shows Yes

Source: JICA study team

**Table A. 43 Inventory of promotion activities (for the domestic market)**

|   | Yes/No |
|---|--------|
| Advertisement in newspapers or magazine | X      |
| Campaign on TV and/or Radio             | X      |
| Seminar or presentation                 | X      |

Note: "X" shows Yes

Source: JICA study team

## A.2.7. Tourism administrations and institutions

### A.2.7.1. State level

The tourism administration and institution of each state government level at the present are summarized in Table A. 44. The followings are general outline of them:

Jalisco state has its own section to administrating tourism in its government, and has also another organization COPROFETUR for tourism promotion.

But Jalisco state is following the federal tourism law, because the states does not have their own laws or guidelines for the tourism development.

For the tourism education or training, the state has courses in the university(s) in the state for the higher management level, and some college(s) and technical institute(s) for the middle management level. The state also have public training centers (Centro de Capacitacion) as vocational school including personnel of tourism related industries.

**Table A. 44 Inventory of tourism administration (State level)**

|   |                |                 |
|---|----------------|-----------------|
| Name of the department or section for the tourism administration                          |                | SETUJAL         |
| Other Organizations related to Tourism Administration                                     | Name           | N.A.            |
|   | Activity       |                 |
| Governmental or sem-governmental organization of the state related to tourism development | Name           | COPROFETUR      |
|   | Activity       | Promotion       |
| State laws, guidelines, etc. on tourism Development                                       |                | No specific law |
| Training and education system to tourism (No. of facility and students)                   | Superior level | 3 / 147         |
|   | Medio-superior | 2 / 970         |
|   | Bacico         | N.A.            |

Source: JICA study team

### A.2.7.2. Municipal/destination level

Table A. 45 shows the existing tourism administration and institution in the municipal or destination. The followings are outlines of them:

Puerto Vallarta municipality has respective sections for the tourism administration in its organization. The municipality also has tourism commission for the consultation and technical support for the private sector, and has the system of the tourist police

They have no specific tourism sub-laws or guidelines after the federal tourism law.

There are tourism associations of hoteliers, association(s) of restaurants, association(s) of travel agencies/land operators in Puerto Vallarta.

For the tourism training in the destination level, some provide courses by Fondos Mixtos and/or by the associate of hoteliers. Through the country including Puerto Vallarta, a principle tourism education is conducted in the primary and secondary schools using a textbook prepared by SECTUR to teaching pupils the significance of the tourism.

**Table A. 45 Inventory of tourism administration (Municipality / destination level)**

|  |               |  |
|--|---------------|--|
| Name of the department or section for Tourism Administration |               | Department de Turismo  |
| Other Organizations related to Tourism Administration        | Name          | Tourism Commision  |
|  | Activity      | Consulting & technical support   |
| Tourist police   |               | Yes  |
| Municipal laws, guidelines on tourism Development            |               | No specific law  |
| Numbers of Associations and their members (in number)        | Hotelier      | 1 Association, 8,000 rooms   |
|  | Travel Agency | 2 Association, 70 members  |
|  | Restaurant    | 1 Association, 90 members  |
| Training and education system                                |               | for the licensing various works such as vedors, some education are applied |

Source: JICA study team

## A.2.8. Social issues

### A.2.8.1. Population and labor force

#### (1) Internal migration

In Mexico, over 4 million or 5% of population migrated from 1985 to 1990. Among six states which cover tourism destinations of JICA study team, Jalisco state was net in-flow as well as Quintana Roo and Baja Carifornia Sur, while Guerrcro, Oaxaca and Sinaloa were net out-flow.

And also Puerto Vallarta municipality attracted the second or the third number of migrants in state.

#### (2) Population structure

##### a. Pre-school and school age population

The national average of school age population (14 years-old or less) ratio is 38.3% in 1990. This ratio of municipality of Puerto Vallarta is 40.9%.

The population ratio of 4 years-old or less is 12.5% in national. The ratio of Puerto Vallarta is also exceeds the national average (around 17%).

In these areas, more school facilities will be required in future.

##### b. Indiginous population

In mexico indigenious population is estimated as 8.7 million or 10.7% of total population in 1990. Jalisco state is not indigenious peoples place, the ratio is under 2%.

#### (3) Labor force

National total economic activities population is 24 million or 43% of 12-years and over population. Among this economic activity population, 660 thousand or 2.7% are unemployment.

In municipality of Puerto Vallarta, participation rate of economic activities is higher than national average (54.0%).

Unemployment ratio is lower than national average. In the Municipalities of Puerto Vallarta, unemployment ratio is extremely low, under 2%.

In the Municipalities of Puerto Vallarta, restaurant and hotel servise is the most important industry, over 20% of working population engage in this service.

### A.2.8.2. Housing conditions and development

The avilability of basic services in the Mexican homes has increased. Of every ten houses, 9 have electricity, 8 have safety water and 6 have sanitaly facilities.

Municipalities of Puerto Vallarta are better conditions than national average.

Rapid growth of tourism causes un-planned urban expansion because many peoples come to find job in tourism and related industries. In many cases, they are poor and start live on cheap land which do not have enough basic services.

Hill areas are spread into near coastal lines and there are limited flat areas in Puerto Vallarta. Even in hill areas, there are hotels, restaurants and high-grade houses along the coast. However, low cost housing for new migrants are located in inland hill areas with insufficient social services, because land price is the cheapest in these areas.

One of the newest community is in Brisas del Pacifico. Land ownership was already transferred from *ejido* and roads were developed by the community peoples. Public water is supplied but electricity and sewerage systems are not equipped. Peoples buy only land and construct houses by themselves. Most of new migrants are poor and can not construct permanent houses, in some cases they construct houses with carton walls which are easy to be damaged by flood in rain season.

### A.2.8.3. Social services

#### (1) Education

In Puerto Vallarta, enrollment ratio of primary and secondary schools in municipality is higher than state average.

There are many pre-school age population in the Municipalities of Puerto Vallarta. In this municipality, school facilities will be required more in the future.

#### (2) Health

In Mexico, social security institutes provide health and medical services for their members, covered ratio is 55%. The rest of population receive health service from the Ministry of Health and the Ministry of Social Development.

In Puerto Vallarta, these institutes have own hospitals and cover 86% of population in the Municipality.

### A.2.8.4. Participation of local peoples in the tourism promotion

Not only engaging in the tourism industry, local peoples are working to promote tourism in their areas.

In order to keep clean conditions the beach and sea, Puerto Vallarta has Cleaning Bay Days which are three times in a year. The sea area is cleaned by divers and local peoples clean the beach areas. And local ecological groups held seminars for peoples to conserve environment.

Table A. 46 1990 Population in Puerto Vallarta by living place in 1985

| Municipality of Puerto Vallarta |        |
|---------------------------------|--------|
| Total                           | 92,357 |
| Same State (Jalisco)            | 77,117 |
| Out of the State                | 13,780 |
| Nayarit                         | 3,031  |
| Federal District                | 2,118  |
| Guerrero                        | 2,038  |
| Michoacan                       | 981    |
| Mexico                          | 775    |
| Guanajuato                      | 757    |
| Sinaloa                         | 506    |
| Others                          | 3,574  |
| Out of Mexico                   | 693    |
| Not Specified                   | 767    |

Source: National institute of statistics, geography and informatics



**Table A. 47 Population by age structure and indigenous groups in Puerto Vallarta**

|                                 | Population by Age Group |        |        |       |        | Indigenous<br>Population(5-) |
|---------------------------------|-------------------------|--------|--------|-------|--------|------------------------------|
|                                 | Total                   | 0-5    | 6-11   | 12-14 | 15-    |                              |
| Municipality of Puerto Vallarta | 111,457                 | 19,100 | 18,854 | 7,640 | 65,863 | 780                          |

Source: "Annual statistics, 1994" of Jalisco state, INEGI

**Table A. 48 Labor force in Puerto Vallarta**

|                                 | Population<br>12 yrs.+ | Economic Activity<br>Population | Working Population |                    |
|---------------------------------|------------------------|---------------------------------|--------------------|--------------------|
|                                 |                        |                                 | Total              | Restaurant & Hotel |
| Municipality of Puerto Vallarta | 73,503                 | 39,659                          | 39,008             | 10,389             |

Source: "Annual statistics, 1994" of Jalisco state, INEGI

**Table A. 49 Housing conditions in Puerto Vallarta**

|                                 | Percentage of Houses with Service of |             |          |
|---------------------------------|--------------------------------------|-------------|----------|
|                                 | Water                                | Electricity | Sewerage |
| Municipality of Puerto Vallarta | 90.1%                                | 94.7%       | 79.0%    |

Source: "Annual statistics, 1994" of Jalisco state, INEGI

**Table A. 50 Gross enrollment ratio of school and covering ration of social securities in Puerto Vallarta**

|                                 | Number of Students in 1992 |           | Covering Population of<br>Social Security |
|---------------------------------|----------------------------|-----------|---|
|                                 | Primary                    | Secondary |   |
| Municipality of Puerto Vallarta | 22,197                     | 6,537     | 95,931                                    |

Source: "Annual statistics, 1994" of Jalisco state, INEGI

## A.2.9. Past performance of tourism economy

### A.2.9.1. Investment, financial resources and development entities

In 1975, there were about 2,700 hotel rooms in Puerto Vallarta, and about 126,000 foreign tourists lodged. After 1975, due to tourism development growing, foreign tourists had increased about four times in eight years, though number of hotel rooms had increased about double. In 1983, construction rush was occurred and more than 1,000 rooms were increased, but after 1983 years foreign tourists had decreased until 1989. FONATUR played only creditors in Puerto Vallarta development. After 1986, SITUR promoted tourism projects in Marina Vallarta and as a result international visitors have increased in recently.

There was no study on the historical evaluation of tourism development such as "Socio-Economic Evaluation of Ex-post Cancun" by FONATUR. The estimation of investment in Puerto Vallarta is done mainly depending on the number of hotel rooms and construction costs of hotel as follows.

Table A. 51 Hotel construction cost (\$1,000 / Room)

| Hotel Rank | 1994 |
|------------|------|
| GT         | 710  |
| 5 star     | 646  |
| 4 star     | 487  |
| 3 star     | 311  |
| 2 star     | 263  |
| 1 star     | 217  |

Source: FONATUR

- The investment of infrastructure and facilities constructed by public sector is assumed to be in proportion to hotel investment refer to the wave of Cancun until 1989. After 1990 the information from Puerto Vallarta municipality is adopted.
- Indirect investment is assumed as 25% of total of infrastructure and facilities constructed by public sector refer to the portion of Los Cabos and Cancun.
- The investment of condominiums and villas, restaurants and bars are in proportion to the investment of hotels based on the Service industries census.
- Other investments includes the development of marines and golf courses as follows.

Table A. 52 Construction cost of marina and golf course

| Marina                    | Year | Capacity | million \$ |
|---------------------------|------|----------|------------|
| Opequimar                 | 1988 | 200      | 49.1       |
| Marina Vallarta           | 1989 | 352      | 86.4       |
| Marine Isla Ievana        | 1990 | 143      | 35.1       |
| Golf course               | Year | Course   | million \$ |
| Marina Vallarta Golf Club | 1989 | 18       | 94.5       |

Note: \* FONATUR constructed first, and sold to the private companies, therefor they are included in the investment of FONATUR.

Source: FONATUR, Private Companies

- Investment for residential houses is assumed in proportion to the investment of hotels, though from 1981 to 1989 the investment costs for these houses are based on the above-mentioned study.

The result of calculation of past investment is summarized in Table A. 53.

**Table A. 53 Construction cost of marina and golf course**

|                 |                     | 1980-<br>1989 | 1980-<br>1984 | 1985-<br>1989 | 1990-<br>1994 | Investment<br>total | unit: million pesos in 1994 price<br>% | Residual<br>value | Net<br>investment |
|-----------------|---------------------|---------------|---------------|---------------|---------------|---------------------|--|-------------------|-------------------|
| Public          | Infrastructure      | 319           | 316           | 48            | 600           | 1,283               | 6.9                                    | -895              | 388               |
|                 | Facilities          | 136           | 34            | 5             | 0             | 175                 | 0.9                                    | -71               | 104               |
|                 | Indirect            | 114           | 88            | 13            | 150           | 364                 | 2.0                                    | -146              | 219               |
|                 | sub-total           | 569           | 438           | 66            | 750           | 1,822               | 9.8                                    | -1,112            | 711               |
| Private         | Hotel               | 1,060         | 2,104         | 1,471         | 1,357         | 5,992               | 32.3                                   | -1,890            | 4,102             |
|                 | Condo. etc.         | 636           | 1,262         | 883           | 814           | 3,595               | 19.4                                   | -1,134            | 2,461             |
|                 | Restaurant &<br>Bar | 77            | 153           | 107           | 99            | 437                 | 2.4                                    | -138              | 299               |
|                 | Others              | 240           | 477           | 334           | 308           | 1,359               | 7.3                                    | -429              | 931               |
|                 | sub-total           | 2,014         | 3,997         | 2,795         | 2,578         | 11,384              | 61.3                                   | -3,590            | 7,794             |
| Housing         | 947                 | 1,879         | 1,314         | 1,212         | 5,352         | 28.8                | -1,688                                 | 3,664             |                   |
| Invest<br>total | 3,529               | 6,313         | 4,175         | 4,540         | 18,558        | 100.0               | -6,389                                 | 12,168            |                   |
|                 |                     | 19.0          | 34.0          | 22.5          | 24.5          | 100.0               |  |                   |                   |

Source: JICA study team

The table shows private sector investment for tourism facilities, infrastructure development cost and housing investment constitute approximately 61.3%, 9.8% and 28.8%, respectively.

Administration costs for public services are assumed as the budget scale of Puerto Vallarta municipality. On the other hand In generally ADM costs of private companies depend on the expenditure of tourists, therefore these costs are assumed to be 60 percent of tourist expenditure.

The investment costs and ADM costs from 1980 to 1994 are shown in the attached Table A. 55.

#### **A.2.9.2. Expenditure of tourists and revenue of tourism industries**

As concern benefit, the viewpoints from regional economy are considered, though economic evaluation is usually used to evaluate projects from the viewpoints of national economy.

The original sources of revenue are the consumption of tourists in the destination. It depends on the number of tourists, unit expenditure and stay-nights.

$$(\text{total expenditure}) = (\text{number of tourists}) \times (\text{unit expenditure}) \times (\text{stay-nights})$$

But there was no historical data for Puerto Vallarta on unit expenditure and stay-nights, therefore the portion of average expenditure of hotel arrival to Cancun in 1994 is used from 1975 to 1994. The portion of average expenditure is estimated as 73% for foreigner and 44% for domestic tourists.

The result of total expenditure is shown in attached Table A. 55.

#### **A.2.9.3. Direct and indirect impacts of tourism development**

The most important concepts to evaluate the effects for regional economy is the process of economical circulation in region. In Puerto Vallarta, economic viability system has established a little bit, but the quality of goods does not satisfy the requirement of international hotels enough.

In the calculation the rate of self sufficient is assumed as follows based on interview survey.

**Table A. 54 Rate of distribution of consumption and self supply in the area**

|                              |          | Pto. Vallarta |
|------------------------------|----------|---------------|
| Distribution of* consumption |          |               |
|                              | Lodge    | 43            |
|                              | Food     | 32            |
|                              | Shopping | 6             |
|                              | Other    | 19            |
| Self supply (%)**            |          |               |
|                              | Lodge    | 50            |
|                              | Food     | 25            |
|                              | Shopping | 25            |
|                              | Other    | 80            |

Source: \* compiled by JICA team based on SECTUR data  
 \*\* Interview conducted during Site Reconnaissance

Concerning indirect benefits, employment creation and multiplier effects are considered. the benefit of indirect employment of hotel workers, the number of workers in related industries are supposed to be 2.5 times of hotel workers multiplied cumulative hotel rooms. The creation of construction industry workers is assumed in proportion to construction investment. Concerning multiplier effects, both of tourist consumption and construction is considered. According to the input-output table in 1985, the intermediate input of hotel and restaurant is 14%. There was no description of the intermediate input of construction industry in the input-output table in 1985, therefore the intermediate input of the table in 1980 is adopted, that is 53%. To estimate multiplier effects, it is assumed that 30% of intermediate input of hotel and restaurant and 53% of that of construction industry are circulated locally.

The regional economic effects to calculate EIRR is shown in the attached Table A. 55.

The table shows the regional effects constitute 67% of the benefit while that of employment creation constitutes 27% and multiplier effects constitutes remaining 6%.

#### **A.2.9.4. The result of trial calculation of EIRR**

The calculation of EIRR has been done under the assumption above mentioned and conversion factors to economic prices based on the report of "Socio-Economic Evaluation of Ex-post Cancun" by FONATUR.

- Construction of infrastructure 0.726
- Construction of facilities 0.699
- Operation and maintenance 0.692

The economic internal rate of return (EIRR) in Puerto Vallarta is -0.8% during the 1975-1994 period based primarily on the Jalisco state data under the assumption that the residual value of past investment was counted to be a benefit in 1995. This shows the past tourism investment was not very effective in Puerto Vallarta. The cost side analysis shows infrastructure investment cost, private sector investment, and housing investment, and operation costs constitute approximately 2.1%, 25.3%, 11.9%, and 60.7%, respectively. The benefit side analysis shows the regional economic effects constitute 67.2% of the benefit while that of employment creation constitutes 26.4% and multiplier effect constitute remaining 6.4%.

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One of major reasons for low B/C in Puerto Vallarta is that there was no planned strategy to develop tourism industries especially fit for foreigners. It is necessary to shift the market toward more high-spending segment by creating additional values for the destination using the limited resources maximally.

Table A.55 Investment and benefit in Puerto Vallarta tourism region

|  | 1975  | 1976 | 1977 | 1978  | 1979  | 1980  | 1981 | 1982  | 1983  | 1984  | 1985  | 1986  | 1987  | 1988  | 1989  | 1990  | 1991  | 1992  | 1993  | 1994  |
|--|-------|------|------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Investment cost</b>                   |       |      |      |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |
| by State and Municipality Infrastructure | 90    | 50   | 8    | 13    | 71    | 90    | 69   | 53    | 11    | 6     | 3     | 2     | 6     | 5     | 18    | 0     | 0     | 162   | 0     | 274   |
| Facilities                               | 46    | 45   | 4    | 0     | 4     | 2     | 2    | 19    | 1     | 1     | 1     | 0     | 0     | 0     | 2     | 0     | 0     | 0     | 0     | 0     |
| Indirect                                 | 34    | 24   | 3    | 3     | 19    | 23    | 18   | 18    | 3     | 2     | 1     | 1     | 2     | 1     | 5     | 0     | 0     | 40    | 0     | 68    |
| sub-total                                | 170   | 118  | 15   | 17    | 93    | 115   | 88   | 90    | 15    | 8     | 6     | 3     | 8     | 6     | 25    | 0     | 0     | 232   | 0     | 342   |
| by private companies                     | 85    | 127  | 4    | 256   | 289   | 280   | 60   | 273   | 770   | 107   | 338   | 345   | 96    | 102   | 126   | 554   | 107   | 177   | 10    | 0     |
| Hotel                                    | 51    | 76   | 3    | 154   | 161   | 156   | 36   | 164   | 482   | 64    | 215   | 207   | 53    | 61    | 76    | 332   | 64    | 106   | 6     | 0     |
| Cond. etc                                | 6     | 9    | 0    | 19    | 20    | 19    | 4    | 20    | 56    | 8     | 26    | 25    | 7     | 7     | 9     | 46    | 8     | 13    | 1     | 0     |
| Restaurate & Bar                         | 19    | 29   | 1    | 68    | 61    | 59    | 14   | 62    | 175   | 24    | 81    | 78    | 22    | 23    | 29    | 148   | 24    | 40    | 2     | 0     |
| Otros                                    | 161   | 241  | 8    | 487   | 511   | 484   | 114  | 519   | 1,463 | 204   | 681   | 666   | 183   | 194   | 239   | 1,242 | 204   | 337   | 19    | 0     |
| sub-total                                | 76    | 113  | 4    | 229   | 240   | 232   | 54   | 244   | 688   | 96    | 320   | 339   | 86    | 91    | 112   | 594   | 96    | 158   | 9     | 0     |
| Vivienda                                 | 406   | 473  | 28   | 733   | 844   | 841   | 238  | 853   | 2,166 | 306   | 1,007 | 968   | 277   | 281   | 377   | 1,826 | 300   | 667   | 28    | 342   |
| Investment total                         | 52    | 44   | 31   | 24    | 25    | 27    | 27   | 27    | 24    | 22    | 17    | 14    | 14    | 13    | 11    | 8     | 5     | 8     | 8     | 18    |
| ADM(public)                              | 130   | 209  | 230  | 287   | 336   | 333   | 429  | 828   | 764   | 665   | 669   | 689   | 875   | 772   | 751   | 871   | 870   | 929   | 1,166 | 1,164 |
| ADM(private)                             | 182   | 253  | 280  | 312   | 361   | 365   | 394  | 456   | 833   | 787   | 682   | 683   | 888   | 786   | 782   | 878   | 875   | 938   | 1,174 | 1,182 |
| ADM total                                | 588   | 725  | 288  | 1,044 | 1,204 | 1,225 | 642  | 1,309 | 3,019 | 1,094 | 1,699 | 1,651 | 1,166 | 1,077 | 1,139 | 2,704 | 1,175 | 1,635 | 1,202 | 1,524 |
| Ground total                             | 193   | 324  | 368  | 484   | 591   | 684   | 671  | 823   | 1,745 | 1,649 | 1,303 | 1,210 | 1,675 | 1,464 | 1,341 | 1,548 | 1,490 | 1,505 | 1,979 | 1,906 |
| cf. Consumption                          | 120   | 180  | 195  | 206   | 217   | 198   | 190  | 204   | 250   | 192   | 238   | 402   | 431   | 366   | 468   | 549   | 605   | 733   | 830   | 897   |
| NAL                                      | 313   | 503  | 553  | 682   | 806   | 882   | 861  | 1,033 | 1,995 | 1,841 | 1,601 | 1,612 | 2,107 | 1,860 | 1,809 | 2,097 | 2,066 | 2,238 | 2,809 | 2,803 |
| Total                                    | 67    | 108  | 119  | 149   | 174   | 185   | 185  | 222   | 429   | 386   | 344   | 347   | 453   | 400   | 389   | 451   | 451   | 481   | 604   | 603   |
| regional economic effect                 | 25    | 40   | 44   | 55    | 66    | 69    | 68   | 83    | 160   | 147   | 128   | 129   | 169   | 149   | 145   | 168   | 168   | 173   | 225   | 224   |
| Lodge                                    | 5     | 8    | 8    | 10    | 12    | 13    | 13   | 15    | 30    | 28    | 24    | 24    | 32    | 28    | 27    | 31    | 31    | 34    | 42    | 42    |
| Food                                     | 48    | 77   | 84   | 105   | 123   | 131   | 131  | 157   | 303   | 280   | 245   | 245   | 320   | 283   | 275   | 319   | 319   | 340   | 427   | 428   |
| Shopping                                 | 145   | 233  | 255  | 320   | 373   | 388   | 388  | 477   | 922   | 851   | 740   | 745   | 973   | 859   | 836   | 969   | 968   | 1,034 | 1,236 | 1,236 |
| Other                                    | 53    | 62   | 4    | 96    | 111   | 111   | 94   | 112   | 285   | 40    | 132   | 127   | 37    | 38    | 50    | 240   | 40    | 92    | 4     | 45    |
| sub-total                                | 9     | 22   | 23   | 58    | 79    | 99    | 106  | 130   | 182   | 193   | 221   | 247   | 254   | 264   | 273   | 321   | 329   | 342   | 342   | 342   |
| Employment creation                      | 62    | 85   | 28   | 154   | 190   | 209   | 139  | 242   | 467   | 234   | 354   | 375   | 290   | 302   | 323   | 351   | 368   | 433   | 346   | 387   |
| construction work                        | 8     | 13   | 14   | 18    | 21    | 22    | 22   | 27    | 52    | 48    | 41    | 42    | 55    | 48    | 47    | 54    | 54    | 58    | 73    | 73    |
| indirect employment                      | 22    | 20   | 2    | 27    | 37    | 39    | 17   | 35    | 75    | 11    | 35    | 33    | 10    | 10    | 15    | 62    | 10    | 43    | 1     | 44    |
| sub-total                                | 31    | 33   | 16   | 44    | 58    | 61    | 39   | 61    | 127   | 59    | 76    | 75    | 65    | 59    | 62    | 117   | 64    | 101   | 74    | 116   |
| Multiplier effect                        | 287   | 350  | 288  | 518   | 621   | 669   | 576  | 730   | 1,516 | 1,143 | 1,170 | 1,195 | 1,328 | 1,220 | 1,221 | 1,646 | 1,401 | 1,568 | 1,718 | 1,799 |
| Ground total                             |       |      |      |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |
| EIRR=                                    | -0.8% |      |      |       |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |

Note: Unit= million pesos in 1994 price  
Source: JICA study team

## A.2.10. Supplemental data of economic analysis

Table A. 56 Project cost and benefit in Puerto Vallarta tourism region

|                           | 1996 | 1997 | 1998 | 1999 | 2000 | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  |
|---------------------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cost</b>               |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| <b>Investment cost</b>    |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| by State and Municipality | 0    | 0    | 0    | 1    | 1    | 1     | 31    | 31    | 31    | 31    | 31    | 31    | 31    | 31    | 31    |
| Infrastructure            | 0    | 0    | 0    | 30   | 30   | 30    | 272   | 272   | 272   | 272   | 272   | 272   | 272   | 272   | 272   |
| Indirect                  | 0    | 0    | 0    | 2    | 2    | 2     | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    | 15    |
| Sub-total                 | 0    | 0    | 0    | 32   | 32   | 32    | 318   | 318   | 318   | 318   | 318   | 318   | 318   | 318   | 318   |
| Hotel                     | 275  | 275  | 275  | 275  | 275  | 275   | 446   | 446   | 446   | 446   | 446   | 446   | 446   | 446   | 446   |
| Facilities                | 0    | 0    | 0    | 32   | 32   | 32    | 72    | 72    | 72    | 72    | 72    | 72    | 72    | 72    | 72    |
| Sub-total                 | 275  | 275  | 275  | 306  | 306  | 306   | 518   | 518   | 518   | 518   | 518   | 518   | 518   | 518   | 518   |
| Promotion                 |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| Investment total          | 304  | 304  | 304  | 373  | 373  | 373   | 870   | 868   | 870   | 868   | 873   | 869   | 869   | 869   | 862   |
| public                    | 0    | 0    | 0    | 10   | 19   | 29    | 124   | 220   | 315   | 410   | 505   | 540   | 574   | 608   | 643   |
| private                   | 16   | 54   | 109  | 181  | 272  | 599   | 848   | 1,067 | 1,330 | 1,574 | 2,272 | 2,632 | 2,992 | 3,352 | 3,712 |
| ADM total                 | 18   | 54   | 118  | 201  | 301  | 724   | 1,083 | 1,401 | 1,740 | 2,079 | 2,812 | 3,206 | 3,600 | 3,995 | 4,389 |
| Ground total              | 322  | 358  | 426  | 574  | 674  | 1,594 | 1,931 | 2,272 | 2,608 | 2,992 | 3,501 | 3,986 | 4,290 | 4,636 | 5,081 |
| <b>Benefit</b>            |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| of Consumption            | 29   | 87   | 174  | 280  | 435  | 927   | 1,243 | 1,559 | 1,875 | 2,192 | 3,328 | 3,835 | 4,343 | 4,850 | 5,358 |
| (Consumer's Expenditure)  | 16   | 48   | 97   | 162  | 242  | 567   | 887   | 1,148 | 1,408 | 1,728 | 2,333 | 2,723 | 3,112 | 3,502 | 3,892 |
| Total                     | 45   | 136  | 271  | 442  | 678  | 1,494 | 2,100 | 2,707 | 3,314 | 3,921 | 5,660 | 6,558 | 7,455 | 8,352 | 9,249 |
| Regional economic effect  | 10   | 28   | 56   | 97   | 146  | 321   | 462   | 582   | 713   | 843   | 1,217 | 1,410 | 1,603 | 1,796 | 1,989 |
| (State revenue)           | 4    | 15   | 28   | 43   | 65   | 167   | 235   | 303   | 371   | 439   | 725   | 839   | 954   | 1,069 | 1,184 |
| shopping                  | 1    | 2    | 5    | 8    | 12   | 31    | 44    | 57    | 70    | 82    | 136   | 157   | 179   | 200   | 222   |
| other                     | 7    | 21   | 41   | 68   | 103  | 227   | 319   | 412   | 504   | 596   | 860   | 987   | 1,133 | 1,270 | 1,406 |
| sub-total                 | 22   | 66   | 130  | 217  | 326  | 747   | 1,050 | 1,354 | 1,657 | 1,960 | 2,938 | 3,403 | 3,869 | 4,335 | 4,800 |
| Employment creation       | 36   | 36   | 46   | 45   | 45   | 110   | 110   | 110   | 110   | 110   | 110   | 110   | 110   | 110   | 110   |
| construction work         | 23   | 46   | 69   | 91   | 114  | 152   | 189   | 225   | 264   | 301   | 343   | 386   | 428   | 470   | 513   |
| Indirect employment       | 59   | 82   | 113  | 136  | 199  | 282   | 282   | 336   | 374   | 411   | 400   | 472   | 515   | 557   | 599   |
| sub-total                 | 2    | 5    | 9    | 15   | 23   | 32    | 74    | 95    | 116   | 137   | 206   | 288   | 271   | 303   | 336   |
| Multiplier effect         | 44   | 44   | 54   | 54   | 54   | 133   | 133   | 133   | 133   | 133   | 104   | 104   | 104   | 104   | 104   |
| by investment             | 45   | 48   | 63   | 68   | 77   | 185   | 206   | 228   | 249   | 270   | 310   | 343   | 375   | 408   | 441   |
| sub-total                 | 126  | 195  | 306  | 422  | 561  | 1,194 | 1,556 | 1,918 | 2,280 | 2,642 | 3,678 | 4,218 | 4,759 | 5,300 | 5,840 |
| Ground total              |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| EIRR=                     |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |

Source: JICA study team

Table A. 57 Financial cost and revenue in Puerto Vallarta tourism region

|                       | 1996                        | 1997 | 1998 | 1999 | 2000 | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  |
|-----------------------|-----------------------------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Private sector</b> |                             |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| Revenue               | 38                          | 115  | 230  | 384  | 576  | 1,270 | 1,785 | 2,301 | 2,817 | 3,333 | 4,811 | 5,574 | 6,337 | 7,099 | 7,862 |
| Cost                  | 467                         | 388  | 438  | 438  | 438  | 877   | 741   | 741   | 741   | 741   | 914   | 777   | 777   | 777   | 777   |
| cf.investment         | 24                          | 72   | 144  | 238  | 359  | 792   | 1,113 | 1,435 | 1,756 | 2,078 | 3,000 | 3,476 | 3,951 | 4,427 | 4,902 |
| O&M                   | 26                          | 52   | 82   | 111  | 140  | 189   | 239   | 288   | 338   | 387   | 439   | 491   | 542   | 594   | 646   |
| Depreciation          | 14                          | 14   | 13   | 15   | 15   | 12    | 9     | 9     | 6     | 7     | 0     | 0     | 0     | 0     | 0     |
| Promotion             | 174                         | 174  | 174  | 149  | 124  | 407   | 382   | 357   | 288   | 220   | 497   | 453   | 409   | 320   | 230   |
| Interest              | 238                         | 312  | 413  | 515  | 638  | 1,400 | 1,743 | 2,089 | 2,388 | 2,691 | 3,936 | 4,420 | 4,903 | 5,340 | 5,778 |
| Total                 | -200                        | -197 | -182 | -131 | -62  | -131  | 42    | 212   | 429   | 641   | 875   | 1,154 | 1,434 | 1,759 | 2,084 |
| Balance               | 0                           | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 144   | 288   | 333   | 487   | 598   | 709   |
| tax                   | -200                        | -197 | -182 | -131 | -62  | -131  | 42    | 212   | 429   | 498   | 578   | 762   | 946   | 1,161 | 1,376 |
| after reducing tax    | 0                           | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| FIRR                  | 19.2%                       |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| FIRR2*                | 16.6%                       |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| <b>Public sector</b>  |                             |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| Revenue               | 7                           | 20   | 41   | 68   | 102  | 224   | 315   | 406   | 497   | 588   | 849   | 984   | 1,118 | 1,253 | 1,387 |
| Income tax            | 0                           | 0    | 0    | 0    | 0    | 0     | 0     | 0     | 0     | 144   | 298   | 333   | 487   | 598   | 709   |
| Total                 | 7                           | 20   | 41   | 68   | 102  | 224   | 315   | 406   | 497   | 732   | 1,147 | 1,376 | 1,606 | 1,851 | 2,096 |
| Cost                  | 13                          | 0    | 44   | 44   | 44   | 645   | 437   | 437   | 437   | 437   | 232   | 157   | 157   | 157   | 157   |
| cf.investment         | 4                           | 4    | 17   | 30   | 44   | 237   | 368   | 500   | 631   | 762   | 832   | 879   | 926   | 973   | 1,020 |
| O&M                   | 0                           | 0    | 1    | 3    | 4    | 19    | 34    | 48    | 63    | 77    | 83    | 88    | 98    | 98    | 103   |
| Depreciation          | 4                           | 4    | 19   | 33   | 48   | 256   | 402   | 548   | 694   | 839   | 914   | 966   | 1,019 | 1,071 | 1,124 |
| Total                 | 3                           | 17   | 22   | 34   | 54   | -32   | -87   | -142  | -196  | -108  | 233   | 410   | 587   | 780   | 972   |
| Balance               | 1.03 (Discount rate =8.5 %) |      |      |      |      |       |       |       |       |       |       |       |       |       |       |

Note: FIRR2 means the FIRR when the business income tax is counted to expenditure.  
Source: JICA study team

### A.2.11. Description of projects

The followings are the description of tourism development projects proposed by the JICA study team for implementation by 2010.



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#### **A.2.11.1. Puerto Vallarta tourism center**

**(1) Conservation and urban beautification of the historic center of Puerto Vallarta (PTR PVR-1)**

The historic center of Puerto Vallarta retains a typical Mexican ambiance with many old buildings, which is considered to be a symbol and an important tourism resource of Puerto Vallarta. Although the municipality introduced building codes such as materials and colors of buildings, the area is losing its original charm with encroachment of new commercial establishments that does not respect local building designs.

This project aims to set new guidelines to conserve the townscape, and to beautify the historical center to improve tourists amenity.

**(2) Improvement of Isla del Rio Cuale tourism market (PTR PVR-2)**

The Cuale river divides the downtown of Puerto Vallarta into the northern part which is a city center with a commercial district, and the southern part which is the oldest hotel zone. An island in the Cuale river is currently occupied by a park and a small complex of souvenir shops but is not very successful to attract visitors.

This is project to develop the island as a new tourism area. It also aims to intermediate the northern and southern parts of the downtown for better integration, and to revitalize the old hotel zone.

**(3) Extension of Malecon to Los Muertos beach (PTR PVR-3)**

This is a project proposed by the Puerto Vallarta municipality to extend the existing promenade along the shoreline (malecon) from in front of the central plaza (zocalo) to the old hotel zone across the Cuale river. It is another measure to integrate the northern and southern parts of the downtown.

**(4) Under ground parking lots development in downtown Puerto Vallarta (PTR PVR-4)**

With the increase of car traffic, lack of parking lots is becoming a serious problem in the downtown area of Puerto Vallarta. This project is to build underground parking lots in the downtown area to conserve the historical townscape. The municipality has projects to develop underground parking lots on Lazaro Cardenas and in the coastal area (Malecon de la Marina).

**(5) Hillside tourism complex development near Parroquia de Guadalupe (PTR PVR-5)**

This is a project to develop a tourism complex on a land owned by the Puerto Vallarta municipality near Parroquia de Guadalupe. The proposed site is the best place to enjoy sunsets and the view of Puerto Vallarta. Provide . It includes the installment of nature trail to a few view points and the proposed site of a botanical garden/birds sanctuary at Col. 5 de Diciembre (PTR PVR-6).

**(6) Development of botanical garden/bird sanctuary (PTR PVR-6)**

This is a project to develop a botanical garden with birds and butterfly sanctuary in a land owned by the Puerto Vallarta municipality. Participation of the private sector is expected in the project. The tourism facility is to be linked by a nature trail with the commercial complex proposed near Parroquia de Guadalupe.

**(7) Development of museum complex**

This is a project is to develop a complex of theme museums. The complex would be composed of the following parts:

- Cinema museum; a museum that exhibit data and materials regarding movies and TV programs shot in Puerto Vallarta,

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- Huichol village museum; a museum that exhibit the culture of Huichol people in the Jalisco state such as handicrafts, costumes, and various traditions,
  - Official showroom of Jaliscoan handicraft: a facility that publicizes, displays, and sells handicrafts produced in the Jalisco state, and
  - Others: administration office, parking lot, restaurant, shops.
- (8) **Puerto Vallarta convention center development (PTR PVR-8)**  
This is a project to construct a convention center in Puerto Vallarta. The facility should target at incentive travels and resort conventions to avoid competition with Guadalajara that should target at authentic convention tourism like academic meeting.
- (9) **Development of commercial complex in the Puerto Vallarta port area (PTR PVR-9)**  
The port area of Puerto Vallarta is far from the city center and the area lacks in tourist amenity such as restaurants and shops selling souvenirs. This is a project to develop a commercial complex in the port area to cope with the problem.
- (10) **Wise use of Estero el Salado (PTR PVR-10)**  
This is a project to conserve the mangrove forest in the northern part of Puerto Vallarta, and to promote its tourism use as a nature area.
- (11) **Hotel accommodation development (PTR PVR-11)**  
Additional 2,417 hotel rooms are planned to be developed in the tourism center of Puerto Vallarta.
- (12) **Water supply development in the downtown of Puerto Vallarta (PTR PVR-12)**  
SEAPAL of Puerto Vallarta has a plan to extend the coverage of the water supply system to the hillside residential area of the downtown.
- (13) **Sewerage system development in downtown of Puerto Vallarta (PTR PVR-13)**  
SEAPAL of Puerto Vallarta also has a plan to extend the coverage of the sewerage system to the residential areas of the downtown where many of those who work for the tourism sector live.
- (14) **Electrical supply development (PTR PVR-14)**  
CFE of the Jalisco state has a plan to develop electrical supply to the suburb of the downtown.
- (15) **Solid waste collection system for downtown of Puerto Vallarta (PTR PVR-15)**  
MPALES of Puerto Vallarta has a plan to improve the solid waste collection system in the downtown.
- (16) **Construction of new bypass road between Puerto Vallarta airport and Mismaloya (PTR PVR-16)**  
This is a project to develop a bypass road from Puerto Vallarta airport to Mismaloya to reduce traffic in the downtown Puerto Vallarta. This is listed in the SCT's program to improve the road network.
- (17) **Improvement of the Puerto Vallarta International Airport (PTR PVR-17)**  
This is a project included in ASA's master plan. The project includes construction of an aisle and boarding gates, parking area expansion and so on. It is recommended to separate waiting lounges for the domestic flights and the international ones.

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### **A.2.11.2. Nuevo Vallarta and its vicinity**

**(1) Development of Sea World (PTR NYR-1)**

Introduction of theme parks is a measure proposed in the national-level strategy. It is especially important for Puerto Vallarta which lacks in the variety of tourism products. This is a project to develop a marine theme park called Sea World. The theme park would be a complex of an aquarium, a pool for marine animal shows, and any types of attractions related to the sea. The tourist facility should be planned and designed primarily for the domestic visitors.

**(2) Tourist pier development in Punta Mita (PTR NYR-2)**

This is a project to develop a tourist pier and an information center in Punta Mita for excursion to Marieta Islands which is a potential ecotourism destination.

**(3) Improvement of the tourist pier for mangrove cruise in San Blas (PTR NYR-5)**

Mangrove cruise in San Blas is a popular tourist attraction for those stay in Puerto Vallarta. This project improves the piers for the boat trip, and tourist amenity in the waiting space such as shops, restaurants, and toilet.

**(4) Agro-tourism program in Valle de Banderas (PTR NYR-6)**

This is a project that aims to develop agro-tourism in Valle de Banderas where mango and various tropical fruits are grown. It is recommended to introduce a program to provide visitors with opportunities to participate in harvesting and observation of processing of fruits, and to taste local agro-products. International visitors, in particular, from areas with cool climate would be potential clientele.

**(5) Hotel accommodation development in the Bahia de Banderas area of the Nayarit state (PTR NYR-7)**

Additional 4,000 hotel rooms are planned in the Bahia de Banderas area of the Nayarit state.

**(6) Development of sewerage system in the Bahia de Banderas area in Nayarit (PTR NYR-8)**

This is a project by the state government to develop, in the BOT method, a sewerage system for the tourism areas facing the Bahia de Banderas including Nuevo Vallarta, the Flamingo estate, and the Punta Mita area.

### **A.2.11.3. Guadalajara**

**(1) Development of "Mexican Village" (PTR GDL-1)**

This is a project to develop a theme park that presents the typical Mestizo Mexican culture to its visitors in the suburb of Guadalajara. The tourist facility is an live museum with actors and actresses with typical Mexican costume, where visitors can experience Mexico in the old days. Primary target is the domestic family market. International market is the secondary target, and the theme park is tasked to lure out tourists in Puerto Vallarta to visit Guadalajara.

**(2) Improvement of tourist amenity in the historic center of Guadalajara (PTR GDL-2)**

This project aims to enhance the attractiveness of the historic center of Guadalajara by improving tourist amenity. It includes beautification of the historic center, improvement of tourism reception services, promotion of tourism use of old historical buildings.

**(3) Expansion of convention/exhibition complex in Guadalajara (PTR GDL-4)**

This is a project to improve the existing convention facility in Guadalajara. It proposes to develop a 5-star hotel and an exhibition hall to the existing convention

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center to formulate a complex that serves to enhance Guadalajara's role as the anchor business center rivaling Mexico City.

**(4) Hotel accommodation development in Guadalajara (PTR GDL-5)**

Additional 1,100 hotel rooms are planned in Guadalajara.

**(5) Ecological rehabilitation of the Chapala lake (PTR GDL-6)**

This is a project to improve the water quality of the Chapala lake which is being polluted by sewerage water.

**(6) Hotel accommodation development in Chapala (PTR GDL-7)**

Additional 690 hotel rooms are planned in Chapala.

**(7) Guadalajara international airport improvement (PTR GDL-8)**

This is a project proposed in ASA's master plan to improve the Guadalajara International Airport. The plan includes expansion and up-grading of the general aviation building, and construction of satellite terminal.

**A.2.11.4. Northern Puerto Vallarta - Guadalajara Corridor**

**(1) Improvement of tourist amenity in Magdalena (PTR PGN-1)**

This is a project to promote tourism use of mining and processing of opal in Magdalena. It proposes to introduce opal factory tours and to build a show room of opal products.

**(2) Improvement of tourist amenity in Tequila town (PTR PGN-2)**

This is a project to improve tourist amenity and to make the town as a whole attractive to visitors from the outside. It proposes to beautify the town and to improve tourism reception services such signs, interpretation boards and so on. Tequila has good tourism potential in the international tourism market as the name is known all over the world.

**(3) Development of observatory area of Volcan de Cebruco (PTR NYR-3)**

This is a project to develop an observation area of Volcan de Cebruco in Ahuacatlan where viistors can enjoy a view of a vast expanse of solid lava and the volcano. The area should be a resting place with restaurant, shops, and toilet along the Puerto Vallarta - Guadalajara corridor.

**(4) Archeological site improvement in Ixtlan del Rio (PTR NYR-4)**

This is a project to improve the archaeological site of Ixtlan del Rio. It is required to improve an access road to the site and to develop a tourist center with a site museum, a shop, and toilets.

**(5) Hotel development along Puerto Vallarta-Guadalajara corridor (PTR PGN-3)**

Additional 500 hotel rooms are planned along the northern Puerto Vallarta - Guadalajara corridor.

**(6) Improvement of Federal Highway No.200 and No. 68 (PTR NYR-9)**

This is a project to improve part of the highway that connect Puerto Vallarta with Guadalajara. The section that needs improvement is Federal Highway No.200 between Puerto Vallarta and Las Varas, and Federal Highway No.68 between Las Varas and Compostela. The improvement also contributes to shorten travel time between Tepic and Puerto Vallarta.

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#### **A.2.11.5. Southern Puerto Vallarta - Guadalajara Corridor**

- (1) **Conservation and tourist amenity improvement of traditional villages (PTR PGS-1)**

This is a project to conserve the three traditional Mexican villages of San Sebastian, Mascota, and Talpa.

San Sebastian village

It is necessary to introduce measures to conserve old buildings and villagescape, to improve the access road and the air strip, and to build parking lots outside the village.

Mascota

It is necessary to implement beautification and conservation of the town.

Talpa de Allende

It is necessary to implement beautification and conservation of the town.

- (2) **Improvement of existing road from Puerto Vallarta to Mascota (PTR PGS-2)**

This is a project to improve the roads from Puerto Vallarta (Las Juntas) to Mascota including expansion of road width and pavement with asphalt concrete.

- (3) **Improvement of Federal Highway No.70 from Mascota to Malpaso (PTR PGS-3)**

This is a project to improve the section between Mascota and Malpaso of Federal Highway No.70.

#### **A.2.11.6. Costalegre resort belt**

- (1) **Tourism facility development in Coastalegre resort belt (PTR PMC-1)**

The private sector has a plan to develop golf courses and marinas in the Coastalegre resort belt.

- (2) **Hotel accommodation development (PTR PMC-2)**

Additional 1,964 hotel rooms are planned in the resort. Accommodation in the area should be with nature-conscious designs to be consistent with the tourism concept of the resort belt.

- (3) **Ecological study of the Costalegre area (PTR PMC-3)**

This is a project to prepare an environmental management plan to conserve and improve the ecosystem of the Costalegre area. The study is necessary prior to the development by the private sector.

- (4) **Studies for urban rehabilitation of populated towns (PTR PMC-4)**

This is a project by the Jalisco state government to prepare a plan to revive Barra de Navidad and Malaque that were damaged by the earthquake in 1995. These towns should serve as support towns for resorts on Costalegre.

- (5) **Improvement of the air strips in Costalegre (PTR PMC-5)**

This is a project to improve air strips along Costalegre. They are primarily cater for up-market visitors to the area.

- (6) **Improvement of the Federal Highway along Coastalegre (PTR PMC-6)**

This is a project to improve the section of Federal Highway No.200 between Mismaloya and Chihuahatlan from Type-C to Type A2. It is recommended to build some view points of Pacific Ocean along the highway as the road is the main artery of Jalisco Tourism Triangle.

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(7) **Improvement of the Federal Highway of the corridor in Colima (PTR CLM-4)**

This project aims to construct a new toll road between Chihuahatlan and Miramar in Colima. This is listed in the action plan of SCT.

**A.2.11.7. Guadalajara-Manzanillo corridor**

(1) **Improvement of highland resorts in Colima volcano area (PTR GMC-1)**

This is a plan of the Colima state to carry out a study for developing trekking routes in the Colima Volcano National Park.

(2) **Improvement of highland resorts in Colima Volcano area (PTR CLM-1)**

This is a project to improve and extend existing highland resort area in Comala, San Antonio, and Suchitlan near Colima Volcano.

Additional 395 rooms are planned for the area.

(3) **Construction of rest spots on Federal Highway No.54/110 (PTR GMC-2)**

This is a project to build wayside facilities at some vista points along the Guadalajara - Manzanillo Corridor.

**A.2.11.8. Other areas in the Jalisco state**

(1) **Improvement of Los Altos tourism area (PTR OTR-1)**

This is a project to conduct a study to identify necessary tourism development in Los Altos area which is located at the northeastern part of the Jalisco state and includes historical towns and pilgrimage centers of Tepatitlán, San Juan de Los Lagos, Lagos de Moreno, Arandas, San Miguel el Alto, Jalostotitlán, Teocaltiche, and so on.

(2) **Hotel accommodation development in other areas in the Jalisco state (PRT OTR-2)**

Additional 140 rooms are planned to be developed in Los Altos area.

(3) **Improvement of access road to the mountain zone from Federal Highway No.54 (PTR OTR-3)**

This is a project to improve access road from Federal Highway No.54 to villages in the mountain zone as called by the Jalisco state government such as Mazamitla, Tapalpa and Ciudad Guzmán.

**A.2.11.9. Manzanillo and its vicinity**

(1) **Restoration of ex-hacienda (PTR CLM-2)**

This is a project by the Colima state to restore and develop an old hacienda cooperating with a private sector enterprise.

(2) **Tourism facility development (PTR CLM-3)**

The Colima state has a project to develop a golf courses and marinas in Manzanillo with private sector enterprises.

(3) **Hotel accommodation development in Manzanillo (PTR CLM-4)**

Additional 3,500 rooms are planned to be developed in Manzanillo.