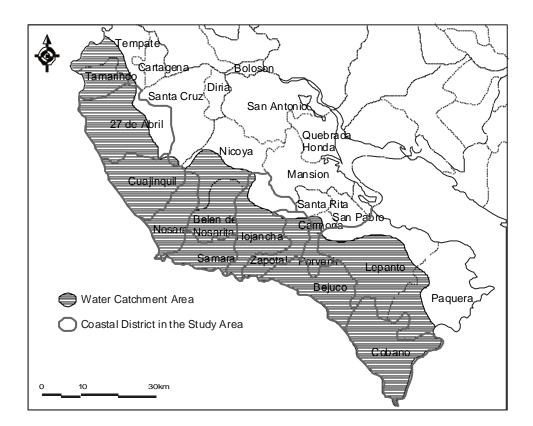
Part III SOUTH GUANACASTE: SCENARIOS AND BASIC STRATEGIES FOR SUSTAINABLE TOURISM

Chapter 8 SOUTH GUANACASTE: SCENARIOS FOR SUSTAINABLE REGIONAL DEVELOPMENT

8.1 INTRODUCTION: DEFINITION OF THE SOUTH GUANACASTE REGION

In our planning approach, tourism development should be discussed in the context of regional development. For the purpose of discussing regional development for South Guanacaste in this planning study report, we define the South Guanacaste region as the watershed areas of the Pacific Coast in ICT's South Guanacaste Tourism Planning Unit. Please see Figure 8.1.





The watershed areas do not always correspond to the administrative district boundaries. Therefore, for statistical convenience, the coastal districts along the South Guanacaste Tourism Planning Unit will be used as a basis for discussion of regional development, instead of the watershed areas.

8.2 ESSENTIAL CHARACTERISTICS OF THE SOUTH GUANACASTE REGION

(1) **Productive Economic Sectors**

From the 1950s to the 1970s, the cattle industry was prosperous and expanding because of good beef prices in the North America and government subsidies to the cattle industry. However, in the late 1970s, the cattle industry started to decline due to the fall in beef prices. At present there are still extensive cattle ranches in Guanacaste, but the production of beef has drastically declined. From the late 1970s, wood plantations, vegetable farms and fruits gardens were on the increase, but the growth of these products is not considered strong enough to drive the recovery of the depressed regional economy.

The main agricultural products in the Nicoya Peninsula are sugarcane (1,600,000ton), rice (80,000ton) and melons (60,000ton). The export of melons, in particular, to North America is increasing; on the other hand, rice production in the Nicoya Peninsula is now adversely influenced by the low prices of Argentineanrice. These products are cultivated in inland areas of the Peninsula and also in the watershed areas of the Tempisque River. There is little production of such agricultural produce in the coastal areas, partly due to limited availability of water.

As regards the land capacity in the coastal areas, much of the land is unsuitable for agriculture, including livestock. Therefore, cattle production is not expected to recover, nor does it seem likely that large-scale farming or plantations could revitalize the regional economy in the future.

(2) Social Development

From the 1950s to the 1970s the cattle ranches in the region expanded, and after selling their lands, many farmers migrated to other areas. Furthermore, when the cattle industry declined, people again migrated out from the Nicoya Peninsula, due to depressed local economies. Between 1975 and 1985, the population statistics show that the population of Hojancha Canton decreased at an average rate of 1.82% per year, and 1.22% in Nandayure Canton. Out-migration continues, although in the last 10 years the population of the region has not

decreased. The continuous out-migration has drained the local communities capacity for social and economic development.

According to agricultural statistics for the four cantons, namely Santa Cruz, Nicoya, Hojancha and Nandayure, there are 4,025 small-scale farmers who own less than 4 ha agriculture land. These account for 62% of the total number of farmers. (Statistics based on original data in 1984, updated more recently.) On the other hand, there are 85 large-scale farmers, who account for 1.3% of the total number of farmers, and they have 491 ha farm lands in average. Such small-scale farmers or those who sold their land to large farmers are now working on large-scale sugarcane or melon farms, but most of these jobs are seasonal; as a result, their livelihood is insecure.

Recently, public social services were improved in the coastal area. However, although there are no problems of accessto primary schools, the children of most villages cannot commute to high schools in towns, due to bad roads, inadequate bridges and lack of bus services. Moreover, medical services and road access to them are in bad shape in coastal areas. In the rainy season, some of the coastal villages in Nandayure become isolated for a few weeks, because the rivers are too high to cross.

The people of coastal local communities practice subsistence agriculture, and there is little prospect of developing commercial agriculture in the future, unless local roads and market are significantly improved. As for local fisheries, locals do not have much chance of obtaining large boats and fishing nets to expand their fishing operations.

(3) Natural Resources and Environmental Conservation

The most important natural resources in the coastal region are land and water to support agriculture and livestock. However, the history and land capacity data reveals that the region's land and water are insufficient to support agricultural and cattle production.

As regards the future development of economic sectors, the most important resources remaining in the region are the natural resources to support tourism, such as unspoiled beaches and headlands, mangroves, riverine forests, turtle-nesting beaches and forests on steep slopes. If the tourism sector makes a sustained effort at sustainable use of such natural resources, the value of the remaining and restored natural resources could increase significantly in the distant future, probably in 50 years and over.

8.3 TOURISM MARKET AND TOURISM DEVELOPMENT POTENTIAL IN SOUTH GUANCASTE

The existence of many potential beaches and the dry tropical climate throughout the year puts the South Guanacaste Tourism Planning Unit in an advantageous position as the second best-placed candidate region to develop the "sol y playa"(sun and beach) type of tourism, following North Guanacaste, where more attractive beaches (scenic, with white sand) are found and beach tourism development has been ongoing and more active.

The obvious constraint in South Guanacaste is the lack of paved coastal roads connecting main potential beaches with Samara, which is the only beach area linked by paved road to Nicoya town, the nearest urban/service center. When the Tempisque bridge (under construction now) is completed, it will replace the current ferry service. Congestion on this is one of the key factors that have impeded South Guanacaste tourism development. Pressure will then increase for more vigorous development emanating from Samara into the neighboring areas of Nosara to the north, Carrillo to the south and further a field along the coast.

Because of the current constraints of poor access and lack of medium-sized facilities to accommodate larger groups, no tour operators in the major source markets of North America/Europe would include South Guanacaste in their organized packages, except for Playa Tambor (Barcelo Tambor).

By resolving these constraints, South Guanacaste would be able to welcome a large, new market segment of sun and beach tourists who are less tolerant of discomfort in travel and amenities, on top of the current smaller sun/beach tourist segment of tourists who are satisfied with the basic service facilities/amenities now available.

A major strength of Costa Rican tourism no doubt lies in eco/nature-based tourism. Sun and beach tourists to South Guanacaste also seek to participate in some eco/nature experiences. Adequate visitor facilities and a management plan should be put in place on a sustainable basis for several national parks/wildlife reserves, such as Ostional, Barra Honda, Diria, Curu and Cabo Blanco, in collaboration with relevant agencies and adjacent local communities. At present, these parks/reserves are neither well known nor much-visited, compared to such celebrated parks/reserves in other regions as Monteverde and Carara Biological Reserve (Central Pacific), and almost none of the cited facilitative services are available. The improvement in this area will greatly enhance the tourist appeal/value of South Guanacaste, which so far has been the least attractive and least known region in Costa Rica in terms of eco/nature-tourism activities.

8.4 ALTERNATIVE SCENARIOS OF REGIONAL DEVELOPMENT BASED ON TOURISM DEVELOPMENT

The cattle industry has drastically declined, and neither cattle rearing nor agriculture are expected to play a leading part in the economy of South Guanacaste any more, especially in the coastal areas. However, tourism development in the coastal areas is likely to stimulate the regional economy, and the coastal tourism sector is expected to grow into an alternative source of employment for the local people.

The Study Team defined and analyzed the following alternative scenarios with respect to tourism development, in order to examine viable directions of regional development.

Alternative Scenarios for South Guanacaste

Scenario 1: Trend-Based Scenario

Scenario 2: Scenario for Sustaining Tourism Development in the Era of Global Competition

Scenario 3: Scenario for Promoting Conventional Large-Scale Beach Resorts

Scenario 1: Trend-Based Scenario

Tourism accommodation facilities in the coastal areas have increased in the last ten years. However, the locations and the types of those facilities were determined not in accordance with appropriate guidance, but as a result of the investors/developers own initiatives. The employment opportunities for local people have not been expanded much and the employment is largely seasonal. **Scenario 1** assumes that these patterns of development will not change greatly. Under these conditions, effective infrastructure development to support tourism investment will still not take place, although coastal regulatory plans will be established. Therefore, unplanned development will continue, mostly around the Samara area where the infrastructure has been relatively well developed. The tourism sector will never constitute the major portion of the regional economy.

Scenario 2: Scenario for Sustaining Tourism Development in the Era of Global Competition

Scenario 2 assumes that tourism development in the coastal areas will be based on much more substantial efforts at planning than in Scenario 1. The General Land Use Plan determines several focused development areas. Based on the plan, a multi-polarized distributive spatial structure of tourism will be promoted, i.e. tourism will be structured and focused, with different locations specializing in different kinds of attractions. As much natural resources as possible in coastal areas will be protected. To achieve this, infrastructure will be developed

mainly by the public sector, and private investment will be promoted, especially for middle-scale accommodation facilities, which are in short supply. In addition, small-scale facilities, such as cabins, tourism services, and tourism business management will be supported and improved. All of these efforts will result in the creation of tourism destinations or tourism industries that can survive in the era of global competition in the international tourism market, even though tourism development in this region will not be large-scale.

Scenario 3: Scenario for Promoting Conventional Large-Scale Beach Resorts

Scenario 3 assumes that large-scale beach resorts will be developed as planned or visioned for North Guanacaste. This scenario is unlikely to be realized in view of the accessibility/type of beaches in South Guanacaste. The proximity of North Guanacaste is a further disincentive to the development of large-scale tourism

The three scenarios were compared in Table 8.1.

| | Scenario 1 | Scenario 2 | Scenario 3 |
|------------------------|--------------------------|-----------------------------|---------------------------|
| Name of Scenario | Trend-Based Scenario | Scenario for Sustaining | Scenario for Promoting |
| | | Tourism Development in | Conventional |
| | | the Era of Global | Large-Scale Beach |
| | | Competition | Resorts |
| Efforts at Promotion | Efforts will be made to | Efforts will be made to | Efforts will be made at a |
| and Control of Tourism | utilize the General Land | promote tourism, develop | development of the |
| Center and Sites | Use Plan in order to | infrastructure and manage | coastal road from |
| | guide the formulation of | land use, based on the | Samara. Beyond this, |
| | prospective regulatory | General Land Use Plan | tourism development |
| | plans. | and Tourism | will depend on private |
| | | Development Plan. | sector 's initiatives. |
| Type of Tourists | Mainly FITs and budget | In addition to FITs and | Group tourists of middle |
| | tourists for "sun and | budget tourists seeking | market will increase. |
| | beach" tourism | "sun and beach" tourism, | "sun and beach" tourists |
| | | middle-market tourists | are the majority. |
| | | will be attracted, and | |
| | | nature tourism will also be | |
| | | promoted in relation with | |
| | | "sun and beach" tourism. | |
| Tourism | Small-sized cabins and | Private investment in | Middle and large-sized |
| Accommodation | hotels, and a small | middle-sized hotels will | hotels will be attracted. |
| Facilities | number of middle-sized | be promoted. | |
| | hotels as before. | | |
| Quality of Tourism | Expensive in relation to | The cost-performance | Mass-tourism type |
| Services | the quality of services | ration of tourism services | services prevail. |
| | | will be improved. | |

| Table 8.1 | Comparison | of Three | Development | t Scenarios | of South | Guanacaste |
|-----------|------------|----------|-------------|-------------|----------|------------|
|-----------|------------|----------|-------------|-------------|----------|------------|

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| Land Use Plan/ Land | Developments will | I and use monogement | The coastal road will |
|----------------------|---------------------------------------|--|---|
| Use Management and | Developments will come to Samara area | Land use management will be carried out to | |
| Spatial Development | with relatively good | promote a multi-polarized | induce similar types of beach resort |
| Spatial Development | infrastructure. | and distributive spatial | developments along the |
| | Developments will be | structure of tourism, | coast. |
| | scattered in coastal | based on the regional land | coust. |
| | areas due to weak law | use plan. Each tourism | |
| | enforcement and poor | center or site will develop | |
| | utilization of the | with different | |
| | General Land Use Plan. | characteristics. | |
| Infrastructure | Infrastructure will be | Infrastructure will be | The coastal road will be |
| Development | developed mainly from | developed to promote a | developed gradually |
| | Samara where the | multi-polarized | from Samara, and the |
| | infrastructures are | distributive spatial | road will induce coastal |
| | relatively developed. | structure. The | developments. |
| | | developments of | |
| | | infrastructure and tourism | |
| | | will keep pace with each | |
| | | other. | |
| Local Socio-Economy | The employment | Middle-sized hotels will | Middle/large-sized |
| | opportunities will be | increase the employment | hotels will increase |
| | limited, and the local | opportunities. The | employment; however, |
| | employment will not | employment | much of the workforce will be recruited from |
| | expand greatly. Out-migration will | opportunities will be | |
| | continue at a high level. | multi-polarized/dispersed. Local employment will be | outside of the region. |
| | continue at a night level. | promoted. | |
| Pollution by Tourism | Tourism facilities will | Tourism facilities | Adequate measures will |
| Development | be located in a | development will be | need to be taken, e.g. for |
| 2 e , enspinent | concentrated manner, so | multi-polarized/dispersed. | sewage treatment system |
| | that sewage/garbage | On the other hand, it will | and garbage disposal. |
| | problems will intensify. | be necessary to develop | 8 8 1 |
| | | sewerage systems for | |
| | | increased middle-sized | |
| | | accommodations. At the | |
| | | same time, it will become | |
| | | more feasible to provide | |
| | | sewerage systems because | |
| | | middle-sized tourist | |
| | | accommodations will | |
| N. I.D. | | increase. | 751 1 1 1 1 |
| Natural Resources in | Tourism and resort | Developments will be | The developed coastal |
| Coastal Area | housing developments | limited to several focused | road will lead not only to |
| | will be scattered, except in Samara. | development areas. New ICT natural | tourism development but |
| | in Samara. | conservation areas will be | also to resort housing developments. As a |
| | | designated in the MTZ | result, the natureal |
| | | In consequence, scattered | resources in the coastal |
| | | developments will be | area will gradually |
| | | controlled. | disappear. |
| | | | and appears |

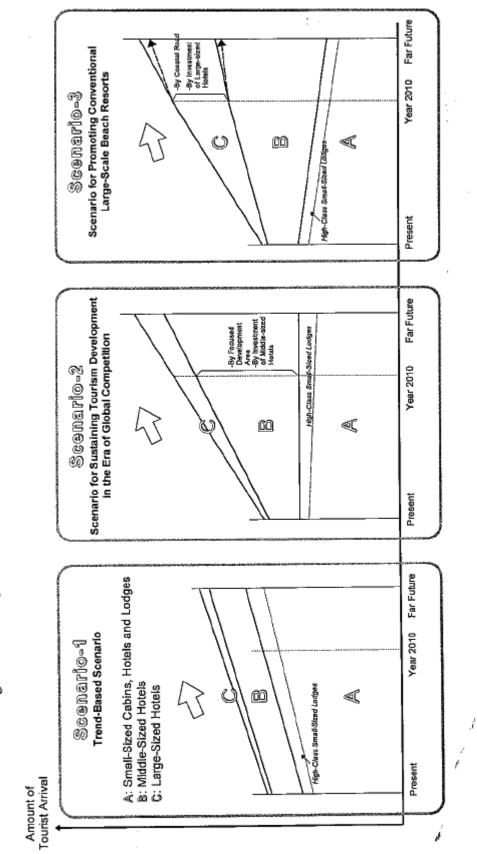


Figure 8.2 Comparison Three Scenarios of Tourism Development in South Guanacaste

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8.5 SELECTION OF A TOURISM-ORIENTED SCENARIO OF REGIONAL DEVELOPMENT

The Study Team selected **Scenario 2** out of the three alternatives as a regional development scenario for the following reasons:

- Tourism products and tourist types would be diversified by attracting middle-sized tourism accommodation facilities and by promoting not only "sun and beach" tourism but also nature tourism in Scenario 2.
- In Scenario 1 tourism developments would be scattered so that the public sector could not invest in infrastructure sufficiently and efficiently.
- Scenario 2 and Scenario 3 would provide local people with more employment opportunities than Scenario 1.
- Private investors, especially in middle-sized tourism accommodation facilities, would not be attracted in Scenario 1, because sufficient infrastructure would not be developed by the public sector.
- Pollution by tourism development would be managed in Scenario 2 and Scenario 3. However, the cost in Scenario 3 would be huge.
- The conservation of natural resources would be promoted by land use management in Scenario 2, while more natural resources would disappear in Scenario 1 and Scenario 3.

| | Scenario 1 | Scenario 2 | Scenario 3 |
|---|-------------------------|---|--|
| | Trend-Based Scenario | Scenario for Sustaining Tourism Development in the Era of Global Competition | Scenario for Promoting Conventional Large-Scale Beach Resorts |
| Variety of tourism products | × | | × |
| Efficiency of public investment in infrastructure | × | | |
| Contribution to the local socio-economy | × | | |
| Attraction of private investment | | | |
| Pollution by tourism development | × | | |
| Protection of natural resources | × | | × |

Table 8.2 Evaluation of Three Alternative Scenarios

Development frameworks will be given in Chapters 7 through 11, in accordance with this selected scenario, Scenario 2.

8.6 NUMERICAL SOCIO-ECONOMIC FRAMEWORK OF THE REGION

The numerical socio-economic framework of the region is set by estimating the populations and population distribution in 2010, based on the following assumptions.

(1) **Projection A (Low Growth)**

This supposes that the present tendency of out-migration continues. The annual population growth rates are assumed to continue the same as the growth rates from 1990 to 1998.

(2) **Projection B (Middle Growth)**

This supposes that out-migration will decrease, as a result of some efforts at regional development. The annual population growth rates are assumed to continue the same as the rate of the national population growth rate from 1990 to 1998.

The estimated populations are shown in Table 8.3. The frameworks for future development and conservation are based on the socio-economic framework.

| | | Contrac | A more | Pop. | | Population | | Pop. | Estimate | Projection (A) | Projection (B) |
|-------|--|--------------------|-------------------|-------------|-----------|---------------------|-----------|---------|-----------|----------------|----------------|
| | Name of District | Canton | Area | Density | | ropulation | | Growth | Pop. | Low Growth | Middle Growth |
| | | | km2 | 1998 | 1990 ci | 1995 ₍₁₎ | 1998 (t) | 1990-98 | 2000 co | 2010 (3) | 2010 co |
| Costs | Costa Rica | | 51,100.0 | 68 | 2,993,676 | 3,301,210 | 3,496,423 | 1.96% | 3,634,785 | 4,404,788 | 4,404,788 |
| ŭ | Coastal Districts in the Study Area | Study Area | 1,862.5 | 20 | 34,838 | 37,426 | 36,472 | 1.63% | 37,727 | 44,741 | 45,559 |
| | Samara | Nicoya | 109.5 | 25.65 | 2,374 | 2,631 | 2,809 | 2.13% | 2,930 | 3,615 | 3,550 |
| | Nosara | Nicoya | 134.9 | 26.25 | 3,331 | 3,430 | 3,542 | 0.77% | 3,597 | 3,884 | 4,359 |
| | Vcintisicte de Abril | Santa Cruz | 300.7 | 20.06 | 8,044 | 8,629 | 6,031 | **2.13% | 6,291 | 7,770 | 7,527 |
| | Tempate | Santà Cruz | 140.8 | 21.42 | 2,593 | 2,827 | 3,016 | 1.91% | 3,132 | 3,783 | 3,764 |
| | Cuajinquil | Santa Cruz | 232.9 | 12.34 | 2,596 | 2,765 | 2,874 | 1.28% | 2,948 | 3,348 | 3,587 |
| | Zapotal | Nandayure | 103.5 | 18.95 | 1,814 | 1,926 | 1,962 | %66"0 | 2,001 | 2,207 | 2,446 |
| | Bejuco | Nandayure | 262.1 | 12.42 | 2,897 | 3,128 | 3,255 | 1.47% | 3,351 | 3,877 | 4,057 |
| | Hojancha | Hojancha | 261.4 | 30.77 | 7,098 | 7,705 | 8,043 | 1.57% | 8,298 | 9,702 | 10,056 |
| | Cobano | Puntarenas | 316.6 | 15.60 | 4,091 | 4,385 | 4,940 | 2.4% | 5,178 | 6,555 | 6,212 |
| ō | Other Districts | | 2.685.4 | 37 | 85,399 | 91,734 | 98,370 | 1.16% | 100,978 | 115,168 | 122,875 |
| | Nicoya | Nicoya | 311.1 | 76.30 | 22,940 | 22,585 | 23,735 | *1.67% | 24,534 | 28,951 | 29,590 |
| | Mansion | Nicoya | 211.7 | 27.28 | 5,320 | 5,595 | 5,775 | 1.03% | 5,895 | 6,531 | 7,199 |
| | San Antonio | Nicoya | 338.2 | 23.91 | 7,529 | 7,908 | 8,085 | 0.89% | 8,230 | 8,997 | 10,079 |
| | Ouebrada Honda | Nicoya | 106.9 | 25.60 | 2,513 | 2,657 | 2,737 | 1.07% | 2,796 | 3,111 | 3,412 |
| | Bele de Nosarita | Nicoya | 121.4 | 21.45 | | 2,541 | 2,604 | *0.82% | 2,647 | 2,872 | 3,246 |
| | Santa Cruz | Santa Cruz | 272.1 | 63.60 | 15,430 | 16,611 | 17,303 | 1.44% | 17,806 | 20,547 | 21,596 |
| | Boloson | Santa Cruz | 30.4 | 56.86 | 1,566 | 1,667 | 1,729 | 1.25% | 1,772 | 2,006 | 2,158 |
| | Cartagenà | Santa Cruz | 74.9 | 34.07 | 2,290 | 2,429 | 2,553 | 1.37% | | 3,005 | 3,186 |
| _ | Diria | Santa Cruz | 63.8 | 51.46 | 3,059 | 3,207 | 3,283 | 0.89% | | 3,650 | 4,098 |
| | Cabo Velas | Santa Cruz | 73.1 | 22.05 | 1,511 | 1,577 | 1,612 | 0.81% | | 1,776 | 2,012 |
| | Tamarindo | Santa Cruz | 123.5 | 24.33 | | - | 3,005 | **0.27% | 3,021 | 3,103 | 3,751 |
| | Carmona | Nandayure | 34.2 | 66.83 | 2,062 | 2,218 | 2,285 | 1.29% | 2,344 | 2,666 | 2,848 |
| | Santa Rita | Nandayure | 50.1 | 37.19 | 1,672 | 1,806 | 1,863 | 1.36% | 1,914 | 2,191 | 2,322 |
| | San Pablo | Nandayure | 76.1 | 23.04 | 1,542 | 1,675 | 1,754 | 1.62% | 1,811 | 2,128 | 2,186 |
| | Porvenir | Nandayure | 39.6 | 43.56 | 1,578 | 1,678 | 1,724 | 1.11% | 1,763 | 1,969 | 2,149 |
| | Lepanto | Puntarenas | 420.5 | 28.89 | 10,832 | 11,651 | 12,146 | 1.4% | 12,499 | 14,422 | 15,274 |
| į. | Paquera | Puntarenas | 337.9 | 18.28 | 5,555 | 5,929 | 6,177 | 1.3% | 6,343 | 7,243 | 7,768 |
| Note: | | th: based on popu | lation growth n | ate 1990-98 | | | | | | | |
| | Projection (B) Middle Growth: based on the national pop. growth rate | owth: based on the | e national pop. (| growth rate | | | | | | | |
| | | | 1 | | | | | | | | |

Table 8.3 Population Projection

. ____ ICT-JICA Study: Land Use Planning in the Coastal Zones for Sustainable Tourism Development (LUPLANT-ZMT 21) Main Text: South Guanacaste

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Source: (1): Poblacion de Costa Rica por sexo segun provincia, canton y district 1990-1999, Instituto Nacional de Estadística y Censos

(2): The JICA Study Team's Framework

* : Growth rate 1995-98 **: Growth rate 1997-98

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8.7 BASIC SPATIAL FRAMEWORK OF THE REGION

Skeletal roads and major urban centers are major elements of the regional spatial structure as shown in Figure 8.3. Future regional development frameworks are based on the spatial structure.

(1) Road Network

The road network consists of the following three kinds of roads:

- (a) The trunk road (National Highway No. 21) that runs from Santa Cruz through Nicoya to Lepanto. This road runs through the inland peninsular and Nicoya Gulf side, further connecting the region to the Central Valley.
- (b) The coastal road that runs through the coastal area, sometimes along the coast and sometimes away from the coast. This road connects coastal communities to coastal urban centers, and to the roads (c) below.
- (c) Roads that run from the coastal areas to inland and further to the Nicoya Gulf side. These roads connect the coastal areas to municipal centers.

The type (a) trunk road has been prepared and maintained to a high standard. Since more tourism-related vehicle traffic is expected with the opening of the Tempisque Bridge soon, this trunk road needs to be well maintained to support regional and local development.

The type (b) coastal road has not been well developed and maintained. In some rivers, there are no bridges. Some bridges are not good enough to cross the rivers when the rivers are high in the rainy season, so that some villages tend to be isolated several times a year. From a local socio-economic development perspective, at least, these bridges should be improved as a matter of urgency.

The type (c) roads from Samara to Nicoya, San Francisco de Coyote to Jicaral, and Cobano to Paquera are in comparatively good condition. However, the other type (c) roads are not in good condition. These roads are important for the local communities to gain access to municipal centers. Therefore, from a local socio-economic development perspective, it is recommended that they should be improved.

A transportation network of the region is recommended in Chapter 12 based on the regional spatial structure and tourism development framework.

(2) Urban Centers

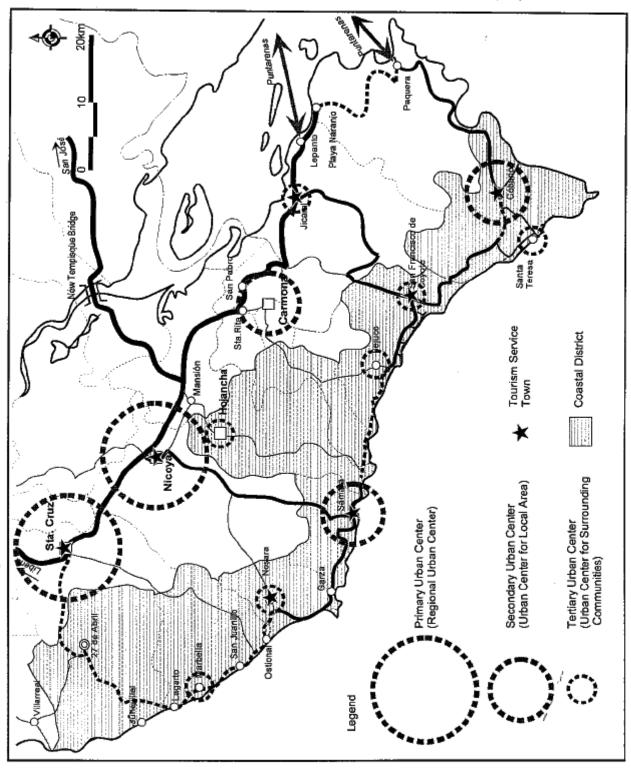
Three kinds of Urban Centers (Primary Urban Centers, Secondary Urban Centers and Tertiary Urban Centers) are selected in order to promote socio-economic development in the region. Table 8.4 shows the Urban Centers and their functions. The functions of some of these Urban Centers need to be enhanced. It is important to secure some public land to provide public facilities for this purpose. In addition, some of the Urban Centers should have functions as tourism service town for tourism development. Tourism Service Towns are shown in Figure 8.3 and their functions are shown in Chapter 9.

| | Name | of Urban Centers | |
|---------------|-----------------------------|-------------------------|------------------------------------|
| Urban Centers | Inland/ Nicoya Gulf side | Coastal Area | Functions |
| Primary | Santa Cruz Town | | - Municipal office/Municipal small |
| Urban Center | Nicoya Town | | branch office |
| | • | | - Hospital |
| | | | - High school/Vocational school |
| | | | - Supermarket |
| | | | - Bank |
| | | | - Gas station |
| Secondary | Carmona Town | Sámara | - Hospital |
| Urban Center | | Cóbano Town | - High school/Vocational school |
| | | | - Supermarket |
| | | | - Bank |
| | | | - Gas Station |
| Tertiary | Hojancha Town | Marbella | - Clinic (permanent doctor) |
| Urban Center | Jicaral Town | Nosara Town | - High school |
| | | Bejuco/Pueblo Nuevo | - Mini-market |
| | | San Francisco de Coyote | |
| | | Santa Teresa | |

Table 8.4Urban Centers and their Functions

Source: JICA Study Team's Proposal





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Chapter 9 SOUTH GUANACASTE: FRAMEWORK FOR TOURISM DEVELOPMENT

9.1 KEY ISSUES

- (1) The tourist facilities and the tourism industry in South Guanacaste cannot provide diversified tourism products and attract various types of tourists from the international tourist market because the majority of them consist only of small-sized hotels and cabins, except for a limited number of up-market hotels.
- (2) The existing small hotels, cabins and other tourism related micro-enterprises cannot provide high enough quality services for international standards, due to lack of adequate human resources and training in the region.
- (3) At present, almost all tourism sites depend on such small hotels and cabins lack adequate infrastructure for managing sewage and solid waste, as well as tourist amenities.
- (4) The key infrastructure, such as roads and telephones, is not sufficient to attract tourism investment to the region.
- (5) In spite of limited budgets for public investment in infrastructure, permission for tourism developments has been given. These are scattered along the long coastal areas without adequate infrastructure or environmental consideration. Around 40 % of the Maritime Terrestrial Zone (MTZ) has already been covered by coastal regulatory plans, and is waiting for tourism investment or land buyers. Tourist facilities have been developed not only in the Maritime Terrestrial Zone (MTZ) but also behind the MTZ.
- (6) Small hotels and cabins tend to generate limited employment in the region. The average number of employees is 0.5 persons per room.
- (7) The tourist areas served mainly by small hotels and cabins have not yet developed organizations or systems strong enough to promote their tourist areas and products, or the hotels and cabins themselves.
- (8) Although the region is endowed with various tourism resources, attractive tourism products have not been developed to appeal to tourist markets.

9.2 **OBJECTIVES**

- (1) To develop and promote diversified tourism products, especially nature-based tourism products, in addition to "sun and beach" tourism products, utilizing natural resources remaining in the region, in order to exploit a variety of segments of the international tourism market.
- (2) To develop quality tourism sites while conserving natural vegetation and wildlife in the coastal areas as much as possible, and to promote the growth of the tourism industry while practicing sustainable use of natural resources,
- (3) To attract private investment in medium-sized hotels with good management know-how, in order to attract different market segments, introduce some competition and revitalize the tourism industry in the region,
- (4) To encourage the tourism industry, particularly small-scale enterprises, such as cabins, boat operators and tour guides, to offer high-quality or at least improved services to tourists,
- (5) To improve tourism amenities and the environment in the tourism centers and tourism sites, in order to enhance the attractiveness and sustainability of tourism in the region.

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9.3 BASIC STRATEGIES

- (1) To promote tourism products combining "sun and beach" tourism and "nature" tourism, and to promote the tourism region and tourism sites in the region.
- (2) To establish several "Tourism Centers" for tourism in the coastal areas including both MTZ and the areas behind MTZ, in order to avoid scattered development and to conserve important natural areas, in addition to MINAE's protected areas, along the coasts both inside and outside the Tourism Centers.
- (3) To promote private investment (especially in medium-sized accommodation) in the Tourism Centers, in cooperation with the ICT, municipal governments and local chambers of tourism by utilizing the general land use plans and tourism development plans.
- (4) To promote public investment (especially in infrastructure) for promoting the Tourism Centers, in cooperation with MOPT, ICAA, ICT, municipal governments and local chambers of tourism. To utilize the general land use plans and tourism development plans, which should include infrastructure development plans.
- (5) To develop human resources and to improve the quality of tour ism services by implementing training and other programs, in cooperation with ICT, INA, municipal governments and local chambers of tourism.
- (6) To improve amenities and environment of and Tourism Centers and tourism sites, in cooperation with ICT, municipal governments, local chambers of tourism and local communities by investing in amenities and implementing environmental awareness programs.
- (7) To promote the tourism region, tourism sites and tourism products, in cooperation with municipal governments, local chambers of tourism with some support from ICT.

9.4 DIRECTIONS OF TOURISM PRODUCT DEVELOPMENT

9.4.1 Theme of Tourism in South Guanacaste

The major direction of tourism product development and promotion is currently 'sun and beach" tourism, but this is not enough for South Guanacaste's beaches to compete with other internationally know beach resorts, as well as with other Costa Rican beaches. Given its relatively poor accessibility to South Guanacaste, it is necessary for South Guanacaste's tourism to develop a different kind of attraction by combining "sun and beach" tourism with nature tourism in its development of tourism products.

Costa Rica has already established its international fame as a destination for ecotourism and nature tourism. Costa Rican beaches can easily attract those tourists who are interested in nature tourism in Costa Rica. South Guanacaste could take advantages of these existing features of Costa Rican tourism in implementing the strategy of combining "sun and beach" tourism and nature tourism.

South Guanacaste's tourism should be developed by taking advantage of the region's relatively unexploited nature, in order to provide the coastal resorts with various nature tourism products targeted at both international and domestic tourists. Such nature-oriented tourism products could be developed by utilizing not only protected areas, such as Ostional National Wildlife Refuge and Cabo Blanco Absolute Nature Reserve, but also attractive coastal nature, such as beaches and headlands. At the same time, it is important to pay attention to the potential of forest and farm lands in inland areas for diversifying nature tourism products.

The theme for developing tourism products for this strategy in the South Guanacaste region could be termed "*NICOYA PENINSULA Coastal Resorts and Nature Experience*."

9.4.2 Measures for Diversifying and Improving Tourism Products in relation to "Sun and Beach" Tourism

The following measures are needed to improve and diversify tourism products:

- Improvement of road signs to guide visitors to coastal tourism sites from the national highway,
- ® Improvement of information and guide facilities in protected natural areas,
- Development of tourist attractions, such as natural history museums (e.g. turtle museums),
- Development of nature trails in the coastal areas, linking beaches to scenic headlands,

- Development of hacienda tourism and agricultural tourism, including mango plantations, in inland areas,
- Development of nature trails and bicycle trails linking coastal areas to inland forest and farm lands,
- Development of cultural attractions in the coastal areas, such as market places, Handicraft Village and Artists' Village, and
- Development of accommodation centers to serve nature tourism attractions, such as Turtle Village, Naturalists' Village and Surfers' Village

9.5 TOURISM SPATIAL STRUCTURE OF THE REGION

9.5.1 Spatial Development for Tourism

In order to develop tourism based on Scenario 2 (selected scenario), focused development in several places should be sought for the following purposes:

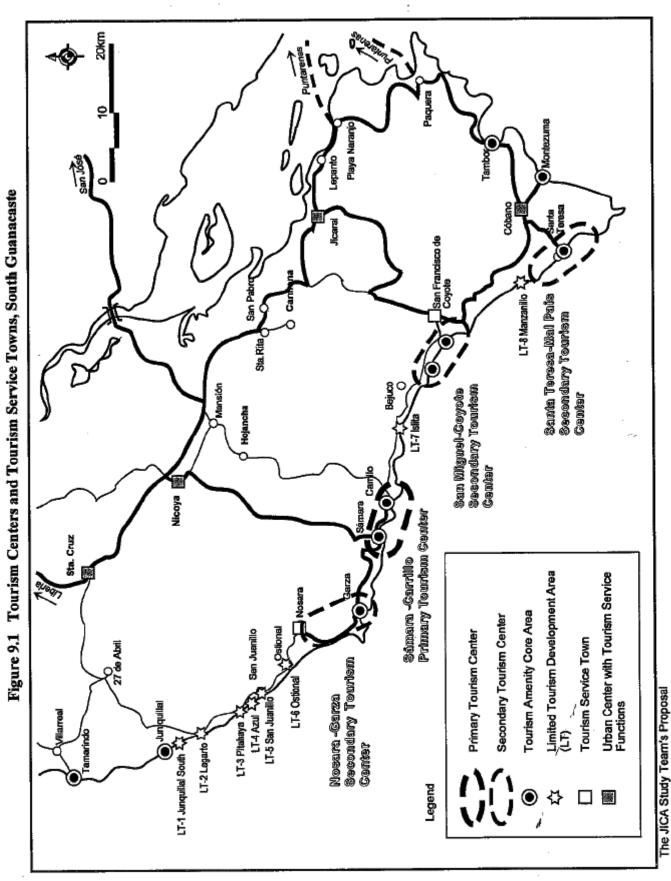
- To maintain or restore the natural habitat as much as possible in the coastal areas so as to enhance the potential for combining "sun and beach" tourism and nature tourism,
- To promote land development only for necessary development of tourism
 facilities and infrastructure in coastal areas (in other words to reduce land
 speculation), and
- To promote efficiency in infrastructure provision in view of budget constraints of central and local governments.

Tourism Centers are selected as shown in Figure 9.1. The selection is based on the following criteria:

- Potential of "sun and beach" tourism development, as well as for nature tourism of beaches and headlands,
- ® Existing regional road network and possibility of road improvement,
- [®] Equitable distribution among different districts, as much as possible.

9.5.2 Tourism Centers and Tourism Service Towns

The major components of the spatial structure of tourism in South Guanacaste are Tourism Centers, which have tourist accommodation facilities, and Tourism Service Towns. Two kinds of Tourism Centers (Primary Tourism Centers and Secondary Tourism Centers) are planned to accommodate tourist demands in the region as shown in Figure 9.1 and Table 9.1. Table 9.1 shows the planned Tourism Centers, Tourism Service Towns and their functions.



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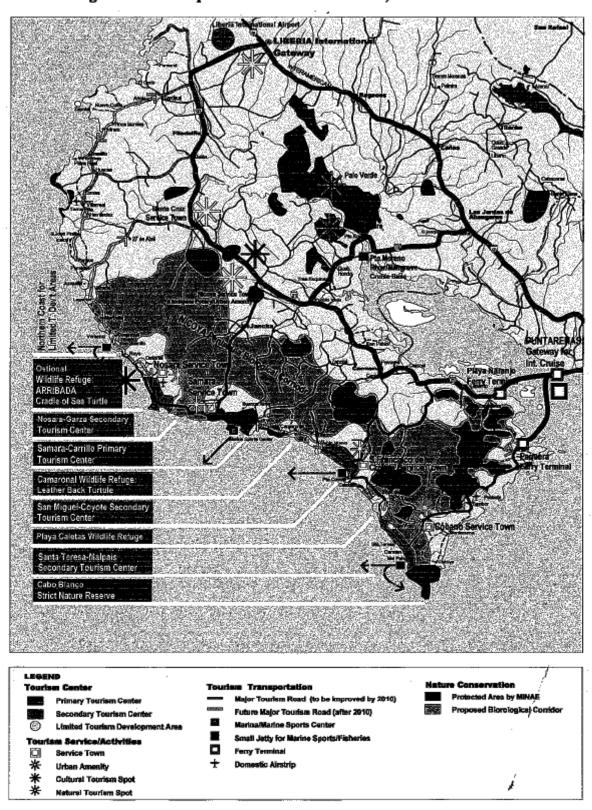


Figure 9.2 Spatial Structure of Tourism, South Guanacaste

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| Tourism Centers/ Other Tourism Areas, and Tourism Service Towns | Names of Tourism Center/ Tourism Service Towns and Districts | Functions | Available Transportation Services |
|---|--|--|---|
| Primary Tourism Centers | - Samara-Carrillo | Major Accommodation Base Travel Agent Services Tourist Information Services Urban Amenities (Restaurants, Bars and Cafes) Gas Station Banks Supermarkets Housing for Workers in the Tourism Sector Hospitals | Airport with Local Scheduled Flights Inter-City Bus Services Local Taxi Services Boats |
| Secondary Tourism Centers | Nosara-Garza San Miguel-Coyote Santa Teresa-Mal Pais | Hospitals Major Accommodation Base (Not so large as Primary Tourism Centers) Tourist Information Services Urban Amenities (Restaurants, Bars and Cafes) Gas Station Some Housing for Workers in the Tourism Sector Clinics | Inter-City Bus Services Local Taxi Services Boats |
| Other Tourism Areas (Limited Tourism Development Areas) | See Table 14.3. | - Minor Accommodation Base | Inter-City Bus Services Boats |
| Tourism Service Towns | Nosara Town San Francisco de Coyote Jicaral Town | Tourist Information Services Gas Station Banks Supermarkets Housing for Workers in the Tourism Sector Urban Amenities (Restaurants, Bars and Cafes) Clinics | Airstrips with Local Scheduled Flights Inter-City Bus Services Local Taxi Services |
| Other Major Urban Centers with Tourism Service Functions | Santa Cruz Town Nicoya Town Cóbano Town | Travel Agent Services Tourist Information Services Urban Amenity (Restaurants, Bars and Cafes) Gas Station Banks Supermarkets Hospitals | Inter-City Bus Services Local Taxi Services |

Table 9.1Tourism Centers, Tourism Service Towns and their Functions in South
Guanacaste (2010)

Source: JICA Study Team's Proposal

9.5.3 Tourism Products and Tourism Markets by Tourism Centers

Tourism products and markets are analyzed by Tourism Center. Table 9.2 shows the tourism products and markets by Tourism Center in South Guanacaste.

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| Domestic vacationersDomestic vacationersAirport (Liberia, 138 km)Airport (Liberia, 138 km)Route 18/21/150 (91 km fromRoute 18/21/163/160 (147 kmhighway No.1)Route 18/21/163/160 (147 kmfromRoute 21/150 (150km fromhighway No.1)Route 17-Ferry-21/163/160 (147m)Local airport (Carrillo, 6km)m)Local airport (Carrillo, 6km)notice 21/150 (150km fromRoute 17-Ferry-21/163/160 (147m)Local airport (Carrillo, 6km)nSurroundings nature areaRefuge (Turtle nesting tour)Camaronal National Wild LifeRefuge trekking tourSurroundings nature areaSurroundings nature areatrekking/sight-seeing tourRefuge | | Domestic up & middle-market | tourists | tourists | Domestic surfers and vacationers |
| Airport (Liberia, 138 km) Airport (Liberia, 138 km) Route 18/21/150 (91 km from Route 18/21/163/160 (147 km from Route 18/21/150 (150km from Route 18/21/163/160 (147 km from Route 21/150 (150km from Route 17-Ferry-21/163/160 (147 km mighway No.1) Route 17-Ferry-21/163/160 (147 km mighway No.1) Route 17-Ferry-21/163/160 (147 km m) Local airport (Carrillo, 6km) Route 17-Ferry-21/163/160 (147 km m) Local airport (Carrillo, 6km) Route 17-Ferry-21/163/160 (147 km m) Local airport (Carrillo, 6km) Route 17-Ferry-21/163/160 (147 km m) Local airport (Carrillo, 6km) Route 17-Ferry-21/163/160 (147 km control airport (Carrillo, 6km) Route 17-Ferry-21/163/160 (147 km m) Local airport (Carrillo, 6km) Route 17-Ferry-21/163/160 (147 km contained wild Life Surroundings nature area Surroundings nature area Refuge Turtle nesting tour Sight-secing tour Refuge Surroundings nature area Surroundings nature area Refuge | | tourists | Domestic vacationers | Domestic vacationers | |
| n Route 18/21/150 (91 km from Route 18/21/163/160 (147 km from highway No.1 from highway No.1 from Route 21/150 (150km from Route 17-Ferry-21/163/160 (147 mighway No.1 Route 17-Ferry-21/163/160 (147 model Local airport (Carrillo, 6km) model Surroundings nature area Refuge (Turtle nesting tour) Sight-secing tour Refuge (Turtle nesting tour) Sight-secing tour Refuge Caletas Mixed National Wildlife Surroundings nature area Sight-secing tour trekking/sight-seeing tour Refuge | Road and Airport | Airport (Liberia, 162 km) | Airport (Liberia, 138 km) | Airport (Liberia, 183 km) | Route 17-Ferry-21/160 |
| from Route 21/150 (150km from highway No.1) highway No.1) m) Local airport (Carrillo, 6km) Dostional National Wild Life Refuge (Turtle nesting tour) Camaronal National Wild Life Refuge trekking tour Surroundings nature area Surroundings nature area Surroundings nature area trekking/sight-seeing tour | Access | (117 km | Route 18/21/150 (91 km from | Route 18/21/163/160 (147 km | (73 km from highway No.1) |
| m) highway No.1) would Life would Life </td <td></td> <td>Doute 21/150/160 (174 home</td> <td>Doute 21/150 /150hm from</td> <td>Down IT For Stiff Street</td> <td>Local airport (Tambor, 32 km)</td> | | Doute 21/150/160 (174 home | Doute 21/150 /150hm from | Down IT For Stiff Street | Local airport (Tambor, 32 km) |
| m) Local airport (Carrillo, 6km) Mutuout ugumery 100.1.1) Ostional National Wild Life Surroundings nature area Refuge (Turtle nesting tour) sight-secing tour Camaronal National Wild Life Caletas Mixed National Wildlife Refuge trekking tour Refuge Surroundings nature area Refuge | | highway No.1) | highway No. 1) | Tour 17-Feity-21/103/100 (14/ | |
| Ostional National Wild Life Surroundings nature area Refuge (Turtle nesting tour) sight-seeing tour Camaronal National Wild Life Caletas Mixed National Wildlife Refuge Surroundings nature area trekking/sight-seeing tour | | Nosara | Local airport (Carrillo, 6km) | TION LEARning INCOME | |
| Refuge (Turtle nesting tour) sight-seeing tour Camaronal National Wild Life Refuge trekking tour Surroundings nature area trekking/sight-seeing tour | Excursion | Surroundings nature area | Ostional National Wild Life | Surroundings nature area | Cabo Blanco Absolute Nature |
| Camaronal National Wild Life Caletas Mixed National Wildlife Refuge trekking tour Surroundings nature area trekking/sight-seeing tour | | sight-seeing tour | Refuge (Turtle nesting tour) | sight-seeing tour | Reserve trekking tour |
| Refuge trekking tour Surroundings nature area trekking/sight-seeing tour | | | Camaronal National Wild Life | Caletas Mixed National Wildlife | D |
| | | 1 | Refuge trekking tour | Refuge | |
| 1 | | | Surroundings nature area trekkino/sight-seeing tour | | |
| Volition 11 'A Visit's Anolusis and Personal | Commen IICA Shidu T | Nem'e Anolysis and Pronocal | mon grance angles grances | | |

Spatial Structure of Tourism in South Guanacaste : Tourism Products and Markets by Tourism Center Table 9.2

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9.5.4 Accommodation Development

There is a limited variety of tourist facilities for accommodation in South Guanacaste. The number of medium-sized hotels is especially limited. Small cabins have dominated the accommodation facilities in South Guanacaste. Moreover, the standard of service provided by the majority of cabins is too low to attract more international tourists to this region.

| Size | Number of Rooms | Type of Management |
|---------------|--------------------|---|
| Very Small | ~ 9 | Mostly Owned, Managed and Worked by Family Members |
| Small | 10~19 | Mostly Owned, Managed and Worked by Family Members with Employed Staffs |
| Medium (Low) | 20~49 | Mostly Owned and Managed by Family, but Worked by Employed Staffs |
| Medium (High) | 50 ~ 99 | Owned by Corporations, and Managed by Professional Staffs, and Worked by Employed Staffs |
| Large | 100 ~ | Mostly Managed by International Hotel Chains |

 Table 9.3 Categories of Accommodation Facilities

Source: The JICA Study Team's Analysis

In order to improve the accommodation facilities in South Guanacaste, medium-sized hotels should be attracted as shown in Table 9.5. It is also considered that public recreational areas with simple accommodation facilities, such as camping sites, should be provided for domestic tourist needs.

Accommodation development and up-grading program for South Guanacaste Tourism Corridor are shown in Table 9.6. Renovation and reconstruction of classified unsuitable accommodation for tourists (530 rooms of 40% of total room stock at the present) should be top priority for Short Term, to induce international tourist, especially in Samara, Nicoya Town, and others. 500 additional new rooms should be strategically distributed to Samara-Carrillo T.C. and Nosara-Garza and 50 to 70 rooms for Santa Teresa-Malpais and San Miguel-Coyote T.C. to lead and create new image of international tourist destinations in the region.

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| | | | | | | Classifica | tion of Ac | ccommod | ation *(u | nit: facilitie | es) | No. of |
|---------------|------------|---------------------------|-------|-----------------|------------|--------------|--------------|--------------|--------------|-----------------|---------|---|
| Ассол Туре | mmodation | Urban Hotel/ Cabins | noter | Resort Cabin | А | В | С | D | Е | Total | share | rooms per accommodat ion facilities |
| | Large | | | | 0 | 0 | 0 | 0 | 0 | 0 | (0%) | Over 100 |
| | Medium (H) | | | | 0 | 1 (100 %) | 0 | 0 | 0 | 1 (100 %) | (1 %) | 50 - 99 |
| Size | Medium (L) | | | | 1 (13%) | 2 (24%) | 4 (50%) | 0 (0%) | 1 (13%) | 8 (100 %) | (7 %) | 20-49 |
| | Small | | | | 0 (0%) | 1 (3%) | 11 (37%) | 7 (23%) | 11 (37%) | 30 (100 %) | (27%) | 10-19 |
| | Very Small | | | | 0 (0%) | 0 (0%) | 14 (20%) | 22 (31%) | 35 (49%) | 71 (100 %) | (65%) | Under 9 |
| | | | | Total | 1 (1 %) | 4 (4 %) | 29 (26 %) | 29 (26 %) | 47 (44 %) | 110* (100 %) | (100 %) | |

 Table 9.4
 Existing Accommodation Types in South Guanacaste

Legend: : Major accommodation facilities. : Accommodation facilities exist. : No facilities exist. Source: JICA Study Team's Survey Result (only accommodation facilities classification possible to be investigated) : Classification is based on ITC standards.

| | | | | | | Classific | ation of A | ccommo | dation *(1 | unit: rooms | 5) | No. of |
|---------------|------------|--------------------------|-------|-----------------|-------------|---------------|---------------|---------------|---------------|-------------------|---------|---|
| Ассол Туре | mmodation | Urban Hotel/ Cabin | moter | Resort Cabin | А | В | С | D | Е | Total | share | rooms per accommodat ion facilities |
| | Large | | | | 0 | 0 | 0 | 0 | 0 | 0 | (0 %) | Over 100 |
| | Medium (H) | | | | 0 | 90 (100 %) | 0 | 0 | 0 | 90 (100 %) | (8 %) | 50-99 |
| Size | Medium (L) | | | | 36 (13%) | 71 (24%) | 106 (50%) | 0 (0%) | 40 (13%) | 253 (100 %) | (24%) | 20-49 |
| | Small | | | | 0 (0%) | 10 (3%) | 140 (37%) | 87 (23%) | 137 (37%) | 374 (100 %) | (35%) | 10-19 |
| | Very Small | | | | 0 (0%) | 0 (0%) | 83 (20%) | 108 (31%) | 152 (49%) | 343 (100 %) | (32%) | Under 9 |
| | | | | Total | 36 (1 %) | 171 (4 %) | 329 (26 %) | 195 (26 %) | 329 (44 %) | 1,060* (100 %) | (100 %) | |

Legend: : Major accommodation facilities. : Accommodation facilities exist. : No facilities exist. Source: JICA Study Team's Survey Result (only accommodation facilities classification possible to be investigated) : Classification is based on ITC standards.

 Table 9.5
 Development Priority for Accommodation Facilities in South Guanacaste

| Accommo | dation Type | Urban Hotel | Resort Hotel | Resort Cabin | Mountain Lodge | Camping Sites | Reference No. of rooms per accommodation facilities |
|---------|---------------|----------------|-----------------|-----------------|-------------------|------------------|---|
| | Large | | | | | | Over 100 |
| | Medium (H) | | | | | | 50 – 99 |
| Size | Medium (L) | | | | | | 20 – 49 |
| | Small | | | | | | 10 – 19 |
| | Very Small | | | | | | Under 9 |
| Target | International | | | | | | |
| Market | Domestic | | | | 1 | | 1 |

Legend: First priority, Secondary Priority, Tertiary Priority, Low priority or n ot suitable Source: The JICA Study Team's Analysis

| | 0 | ramained Total | ar closed unsuitable | 15 95 | 20 195 | 5 35 | 0 15 | 40 340 | 0 110 | 0 50 | 0 160 | 10 70 | 10 360 | 25 1,125 | 45 1,555 | 0 60 | 10 160 | 15 55 | 25 275 | 0 30 | 15 315 | 5 55 | 20 400 | 90 2,390 | 130 2,730 |
|---|---------------------|-----------------------|----------------------------------|------------------------------------|---------------------|---------------|-----------|--------|--|----------|-----------|---------------------|-----------------|--------------------|-----------|-----------------------|----------------------|-----------------------|-----------|-------------------------|----------------------------|---------------------|-----------|----------|-----------|
| | Mid Term: 2010 | | | 80 | 175 | 30 | 15 | 300 | 110 | 50 | 160 | 60 | 350 | 1,100 | 1,510 | 60 | 150 | 40 | 250 | 30 | 300 | 50 | 380 | 2,300 | 2,600 |
| | | Tourist Accommodation | Add. New Renovate or reconst. | 10 | | | | 50 | | 10 | 10 | | | 00: 10 () () | 40 | | | | 0 | | | | 0 | 50 | 100 |
| caste | | Tourist | Add. New | 40 | 40 | 20 | 10 | 110 | 40 | 20 | 60 | 30 | 60 | 380 | 470 | 15 | 80 | 30 | 125 | 20 | 100 | 15 | 135 | 790 | 900 |
| uanac | | Total | | 55 | 155 | 15 | 5 | 230 | 70 | 30 | 100 | 40 | 300 | 745 | 1,085 | 45 | 80 | 25 | 150 | 10 | 215 | 6 | 265 | 1,600 | 230 1,830 |
| outh G | 2005 | ramained | or closed unsuitable | 25 | 60 | 5 | 0 | 90 | 0 | 10 | 10 | 10 | 10 | 65 | 85 | 0 | 10 | 15 | 25 | 0 | 15 | 3 | 20 | 140 | 230 |
| elopment and Upgrading Program for South Guanacaste | Term: | dation | Total | 30 | 95 | 10 | 5 | 140 | 70 | 20 | 90 | 30 | 290 | 680 | 1,000 | 45 | 70 | 10 | 125 | 10 | 200 | 35 | 245 | 1,460 | 1,600 |
| | Short | Accommodation | | 20 | | 10 | 5 | 100 | 10 | 20 | 30 | 10 | 10 | 0000222 | 120 | | | 10 | 10 | 10 | 11 20 | 10 | 40 | 200 | 300 |
| | | Tourist | Add. New Renovate or reconst | 10 | | | | 10 | 20 | | 20 | | 100 | 087 = | 330 | 10 | 50 | | 60 | | 02 | | 80 | 490 | 500 |
| | Existing Room Stock | total | | 45 | 155 | 15 | 5 | 220 | 50 | 30 | 80 | 40 | 200 | 515 | 755 | 35 | 30 | 25 | 90 | 10 | 145 | 30 | 185 | 1,110 | 1,330 |
| ent and | | unsuitable total | (Class E) | 45 | 125 | 15 | 5 | 190 | 10 | · 30 | 40 | 20 | 20 | 165 | 205 | 0 | 10 | 25 | 35 | 10 | 35 | 15 | 60 | 340 | 530 |
| | | Suitable | (Class A to D) | | 30 | | | 30 | | 0 | 40 | 20 | 180 | 350 | 550 | 35 | 20 | 0 | 55 | 0 | 110 | 15 | 125 | 770 | 800 |
| Table 9.6 Accommodation Deve | | Area | | Santa Cruz Santa Cruz Service Town | Nicoya Service Town | Hojancha Town | Ð | | Santa Cruz Junquillal-San Juanillo Coa | Ostional | Sub-total | Nosara Service Town | Nosara-Garza TC | Samara-Carrillo TC | Sub-total | e Islita/surroundings | San Miguel-Coyote TC | San Francisco Service | Sub-total | Manzanillo/surroundings | St. Terresa-Malpais S.T.C. | Cobano Service Town | Sub-total | | |
| Table | | District | | Santa Cru | Nicoya | Hojancha | Nandayure | Total | Santa Cru | | | Nicoya/ | Hojancha | | | Nandayure | | | | Cobano | | | | Total | |
| | Area | Canton | | Inland | Service | Towns * | | | Coastal | | | | | | | | | | | | | | | | Total |

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9.5.5 Transportation Improvement

(1) Improvement of multi-mode transportation networks

South Guanacaste needs to expand its transportation capacity, diversify its modes of transport, and increase the comfort and enjoyment offered by the trips to the region in order to attract more international and domestic tourists.

The roads and local airports, which are the major components of the present transportation network, but also transportation services to connect with different transport modes are to be improved as follows:

- Improvement of road signs and information,
- Improvement of regional access roads to Primary and Secondary Tourism Centers by the provision of pavements and stopover facilities (rest places and observation points),
- Improvement of local gateways airport facilities and expansion of flight capacity and services,
- Improvement of transfer modes (access roads and public transportation services to transportation terminals).

The basic strategies and some plans for transportation improvement are given in Section 12.2 of Chapter 12.

(2) Establishment of Tourism Circuits for South Guanacaste

The establishment of various tourism circuits could extend the length of stay of tourists and promote the diversification of tourism products. In the coastal areas, "sun and beach" tourism products in the region could be integrated with Ostional National Wildlife Refuge, an internationally famous turtle nesting area, and Cabo Blanco Strict Nature Reserve, and other beautiful beaches¹. On the other hand, beautiful landscape of pastures and dry forests in inland areas could be attractive tourism sites for one-day excursions from coastal Tourism Centers. In order to exploit these potentials, the following measures should be implemented:

- ® Formulation of "tourism circuits" with improvement of transportation and access,
- Connection to gateways, tourist towns, and tourist spots,
- Development of roadside amenities (observation points, rest places, shopping points), and
- Utilization of potential natural and cultural resources currently underutilized due to poor access

¹ For this purpose, the carrying capacity of tourists on these protected natural areas should be established.

The tourism circuits preferred by visitors are summarized in Table 9.7 on the basis of travel patterns and market segments.

| Table 9.7 | Preferred Types of Spatial Movement by Market Segment in South |
|-----------|--|
| | Guanacaste |

| | | Interna | Domestic | | |
|--|-----------------------|---|---|--|---|
| Length of stay | Travel activities | Short-Haul | Middle-Haul | Long-Haul | Market |
| Single Destination (2-7 days) | One tourist base only | | | | |
| Short excursion (5-9 days) | Inter-local area | | | | |
| Touring (1-2 weeks) | Inter-regional | | | | |
| Legend: : dominant : middle position : few market | —: Very rare | Neighboring countries (Central America) | USA and Canada South America | Europe East Asia & Pacific | Costa Rican Foreign Resident |

Source: JICA Study Team's analysis

9.6 IMPROVEMENT OF THE ENVIRONMENT AND AMENITIES IN TOURISM CENTERS AND TOURISM SITES

(1) Enhancement of Amenities of Tourism Centers

Local chambers of tourism and municipal governments should play key roles in improving tourism amenities. The development of the following public space and facilities for tourists and tourism micro-enterprises are essential:

- ® Public space/plaza with public shower and toilet facilities and litterbins
- Public space for food and souvenir stalls
- ® Beachside parks surrounded by lots for restaurants, souvenir shops and cafes
- Tourist information centers
- Public parking lots
- Beachfront camping sites (behind 50m from the coast line)

Means of financing these improvement efforts include fund-raising from private businesses and communities.

(2) Improvement of the Environment of Tourism Centers and Tourism Sites

One of the most important means of sustaining the Tourism Centers and tourism sites is to promote the awareness amongst the local business sectors and citizens of the environment and scenic value of their Tourism Centers and tourism sites. The local committee for the Ecological Blue Flag Program could implement such awareness campaigns, as well as routine activities for maintaining the certification of the Ecological Blue Flag.

Another important concern in the Tourism Centers and tourism sites is safety and security of tourists and citizens. Safety measures for beaches can be organized by local organizations, such as local branches of the Red Cross. The ICT is supposed to implement some security measures by establishing tourism police in Tourism Centers.

9.7 NUMERICAL FRAMEWORK OF TOURIST ACCOMMODATION FACILITIES

9.7.1 Distribution of Regional Accommodation

(1) Regional Accommodation Targets

In Chapter 3, the target numbers of hotel rooms by tourism planning unit are established according to national considerations. The target numbers for South Guanacaste are summarized in Table 9.8.

Table 9.8 Regional Accommodation Targets for South Guanacaste

| Target year | 2010 |
|---------------------------------|----------------------------|
| Target number of tourist nights | 1.3 million tourist nights |
| Target number of rooms | 2,600 rooms |

Source: JICA Study Team's Framework

(2) Policies of Accommodation Distribution

Taking account of the regional characteristics and tourism potential, such as natural beauty of beaches and headlands, accessibility and potential accommodation in view of infrastructure support, the framework for accommodation distribution is set strategically in order to achieve sustainable tourism development. The key policies for establishing the framework are as follows:

- To allocate a certain volume of accommodation in order to formulate and reinforce the spatial structure of tourism proposed in earlier sections for South Guanacaste:
 - Priority distribution to Primary and Secondary Tourism Centers which have high potential coastal areas for beach resort development, such as high beach potential and accessibility
 - Consolidation of tourism service functions in Tourism Service Towns, such as Nosara Town and San Francisco de Coyote, and in urban centers in inland areas of the region, such as Santa Cruz town, Nicoya town, Jicaral Town and Cóbano Town.
- To distribute the regional target volume by means of careful planning and adequate scaling of facilities to ensure sustainable environmental use in focused development patterns of the coastal areas.
- To consider the existing volume of tourism accommodation facilities and development trends in the region.
- To improve the existing stock of accommodation facilities to accommodate more tourists with better standards and services.

 To consider water resource capability in the coastal areas to provide accommodation facilities with adequate amounts of water.

9.7.2 Framework for Development of Target Accommodation

By 2010, around 1,200 additional rooms will have to be available in South Guanacaste. 11% of the total rooms in South Guanacaste are allocated to the inland area of the region. Table 9.9 shows the distribution of hotel rooms by canton. Table 9.10 shows the distribution of hotel rooms by Tourism Center/other tourism area.

1999 2000 2010 Increase Ratio Location Name of Canton rooms % rooms % rooms % Coastal 1. Santa Cruz (SC) 13 1.5 80 5.8 160 6.2 2.00 Area 2. Nicoya (NC) 451 52.8 655 47.5 1,210 46.5 1.85 3.00 3. Hojancha (HJ) 61 7.1 100 300 7.2 11.5 9.6 4. Nandayure (NA) 47 5.5 90 250 2.78 6.5 5. Puntarenas (Cabano West) 80 9.4 185 13.4 380 14.6 2.05 88.5 Sub-total 1,110 80.4 2,300 2.07 652 76.3 Inland 27 Abril (SC) 34 4.0 45 3.3 45 1.7 1.00 Area Santa Cruz Town (SC) 34 55 2.1 1.22 4.0 45 3.3 Nicoya Town (NC) 134 15.7 160 180 6.9 11.6 1.13 Hojancha Town (HJ) 0 0.0 10 0.7 10 0.4 1.00 Carmona Town (NA) 0 0.0 10 0.7 10 0.4 1.00 Sub-total 202 23.7 270 19.6 300 11.5 1.11 Total 854 100.0 1.380 100.0 2,600 100.0 1.88

 Table 9.9 Target Numbers of Hotel Rooms by Canton in South Guanacaste

Note: The figures in 1999 are based on ICT's tax revenue data.

On the other hand, the figures in 2000 are based on the inventory survey data by the JICA study. Source: JICA Study Team's Estimate and Framework

| | Tourism Centers/ | 19 | 99 | 200 | 00 | 20 | 10 | 2000- |
|-----------|---|-------|-------|-------|-------|-------|-------|---------------------------|
| Canton | Other Tourism Areas, and Tourism Service Towns | rooms | % | rooms | % | rooms | % | 2010 Increase rooms |
| Santa | 1. Junquillal South | 0 | 0.0 | 40 | 3.6 | 50 | 2.6 | 10 |
| Cruz | 2. Lagarto | 0 | 0.0 | 0 | 0.0 | 10 | 0.4 | 10 |
| | 3. Pitahaya-San Juanillo | 0 | 0.0 | 10 | 0.9 | 50 | 2.2 | 40 |
| | 4. Ostional | 13 | 2.0 | 30 | 2.7 | 50 | 2.2 | 20 |
| | Sub-total | 13 | 2.0 | 80 | 7.2 | 160 | 7.0 | 80 |
| Nicoya/ | 1. Nosara Town | 18 | 2.8 | 40 | 3.6 | 60 | 2.6 | 20 |
| Hojancha | 2. Nosara-Garza S.T.C. | 114 | 17.5 | 200 | 18.0 | 350 | 15.2 | 150 |
| | 3. Sámara-Carrillo P.T.C. | 380 | 58.3 | 515 | 46.4 | 1,100 | 47.8 | 585 |
| | Sub-total | 512 | 78.6 | 755 | 68.0 | 1,510 | 65.6 | 755 |
| Nandayure | 1. Islita-Bejuco | 24 | 3.7 | 35 | 3.2 | 60 | 2.6 | 25 |
| | 2. San Miguel-Coyote S.T.C. | 23 | 3.5 | 30 | 2.7 | 150 | 6.5 | 120 |
| | 3. San Francisco de Coyote | 0 | 0.0 | 25 | 2.3 | 40 | 1.7 | 15 |
| | Sub-total | 47 | 7.2 | 90 | 8.2 | 250 | 10.8 | 160 |
| Cobano | 1. Santa Teresa-Mal País S.T.C. | 71 | 10.9 | 145 | 13.1 | 300 | 13.0 | 155 |
| (West) | 2. Manzanillo | 0 | 0.0 | 10 | 0.9 | 30 | 1.3 | 20 |
| | 3. Cóbano Town | 9 | 1.4 | 30 | 2.7 | 50 | 2.2 | 20 |
| | Sub-total | 80 | 12.3 | 185 | 16.7 | 380 | 16.5 | 195 |
| | Total | 652 | 100.0 | 1,110 | 100.0 | 2,300 | 100.0 | 1,190 |

 Table 9.10
 Target numbers of Hotel Rooms by Tourism Area in South Guanacaste

 Note:
 1) The figures in 1999 are based on ICT's tax revenue data.

 2) On the other hand, the figures in 2000 are based on the inventory survey data by the JICA study.

 3) P.T.C.= Primary Tourism Center, S.T.C.= Secondary Tourism Center

Source: JICA Study Team's Estimate and Framework

Chapter 10 SOUTH GUANACASTE: FRAMEWORK FOR LOCAL SOCIO-ECONOMIC DEVELOPMENT

10.1 KEY ISSUES:

- (1) Due to the poor economic returns on livestock rearing and several other local industries in the past, many employees have move d to other areas after selling their own land. Many of the people who decided to stay became unemployed. In addition, people who were able to get jobs, for example on watermelon or sugarcane farms, found only seasonal employment, which did not provide a stable livelihood.
- (2) Many local people have a limited knowledge of English, are unskilled, and have not completed their primary and secondary education. This is a problem for them if they want to get a job in the new tourism industry. They will only be able to apply for limited low-level INA training courses, because one of the minimum requirements is 9th grade. In the remote areas, educational provisions are poor. For instance, there may be poorly trained teachers.
- (3) Nowadays, it is not possible for local enterprises to participate in the tourism sector because the price of good land was inflated by speculation on the part of foreigners or people from San José. As a result, they cannot get appropriate land for their own tourism business, such as the construction of a hotel. Local enterprises and people do not have adequate guaranties to offer the banks to obtain micro credit. It is also difficult to get credit due to the high rates of interest. Even government's normal credit rates are above 21%.
- (4) Due to the lack of a marketing system and the limited availability of suitable food in the area, middle-sized hotels and restaurants are purchasing from major cities like San José. This is a major issue for the promotion of the local industry in the area.
- (5) Most of the people who live in Ostional cannot develop anything in their village because their settlements are inside MINAE's protected area. They are, therefore, collecting turtle's eggs for their livelihood. In addition, tourists coming to watch the turtles nesting tend to have some negative impact on the turtles.
- (6) In the rainy season some of the villages have no access and become isolated for a few weeks due to the damage to the roads by water on the roads or flooded rivers. These

transportation problems complicate the delivery of agricultural and marine products from this area and the transport of necessary materials and access to social services, such as education and medicine. These transportation problems and their consequences are a key issue in the area.

- (7) Social problems such as drugs and prostitution have appeared in major tourist areas.
- (8) Due to the economic situation, the number of squatters has increased. They have built temporary houses in the 200m zone (MTZ) or surrounding the hotels. Fights sometimes occur between local people and foreign inhabitants.
- (9) In these areas, there are vicious cycles. One example is unemployment, which leads to migration, loss of power, lack of support from the Government, lack of development projects, lack of local enterprises, unemployment, etc.

10.2 OBJECTIVES

- (1) To give local people as much employment as possible in the tourism sector.
- (2) To carry out tourism development by local initiatives utilizing the local nature and culture.
- (3) To improve the social services in remote areas and to promote the local industries by improving or rehabilitating the infrastructure in the area.
- (4) To secure the life of the local people in tourist areas by dealing with the social problems related to tourism.
- (5) To empower the local people to take initiatives and actions toward in the above areas.

10.3 BASIC STRATEGIES:

< To give local people as much employment as possible in the tourism sector. >

- (1) To appeal to the investors, from the beginning of hotel projects, to promote local employment and start the training of local people before the opening of the hotel.
- (2) To train local people, considering the characteristics of different areas, through courses such as specific technology, English and customer services for tourists, to enable them to find jobs, such as water sports instructors and sport fishing captains.
- (3) To foster tourism education in primary school, as well as high school in the long term.

< To carry out tourism development by local initiatives utilizing local nature and culture.>

- (4) To develop attractive beaches that offer major opportunities for business development for local enterprises. The Government should provide renting space and facilities for restaurants, small stores, game machines for children, etc. which will create suitable conditions to start the business for micro-enterprises. For this plan, the Government should initially make the regulatory plan and then reserve the land in the MTZ It should also provide a plaza for attractions and performances, walking-trails on the beach adorned with flowers, and basic infrastructure such as access roads and sewage systems.
- (5) To reserve land to develop cabins, lodges or cabins villages through local initiatives. Initially the Government should make or review the regulatory plan and then reserve the land in the MTZ. It should also give concessions to the local community or private enterprises as an incentive to develop cabins, lodges or cabin villages.
- (6) To set up a system of credit for burism development that gives priority to local community or micro-enterprises. This credit system should lower the interest rates and be generous with the guarantees required.
- (7) To keep the turtle-nesting beaches in Ostional Wildlife Refuge in good environmental conditions, first of all, by managing tourists on the refuge. Turtle watching tourism could generate more incomes and job opportunities. In order to maintain the good environmental conditions, it is essential to manage tourist influx to the refuge. MINAE should charge entrance fees. Local communities provide eco-tour guides in the refuge. Hotels surrounding the refuge, like in Nosara, Garza, Samara and San Juanillo should coordinate with MINAE and local communities for sending tourists on the refuge.

< To improve the social services in the remote areas and to promote local industry by improving or rehabilitating the infrastructure in the area. >

- (8) To rehabilitate rural roads and construct bridges to improve transportation for the community and the local industry.
- (9) To get support for agriculture and fishery development in the coastal area by implementing agricultural development projects with the help of PRODAPEN as well as in inland areas.

< To secure the livelihood of the local people in tourist areas by dealing with the social problems related to tourism>

- (10) To employ Tourism Police to stop and prevent the spread of drugs and prostitution. The Tourism Police should work and communicate with the local people.
- (11) To secure land for housing to local people who have settled in the MTZ.

< To empower the local people to take initiatives and actions toward in the above areas >

(12) To establish Local Associations for Sustainable Tourism Development in tourism centers to promote tourism and local development through local initiatives and empowerment of the local communities.

10.4 NECESSARY ACTIONS AND MEASURES

The necessary actions and measures are described in Tables 10.1(1) through 10.1(4) in relation to the key strategies formulated above.

| Actions/Measures |
|------------------|
| nd Necessary |
| Strategies an |
| [0.1(1) Key |
| Table 1 |

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| NECESSARY ACTIONS AND MEASURES | INA and ICT should work together to compile reference data for | training and following-up programs for the tourism sector and also | clarify the difference in benefit between hiring local employees and | people from other areas. ICT and INA should persuade the new hotel | project investors to employ local people using that information. | 2) ICT should add the level of local employment to the criteria for | judging hotel classification in Costa Rica. | 3) ICT should carry out tour programs for new hotel project investors to | visit successful middle and high-class hotel projects in which owners | have employed many local people. | 4) The Tourism Chamber should cooperate with the ALDETUS to | collect information on employment in the tourism sector to give to | people for the recruitment of local people. | ICT and INA should request the authorities concerned to increase the | budget to implement new training programs for the tourism sector. | ICT and INA should prepare training programs for the priority | activities and attractions in each tourism area. INA should carry out | the training according to these programs. | Afterwards, the number of skill-workers will increase and ICT will | establish a license system for professional specialists such as guides, | etc. |
|--------------------------------|--|--|--|--|--|---|---|--|---|----------------------------------|---|--|---|--|---|---|---|--|--|---|---|
| CONCERNED ORCANIZATIONS | ICT, INA, Hotel | developers, ALDETUS ¹ | | | | | | | | | | | | | | ICT, INA, Hotels | | | | | |
| STRATEGIES | To appeal to the investors, from the beginning | of hotel projects, to promote local employment | and start the training of local people before the | opening of the hotel. | | It is recommended that this local employment | promotion should be a part of the general | condition required for tourism investment in | both MTZs and their hinterlands. | | | | | | | ② To train local people, considering the | characteristics of different areas, through | courses such as specific technology, English | and customer services for tourists, to enable | them to find jobs such as water sports | instructors and sport fishing captains. |

¹ ALDETUS: Local Association for Sustainable Tourism Development

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| NECLESSARY ACTIONS AND MEASURES ICT and MEP should work together on the following tasks: To create a program for primary and high school students to visit and acquire practical experience in national parks and hotel facilities. To develop a curriculum (English, cooking, ecology, camping, etc.) for high school students in focused development areas expected to join the tourism employment sector. | To establish a tourism subject on the currotum in angle scattors in selected focused development areas after spreading tourism education in these areas. 1) ICT and the Municipality should make the regulatory plans to reserve the lands. 2) ICT and other institutions should cooperate with the Municipality to make a development plan using funds from CABEI, for example, to build the public facilities and infrastructure according to this plan. After its completion, the Municipality should give concessions to the community or private | companies to rent the spaces for restaurants, stores, etc. | ICT and the Municipality should make or review the regulatory plans for reservation of land. The Municipality should give concessions to the local community or private companies. ICT and INA should give support to the local community or private companies for the development and management of cabinas in aspects such as preparation of the development plan, employment and training required for the people, tourism public relations and promotion. They could also give information on advantageous credit schemes. The plan should include the development of individual cabinas as well as with development in 4). |
|---|---|---|---|
| CONCERNED ORCANEZATI ONS ICT, MEP, Hotel | ICT, Municipality, CABEI ² , Private Companies | | ICT, INA, Municipalities |
| STRATEGIES © To foster tourism education in primary school as well as high school in the long term. | (1) To develop attractive beaches that offer major opportunities for business development for the local enterprises. The Government should provide the basic facilities (skeleton) for renting restaurants, small stores, game machines for children, etc., which will create suitable | conditions to start the business for micro enterprises. For this plan, the Government should initially make the regulatory plan and then reserve the land in the MTZ. It should also provide a plaza for attractions and performances, walking-trails on the beach adorned with flowers and basic infrastructure such as access roads and sewage systems. | ⑤ To reserve land to develop cabinas, lodges or cabinas villages through local initiatives. Initially, the Government should make or review the regulatory plan and then reserve the land in the MTZ; it should also give concessions to the local community or private enterprises as an incentive to develop cabinas, lodges or cabinas villages. |

Table 10.1(2) Key Strategies and Necessary Actions/Measures

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² CABEI: Central American Bank for Economic Integration (BCIE in Spanish)

| NECESSARY ACTIONS AND MEASURES I) ICT should consult development banks to make the "new low-interest credit scheme for micro tourism enterprises" with interest lower than in the present schemes, for instance to give credit to associations or small groups in small amounts. | (A) MINAE should start a management effort at establishing entrance gates to the Ostional Wildlife Refuge, and also start to charge entrance fees. MINAE should start these first in the side of Sama Cruz Canton. (B) Local communities should organize a group of eco-tour guides for watching turtle nesting and train them as eco-tour guides. (C) Hotels in surrounding areas should establish a rule for sending tourists to the Ostional Wildlife Refuge and cooperate with MINAE and local communities to paying the entrance fees and hiring local eco-tour guides. 1. | ICT, MOPT and other institutions concerned should discuss tourism and community development in the tourism centers and rural areas. Then they should prepare and carry out a road improvement plan considering the future development potential in such areas. |
|--|--|--|
| CONCERNED ORCANIZATIONS ICT, Development Bank | ICT, Municipalities, MINAE, Local Communities, University, INA, Private Companies | ICT, MOPT, Municipality, PRODAPEN |
| STRATEGIES (a) To set up a system of credit for tourism development that gives priority to the local community or micro enterprises. This credit system could lower the interest and be generous with the guarantees required. | To keep the turtle-nesting beaches in Ostional Wildlife Refuge in good environmental conditions, first of all, by managing tourists on the refuge. Turtle watching tourism could generate more incomes and job opportunities. In order to maintain the good environmental conditions, it is essential to manage tourist influx to the refuge. MINAE should charge entrance fees. Local communities provide eco- tour guides in the refuge. Hotels surrounding the refuge, like in Nosara, Garza, Samara and San Juanillo should coordinate with MINAE and local communities for sending tourists on the refuge. | To construct and rehabilitate rural roads and bridges to improve transportation for the community and the local industry. |

Table 10.1(3) Key Strategies and Necessary Actions/Measures

ICT-JICA Study: Land Use Planning in the Coastal Zones for Sustainable Tourism Development (LUPLANT-ZMT 21) Main Text: South Guanacaste

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| 1 | NECESSARY ACTIONS AND MEASURY S NECESSARY ACTIONS AND MEASURY S 1) ICT should persuade PRODAPEN to support development activity for agriculture and fishing industries in the coastal area. 2) PRODAPEN should study the potential and condition of agriculture and fishery as well as the demand of the tourism sector (hotels and restaurants). They should create a food supply system to maximize supplies from local communities to the tourism sector. | ICT should dispatch the tourism police in focused development areas. The Tourism Police's work should be locally oriented and implement a safety and emergency network with the community. | ICT, INVU and Municipalities should establish areas for local community purposes in both general land use plans and regulatory plans for the purpose of securing existing houses and public facilities and of accommodating relocation of local people's houses and public facilities. | |
|----------|---|--|--|---|
| } | CONCERNED ORCANIZATIONS ICT, PRODAPEN, INCOPESCA, Association of Agriculture, Association of Fishery | ICT, Municipality, 1) Police 2) | ICT, INVU, Municipalities | ICT, Municipality, 1) ALDETUS, etc. 2) |
| | STRATECIES In the constant of the second fishery development in the coastal area by implementing agricultural development projects with the help of PRODAPEN as well as in inland areas. To receive cooperation from PRODAPEN, for example technical assistance, and to create an association for the sustainability of the agriculture and fishing | | ① To secure land for housing to local people who have settled in the MTZ. | To establish a "Local Association for Sustainable Tourism Development" (ALDETUS) in focused development areas to carry out tourism and local development through local initiatives. |

Table 10.1(4) Key Strategies and Necessary Actions/Measures

10-8

Chapter 11 SOUTH GUANACASTE: FRAMEWORK FOR NATURAL RESOURCES MANAGEMENT

11.1 INTRODUCTION – MAIN ATTRACTIONS AND THREATS

The main features of nature conservation and therefore tourism interest are the turtle nesting beaches, especially Ostional National Wildlife Refuge, and Camaronal National Wildlife Refuge. The natural vegetation and terrestrial wildlife (howler monkeys, deer, coati, reptiles and many bird species) that still occur in the other parts of the region are also of nature tourism interest but are fragmented. Natural environmental constraints to tourism development include a high probability of seismic activity and resultant tsunami, strong sea currents and rip tides, floods and scarce fresh water resources. The threat posed by some of these natural phenomena has been exacerbated by various human activities such as deforestation (especially of watersheds) and unsuitable land use. Over abstraction of groundwater can lead to death of trees and saline intrusion.

11.2 KEY ISSUES

- 1) Large areas of land are degraded (dry forest turned to pasture) and land use is often not appropriate. Habitat loss and hunting have reduced wildlife populations.
- 2) Inadequate consideration has been given to the landscape and ecological value of headlands between beaches and some have been badly developed from an environmental perspective, with trees removed and buildings, some ugly, constructed in prominent locations.
- 3) Development is scattered and with inadequate infrastructure (roads, water supply, and wastewater treatment) and nearly all the coast outside protected areas is subject to some form of development. In the case of Ostional, some of the 200m coastal strips at Playa Ostional and Guiones, <u>within</u> the protected area has been developed (see below). This has destroyed or threatens natural resources.

- 4) Ostional (Refugio Nacional de Vida Silvestre). On the one hand, the protected area has been subject to encroachment by tourist development (restaurant/bars) and agriculture, especially at Nosara, and light pollution and turtle egg exploitation are a cause for concern; on the other there is a need to maximize the tourism potential of the turtles, with benefit to the local community.
- 5) Exploitation of marine resources (e.g. of shellfish *Strombus* stocks are already diminished) and other pressures on the coastal environment (e.g. untreated wastewater, anchor-damage to corals) is likely to increase with tourism.
- 6) There is a lack of implementation and enforcement of Regulatory Plans and other planning laws (Municipality, INVU, ICT) and environmental/natural resource laws and regulations (MINAE, INCOPESCA). This has resulted in loss of coastal vegetation (e.g. mangroves) and other damage to wildlife habitat, and overexploitation of and damage to marine resources by artisanal and commercial fishing activities.
- 7) Generally poor co-ordination between different institutions and lack of continuity on part of government in dealing with planning, tourism and environmental issues. As a result the activities of one organization can have a negative impact (deliberately or through ignorance) on the environmental interests of other organizations (government, non-government) and individuals. For example, CNE (the Comision Nacional de Emergencia) may wish to straighten and canalise a stretch of river to reduce the flood risk to a particular community; however this may require destruction of 'protected' river bank vegetation and increase sedimentation on sensitive marine habitat downstream: co-ordination with other agencies and land-owners may lead to identification of alternate, environmentally-friendly solutions (e.g. reforestation of the watersheds). In other cases electricity, water supply etc may have been provided to houses built illegally within a floodplain/river protection zone; prior co-ordination between ICE, AYA, CNE, INVU, MINAE and municipalities might have resulted in the re-location of the settlement and restoration of the natural vegetation.

11.3 OBJECTIVES

1) **To restore vegetation in key areas.** This will preserve the scenic value of the coastline, protect watersheds, and reconnect isolated wildlife populations, which will improve the nature tourism potential.

- 2) To minimize the environmental impact of tourism development by adequate zoning, that focuses tourism development in suitable while protecting natural resources of tourism and conservation value. This will facilitate the establishment of an affordable road network that can be easily maintained and which links key tourist development locations and attractions, without exposing sensitive conservation areas to the threat of uncontrolled access and development.
- 3) **To allow successful turtle nesting activity.** In order to conserve these endangered species, which are also a tourist attraction, management practices and guidelines for development behind beaches must be adopted (inside and outside protected areas) that meet the requirements of local communities, tourism and conservation.
- 4) **To ensure that marine resources are exploited on a sustainable basis.** This should bring benefits to both fishing and tourism interests.
- 5) **To ensure that there is compliance with plans and environmental laws** by both the private sector and national and local government.

11.4 BASIC STRATEGIES AND PROPOSED MEASURES

11.4.1 The Establishment of Biological Corridors - a System of Connected Natural and Semi-Natural Areas

1) **Establish and Enforce Legal Protection.** Legal protection already applies to public and private reserves, mangroves, wetlands, vegetation along rivers and critical watersheds. More rigorous enforcement of this legislation is required by MINAE. There is also a good case to extend some form of protection to the main headlands or points, (cabos o puntas) and other forested ridges along the coast. Headlands are often by-passed by coastal roads and are not usually used for agriculture, so some natural vegetation may remain. The headlands on each side of a beach form an important part of their scenic value. Loss of vegetation from the headlands, and buildings that are too visible from the beach or from the sea, spoil the natural attraction of the area. Headlands that are adjacent to watercourses deserve special consideration e.g. Nosara. Headlands that could be connected to nearby forested ridges or hills can also play an important role in providing habitat for wildlife. Some development can be allowed in the headlands (behind the 200m maritime-terrestrial zone if it is part of an ICT Natural Area), but visibility of structures, clearing of natural vegetation and planting of exotics should be controlled. This needs to be specified in a regulatory plan agreed by **INVU**, **ICT** and the **Municipality**.

- 2) Establish ICT Natural Areas within the Maritime-Terrestrial Zone. It is proposed that part of the maritime-terrestrial zone controlled by ICT should be designated for conservation to enhance the region's natural attractions for tourism. This would encourage the formation of biological corridors, allow turtle nesting, protect river estuaries and wetlands and preserve scenic values that provide a tourism resource for adjacent development sectors. The natural vegetation of the beach or headland in an ICT Natural Area should be maintained or allowed to regenerate. These ICT Natural Area have been identified in the General Land Use Plan for designation by ICT.
- 3) Use Incentives to Establish and Maintain Corridors between Forested Areas. Other areas that could form part of a biological corridor include steep slopes of watersheds that need reforestation. This would serve to enhance the scenic and wildlife values of the area, reduce soil erosion and siltation of coastal areas and protect water supplies. Some of these watersheds are already designated as "Reserve Zones" in which land use is not to be changed – at least forest or secondary forest is not to be converted to pasture, agriculture or housing. The maintenance and enhancement of such areas should be eligible for environmental services payments. These areas have been identified in a land capability map produced by Fundacion Neotropica. This is a longer-term part of the strategy, which needs to fit into existing programmes of Biological corridors coordinated by Area de Conservation Tempisque of MINAE.
- 4) A private initiative may be possible between the hotel owners on the coast who rely heavily on good water supplies and the owners of the watershed lands. The Hotel Association could provide Incentives to the Landowners to Maintain Natural Forest in the Watershed. These areas could also form part of the biological corridors and a tourist attraction. These areas may also be eligible for environmental services payments administered by MINAE. Existing mountain bike trails could be developed into a system of trails from the coast up into the surrounding hills. This would allow access to wildlife and scenic resources and enable private landowners to participate in tourism activities. Local tourist chambers could coordinate such initiatives.
- 5) Private landowners can Establish Wildlife Refuges and Claim Environmental Service Payments from MINAE for maintaining or regenerating natural forest. Non-Governmental Organizations should Assist in this Process, since they have already done so with some success. Burning secondary growth is still a problem in

many areas. This was done to regenerate pasture and prevent bush encroachment but is no longer relevant to current land use since cattle raising declined. In the south of the Nicoya peninsula, the NGO ASEPELACO (Associacion Ecologica Paquera, Lepanto y Cobano) have used a system of volunteers to approach landowners persuading them to limit burning to well controlled small areas used for crops. Since 1991 this has led to an increase of regenerating forest from 13% of land cover in the three districts to 71% cover. They wish to connect remaining and regenerating forest into biological corridors and make connections to the coast, for example along the Rio Ario and Rio Bongo where at least one major landowner is interested in participating. Steep slopes and the tops of hills and mountains, which act as watershed protection zones, need to be reforested. At Monte Alto a forest reserve of 144 ha was established near Hojancha to protect the top of the Rio Nosara watershed. Accomodation is now being built there to receive visitors.

11.4.2 Zoning System To Establish Suitable Areas for Development and for Conservation

- 1) Tourism development should be focused in suitable areas while protecting natural resources for tourism and conservation value in other areas. Focal areas should have a distinctive type of development suited to their natural and cultural features. For example, medium density hotel/residential development may be allowed behind the sheltered beach of Samara. The rocky headlands and tall tree cover of Nosara allow a type of woodland suburbia. The broad flat sandy land favors medium density holiday homes in Coyote. Remote areas with low levels of development and infrastructure and areas with high conservation values should be limited to low density cabinas (local enterprise) or no development, e.g. the more remote southern beaches and Ostional. Focal areas recommended by this plan need to be established by ICT, INVU and Municipalities and infrastructure development coordinated accordingly.
- 2) Planned Road Network. This forms part of the zoning strategy. It should be easy to maintain and link key tourist development locations and attractions, without exposing sensitive conservation areas to the threat of uncontrolled access and development. Road access needs to be carefully considered, since roads act as a magnet for unplanned development, degrading natural resources and scenic attractions. Poorly planned and designed roads (unsuitable route and alignment and no drainage) need costly, constant maintenance; good quality roads have a high capital cost and must be economically justified. The priorities of the plan are likely to be the upgrading of key sections of existing roads and the building of bridges where

year-round access is necessary. The improvement of roads leading from the settlements along the spine of the peninsula to the coast is favored over a "ring-road" around the coast. The former will help to strengthen the relationships between the interior settlements (Municipal towns) and the coast (e.g. Nicoya-Samara) and the development of tourist zones with their own identity, while a ring-road would lead to unmanageable development pressure on the whole coastline and threaten sensitive areas, such as Ostional. It is preferable that sections of coast (each with their own characteristics and development strategy) are kept separate. This would include a costed Road Network Plan and Construction and Maintenance Program to be prepared by MOPT and implemented over an agreed period.

11.4.3 Management of Turtle Nesting Beaches

- 1) Tourism Development Control of Construction and Lighting. Turtle nesting occurs on most beaches along the Pacific coast of the Nicoya Peninsula. Disturbance of beaches directly, by building or vegetation clearance, or indirectly, by altering subsurface freshwater run-off behind a beach, reduces nesting success. The law prohibits building in the 50m public zone and regulations are needed in the remaining 150m maritime-terrestrial zone. A Working Paper on Marine Turtles of the Pacific Coast of Costa Rica, prepared as part of this study, categorizes beaches as follows:
 - 1. **Total Protection** very high nesting activity: these beaches have all been decreed wildlife sanctuaries or reserves and the management plans should be implemented. No tourism development should be allowed in the maritime-terrestrial zone (MTZ).
 - Protection Zone high nesting activity: illumination and construction need control and natural vegetation needs protection 20m behind the public zone. Tourism development should only occur at low density in the MTZ.
 - 3. **Zone with Controlled Illumination and Construction** medium nesting activity: illumination and construction need control. Tourism development only at low density in the MTZ.
 - 4. **Zone with No Special Regulations** little or no nesting activity: normal restrictions of the maritime-terrestrial zone apply. Tourism development could occur at medium density in the MTZ.

These categories have been incorporated in the environmental sensitivity map and thus have guided the proposed level of tourism development in the MTZ of the study area. Special measures are needed to control lighting on those nesting beaches where tourism development is permitted in the MTZ. In particular, correct lighting design needs to be included in the regulatory plans before approval by **ICT**.

Outside protected areas, regulations based on the General Environmental Law (Ley Organica del Ambiental 7554) protect wetlands, which includes beaches. This law also establishes the right to regulate or manage private property when it affects government's resources of public interest. This law therefore supports any actions by **ICT** and **INVU** to regulate development and illumination near beaches. Existing tourism developments need to be made aware of the problem with lighting on beaches and given advice on what is acceptable. Possibly a local conservation groups such as Asociacion Pretoma from Playa San Miguel could collaborate such a review and oversee improvements with **ICT** and **MINAE**.

The following guidelines for areas next to turtle nesting beaches should be disseminated and enforced: (i) No development in wetlands. (ii) Construction height should not exceed 5 m and normal regulations concerning septic tanks and avoidance of drainage courses should be applied. (iii) illumination directed towards beaches should be reduced as much as possible. (iv) public (street) lighting and external lights on buildings should be prohibited in the Maritime Terrestrial Zone. (v) lighting on elevated areas should be directed downwards or away from the beach.

2) The **Management of Ostional** is a special case of international significance for which the approach is set out below.

The 1997 MINAE Management Plan for Ostional Needs a Process of Review, Consultation and Amendment so that appropriate exploitation, land use and tourism measures can be put into practice, monitored and kept under control. Though the plan was accepted by MINAE and is scientifically based, some elements have not been accepted by the local community and its local organization ADIO (Asociación de Desarrollo Integral de Ostional) which exploits the turtle eggs and it is not being fully implemented. An injunction on the collection of turtle eggs has now been issued (July 2000) so the matter must be resolved and this may need the help of an independent, possibly international, arbitrator. Also, the tourism development and associated activities in Ostional and neighboring Nosara/Garza/Samara should not be allowed to damage this ecological and economic resource. For 'turtle-tourism' to flourish there must be co-operation between scientists, tourism interests and the local community and not conflict.

The Ostional Management Plan needs to be reviewed and supplemented by introducing **a management plan for tourists on the refuge** in coordination among MINAE, local communities and local hotels/cabins. The management of tourists on the Ostional Wildlife Refuge should have at least the following components:

- In MINAE should start a management effort at establishing entrance gates to the Ostional Wildlife Refuge, and also start to charge entrance fees. MINAE should start these first in the side of Santa Cruz Canton.
- Local communities should organize a group of eco-tour guides for watching turtle nesting and train them as eco-tour guides.
- Hotels in surrounding areas should establish a rule for sending tourists to the Ostional Wildlife Refuge and cooperate with MINAE and local communities to paying the entrance fees and hiring local eco-tour guides.
- Visitor centers at the gate to the refuge should be established and properly run in coordination among MINAE, local communities and local hotels/cabins.

Around the Ostional Refuge, tourism facilities should be as low key as possible. Although in the areas behind Playa Pelada and Playa Guiones, a substantial number of tourism facilities have been already developed, adequate light control and access control by tourists to the refuge are really needed. In those areas, further development of such tourism facilities should be controlled. Instead, Garza Beach should be developed as part of Nosara-Garza Secondary Tourism Center.

11.4.4 Institutional Mechanisms that Bring Together Fishing, Tourism and Conservation Interests

1) This involves a program to assess and monitor the health and status of marine resources, to provide a basis for their sustainable management. Marine resources are, in theory, protected by reserves such as that surrounding Cabo Blanco, while activities in mangroves such as at Rio Ario, are actually unregulated by MINAE. The distance for offshore fishing by shrimp boats and the use of turtle excluders is regulated by INCOPESCA. Much of the fisheries research is carried out by the National University and the University of Costa Rica. Regular meetings between these organizations could increase information flow and allow management plans to be formulated.

11.4.5 Development of Institutional Capacity to Protect the Environment

1) Training and Awareness Programs are required that lead to (i) a better understanding of plans and environmental laws (ii) their role both in conservation and in guiding the development of sustainable tourism (at a municipal and regional level) and (iii) the importance of monitoring and enforcement and how to improve these. National and local government institutions and Civil Society need to be better aware of the importance of compliance, for the long term benefit of the community as a whole, and of their responsibilities for enforcement. This will require close coordination between ICT, INVU, MINAE, Municipalities, and NGO's. Coordination of coastal development should be based on the General Land Use Plans, which needs to be widely distributed by ICT as a guiding document to Municipalities, INVU, MINAE, NGO's and developers. ICT needs to explain the plans and assist with capacity building in the Municipalities. Enforcement methods and the agencies responsible need to be identified and monitoring carried out.

11.5 SPATIAL STRATEGY

The principles of biological corridors and measures to encourage their establishment have been described in section 11.4.1 above. Figure 11.1 is a schematic representation of the main network of biological corridors for the catchments of the Guanacaste Sur coast as a whole. It shows how a link could be created from Cabo Blanco National Park along some of the coast, through the mountains and all the way to Palo Verde National Park. It would complement, or be an alternative to, the biological corridor that MINAE and ASEPALECO are trying to establish from Cabo Blanco to Tempisque along the NE side of the Nicoya Peninsula.

Detailed planning of the routes for biological corridors needs to take into account

- Existing protected areas
- Existing land cover (especially existing primary and secondary forest)
- Rivers, since they sometimes still have woody vegetation along their banks, are
 particularly important for wildlife and have some legal protection
- Land capability
- Potential for connections to scenic headlands and coastal wetlands.

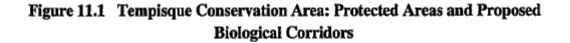
How this might be done at a local scale is illustrated in Figure 11.2 for the southernmost part of the Study Area. The proposed system of corridors connects the scenic headland at Punta

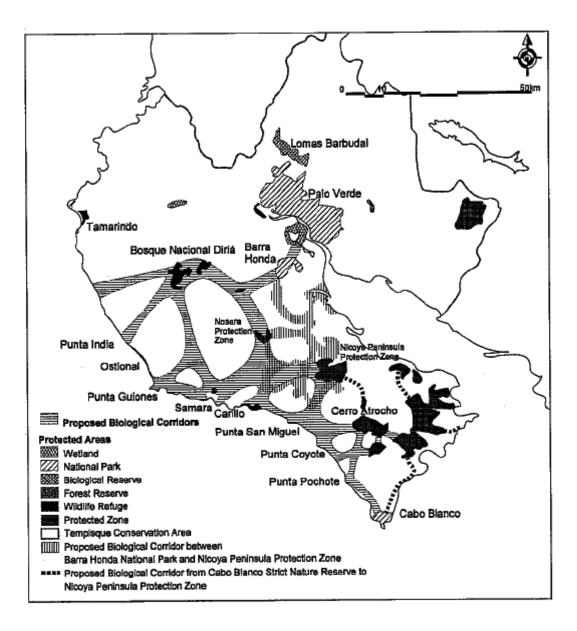
Coyote (i) to hills in the interior (Cerro Pulga and the protected Cerro El Atrocho) along the Fila Nando, (ii) to wetlands behind Playa Pencal, (iii) to the associated Rio Bongo and Rio Ario (iv) to Punta Pochote via Cerro El Atrocho and Fila Cerital and finally (v) to Cabo Blanco via the hills parallel to the coast, some still with primary forest (La Majagua).

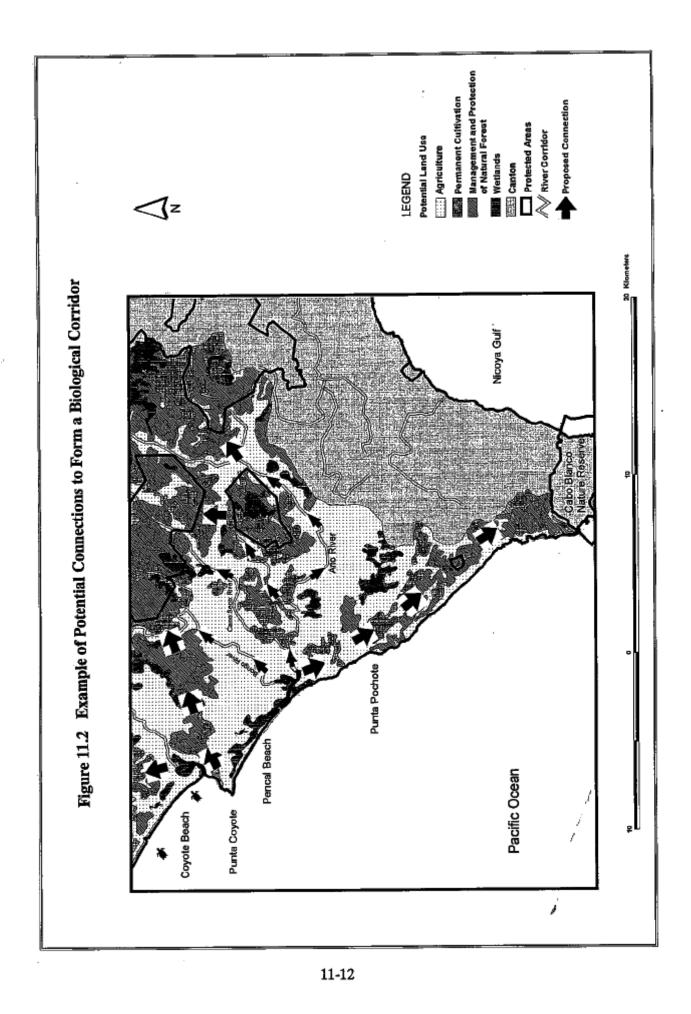
The Bongo-Ario coastal wetlands are still in good condition, the Rio Ario still has healthy riverine vegetation (but much of that along the Rio Bongo needs restoration) and satellite imagery and air photographs show that forests still constitute a significant proportion of the land cover in this southern part of the Study Area. With some landowners interested in switching the emphasis of their business from cattle and agriculture to tourism, and seeking environmental services payments for protecting the forests/watersheds, the conditions are right for planning and implementing this particular corridor. Since wildlife is already abundant in parts of the area (with Cabo Blanco Absolute Reserve acting as a wildlife reservoir) and the scenery is impressive, with waterfalls in the hills, this area has strong nature tourism potential.

Further north in the Study Area, biological corridors are also important, but can be associated with more intensive tourism development in the coastal zone, as illustrated in Figure 11.3. The scenic value for tourists would be enhanced by protection of the vegetation on the more prominent headlands, while low density development behind less prominent headlands would be permitted and tree cover extending to neighboring rivers and wetlands would help to attract birds, monkeys and other wildlife. Where there are beaches not much used by turtles, development would be permitted in the 150m restricted zone of the MTZ. However, where turtles use the beaches regularly for nesting, development (especially lighting) would be strictly controlled and the regeneration of natural vegetation encouraged in the 50m public zones and beyond.

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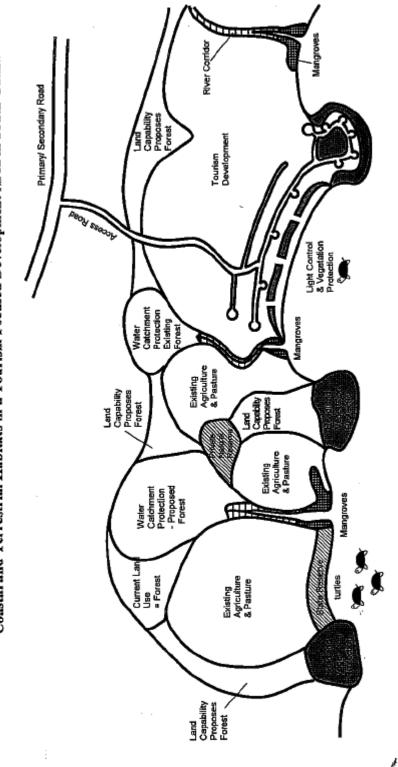






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Coastal and Terrestrial Habitats in a Tourism Focused Development Area in South Guanacaste Figure 11.3 Enhancement of Scenic and Wildlife Values using Biological Corridor to Link

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Chapter 12 SOUTH GUANACASTE: FRAMEWORK FOR INFRASTRUCTURE PROVISION

12.1 INTRODUCTION

In view of the government's severe budgetary constraints this chapter indicates basic strategies of infrastructure provision for sustainable regional tourism development.

12.2 BASIC STRATEGIES FOR TRANSPORTATION DEVELOPMENT

12.2.1 Basic Strategies for Regional Road Development

The most important principle for regional road development is to construct and maintain only those roads that are part of a planned road network, with priority to those that are linked to Tourism Centers.

Priority should be given to regional road development primarily by the following strategies:

- (1) To improve selected regional roads from the inter-regional trunk road (National Road No. 21) to "Tourism Centers" in order to establish a multi-center spatial structure for tourism in the region.
- (2) To improve the roads on which public buses are operated in order to facilitate the transport of local people to municipal government offices and to regional commercial centers.
- (3) Not to improve the roads which have negative impacts on the natural environment.

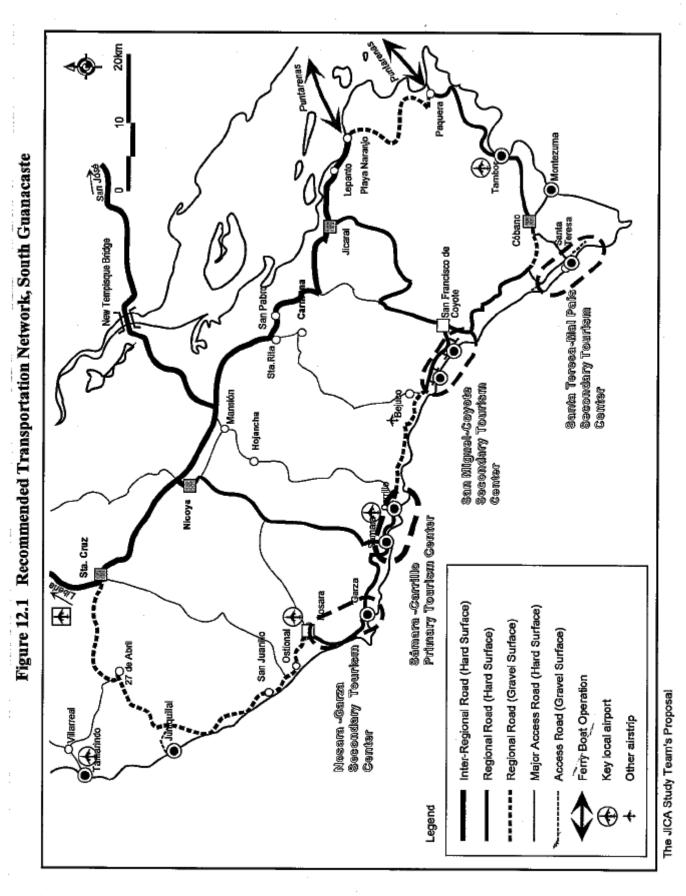
Even though the governments have limited budgets, the central and municipal governments are responsible for these road developments, because the coastal areas are relatively remote and private investment in such roads is not financially feasible.

In addition to the above primary strategies, secondary strategies are as follows:

(4) To improve the roads used for scenic tourist excursions.

(5) To provide rest places and view points along the regional roads and the tourist excursion roads, in order to improve tourism amenities.

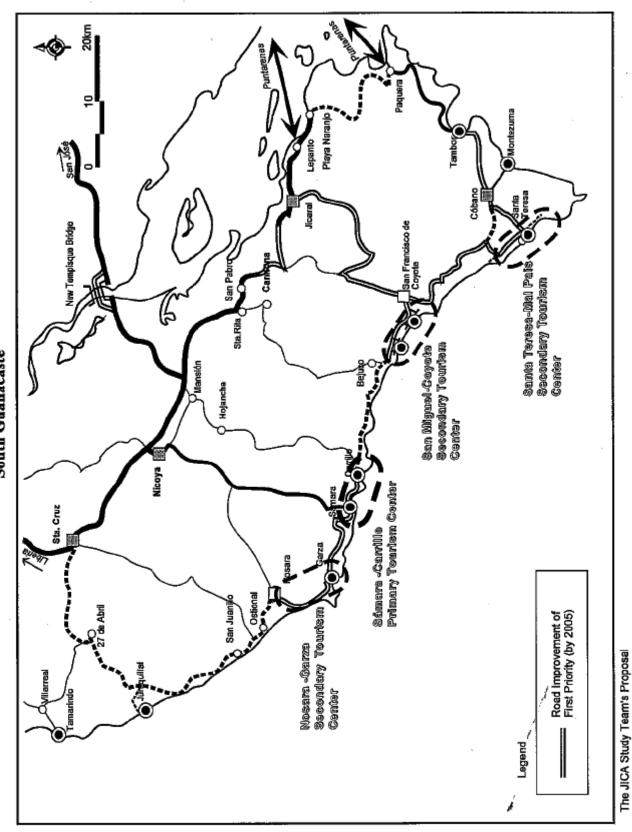
Figure 12.1 shows a recommended transportation network. Figure 12.2 and Figure 12.3 show strategic road improvement sections and bridges needed for coastal tourism development.

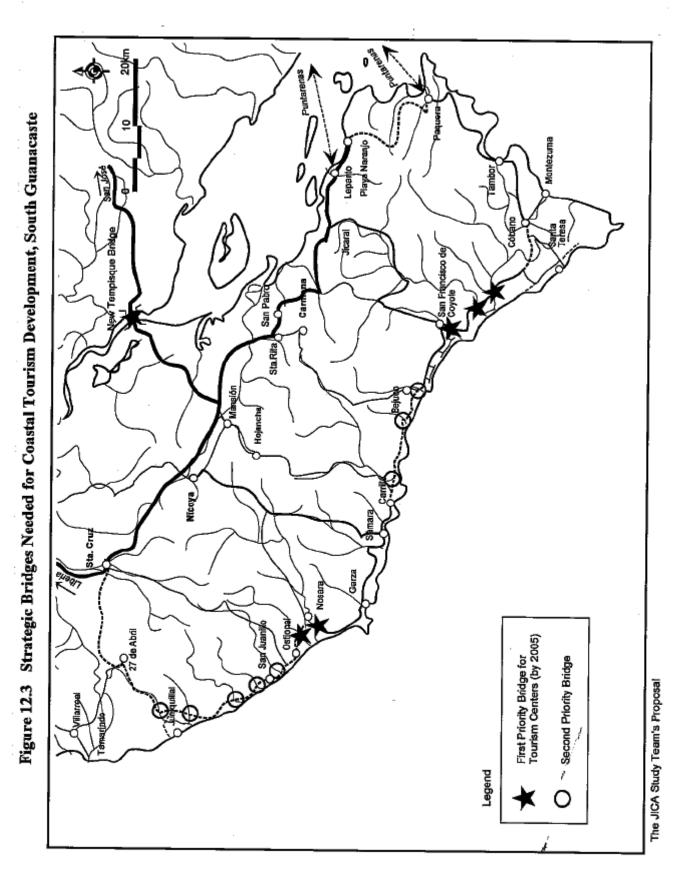


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12.2.2 Basic Strategies for Local Roads within Tourism Centers

The following strategies should be followed to ensure smooth implementation of road improvements in Tourism Centers:

- (1) In principle, the municipal government should improve regional roads that serve as "local access roads" within "Tourism Centers."
- (2) To promote smooth development, it is necessary to consider the possibility of demarcating the responsibility for provision of local access roads between the municipal government and private investors.
- (3) The private sector is responsible for providing access roads to individual lots from the local access roads.
- (4) A road development plan should be prepared for the Tourism Centers, while the existing regulatory plans are reviewed.

12.2.3 Basic Strategies for Airport Facilities Improvement

In South Guanacaste, air transportation plays important roles in supporting regional development because of the region's remoteness. Air transportation is important not only for providing convenient access to tourist sites, but also for dealing with emergency medical cases and disasters.

The following are basic strategies for improvement of airport facilities in the region:

- To improve major local airports serving "Tourism Centers" to meet future increased demand of tourists, to increase the safety level and the capability of night and emergency landings, and to improve service facilities for air operation and access roads.
- To promote private sector involvement in the improvement of local airports in "Tourism Centers" by establishing a mechanismof public and private partnership, in view of limited budgets for public investment.
- To promote development of emergency medical facilities and industries near local airports

12.2.4 Basic Strategies for Water Transportation Improvement

In South Guanacaste, water transportation plays an important role in providing the opportunity for marine recreation and tourism rather than public transport by sea. The following are basic strategies to improve water transportation in the region:

To allow the development of small jetties or piers only in selected locations in Tourism Centers to meet future demand for marine tourism, this should only be permitted if it is technically possible to construct such facilities without serious negative environmental impact.

12.2.5 Basic Strategies for Public Transportation Improvement

Buses are an important means of public transportation in the region both for regional trips to regional urban centers and for inter-regional trips, such as to San Jose. The improvement of regional roads and local roads is a prerequisite for improving bus services. The following strategies are recommended:

- To improve bus networks from San Jose to Tourism Centers to meet future increased demand by tourists and local people.
- To develop public transportation networks, such as buses and taxies, connecting Daniel Odubor International Airport (Liberia) with Tourism Centers.
- ® To provide and improve bus and taxi services to Tourism Centers.

12.3 BASIC STRATEGIES FOR WATER SUPPLY¹

- (1) Public water supply systems should be provided in Tourism Centers by ICAA when tourism/urban development reaches a critical stage in the middle to long-term future.
- (2) In the short term, private tourism facilities should finance their own water supply systems individually or collectively, or utilize the existing ASADAS (CAARS) systems by maintaining and improving them, in compliance with ICAA regulations.
- (3) The private tourism facilities in Limited Tourism Development Areas should rely on the existing ASADAS (CAARS) systems, and contribute by maintaining and improving them.

¹ The basic strategies for water supply in the South Guanacaste are the same as those in the Corcovado-Golfito although the two regions have different kinds of problems in water supply. The water supply problems in the South Guanacaste area derived from the shortage of water for local people and tourism facilities, especially ground water. On the other hand, the water supply problems in the Corcovado-Golfito are related to the pollution of surface water by cattle's waste. However, both problems on water supply could be tackled by the same basic strategies.

(4) It is necessary, in the short term, to raise the awareness of private tourism businesses and local communities of how to maintain and monitor water quality of private wells and/ or ASADAS (CAARS) systems, how to get safe drinking water and how to save water. This should be done through the activities of the local committees for Ecological Blue flag Program.

Table 12.1 shows a comparison between the existing consumption and future demands with potential groundwater resources in South Guanacaste. Figure 12.4 shows recommended water supply system for coastal tourism development.

12.4 BASIC STRATEGIES FOR SEWAGE MANAGEMENT

- (1) The central government agency (ICAA) should start to develop sewerage systems in Primary Tourism Centers now.
- (2) Septic tanks should be used for sewage management in Secondary Tourism Centers in the short term. (The central government should provide private tourism facility owners with subsidized credits to install or improve septic tanks, so that the Ecological Blue Flag Program becomes more effective.)
- (3) The central government agency (ICAA) should start to develop sewage systems in Secondary Tourism Centers, when the increase of tourism facilities and urban population reach a critical level.
- (4) Septic tanks should be utilized for sewage management outside Tourism Centers.
- (5) The public sector should strengthen the monitoring system for installation and utilization of septic tanks in Tourism Centers.
- (6) The hotels and other tourism facilities should monitor their sewage management themselves by joining the Ecological Blue flag Program in Tourism Centers.
- (7) The sludge from septic tanks should be properly disposed of at treatment ponds. A treatment pond should be constructed in each Tourism Centers.

Figure 12.4 shows recommended sewage treatment system for coastal tourism development.

Table 12.1 Comparison of Existing Consumption/Future Demands with Potential Groundwater Resources in South Guanacaste

| Canton | District | Beach | Alluvium | | 4. | 12. Estimated | ated | 13. Rate (| of Existing | Consumption | 14. Ex | 13. Rate of Existing Consumption 14. Expected Yield/ |
|--------------------|-------------|-----------------|----------|--------|-----------|---------------|-----------|-------------|----------------------|---|---------|--|
| | | | | | Estimated | Total Water | er | and Futur | e Demands | and Future Demands on Potential | Arran | Arrangement in Alluvium |
| | | | | - | Total | Consumption | tion | Grou | Groundwater Resource | esource | | |
| | | | Code 1 | I.Area | Potential | 12.1 | 12.2 2010 | 13.1 1998 | | 13.2 2010 13.3 2010 on | 14.1 | 14.2.Well Arrangement |
| | | | | (sqkm) | . 15 | 1998/99 | | /99 (12.1/ | | (12.2/4.2) Cases of Inter | max, | |
| | | | | | ter | | | 4.2) | | Alluvium/Regio yield | o yield | |
| | | | | | Source in | | | | | nal Water | /well | |
| | | | | _ | Alluvium | | | | | Supply System | u (l/s) | |
| | 27 de Arbil | Junquila | A1 | 24.08 | 12,667 | 488 | 1,290 | 4% | 出的計算的理 | | 10 | 10 scattered/well field |
| Santa Cruz | | Manzanillo/Azul | A2 | 6.41 | 2,472 | 62 | 226 | 3% | %6 | Contraction of the local data | 9 | scattered |
| | Cualinqui | San Juanillo | A3 | 2.03 | 783 | 13 | 91 | 2% | N2144 24 | ALC: 1 8% | 50 | scattered |
| | | Giones | A4 | 11.81 | 7,937 | 396 | 937 | 5% | | 100 A | 10 | 10 scattered/well field |
| Nicoya | Nosara | Garza | A5 | 14.42 | 10,112 | 71 | 237 | 1% | 2% | e., | 2 | 5 scattered/well field |
| | Samara | Samara | A6 | 12.18 | 5,555 | 363 | 1,157 | ¥1 | 21% | | 25 | 25 scattered/well field |
| Hojancha | Hojancha | Puerto Carrillo | A7 | 1.91 | 870 | 63 | 273 | SER BASSING | 31% | | 2 | 5 scattered |
| | Zapotal | Camaronál | A8 | 8.78 | 6,412 | 154 | 365 | 2% | THE REPORT OF | | 2 | 5 scattered/well field |
| | | Islita | A9 | 2.05 | 935 | 12 | 50 | 1% | 5% | | NA | NA |
| Nandayure | | Corozalito | A10 | 2.20 | 964 | 20 | 45 | 2% | 5% | 7% 6% | 2 | scattered |
| | confect | Bejuco | A11 | 17.64 | 12,886 | 356 | 890 | 3% | SU 155 | antistation of the first of the second se | 60 | 60 scattered/well field |
| | | Coyote | A12 | 42.89 | 30,708 | 513 | 1,403 | 2% | 5% | | NA | NA |
| | and a C | Bongo | A13 | 39.17 | 27,471 | 276 | 765 | 1% | 3% | 4% H15555 | NA | NA |
| Funcarenaas Cooano | CODATIO | Santa Teresa | A14 | 3.34 | 674 | 114 | 297 | 的建筑和创成的 | 44% | | - | scattered/well point |
| Total/average | ŝe | | | 188.90 | 120,445 | 2,902 | 8,027 | 2% | | NL 1 3L | - | |
| Note | | | | | • - | | | | | | | - |

* In Santa Teresa Alluvium, consumption of water is around 18% of estimated potential groundwater in 1998. However, on peak of water demand in dry season, water source has already problems of shortage and quality on their groundwater source.

For Samara, Carrillo and Santa Teresa tourism development area, inter alluvium (regional) water supply systems will not be only indispensable solution for tourism development but also for local community development before 2010.

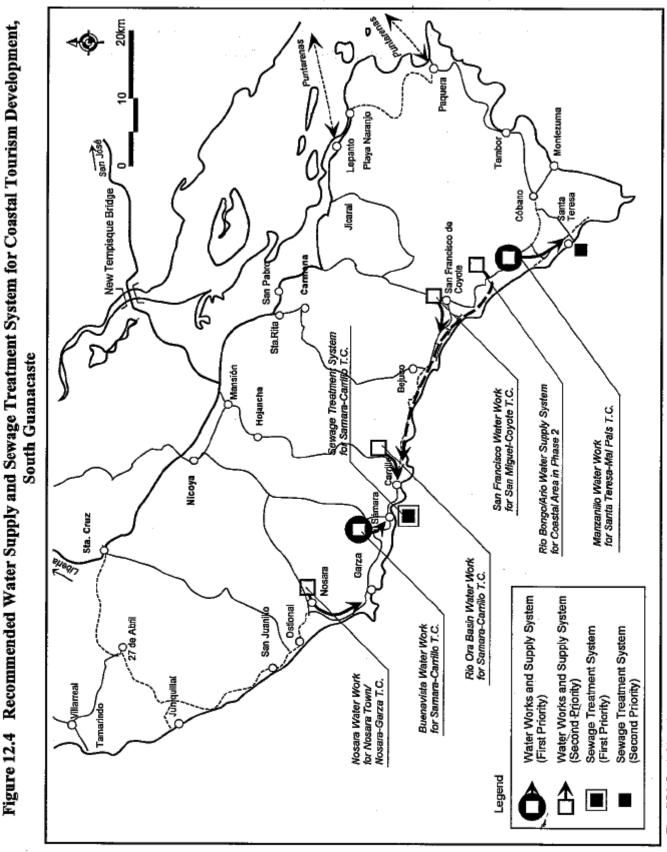
Also for Jungulla, San Juanillo and Giones areas, inter alluvium (regional) water supply systems will also be indispensable for tourism development and local community development before or after 2010.

* In the area, alluvium depth are maximum 30m in the area, which show deep well could not be developed in the area. Drilled wells depth are maximum 50 to 60 meters, which are higher yields.

For the area close to the coast (with shallow/small aquifer alluvium), shallow wells development are recommended for small scale consumption.

* For the area with big/deep/wide aquifer alluvium, deep wells (bottom should be lower than sea level) development are recommended on the area at least 500m from coast. * Liquid and solid wastes (including fertilizer/pesticides livestock and agriculture) will easily pollute groundwater sources in the small allovium aquifers

* Over extraction of well water will not only cause dry-up but also, easily pollute and salinize groundwater source on a shallow wells (especially on wells close to the coast).



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The JICA Study Team's Proposal

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12.5 BASIC STRATEGIES FOR SOLID WASTE MANAGEMENT

- (1) Solid waste disposal sites should be prepared in each Tourism Center by municipal governments with some assistance from the central government. However, it is necessary for local tourism businesses and communities to establish a mechanism to manage garbage collection to improve the environment of tourist sites.
- (2) Tourism facilities and communities should be encouraged to learn appropriate ways to deal with garbage, especially in Tourism Centers. Recycling of garbage at each tourist facility or house should be encouraged, in order to reduce the burden of garbage collection and garbage disposal.
- (3) Garbage disposal should be managed by each tourism facility or house outside Tourism Centers.

Chapter 13 SOUTH GUANACASTE: FRAMEWORK FOR LAND USE MANAGEMENT

13.1 INTRODUCTION

It can be said that the land use management of the coastal area is historically in transition. When the first and second Maritime Terrestrial Laws were established in 1970 and 1977, the main economic activity in the coastal areas of Guanacaste was still agriculture, and there was little tourism development. "Sun and beach" tourism targeting international tourists gradually started in some coastal areas, such as Samara, in the early 1980s. In the last five years foreigners have rushed to buy coastal lands, partly to set up tourist hotels, but mostly to sell the lands for resort housing. Many regulatory plans were formulated in the 1990s.

The former land use management system followed by municipalities, *Los Arriendos* (Leased land), has been still informally used. Under this system, leaseholders could occupy the land without any plans, just paying land rents, even after the Maritime Terrestrial Law provided a new system based on general land use plans, regulatory plans, and concession systems in 1977.

The challenge to land use management in coastal areas is more than the change to the new system stipulated by the 1977 Maritime Terrestrial Law. It is necessary to seek measures to make a shift to a more effective land use management system, in which land use management is based on adequate planning, regulation and law enforcement, to prepare for actual tourism development, not simply to help land speculation.

13.2 KEY ISSUES

- (1) Although the land use managers of the Maritime Terrestrial Zone are municipal governments, land use management has not been carried out effectively by municipalities. As a result, illegal occupation on MTZ and illegal transaction on lands in MTZ are prevalent. Land speculation is also a serious issue.
- (2) In the 1990s, many regulatory plans were established, but most of the development of tourist facilities and resort housing did not follow the regulatory plans. The regulatory plans have not been enforced by municipal governments. Such development tends to be scattered and not supported by adequate infrastructure, resulting in negative impacts on the natural environment. This reduces the likelihood of sustainable tourism development.
- (3) The existing coastal regulatory plans are scattered along the coasts, without any regional framework guiding the location and density of development. The existing coastal regulatory plans allowed too much capacity for tourist accommodation in relation to future demands. If these development plans were realized, the coastal natural environment and landscapes could be destroyed. Moreover, given limited government budgets, it would be impossible to support these approved development plans with adequate infrastructure.
- (4) The coastal regulatory plans have been formulated mostly through private initiatives, usually by the promoter who came first. Such coastal regulatory plans failed to include adequate development plans to satisfy public interests, and there was little or no demarcation of the roles between public sector and private sector. Most of the plans do not reflect different groups' interests, especially the local communities'.
- (5) Some regulatory plans do not designate appropriately wide areas for tourism development. Moreover, they do not tend to take the linkage, coordination and harmony with adjacent planned areas into consideration.
- (6) Nature conservation systems are lacking for the MTZs, although there are coastal regulatory plans to protect mangroves and wetlands, according to the environmental law. As a result, in most regulatory plans most of the beautiful unspoiled headlands are to be used for resort housing and tourist facilities.
- (7) It is difficult for local people to participate in the tourism business in coastal areas. They do not have sufficient technical/financial capability to compete with foreign and Costa Rican investors in coastal tourism. Probably more essentially for local people, they do not have enough information on how to get access to the coastal lands for coastal tourism development, for example, through regulatory plans and the concession process.

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(8) There are communities located in and behind MTZ. These tend to be neglected in formulating regulatory plans, so that some of them are under threat of being displaced from the coastal areas by tourism development or simply by those who obtained concessions for land speculation.

13.3 OBJECTIVES

- (1) To promote tourism development in Tourism Centers according to the General Land Use Plan,
- (2) To ensure sustainable use of natural resources for tourism in and behind MTZs,
- (3) To support community-based tourism development in and behind MTZs,
- (4) To ensure the existing communities based in MTZ continue to have space to live in coastal areas,
- (5) To encourage a wider range of parties related to regional tourism development, such as national government agencies, municipalities, local communities, private companies, nature conservation NGOs, to effectively utilize the General Land Use Plan, and to seek sustainable development and conservation,
- (6) To strengthen coastal land use management by ICT and municipalities by means of a two-level planning system consisting of General Land Use Plan and Regulatory Plan.

13.4 BASIC STRATEGIES AND NECESSARY MEASURES

(1) Provision of Information concerning Coastal Tourism Development to Related People and Investors, and Guidance of Proper Development Locations by ICT and Municipalities

It is necessary for ICT to appoint an officer for each tourism planning unit for the purpose of closer cooperation with municipal governments, local tourism chambers and communities, and to assist municipal governments in land use management in MTZs and in the hinterlands of MTZs.

ICT, cooperating with municipalities, should give information to investors and developers based on the General Land Use Plans and the Regulatory Plans. They should promote tourism investment, and guide development into suitable locations. For this purpose, it is necessary for ICT, INVU and municipal governments to enforce the regulations to ensure that investors and developers consult with ICT, INVU and municipal governments to obtain guidance on development locations both in MTZs and hinterlands of MTZs.

(2) Promotion of Stakeholders Participation in the Planning Process and Establishment of a Land Use Monitoring System by Themselves

It would be effective to establish a Local Association for Sustainable Tourism Development for each Tourism Center, based on the stakeholder meetings which have been held in this study. ICT needs to help and encourage them to participate in the planning process of formulating new regulatory plans and reviewing existing regulatory plans. This association should also have the function of monitoring proper land use in MTZs, in order to maintain and improve the tourism area's amenities and environment. The association should consist of people and organizations related to coastal tourism development, such as local chambers of commerce, local communities, private companies, and nature conservation NGOs.

(3) Suspension of the Formulation and Approval Process of New Coastal Regulatory Plans

It is necessary to delay the start of the processes of formulating and approving new regulatory plans until the General Land Use Plan is established. The General Land Use Plan should specify the zones where tourism development can take place. The process of new coastal regulatory planning should only be started for these specified zones.

(4) Revision of Existing Coastal Regulatory Plans in Tourism Centers

ICT needs to review and revise the existing regulatory plans in Tourism Centers according to the General Land Use Plan. Land use guidelines and the priority for revision of existing regulatory plans should be specified for each Tourism Center in the General Land Use Plan.

(5) Formulation of New Regulatory Plans in Tourism Centers

According to the General Land Use Plan, ICT needs to take an initiative to defend public interests by formulating new regulatory plans in the areas that have not yet covered by the existing regulatory plans within the Tourism Centers. Land use guidelines for formulating new regulatory plans should be specified for each Tourism Center in the General Land Use Plan.

(6) Formulation of New Integrated Regulatory Plans in Tourism Centers

ICT needs to review the cluster of existing regulatory plans and formulate new integrated regulatory plans according to the General Land Use Plan, since some of the existing regulatory plans do not pay any attention to the regulatory plans adjacent to their areas. The land use guidelines for each Tourism Center should recommend that several existing regulatory plans should be integrated and planned as one tourism area.

(7) Formulation of New ICT-INVU Regulatory Plans

The General Land Use Plan indicates the areas behind MTZ as the development areas in which expansion and accumulation of tourism facilities and other development should take place. This should be developed with appropriate urban functions. ICT needs to formulate regulatory plans for such areas in cooperation with INVU, in order to control the hinterland land use.

(8) Designation of New ICT-Municipality Natural Areas in MTZ and the Natural Resource Management in the Areas

The General Land Use Plan designates "ICT-Municipality Natural Areas." ICT/municipalities should not approve any new development in those areas and should at least protect the existing natural resources. However, existing houses and facilities could remain in the areas. In cases where regulatory plans already exist, ICT/municipalities need to revoke those plans or revise them according to the General Land Use Plan. Land use guidelines for ICT-Municipality Natural Area and the priority for revision of existing regulatory plans should be specified in the General Land Use Plan.

Furthermore, in order to legalize such land use regulations, ICT/municipality need to formulate regulatory plans, which designate land uses and provide guidelines/regulation for retaining or restoring nature for ICT-Municipality Natural Areas not only to include designation of protection areas, land use regulations, reforestation plans, natural resource utilization (tourist trails, turtle observation), but also to allow existing houses and facilities. The guidelines should provide information on and promote sustainable natural resource utilization in tourism.

(9) Reservation of Public Land in Tourism Center for Community-Based Tourism Development

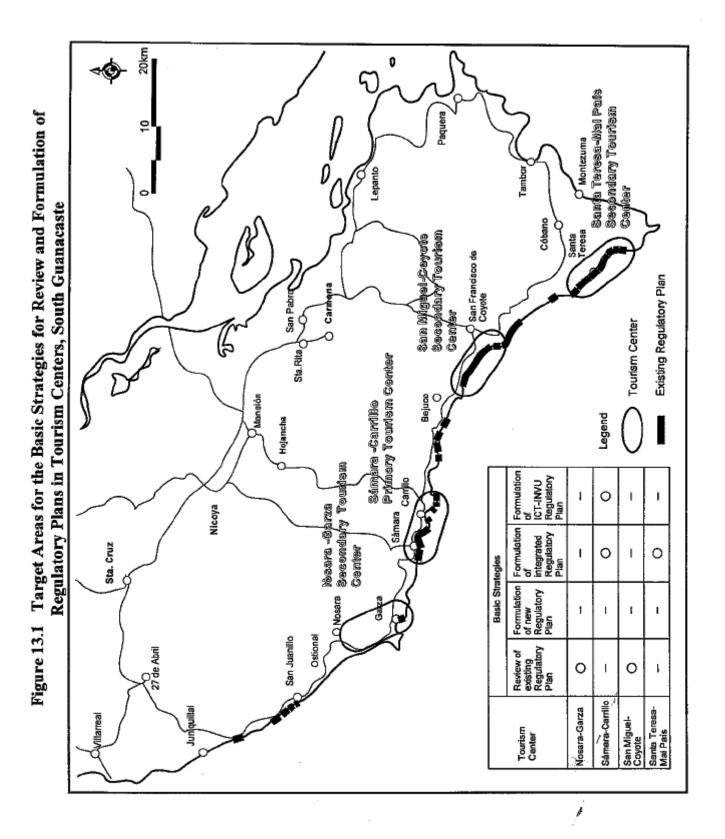
- a) ICT and Municipalities should reserve public land for community-based tourism development in planned areas when they revise the existing regulatory plans or formulate new regulatory plans. Municipalities should provide infrastructure, such as water supply, sewage/drainage facilities, public toilets, and develop public space with commercial facilities to attract tourists.
- b) ICT needs to support communities in the formulation of regulatory plans. The areas for which regulatory plans should be formulated with community initiatives are shown in the General Land Use Plan. Municipalities need to develop infrastructure for these areas.

(10) Land Normalization for Existing Local Communities in MTZ

The lands for existing local communities in/adjacent to MTZ have to be secured, in order not to be displaced by tourism developments. The areas for community settlement, public facilities and current economic activities, such as fishermen's facilities, should be designated for special land allocation in General Land Use Plans and Regulatory Plans. Coordination and adjustment with stakeholders are necessary at the stage of formulation/revising regulatory plans. Alternative patterns of land provision for local communities in relation to tourism developments are shown in Figure 13.2.

(11) Formulation of a Regional Natural Conservation Plan by ICT and Nature Conservation NGOs

The General Land Use Plan should show the natural resource management strategies not only in MTZ but also in its hinterland, for example, establishment of Biological Corridors. It is difficult to control and manage land use on private land. It might therefore be necessary to give incentives, such as environmental service payments. This strategy could be implemented by means of a strong initiative by conservation NGOs, in cooperation with ICT, MINAE, and municipalities. They could prepare a Biological Corridor Plan and ask cooperation of landowners for this strategy. ICT-JICA Study: Land Use Planning in the Coastal Zones for Sustainable Tourism Development (LUPLANT-ZMT 21) Main Text: South Guanacaste



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| District | Code No. | Name of regulatory plan | | rism ration | | | tory plan ved year | | Approved Concession |
|-------------|-------------|---------------------------------------|----|----------------|------|------|-----------------------|----------------|------------------------|
| | | | ΤZ | NTZ | ICT | INVU | Munici. | Note | |
| Cuajiniquil | GS-01 | Playa Lagarto y Socorro | | | 1994 | 1993 | 1995 | | - |
| | GS-02 | Playa Pitahaya Concavas | | | 1996 | 1993 | - | INVU | - |
| | GS-03 | Playa Azul | | | 1999 | 1999 | 1999 | | 1 |
| | GS-04 | Playa Pleito | | | 1994 | 1994 | approved | l | 2 |
| | GS-05 | Playa San Juanillo | | | 1999 | 1998 | - | | - |
| Sámara | GS-06 | Bajo Escondido de Garza | | | 2000 | - | - | | - |
| | GS-07 | Punta Samara | | | 1985 | ? | Gaceta 86 | ICT | - |
| | GS-07 | (acantilados Punta Samara) | | | 1999 | - | - | | - |
| | GS-08 | Playa Samara | | | 1981 | 1981 | 1981 | ICT | many |
| | GS-09 | Punta Indio | | | 1987 | - | - | ICT | 1(IDA) |
| Hojancha | GS-10 | Puerto Carrillo | | | 1990 | 1991 | 1992 | | 2 |
| | GS-11 | Punta Islita | | | 1999 | - | - | | - |
| | GS-12 | Punta El Roble a Punta Islita | | | 2000 | - | - | | - |
| Bejuco | GS-13 | parcial de Playa Islita | | | 1999 | 1999 | 2000 | | in process |
| | GS-14 | acantilados Al Sur de Playa Islita | | | 2000 | - | - | | - |
| | GS-15 | Playa Corozalito | | | 1999 | 2000 | - | | - |
| | GS-16 | sector El Palmar, Playa Bejuco | | | 1995 | 1995 | - | | - |
| | GS-17 | Playas San Miguel y Coyote | | | 1996 | 1998 | 2000 | only Coyote | - |
| | GS-18 | Puerto Coyote | | | 1995 | - | - | j | - |
| | GS-19 | Playas Caletas, Pencal y Punta Coyote | | | 1997 | - | - | | - |
| Cóbano | GS-20 | Playa Manzanillo | | | 1997 | 1998 | 1999 | | - |
| | GS-21 | Playa Hermosa | | | 1990 | 1993 | 1994 | | - |
| | GS-22 | Playa Cocal del Penon | | | 2000 | | | | - |
| | GS-23 | Playa Penon de Ario | | | 1994 | 1994 | 1994 | | - |
| | GS-24 | Playa Santa Teresa | | | 1996 | 1998 | 1999 | | 1(2:process) |
| | GS-25 | Playa Carmen | | | 1994 | 1998 | - | | - |
| | GS-26 | amp. Playa Carmen | | | 1999 | 1999 | - | | - |
| | GS-27 | anexo Punta Barringona | | | 1998 | - | - | | - |
| | GS-28 | Playa Barrigona | | | 1992 | 1993 | 1994 | | - |
| | GS-29 | Playa Mal Pais | | | 1999 | 1999 | - | | - |

 Table 13.1
 Existing Regulatory Plans in Corcovado-Golfito

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Figure 13.2 Land Provision Patterns for Community Settlement in Relation to Tourism Development

