No.

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

INSTITUTO COSTARRICENSE DE TURISMO (ICT)
THE GOVERNMENT OF THE REPUBLIC OF COSTA RICA

THE STUDY FOR THE LAND USE PLAN IN THE COASTAL ZONES OF THE TOURIST PLANNING UNITS IN THE REPUBLIC OF COSTA RICA

LUPLANT-ZMT21

FINAL REPORT

VOLUME 3
APPENDIX

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PACIFIC CONSULTANTS INTERNATIONAL

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PREFACE

In response to a request from the Government of the Republic of Costa Rica, the Government of Japan decided to conduct the Study for the Land Use Plan in the Coastal Zones of the Tourist Planning Units in the Republic of Costa Rica and entrusted the Study to the Japan International Cooperation Agency (JICA).

JICA selected and dispatched a study team headed by Mr. Hideyuki Sasaki of Pacific Consultants International and consist of Pacific Consultants International and Yachiyo Engineering Co.Ltd. to Costa Rica, three times between February 2000 and December 2000. In addition, JICA set up an Advisory Committee headed by Professor Yukio Nishimura of Tokyo University between January 2000 and January 2001, which examined the Study from Specialist and technical point of view.

The Study Team held discussions with the official concerned of the Government of Costa Rica and conducted field surveys at the study area. Upon returning to Japan, the Study Team conducted further studies and prepared this final report.

I hope that this report will contribute to tourism development and promotion in Costa Rica, and to the enhancement of friendly relationship between our two countries.

Finally, I wish to express my sincere appreciation to the officials concerned of the Government of Costa Rica for their close cooperation extended to the Study Team.

January 2001

Kunihiko SAITO
President
Japan International Cooperation Agency

January 2001

Mr. Kunihiko SAITO
President
Japan International Cooperation Agency
Tokyo, Japan

Letter of Transmittal

Dear Sir,

We are pleased to formally submit herewith the Final Report of "The Study for the Land Use Plan in the Coastal Zones of the Tourist Planning Units in the Republic of Costa Rica."

This report compiles the results of the Study which was undertaken in the Republic of Costa Rica from January 2000 through January 2001 by the Study Team organized jointly by Pacific Consultants International and Yachiyo Engineering Co. Ltd. under the contract with the JICA.

This report compiles General Land Use and Tourism Development Plans for South Guanacaste and Corcovado-Golfito in order to promote sustainable tourism development.

We would like to express our sincere gratitude and appreciation to all the officials of your agency, the JICA advisory Committee, and Ministry of Foreign Affairs. We also would like to send our great appreciation to all those extended their kind assistance and cooperation to the Study Team, in particular, the Costa Rican counterpart agency.

We hope that the report will be able to contribute significantly to tourism development in Costa Rica.

Very truly yours,

Hideyuki SASAKI
Team Leader,
The Study Team for the Study for the
Land Use Plan in the Coastal Zones of
the Tourist Planning Units in the
Republic of Costa Rica

FINAL REPORT

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GLOSSARY OF ABBREVIATIONS AND ACRONYMS

ACAV:	*Asociación Costarricense de Agencias de Viajes :* Costa Rican Association of Tour Agents
ACFOTUR:	*Asociación Costarricense de Formadores Turísticos:* Costa Rican Association of Tourism Teachers
ACOT:	*Asociación Costarricense de Operadores de Turismo:* Costa Rican Association of Tour Operators
ACOPROT:	*Asociación Costarricense de Profesionales en Turismo:* Costa Rican Association of Tourism Professionals
ALDETUS	*Asociación Local para el Desarrollo Turístico Sostenible* Local Association for Sustainable Tourism Development
ASADAS:	*Asociación Administradora del Acueducto:* Administrative Association of Aqueducts
CAARS:	*Comités Administradores de Acueductos Rurales*: Rural Water Administration Committee
CABEI:	*Banco Centroamericano de Integración Económica:* Central American Bank for Economic Integration
CACORE:	*Cámara Costarricense de Restaurantes y Afines*: Costa Rican Chamber of Restaurants and Related Businesses
CANAMET:	*Cámara Nacional de la Microempresa Turística*: National Chamber of Tourism Microenterprises
CANATUR:	*Cámara Nacional de Turismo*: National Chamber of Tourism
CATIE:	*Centro Agronómico Tropical de Investigación y Enseñanza*: Tropical Agriculture Research and Training Center
CENADA:	*Centro Nacional de Abastecimiento y Distribución de Alimentos*: National Center of Food Supply and Distribution
CCH:	*Cámara Costarricense de Hoteles*: Costa Rican Chamber of Hotels

CCSS:	*Caja Costarricense de Seguro Social:* Costa Rican Social Security Institute
CINDE:	*Coalición Costarricense de Iniciativas de Desarrollo:* Costa Rican Investment Board
CNDTA:	*Comisión Nacional de División Territorial Administrativa:* National Commission of Territorial Administrative Division
CNE:	*Comisión Nacional de Emergencias*: National Commission of Emergency
CNP:	*Consejo Nacional de Producción:* National Production Council
CONAI:	*Comisión Nacional de Asuntos Indígenas:* National Commision of Indigenous People's Affairs
CONAVI:	*Consejo Nacional de Vialidad:* National Road Council
DGEC:	*Dirección General de Estadística y Censos, Ministerio de Economía, Industria y Comercio:* General Direction of Statistics and Census, Ministry of Economy, Industry and Commerce
DINADECO:	*Dirección Nacional de Desarrollo de la Comunidad:* National Directorate for Community Development
EBAIS:	*Equipos Básicos de Atención Integral en Salud:* Basic Group of Integrated Healthcare
FIT:	*Turistas de Comodidad* Foreign Independent Tourist
GEF:	*Instalaciones Globales para el Ambiente* Global Environmental Facility
GTZ:	*Agencia Alemana de Cooperación Técnica*: German International Cooperation Agency

IBRD:	*Banco Internacional de Reconstrucción y Desarrollo* International Bank of Reconstruction and Development
IDB/BID:	*Banco Interamericano de Desarrollo*: Inter-American Development Bank
ICAA:	*Instituto Costarricense de Acueductos y Alcantarillados (AyA)*: Costa Rican Institute of Waterworks and Sewage Treatment
ICE:	*Instituto Costarricense de Electricidad*: Costa Rican Institute of Electricity
ICT:	*Instituto Costarricense de Turismo*: Costa Rican Tourism Board
IDA:	*Instituto de Desarrollo Agrario*: Institute of Rural Development
IGN:	*Instituto Geografico Nacional*: National Geographic Institute
IMAS:	*Instituto Mixto de Ayuda Social*: Institute of Mixed Social Assistance
INA:	*Instituto Nacional de Aprendizaje*: National Learning Institute
INBio:	*Instituto Nacional de Biodiversidad*: National Biodiversity Institute
INCOPESCA:	*Instituto Costarricense de Pesca y Acuacultura*: Costa Rican Institute of Fisheries and Aquaculture
INVU:	*Instituto Nacional de Vivienda y Urbanismo*: National Institute of Housing and Urban Planning
JICA:	*Agencia de Cooperación Internacional del Japón*: Japan International Cooperation Agency
MAG:	*Ministerio de Agricultura y Ganadería*: Ministry of Agriculture and Livestock

MIDEPLAN:	*Ministerio de Planificación Nacional y Política Económica:* Ministry of National Planning and Economic Policy
MINAE:	*Ministerio del Ambiente y Energía*: Ministry of Environment and Energy
MOPT:	*Ministerio de Obras Públicas y Transportes*: Ministry of Public Works and Transportation
MTZ:	*Zona Marítimo Terrestre*: Maritime Terrestrial Zone
NGO:	*Organización No Gubernamental* Non-Governmental Organization
RECOPE:	*Refinadora Costarricense de Petróleo*: Costa Rican Petrolium Refinary Company
SENARA:	*Servicio Nacional de Aguas Subterráneas, Riego y Avenamiento*: National Services of Groundwater and Irrigation
SINAC:	*Sistema Nacional de Áreas de Conservación*: National System of Conservation Areas
SIT:	*Turistas de Interés Especial* Special Interests Tourist
UNDP:	*Programa de las Naciones Unidas para el Desarrollo (PNUD):* United Nations Development Programme

Appendix 1
REVIEW OF NATIONAL POLICY AND LEGAL FRAMEWORKS RELATED TO SUSTAINABLE TOURISM DEVELOPMENT IN COASTAL AREAS

1.1 REVIEW OF TOURISM DEVELOPMENT POLICIES AND PLANS

1.1.1 Tourism Administration Systems

The Institute of Costa Rican Tourism (ICT) is the sole government agency in charge of tourism administration in Costa Rica. In 1955 ICT was established by Law No.1917 (Ley Organica del Instituto de Turismo) as an autonomous organization. The law stipulated ICT's roles and functions as follows:

- To promote arrivals and the satisfaction of the foreign visitors who look for rest, amusement and entertainment;
- To promote the construction and maintenance of lodging and recreation facilities for tourist use,
- To carry out necessary promotional activities to attract international tourists in the interests of the country; and
- To promote and control tourism- related activities in the private sector.

In Costa Rica, the following laws have been made for control and regulation of tourism activities and to promote investment in the tourism sector:

- Tourism Industries Law No. 2706 (1960)
- Law for Travel Agents No.5339 (1973)
- Law for Maritime Terrestrial Zone No. 6043 (1977)
- Regulation to the Law for Coastal Zone No.7841 (1977)
- Regulation for tourist guides No. 9479-MEIC (1979)
- Regulation for tourism lodging industries No.11217-MEIC (1980)
- Regulation for aquatic boats engaged in transport of tourists No.6990 (1985)
- Incentive Law for Tourism Development No.6990 (1985)
- Regulation for Casinos No.20224-G (1991)
- Regulation to the Incentive Law for Tourism Development No. 24864-H-TUR (1995)
- Regulation for tourist businesses and activities No.25226 MEICTUR (1996)

- Regulation for rent-a-car companies No.25148-H-TUR (1996)

The President of Costa Rica nominates an executive president of ICT, whose terms of the office is 4 years. Due to the recognition of tourism's significant role in Costa Rica, the post of executive president was elevated to the status of a minister between 1990 and 1998, and giving the right to attend the Cabinet meetings. This right was abolished in 1999, but restored in March 2000.

ICT's revenues are drawn mainly from the 5% tax levied on international flight tickets and the 3% tax on lodgings. The annual expenditure by ICT was 2,680 million colon, 2,760 million colon and 3,330 million colon (about 11 million US dollars), respectively in 1997, 1998 and 1999. More than 50 percent of this annual expenditure was spent on tourism promotion.

The size of the ICT staff was cut drastically in 1994, and at present 209 persons are working as permanent staff, as shown in Table 1.1.1, following the central government policy to reduce budget deficits.

Table 1.1.1 Number of Staff in ICT

Year	1994	1995	1996	1997	1998	1999
Number of Staff	274	220	221	220	214	209

Source: ICT

Costa Rica' private tourism sector has a variety of associations at the national and the local levels, as follows:

- Costa Rican Chamber of Hotels (CCH), founded in 1940
- Costa Rican Association of Travel Agencies (ACAV), founded in 1955
- National Chamber of Tourism (CANATUR), founded in 1974
- Costa Rican Chamber of Restaurants and Related Businesses (CACORE), founded in 1981,
- Costa Rican Association of Tourism Professionals (ACOPROT), founded in 1982
  Costa Rican Tour Operator Association (ACOT), founded in 1989
- National Chamber of Tourism Micro-enterprises (CANAMET), founded in 1992
- Costa Rican Association of Tourism Teachers (ACFOTUR), founded in 1994
- Local chambers of tourism at various tourist destinations

1.1.2 Review of National Development Plans and National Tourism Development Policies

Tourism development is regarded as an important component of regional development in the national development plan for the present Rodriguez administration, "Plan Nacional De Desarrollo Humano, Costa Rica 1998-2002".

The tourism industry in Costa Rica is justified by abundant and beautiful natural resources and investment incentives, encouraged to create job opportunities. It earns more foreign currencies than the traditional production sectors, such as banana and coffee. The job opportunities created by tourism development have contributed to rural socio-economic development in the country.

Since 1985, the government of Costa Rica has embarked on several strategies to improve trade deficits and to reduce high external debt-service costs. One of the strategies is tourism development to attract more international tourists. The National Development Plan 1998-2002 clearly identifies the following strategic measures to enhance the tourism industry:

(1) Road and Infrastructure Development

Road and infrastructure development is considered to be one of the most important measures to promote the tourism industry. However, the national development plan has not identified concrete and substantial strategies to tackle the problems, to improve road and infrastructure system and thereby encourage tourism development.

(2) Institutional Arrangements (by ICT)

- To reform the existing tourism promotion body, by privatization or by creating a new public but not state organization for tourism promotion,
- To increase financial resources for tourism promotion,
- To amend the article 8th of the Law 6990 on tax exemption for a vacation payment of employment
- To reduce the tax rate on international airfares (the air tickets purchased in Costa Rica) from the present level of 5 %
- To create a superior council for tourism education to supervise teaching for high and mid class tourism employment
- To improve the enforcement of the Casino Gaming Law

(3) Promotion Activities

- To promote public sector investment to improve infrastructure to support/ induce international tourism investment
- To promote international package tourist markets and chartered flights

- To promote the following strategic international tourism market regions by publicity campaign:
  - Northern America Region (the United States and Canada)
  - Western, Eastern and Southern European Regions
  - Southern American Region
- To execute a nation-wide campaign to raise awareness of nature resource conservation and tourist activities
- To produce promotion materials and participate in international tourism fairs
- To promote Costa Rica as a diversified tourism destination including nature, soft adventure, convention and culture
- To facilitate the development of new and existing airlines to Costa Rica
- To promote and support cruising to Puntarenas
- To promote a "Triangular Tourism Region" with Mexico, Caribbean, and other Central American countries under an inter-government agreements
- To promote investment in marine tourism development
- To incorporate local communities, associations, and small-scale and micro-enterprises in the process of regional and national tourism development
- To create information centers in major tourism planning units
- To coordinate and support private sector tourism promotion

(4) Investment Incentives (Ministry of Treasury and ICT)

- To abolish 50% tax exemption on article 11th of Law 6990 on the purchase of hotel company stocks (by Law 7293: 5% of tax exemption for hotel stock purchasing)
- To introduce legislation giving 100% tax exemption on car rental for tourist within specified duration
- To introduce 1% tax exemption on all expenditure on development and operation of tourism industries
- To reform the tax exemption law for pensioner

(5) Human Resources Development (INA and ICT)

- To strengthen and up-grade training programs and activities for employees in the high and middle-range tourism sectors
- To establish trainer training programs

(6) Conservation of Environmental Resources

- To improve eco-tourism facilities in conservation areas
- To support cleaning and beautification programs for tourism areas
- To enforce the measures to mitigate environmental impact by implementing the programs of Certification of Sustainable Tourism and Ecological Blue Flag

1.1.3 Review of National Tourism Development Plans

The "Strategic Plan for Sustainable Tourism Development in Costa Rica: 1993-1998" (the 1992 Strategic Plan) was executed as a technical assistance program of European Community (EC) in 1992. In 1995, the 1992 Strategic Plan was reviewed by ICT and the "Strategic Plan for Sustainable Development in Costa Rica: 1995-1999 (the 1995 Strategic Plan)" was formulated. This section analyses the 1992 Strategic Plan.

In the Strategic Plan, the target of international tourist arrivals to Costa Rica in 1998 was 1.2 million, which is two times larger than that of 1992. The major international tourism market regions identified were 1) EC: 376,000 tourist arrivals (4.3 times that of 1992), 2) North America: 513,000 tourist arrivals (1.9 times that of 1992), and 3) South America: 67,000 tourist arrivals (1.6 times that of 1992). The other market regions of Central America, Caribbean were not considered as strategically important markets. The targets set for each market segment are shown in Table 1.1.2.

Table 1.1.2 Target Tourist Arrivals set by the Strategic Plan for Sustainable Tourism Development in Costa Rica: 1992-1998

	International Tourist														Domestic Tourist		G. Total (unit: 000)	
	N. America		C. America		Caribian		S. America		Europe		Other		Total					
	Tourist	(%)	Tourist	(%)	Tourist	(%)	Tourist	(%)	Tourist	(%)	Tourist	(%)	Tourist	(%)	Tourist	(%)	Tourist	(%)
1992	274	45%	188	31%	5	1%	43	7%	88	14%	12	2%	611	100%	541	47%	1,153	100%
Inc. Ratio	17%		5%		-6%		10%		33%		5%		15%		0%		8%	
1993	321	46%	197	28%	5	1%	47	7%	117	17%	13	2%	700	100%	541	44%	1,242	100%
Inc. Ratio	15%		5%		0%		13%		30%		0%		14%		7%		11%	
1994	370	46%	207	26%	5	1%	53	7%	152	19%	13	2%	800	100%	580	42%	1,381	100%
Inc. Ratio	12%		3%		0%		9%		28%		8%		13%		7%		10%	
1995	415	46%	214	24%	5	1%	58	6%	194	22%	14	2%	900	100%	622	41%	1,523	100%
Inc. Ratio	9%		2%		0%		7%		26%		7%		11%		7%		10%	
1996	454	45%	219	22%	5	1%	62	6%	245	25%	15	2%	1,000	100%	667	40%	1,668	100%
Inc. Ratio	7%		1%		0%		5%		25%		0%		10%		7%		9%	
1997	487	44%	222	20%	5	0%	65	6%	306	28%	15	1%	1,100	100%	714	39%	1,815	100%
Inc. Ratio	5%		0%		0%		3%		23%		7%		9%		7%		8%	
1998	513	43%	223	19%	5	0%	67	6%	376	31%	16	1%	1,200	100%	764	39%	1,965	100%
annual Inc.	11%		3%		-1%		8%		27%		4%		12%					
`98 actual	420		294		9		69		127		24		943					
annual Inc.	7%		8%		9%		8%		6%		12%		8%					
target/actual	0.82		1.32		1.78		1.03		0.34		1.51		0.79					

Source: 1992 Strategic Plan for Sustainable Tourism in Costa Rica: 1993-1998

Stagnation in the tourist arrivals in the years 1995 through 1997 may have been caused by the following:

- Abrupt increase in admission fees to natural parks (subsequently lowered),
- Criminal incidents involving international tourists,
- Shortage of tourism facilities/ services and price/quality relation, and
- Maturation of the international Ecotourists market in Costa Rica.

Tourist arrivals in 1998 was 942,853, which corresponds to 80 percent of the 1.2 million, the target figure for 1998 in the 1992 Strategic Plan. There was a noticeable decline in the arrivals from the EC region. The target for EC was 376,000, 27% of the annual growth ratio, while the actual growth rate achieved was only 6%.

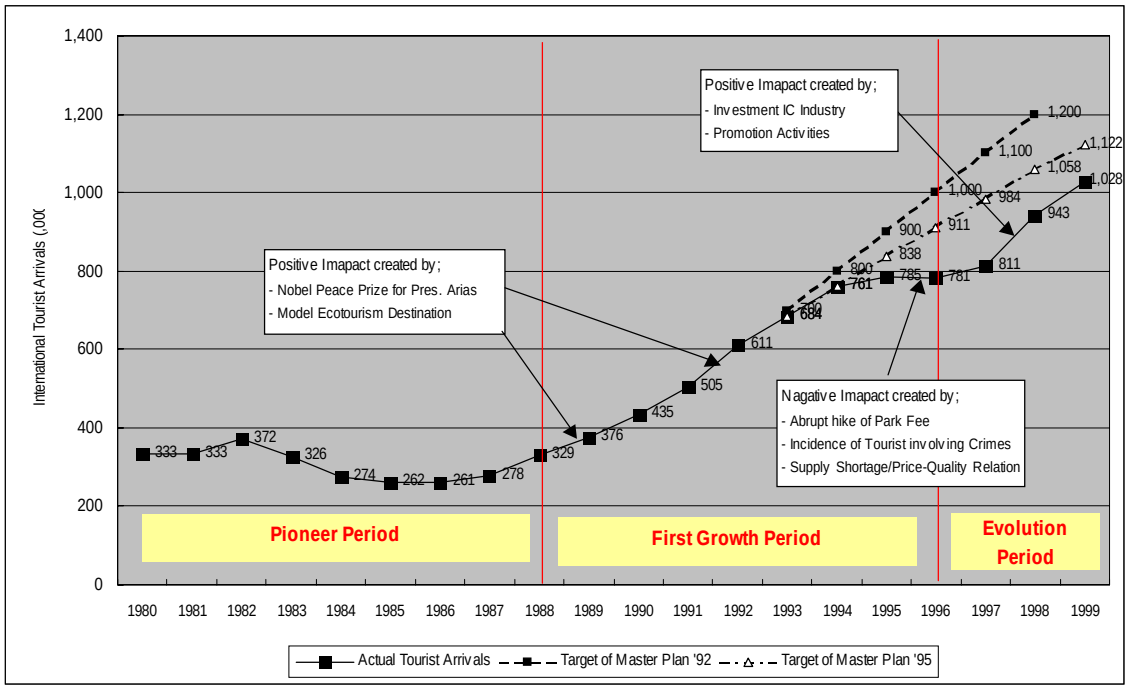
After the stagnant years of 1995 to 1997, international tourist arrivals have rebounded in 1998 and 1999. This recent trend of growth could have been generated by the following:

- Effective and successful promotion activities by ICT to change the national image from ecotourism destination to nature-based tourism destination
- Development in the private sector to catch up with the international tourism demand for Costa Rica

The past international tourism development in Costa Rica may be characterized as follows:

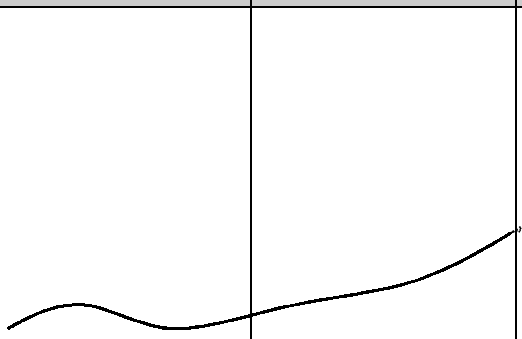
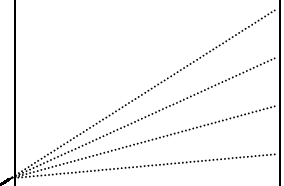
Up-to 1987: Pioneer period of ecotourism
1988-1994: Growth period
After 1994: Evolution period from ecotourism destination to nature-based tourism destination

Figure 1.1.1 Past Trend and Targets of International Tourist Arrivals to Costa Rica



Source: JICA Study team's interpretation using the data from ICT

Table 1.1.3 Development Stages of Costa Rican Tourism 1980s - 2010

	1980s	1990s	2000 2005 2010	2010 and beyond
Visitor Volume 3,000,000 2,000,000 1,500,000 1,000,000 500,000 0				3,000,000 (10.6% p.a.) 2,000,000 (6.2% p.a.) 1,700,000 (4.5.% p.a.) 1,300,000 (2.1% p.a.)
Development Stage	Pioneer	Growth	Evolution	Maturity
Market Segment	*academia *hard-core eco-naturalists	*soft-core eco-naturalists *general-interest with nature experience *sun/beach with nature experience	*sun/beach with soft activity/adventure *MICE tourism with nature experience *health tourism with nature experience *inter-cultural tourism with nature experience	
Accommodation Requirement	*no-star cabins/lodges of 20/below rooms (basic amenity) by local operators (expatriate operated research station, eco-lodge)	*1/3-star cabins/lodges of 20/40 rooms by local operators *3/4-star hotels of 50/80 rooms by local operators *5-star niche up-market lodges/hotels by expatriate local operator	*4/5 star hotels of 100/300 rooms by local/international operators	
Air Service & Gateway	*1 gateway (San Jose by regional carriers)	*1 gateway (San Jose by regional/int'l carriers) *1.5 gateways (Liberia by charter carriers)	*2 gateways (San Jose/ Liberia by regional/int'l carriers)	
Market Destination Perception	Hard-core Eco Tourism	Soft-Core Eco / Nature Tourism	Multi-facet Tourism with a Difference – Strong Ecotourism Appeal	

1.1.4 Review of Regional Tourism Development Strategies

Three Tourism Corridors of North Guanacaste, Caribbean and Puntarenas, Beach and Islands of the Nicoya Gulf were designated as the top priority tourism corridors in the short-term. This was coordinated with the national policies to support the regional development in the country. Central Pacific T.C. was designated as the second priority region. The tourism planning units of South Guanacaste, Corcovado-Golfito, and North Llanura were designated as the third-priority regions. However, these priorities for regional tourism development were not clearly reflected in the regional distribution of tourist arrivals and hotel/ accommodation rooms in the national tourism development framework of the strategic plan.

Table 1.1.4 Distribution of Hotel/ Accommodation Rooms: Framework of Tourism Planning Units set by the 1992 Strategic Plan for Sustainable Tourism Development 1993-1998

Tourism Planning Unit	1993		1994		1995		1996		1997		1998	
Total	11,636	(%)	14,305	(%)	17,442	(%)	21,150	(%)	25,519	(%)	30,668	(%)
Growth Rates			23%		22%		21%		21%		20%	
1. Central Valley Zone	4,791	41%	5,914	41%	7,228	41%	8,762	41%	10,552	41%	12,637	41%
2. North Llanuras Zone	445	4%	514	4%	588	3%	671	3%	762	3%	863	3%
3. Guanacaste Norte Corridor	1,289	11%	1,594	11%	1,953	11%	2,379	11%	2,876	11%	3,461	11%
4. Guanacaste Sur Corridor	308	3%	379	3%	460	3%	556	3%	669	3%	801	3%
5. Caribbean Corridor	1,427	12%	1,642	11%	2,060	12%	2,576	12%	3,207	13%	3,984	13%
6. Puntarenas, Beaches and Islands of Gulf Corridor	1,299	11%	1,683	12%	1,972	11%	2,302	11%	2,676	10%	3,100	10%
7. Central Pacific Corriodr	1,414	12%	1,765	12%	2,183	13%	2,676	13%	3,261	13%	3,951	13%
8. Corcovado-Golfito Corridor	406	3%	523	4%	667	4%	853	4%	1,088	4%	1,384	5%
9. Monteverde	257	2%	291	2%	331	2%	375	2%	428	2%	487	2%

Source: Strategic Plan for Sustainable Tourism Development in Costa Rica: 1992-1998 (1992), Technical Assistance by EC

In view of stagnant international tourism in the late 1980s, ICT reviewed the 1992 Strategic Plan in 1995 in order to make adjustment for the actual tourism trend and to redefine the action program to cope with the stagnation of tourist arrivals. The national hotel/ accommodation target was reduced to around 24,300 rooms in 1998, which was 80% of the 1992 Strategic Plan target.

The regional tourism development priorities, which could be gauged by the hotel/ accommodation development, was also revised in the 1995 strategic plan. Three regions, namely Valle Central and Llanuras del Norte tourism zones, and Puntarenas, Beaches and Islands of Gulf corridors were designated as the top priority regions. These regions' share of the hotel/ accommodation was much increased as compared to the 1992 strategic plan. The

share of North Guanacaste, South Guanacaste and Central Pacific tourism corridors remain almost unchanged as on the 1995 strategic plan. The share of Caribbean and Corcovado-Golfito tourism corridors were much decreased, especially that of the Caribbean region.

Table 1.1.5 Distribution of Hotel/ Accommodation Rooms: Frameworks of Tourism Planning Units set by the 1995 Strategic Plan for Sustainable Tourism Development 1995-1998

Tourism Planning Unit	1993		1994		1995		1996		1997		1998		1999	
Total	11,768	(%)	14,125	(%)	18,482	(%)	20,360	(%)	22,289	(%)	24,310	(%)	26,195	(%)
Growth Rate			20%		31%		10%		9%		9%		8%	
1. Central Valley Zone	4,791	41%	5,914	42%	8,164	44%	9,042	44%	9,945	45%	10,890	45%	11,767	45%
2. North Llanuras Zone	445	4%	514	4%	995	5%	1,075	5%	1,157	5%	1,243	5%	1,325	5%
3. North Guanacaste Corridor	1,289	11%	1,594	11%	2,157	12%	2,344	12%	2,537	11%	2,739	11%	2,930	11%
4. South Guanacaste Corridor	308	3%	379	3%	574	3%	627	3%	681	3%	738	3%	792	3%
5. Caribbean Corridor	1,559	13%	1,462	10%	991	5%	1,094	5%	1,200	5%	1,311	5%	1,414	5%
6. Puntarenas, Beaches and Islands of Gulf Corridor	1,299	11%	1,683	12%	2,583	14%	2,849	14%	3,122	14%	3,408	14%	3,675	14%
7. Central Pacific Corridor	1,414	12%	1,765	12%	2,167	12%	2,390	12%	2,618	12%	2,856	12%	3,080	12%
8. Corcovado-Golfito Corridor	406	3%	523	4%	473	3%	520	3%	568	3%	619	3%	666	3%
9. Monteverde	257	2%	291	2%	378	2%	419	2%	461	2%	506	2%	546	2%

Source: Strategic Plan for Sustainable Tourism Development in Costa Rica 1995-1998 (1995) by ICT

The tourism development trend has recovered since 1995 and there were over 26,200 rooms in the year 1999.

The present regional situation of hotel/ accommodation development also indicates a deviation from the distributed hotel/accommodation target of 1992 and 1995 strategic plans as shown in Table 1.1.6.

Table 1.1.6 Comparison of Development Targets and Present Conditions of Hotel/ Accommodation Rooms by Tourism Planning Unit

Tourism Planning Unit	1998 *1		1999 *2		1999 present	
Total	30,668	100%	26,195	100%	28,000	100%
1. Central Valley Zone	12,637	41%	11,767	45%	9,000	32%
2. North Llanuras Zone	863	3%	1,325	5%	2,300	8%
3. North Guanacaste Corridor	3,461	11%	2,930	11%	3,700	13%
4. South Guanacaste Corridor	801	3%	792	3%	900	3%
5. Caribbean Corridor	3,984	13%	1,414	5%	4,000	14%
6. Puntarenas, Beaches and Islands of Gulf Corridor	3,100	10%	3,675	14%	2,500	9%
7. Central Pacifico Corridor	3,951	13%	3,080	12%	3,000	11%
8. Corcovado-Golfito Corridor	1,384	5%	666	3%	2,100	8%
9. Monteverde	487	2%	546	2%	500	2%

*1: 1998 target distribution on the 1992 Strategic Plan for Sustainable Tourism Development 1992-1998

*2: 1999 target distribution on the 1995 revised strategic plan for sustainable tourism development

When the designation of priority development regions is weighed against regional tourism development trends, Central Valley Zone and Central Pacific Zone can be identified as the most developed zones, and North Guanacaste and Carribean are as high priority zones.

1.2 REVIEW OF SPATIAL DEVELOPMENT POLICIES AND LAND USE MANAGEMENT FRAMEWORKS

1.2.1 Review of National Spatial Development Policies

Costa Rica has developed the country's territory both intensively and extensively. The lands of Central Valley have been intensively utilized as both agricultural and urban areas. Costa Rica's population is highly concentrated in the Central Valley on highlands. On the other hand, the lowland areas on the Atlantic side and Pacific side are extensively used for agricultural plantations and pastures. At the same time, about 25 percent of the territory is managed under the natural protected system.

The major spatial axes are based on highways. At present, railways play a minor roles in transportation. Costa Rica has four major axes/corridors: 1) San Jose – Limon, 2) San Jose – Puntarenas, 3) San Jose – the Panamanian border, 4) Puntarenas – the Nicaraguan border.

The corridor between San Jose and Limon relies on Highways No. 10 and No. 32 (opened in 1987). The corridor between San Jose and Puntarenas is served by Highways No. 1 (Inter-American Highway) and No. 3. The corridors between San Jose and the Panamanian border and between Puntarenas and the Nicaraguan border are based on Highways No.1 and No. 2 (Inter-American Highway).

The major highway system had been mostly completed by the late 1950s by construction of the Inter-American Highway. The completion of the Inter-American Highway has had a substantial impact on the spatial structure of the country. Before the opening of Inter-American Highway, the economy of lowland regions, such as Guanacaste Province and southern part of Puntarenas Province, relied heavily on the ports of Puntarenas and Golfito for exporting beef and bananas respectively. Now the lowland regions have relatively good access to San Jose compared to before.

The Ministry of Public Works and Transport (MOPT) is responsible for the National Highway (7,400km/21% of the total) while municipal governments are responsible for the Cantonal road (28,300km/79%) including rural roads and urban road network. According to MOPT, only 17% of the total length of roads is well maintained. Most of the cantonal road network that connects the National Highways and tourist destinations and communities are poor condition. Other transportation such as the local airline network and sea transportation supports the remote area transportation especially for tourists.

Costa Rica has no frontier land suitable for expanding agriculture and livestock production. Outside Greater San Jose, there are no major urban centers of good development potential with good infrastructure.

Under these circumstances, the central government does not seem to be interested in having long-term spatial development policies or plans. This is partly because each president's administration has only four years to formulate and implement such policies. The political system might hinder the formulation and implementation of long-term policies or plans.

Costa Rica does not have regional planning systems, by which medium or long-term spatial and economic development plans are formulated for regions or provinces. According to such a regional plan, annual budgets are to be decided for a region or for cantons in a region. This absence of regional planning systems is partly because neither provinces nor MIDEPLAN's planning regions have any autonomous governments. This, in turn, is due to heavy concentration of political and economic power in the highland area, Central Valley, rather than lowlands or coastal regions.

1.2.2 Review of Land Use Management Frameworks

Costa Rica's land use management is administered by the three systems shown in Table 1.2.1.

Table 1.2.1 Existing Land Use Management Systems

Land Use Management System	Government Agencies in Charge	Areas to be Applied
Urban Regulatory Plans	INVU and Municipality Governments	Urbanized Areas and Surrounding Rural Areas
Coastal General Land Use Plans and Coastal Regulatory Plans	ICT and Municipality Governments	200m Maritime Terrestrial Zones
Management Plans for Natural Protected Areas	SINAC of MINAE	Natural Protected Areas (both public and private)
National Plan for Risk Prevention and Emergency Attention, and Regulatory Plans for Risk Prevention and Emergency Attention	National Commission for Risk Prevention and Emergency Attention, CNE	Areas of imminent risks of emergency (National Emergency Law)

What is lacking in Costa Rica is a land use management system for rural areas outside MTZ and natural protected areas. More than 50% of the Costa Rican population lives in the rural areas. Most lands in these rural areas are privately owned. The system of regulating building construction and uses of private lands, especially in rural areas, is weak or absent in Costa Rica.

All the rural areas are located in the areas of cantons, in which development activities and business operations are supposed to be regulated by municipality governments, with some guidelines from central government agencies. However, the municipality governments do not have organizational or personnel capacity strong enough to conduct law enforcement by monitoring land use changes.

Besides the land use management systems shown above, the system of environmental impact assessment (EIA) could be a tool for restricting certain kinds of land uses in rural areas, when general land use plans are available as reference for EIA. However, since the EIA system obliges only those who will promote certain types or certain sizes of development or construction projects to go through the EIA procedure, the EIA system might not be effective enough to regulate land use, in accordance with general land use plans.

1.2.3 Review of Coastal Land Use Management Frameworks

The first Maritime Terrestrial Zone Law (Law No.4558) was executed in 1970 and the new Maritime Terrestrial Zone (Law No.6043) was executed on 1977. The Maritime Terrestrial Zone (MTZ) is the strip 200m wide along the coastline excluding urban areas, protected areas, and private properties.

The MTZ consists of Public Zone and the Restricted Zone. The Public Zone covers 50m wide from the high tide coastline to be used for public. Land occupations or any developments are not allowed, except infrastructure and constructions approved by MOPT, ICT, INVU and municipalities for public benefits. All the mangroves of the continental and insular littorals and estuaries are included in Public Zones whatever their extension. The Restricted Zone covers an area of 150m behind the Public Zone, where municipalities can grant concessions according to regulatory plans.

(1) General Land Use Plan and Declaration of Tourism Zone and Non-tourism Zone

According to the Maritime Terrestrial Zone Law, General Land Use Plans have to be elaborated by ICT. Three plans have been made for 1) North Guanacaste, 2) Puntarenas, Beaches and islands of Gulf, and 3) Central Pacific, out of five Tourism Planning Units on the Pacific Ocean. The General Land Use Plan for North Guanacaste was approved on 1998, while the other two have not been approved because the zoning categories and land use maps are not adequate enough.

The declaration system has been in force since 1970 according to the former law. In the period of 1970 to 1977, ICT declared tourism zones through simple evaluation that sandy beaches were tourism zones. After 1977, ICT started to declare non-tourism zones as well as tourism

zones according to the new law, by improved evaluation methods with scoring. At present, the declaration system is utilized for evaluating of the regulatory plans and any regulatory plans will not be approved unless the declarations are done in MTZ. The priorities of land use in each zone are shown in Table 1.2.2.

Table 1.2.2 Priorities of land use in Tourism Zone and Non-Tourism Zone

Tourism Zone	Non-tourism Zone
1. Tourist activities	1. Agriculture and cattle, non sport fishing or industrial exploitations
2. Recreational and sport activities	2. Residential use
3. Residential use	3. Commercial and handicraft activities
4. Commercial and handicraft activities	4. Recreational and sport activities
5. Agriculture and cattle, non sport fishing or industrial exploitations	5. Tourist exploitations

The declared zones are too large, covering around 650km coastline out of 1,016km of total coastline on Pacific Ocean, because the declaration is not made from the viewpoint of region or country wide. The declaration should be consistent with general land use plans, so that the modification of the declaration would be necessary.

In addition, if the general land use plans are formulated in all the tourism planning units, the plans should have a role to evaluate regulatory plans in place of the declaration system. The revision of the law should be discussed so as to avoid confusion in land use management such as evaluation of regulatory plans with two systems.

(2) Regulatory Plans

To grant concessions in MTZ, regulatory plans have to be prepared by promoters. ICT, INVU and municipal governments are in charge of approval of regulatory plans. After the approvals of regulatory plans, the Municipality is the body that can grant concessions in accordance with the approvals by ICT or IDA and receive the income through tax. Numbers of approved regulatory plans in the whole country are shown in Table 1.2.3. Municipalities have already approved 77 regulatory plans (53%) out of 146 approved by ICT. 61 regulatory plans (79%) were approved in the 1990s by municipalities, while only 16 (21%) were approved before 1990.

Table 1.2.3 Number of Approved Regulatory Plans

	ICT	Municipalities
1980-1989	33	16
1990-2000	113	61
Total	146	77

The JICA study team estimates that the regulatory plans cover 170 km of coastline scattered along on the Pacific Ocean with a accomodation capacity of around 25,500 rooms. This figure is 2.1 times the existing accommodation and almost the same as the total amount of that in the whole country (26,600 rooms).

1.3 REVIEW OF LEGISLATION, POLICY AND INSTITUIONS RELATED TO ENVIRONMENTAL MANAGEMENT

1.3.1 National Laws on the Environment

Environmental law in Costa Rica has been summarized by Zeledon (1999).

The main articles of the constitution concerning the environment are numbers 46 and 50. Article 50 establishes the right of every citizen to a healthy and ecologically balanced environment. Citizens have the right to denounce infringements of these rights and to claim that damage be repaired. The law delegates responsibilities and penalties. Article 46 defends the rights of consumers and users to protection of health and environment and other interests. However according to Article 7 all treaties, international conventions and accords approved by Costa Rica's legislative assembly take precedence over existing (national) laws.

The Law of the Environment (7554, 1995) introduces enabling legislation for wildlife, forest, water and coastal management. Chapter 4 describes the system of Environmental Impact Assessment to be supervised by the National Environmental Technical Secretariat. Chapter 7 defines types of protected areas and chapter 8 defines marine resources and wetlands (which can be interpreted to include mangroves though not mentioned specifically). All wetlands are declared of public interest to be protected. Chapter 12 states that water is in the public domain and that its conservation and sustainable use is in the public interest. Conservation includes all elements of the hydrological cycle, watersheds and related ecosystems. Conservation measures should be applied when planning, approving or operating water systems, including collection of potable water and disposal of waste.

The Law of Biodiversity (7788, 1998) protects biodiversity and supports sustainable use of resources through technical support and payment for environmental services.

The Forestry Law (7575, 1996) prohibits cutting or removal of products from protected areas, mangroves and state owned land in forest reserves. Article 2 enables MINAE to expropriate private land when the management category must be forest. This land can be integrated voluntarily into protected forest areas or bought directly when both sides agree. Otherwise established expropriation procedures are followed (7495, 1995). Chapter 4 describes the zones of protection bordering watercourses. Permanent springs are protected within a radius of 100m. Watercourses on flat land are protected for 15 m on both sides in rural areas and 10 m in urban areas. In broken terrain watercourses are protected for 50 m each side. Lakes and public impoundments are protected for 50 m around the edges. Areas of aquifer recharge are also protected; the limits being determined by the competent authority. In all these protected zones

it is prohibited to cut or remove trees, to be enforced by INVU. Section II describes the patrimony (natural, national heritage) of forests, which includes forested state-owned land. Patrimony is protected from land use changes.

The Law of Conservation of Wildlife (7317, 1992) establishes regulations about wildlife protection and hunting. Article 133 creates the Ostional Wildlife Refuge.

The Law of Use, Management and Conservation of Soils (7779, 1998) recognizes the need for conservation in critical areas such as watersheds.

The Water Law (276, 1942) declares water supply sites as reserves and protects the forest in watersheds.

Instituto Costarricense de Pesca y Acuacultura (INCOPESCA) (7384, 1994) was established to manage fisheries.

The Law on the Maritime Terrestrial Zone (No 6043 of March 3 1977) was established to regulate coastal development. Article 11 states that areas occupied by mangrove trees are considered to be in the Public Zone and Article 12 that it is forbidden to exploit the flora and fauna, cut trees or extract products in the 200m maritime-terrestrial zone. The Regulations of the Law on the Maritime Terrestrial Zone are set out in Executive Decree (No. 7841-P of January 4, 1978) and define the bodies responsible for authorizing exploitation of flora and fauna in the maritime-terrestrial zone and the extent of the restricted zone around mangroves.

World Heritage Sites and Biosphere Reserves have been declared for Costa Rica by the United Nations Educational Scientific and Cultural Organization. There are no such Sites/Reserves in South Guanacaste or Corcovado-Golfito. Costa Rica has signed the Ramsar Wetlands Convention (1991) and has declared several sites as of international importance, including the Terraba-Sierpe National Wetland in the Corcovado-Golfito area.

1.3.2 Protected Areas

Categories of protected areas for conservation and management of natural resources include the following:

National Parks contain relatively natural ecosystems of national importance with recreational and educational potential.

Biological Reserves contain vulnerable ecosystems, features or species where the natural processes should continue with a minimum of human interference.

National Wildlife Refuges are managed to protect special geographic conditions or wildlife species. They may be state or privately owned or have mixed ownership. Local communities may be living within the declared area.

Forest Reserves are mainly areas where forestry is the appropriate land use and wood production is on a sustainable basis.

Protection Zones are areas where forest is the best land use to protect soil and watersheds, regulate water flow and conserve the environment.

Wetlands include all types of freshwater or brackish ecosystems as well as marine habitats such as coral reefs. Mangroves are protected separately as forest reserves.

Natural Monuments contain natural features of national importance because of uniqueness or scientific or scenic values.

For resource planning and management purposes, the Ministry of Environment and Energy (MINAE) has divided the whole of Costa Rica into a system of 11 "Conservation Areas" (SINAC), but they are not protected areas. This system is discussed further in section 1.3.3.

The protection provided by the Maritime Terrestrial Zone is described in section 1.2.3. According to the Law of National Emergencies (No. 7914 of 14 October 1999), the Centro Nacional de Emergencias (CNE) has responsibility for defining areas, at imminent risk of emergency (eg floods, landslides) where construction, building and expansion or modification of projects may not be carried out i.e. no development zones. None have yet been declared, though CNE holds information on areas at risk from natural disasters.

1.3.3 Environmental Policy and Institutions

Following Costa Rica's participation in the 1980 World Conservation Strategy (sponsored by UNEP, IUCN and WWF) MIRENEM prepared a National Conservation Strategy (NCS) for Sustainable Development (1990). The strategy took a sectoral approach (water, forestry, industry etc) and an objective was to change the thrust of development toward a more sustainable form. As well as paying attention to Costa Rica's protected areas, the strategy covered agricultural production and emphasizes the importance of research, training and development in sustainable agricultural practices. The Costa Rican National Report for the 1992 United Nations Conference on Environment and Development, prepared under the auspices of a new government, gives a sector by sector analysis of the history and status of the country's resources and their economic and environmental impact, projects in progress and key issues. The report concludes with a policy statement on issues such as biodiversity, drafted

with the participation of over 100 key stakeholders (NGOs, government officials, politicians). The President added the NCS, prepared under the previous administration as a complementary document. Therefore successive administrations have accepted the NCS as a guiding document, though the success with which they have put these policies into effect is a matter for debate.

Under the Calderón Administration (1990-1994) a Renewable Resources Action Plan was prepared in which it was stated that an ultimate goal was to maintain 25% of Costa Rica's forests outside of protected areas (Evans, 1999). The plan advocated integrating national wildlife refuges into a park system that would link biological reserves, national parks and forest reserves into large "conservation areas". A long-term goal was to establish a corridor of protected areas in Costa Rica that would connect with protected areas in Panama and Nicaragua to form a biological migration corridor throughout Meso-america. The plan also included sections on eco-tourism and environmental education and proposed that ICT be actively involved with planning and promoting the protection of natural areas.

When MIRENEM became MINAE in 1996, the National Park Service, the General Forestry Directorate and the Wildlife and Wetlands Office were combined into SINAC (Sistema Nacional de Areas de Conservacion - National System of Conservation Areas). SINAC was intended to restructure and decentralize conservation policy in Costa Rica – previously, there had been twenty-seven different government divisions, councils, offices, institutes etc with various conflicting or overlapping environmental responsibilities. SINAC aims to promote sustainable use of natural resources inside and outside protected areas. Each of the 11 Conservation Areas (CA) has its own director, with several sub-directors charged with promoting conservation policy in the different parts of the CA. It is understood that the present MINAE administration has concerns over the effectiveness of the regional Conservation Areas in implementing and strengthening environmental policy, and is less supportive of de-centralization.

The JICA study area falls into the Tempisque and Osa Conservation Areas (ACT and ACOSA). Strategic Plans for the integrated conservation and management of ACT and ACOSA have not been produced.

1.3.4 Water Resources, Supply and Waste Water

(1) Legal System Related to Water Quality

The water law stipulates water quality and related regulations including regulation of water quality for drinking water as follows:

- General Health Law (Law NO.5395, Oct.30, 1973, amended No.5789, No.6430, No. 6726, No.7093, No.7600)
- Water Law
- Regulation of Water Quality for Drinking Water (1997)

The 1997 regulation lays down standards for biological parameters, including the concentration of microbial contaminants which are mainly related to the deterioration of water quality as a result of human and livestock activities, and for chemical parameters.

(2) Institutional Framework

Different aspects of water resources (utilization, regulatory management and protection of water) are managed by different agencies as shown in Table 1.3.1. Regarding drinking water supply, ICAA, ESPH, Commission Asociaciones de Acueductos Rurals (CAAR) and Municipios are major suppliers. In the two study areas, CAARs dominate both South Guanacaste and Corcovado-Golfito. ICAA is also the agency responsible for the protection of water.

Table 1.3.1 Institutional Responsibilities for Water Resource Management

Institutions	Primary Responsibilities
Utilization	
♣ ICAA, ESPH, Asociaciones de acueductos rurals, Municipios	Provide water for human and industrial use
♣ ICE, CNFL	Electricity generation
♣ SENARA	Groundwater, drainage of flood prone areas
Regulation	
♣ MINAE, Dept. de Aguas	Permit concessions and right to exploit water resources, including electricity
♣ INVU, Municipalidades	Approval of urban development plans, elaboration of regulatory plans, accomplishment of the norms regarding surface and groundwater protection
♣ SETENA	Evaluation of environmental impact assessment studies
Protection	
♣ ICAA, MINAE-SINAC, Ministerio de Salud, SENARA, Municipios, IDA	Conservation and rational use of the resources of water catchments. Taking actions to promote conservation and environmental improvement
♣ ICE	Protection of the basins that provide water for its projects
♣ MINAE, Oficina de la Sociedad Civil	Each Costa Rican have the right for a healthy & ecologically balanced environment; for that reason, most denounce any environmental alteration
♣ MAG, Agricultura Conservacionista	Promotion of cultivation techniques compatible with the protection of water quality
♣ COVIRENAS	Denunciation of any violation of natural resources' legislation
♣ Defensoría	Attention to affairs related to environmental matters
♣ Procuraduría General de la República	Legal actions to guarantee the right to a healthy and ecologically balanced environment
♣ Contoraloría Ambiental	Enforcement of actions on environmental issues

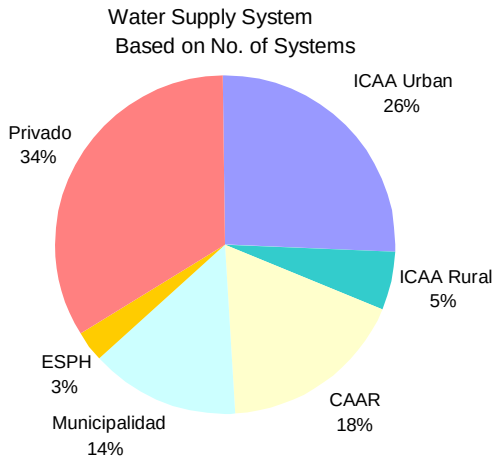
Source: Estado de la Nacíon en desarrollo humano sostenible 5

(3) Water Supply Systems

Almost all of the population in Costa Rica can take water from a supply system. There are five kinds of organizations responsible for water supply systems. The largest supplier is the Costa Rican Institute of Water Supply and Sewage Systems (ICAA), which serves 51.8% of the total population, 26% of the total supply system in urban areas and 5% in rural areas as shown in Figure 1.3.1. The other major suppliers are the CAARs and the Municipalities each supplying 22.3% of the total population. Technical support is given by ICAA to suppliers that are rural community-based or municipality-based.

ICAA and Municipalities provide water to most of the urban areas, while in rural areas water is supplied by CAARs and private systems; all these institutions are active in the study areas, with CAARs responsible for the most supply systems.

Figure 1.3.1 Percentage of Water Supply Systems according to Service Organization in 1998



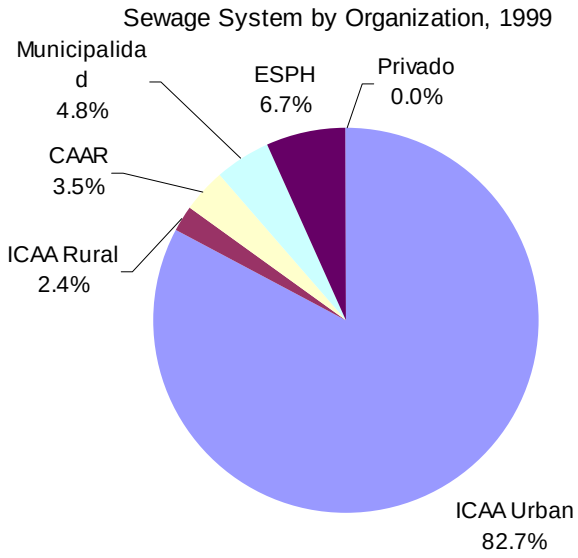
Source: ICAA and Estado de la Nacíon en desarrollo humano sostenible

(4) Waste Water Treatment

There are hardly any sewage treatment systems in the study areas. In rural areas, the main system of treatment of wastewater is the septic tank system. Microbiological contamination is the main source of pollution of the surface waters in the country. Organizations responsible

for the 4.6% of the population (nearly 185,000 inhabitants) that is served by sewage treatment systems is shown in Figure 1.3.2

Figure 1.3.2 Sewage System by Organizations, 1999



Source: Estado de la Nacíon en desarrollo humano sostenible 5

(5) Ecological Blue Flag Program

In order to promote clean beaches and water and to attract tourists, the Ecological Blue Flag Program was established between ICT, ICAA and the Ministry of Health in 1995. Major objectives of the program are:

1) To manage and monitor quality of beaches in the communities,
2) To assist safe drinking water supply in coastal areas,
3) To prevent and eliminate solid wastes on the beaches,
4) To control industrial wastes and (residual) domestic wastewater discharging into the sea, and
5) To encourage environmental education and to improve the quality of life of residents and visitors to the coastal areas.

The evaluation of this measure of the environmental quality of the coasts is carried out once a year in accordance with five criteria described in Table 1.3.2 and the Classification shown in Table 1.3.3.

Table 1.3.2 Ecological Blue Flag Program: Evaluation Items and their Criteria

	Weighting of Evaluation Score (%)	Criterion
1) Sea water quality	40 %	Average of coliforms/100ml
2) Drinking water quality	15%	Drinkable 15, not drinkable 7.5, no tap water 0
3) Quality in the coasts		
- Solid wastes	10%	Quantity of Waste (by weight) within 100 m of coastline
- Industrial wastes	10%	No industrial waste 10, industrial wastes 0
- Residual domestic wastewater	15%	BOD is equal to or more than 40mg/l and CF is equal to or more than 100,000/ml : 0 CF is below 10,000/ml : 7.5 If not : 15
4) Environmental education	5%	Presence of sign about the evaluation, 5; if not, 0
5) Safety administration	5%	Warning signs for swimmers or campers, 5, if not, 0
Total	100%	

Source: ICAA

In the last (1998?) evaluation of the Ecological Blue Flag Program, a total of 57 beaches were evaluated and 10 beaches were awarded the Ecological Blue Flag (Table 1.3.3). Twenty-seven beaches were awarded the Blue Flag in 1999.

Table 1.3.3 Classification System of Blue Flag Program

Score	Classification of Beach	Blue Flag Classification	Results
Over or equal to 90 %	A	YES	10 Beaches (27 in 1999)
Between 89.9 and 80%	B	NO	17 Beaches
Between 79.9 and 70%	C	NO	15 Beaches
Between 69.9 and 60%	D	NO	10 Beaches
Less than 60%	E	NO	5 Beaches

Source: ICAA

1.4 REVIEW OF NATIONAL POLICIES AND FRAMEWORKS FOR LOCAL ECONOMIC DEVELOPMENT AND COMMUNITY DEVELOPMENT

1.4.1 Economic Policies and Social Development Policies

Costa Rica enjoyed economic growth at an average growth rate of 5.8% per year from 1960 to 1981, as a result of the policy of import substitution industrialization. The rapid economic growth helped Costa Rican governments to install social welfare, public health and education systems to provide a wide range of social services to almost all segments of the population. As a result, Costa Rica achieved increase in the living standards and improvements in nutrition, healthcare and education.

However, such economic policies had produced much public and private debt in the Costa Rican economy by the early 1980s. Costa Rica, therefore, had to undertake structural adjustment programs, which enabled its economy to grow modestly. After overcoming the 1980s debt problems, Costa Rica's economic policy made a shift from import-substitution to export-oriented industrialization.

Even during the severe economic crisis, Costa Rica's social welfare, health and education systems survived. About 20% and nearly 30% of government budgets are devoted to education and public health respectively. The public education system is composed of primary and secondary education, which is free and compulsory. And there are three state universities. The public health services are provided by CCSS. The CCSS is mainly funded by compulsory contributions from workers' salaries.

The central governments seem to have a strong commitment to maintaining the public systems for social security, health and education. However, the present social service system has inherited from the features of trying to provide such a wide range of services to almost all the population. Given the persistent needs of the government to reduce the fiscal deficit, it is difficult to maintain this kind of distribution policies. Since there is still social and regional disparity in Costa Rica, it is necessary for the government to concentrate particularly on social benefits or resources to the poor.

(1) National Plan for Human Development 1998-2002

The present administration's national development plan, "Plan Nacional de Desarrollo Humano", have four pillars: 1) stability, 2) growth, 3) opportunities and 4) sustainability, and proposes the following five action plans:

- Solution to all: an economic and social plan to achieve stability and growth with equity
- Solidarity Plan of: to allow the neediest groups of people to get more resources
- Security for all: to reduce crime
- Fight against corruption
- Triangle of solidarity: to look for solutions to local problems by integrating communities, municipalities and central government agencies.

(2) Policies on Poverty Alleviation in Costa Rica

Costa Rica's rapid economic growth until the crisis in the 1980s was accompanied by a steady improvement in basic human development indicators, such as infant mortality, life expectancy and educational levels. However, there are still some people in extreme poverty in Costa Rica.

IMAS is the government institution most mainly concerned with poverty problems. IMAS's mission is to solve the problems of extreme poverty, by strengthening family groups, production support, establishing community homes, housing development and administrating social welfare services.

Costa Rica's poverty problems are rooted in bad economic situations of certain sectors or regions. In Costa Rica, about four-fifths of poor households live in rural areas, and mostly they are in the traditional rural sector, with which the recent export-oriented activities have little relation. The government policies and programs for the rural poverty problems have weakened over years. In particular, there are no strong policies to assist farm workers in transforming their production to meet the demands of the changing markets. At the same time, the government agencies tend to rely exclusively on agricultural solutions simply because they are dealing with land-based or farm-based workers.

(3) Development Policies for Peripheral Areas, such as Lowlands and Peninsulas

The Central Valley is well developed as a commercial agricultural region, such as of coffee and sugarcane, thanks to good soils, temperate climate and a large working population. It has also specially developed other economic activity centers, such as manufacturing and service industries. On the other hand, lowlands and coastal areas, in which one-third of the country's population live, are underdeveloped.

In 1995, the State of the Nation Project (for Costa Rica) identified 6 areas of urgent challenges to further improvements in sustainable human development. One of the major challenges is to reduce regional disparities. In 1996, the State of the Nation Project paid particular attention to the challenges of regional disparity, together with other three areas.

The provinces of Guanacaste and Puntarenas have been much been left far behind in the development of the Central Valley. The Nicoya Peninsula and the Osa Peninsula, in particular, had considerable economic and social difficulties, due to their remote locations.

(4) Community Development System

DINADECO (National Directorate for Community Development) is a governmental institution mainly concerned with community development. It was established in 1967 under the jurisdiction of Ministry of Government and Police. DINADECO has a staff of 74 at present, although it used to have a personnel of around 300. The mission of DINADECO is to promote and encourage Development Associations' activities by allocating ordinal and specific budgets and supporting applications for funding from international organizations.

At the community level there are two kinds of Development Associations, namely Integral Development Associations and Specific Development Associations. The Integral Development Associations deal with various development projects such as water supply systems, sewage systems, and construction of public facilities (schools and churches, etc.). Integral Development Associations can be established for communities with populations of 100 to 1,500. The average number of members in Integral Development Associations is 450 to 500. Specific Development Associations are established for a specific project. 50 people are required to establish a Specific Development Association. At present there are 1,444 Integral Development Associations and 257 Specific Development Associations in Costa Rica.

There are also Development Associations organized at the level of municipality, province and nation, as shown in Table 1.4.1. The total number of organizations at the municipality and province level is 84. Those organizations deal with promotion of development at each level, for example of regional roads, and the Confederation of the Development Associations decides policies at the national level.

The current source of finance of DINADECO is the allotment of 2 % of income tax from the government, supplemented by funds from international organizations. The budget for the year of 1998 was around 240 million colones which was distributed between all the Development Associations. Although the budget was increased from 1.25% of income tax to 2%, it is not enough to carry out projects by Development Associations at the community level.

Table 1.4.1 Organizations of Development Associations

Level	Organization	
Community Level	Development Association	Integral Development Association
		Specific Development Association
Municipality Level	Cantonal Union	
Provincial Level	Federation	
National Level	Confederation	

1.4.2 On-Going Projects in the Study Areas

Since the Nicoya and Osa Peninsulas have been the poorest areas, the following development projects, especially for local economic development and rural development, are underway:

(1) South Guanacaste

Desarrollo Local del Distrito de Nosara

- Institution: FEDEAGUA
- Objectives: Local community development
- Area: Nicoya Peninsula

PRODAPEN – Proyecto de Desarrollo Agrícola de la Península de Nicoya

- Institution: MAG, with assistance from EU
- Area: Nicoya Peninsula (Santa Cruz, Nicoya, Hojancha, and Nandayure)
- Beneficiaries: 2,600 families in the area of influence
- Objectives: Integrated regional and rural development, including community development

DRIP – Proyecto de Desarrollo Rural Integral Peninsular

- Institution: MAG with assistance from the government of the Netherlands
- Area: Lepanto, Paquera and Cóbano districts, southern part of the Nicoya Peninsula
- Objective: poverty alleviation and environmental improvement

Program for the Integral Development of the Rural Area in the Gulf of Nicoya

- Institution: National University
- Area: Gulf of Nicoya Region (Basin)
- Objectives: Integrated rural development

(2) Corcovado-Golfito

Agenda 21

- Institution: Most of government ministries and institutes (multi-sectoral)
- Area: Osa canton, Golfito canton and others
- Objectives: Integrated regional and rural development with special attention to community development and environment management

Programa de Desarrollo Rural Integrado Osa - Golfito

- Institution: MAG, with assistance of EU
- Area: Lowland from Cortés up to Conde, in the Highland and in the Osa Peninsula Osa and Golfito cantons)
- Objectives: Development assistance for small producers, environmental protection, human capacity building

JUDESUR – Junta de Desarrollo Regional de la Zona Sur de la Provincia de Puntarenas

- Area: Golfito, Corredores, Osa, Buenos Aires and Coto Brus cantons
- Objectives: Integrated social and economic development using part of incomes from the duty free market in Golfito

Consolidation of Small Ecotouristic Enterprise of the Brunca Region (COPEECO-RB)

- Institution: Cámara de Comercio, Industria, Turismo y Agricultura de la Zona Sur with assistance of FUDECOOPERACION, partly by Dutch government
- Area: Brunca Region (South Pacific). Osa and La Amistad Pacífico Conservation Areas.
- Beneficiaries: 50 small and medium ecotouristim enterprises

Communities, Archaeology and Environment Project in Osa Canton

- Institution: National Museum, Osa Municipality, Landmark Foundation (International NGO)
- Area: Finca 6 (Banana Plantation in Sierpe), Parmar, Sitio Glijalba, Batambal, etc. in Osa Municipality
- Objectives: Restore stone spheres mainly to Finca 6 (Sierpe) and Parmar as site museums. Make a visitor center at Citio Glijalba.

1.5 REVIEW OF LOCAL GOVERNMENT SYSTEMS

1.5.1 Local Government System

Costa Rica is divided into seven provinces: Alajuela, Cartago, Heredia, Limon, Puntarenas, Guanacaste and San Jose, its capital. These are administrated by governors appointed by the president. The provinces are divided into 81 cantons, which are subdivided into 450 districts.

At present, the local governments in Costa Rica are municipal governments, which administer the cantons. The provinces play two minor roles. One is as electoral districts for the legislative assembly. The number of deputies to represent each province in the legislative assembly is determined proportionately by its population. The other role is as districts for jurisdiction.

Elections are held every four years through three kinds of ballots. A political party is chosen at each ballot, and there is one ballot for the president, one for the deputies from provinces and one for the municipal council members. Under the present system the political parties choose persons to be municipal council members. Then the municipal council chooses a municipal executive, who is an executive administrator.

In 1998 a new municipal code was introduced in Costa Rica. Under the new municipal code to come into force in the next election in 2002, a mayor will be elected by direct election of persons, rather than political parties, in each municipality. The goal of the new municipal code is to improve the management and services of municipal governments, through decentralization of functions and revenue sources from the central government to municipal governments. The objectives of the new municipal code are as follows:

- To devolve more functions from the central government agencies to municipality governments,
- To increase the power to collect more taxes,
- To improve the management of municipality governments,
- To improve the efficiency of service provision by municipality governments

The main issues for municipal governments are twofold: one is how to increase tax revenues based on the changes made by the new municipal code, and the other is how to efficiently and effectively use the increased tax revenues for promoting local development. For the purpose of increasing tax revenues from private properties, a new cadastral system is being designed and introduced by making and using new GIS data. At the same time, more staff training for municipal governments is being implemented.

1.5.2 Roles and Responsibilities of Local Governments in Development and Conservation in Coastal Areas

In the last three decades, the central government has deprived the municipal governments of their functions and power of local governments. At the same time, citizens' trust in municipalities has been lost. However, as in other developed and developing countries, in Costa Rica it is felt that decentralized local governments can serve local people better. Since the introduction of the new municipal code, the municipal governments are expected to play larger roles not only as municipal service providers, but also as facilitators and regulators of development and conservation, as well as for the environment of people's life.

The municipal services to be provided by municipal governments are as follows:

- Cleaning of roads and public places
- Garbage collection
- Construction and maintenance of roads and streets
- Construction and maintenance of water supply systems
- Educational and cultural tasks
- Deposit and treatment of wastes
- Issuing of building permits
- Road safety measures
- Funding and contribution to private activities

The responsibility of municipal governments as municipal service providers is considerable. However, the capacity of municipal governments in terms of budgets and human resources available is too limited to fulfill this responsibility. The total expenditure by the municipal governments in Costa Rica was just 4% of that of the central government in 1995.

As regards the Maritime Terrestrial Zone (MTZ), the municipal governments are required to regulate development and land use in accordance with the established coastal regulatory plans, and to control illegal construction and squatting in the MTZ in accordance with the MTZ Law.

The municipal governments are also responsible for final approval of coastal regulatory plans through public hearings, after ICT and INVU approve the plans. Following the approval of the coastal regulatory plans, the municipal governments are supposed to provide public infrastructure.

The municipal governments can issue concessions for land use in MTZ, following regulatory plans, and are entitled to concession fees from concessionaires. In accordance with the MTZ Law, the municipal governments should use the revenues from concessions for the following purposes:

- 20% on a fund for compensation arising from loss or lands or contracts as a result of changes of status of the land of the MTZ
- 40% on improvement works in the corresponding tourism areas, and
- 40% on improvement works in the canton.

Since the enactment of the new municipal code, the function and power of granting building permissions has been transferred to municipal governments from INVU at the central government level. The monitoring and law enforcement of mangrove areas is also now the function of municipal governments.

1.6 REVIEW OF INDIGENA RESERVE POLICIES

1.6.1 Indigena Reserves and CONAI

There are 22 indigena reserves with 8 indigena tribes in Costa Rica. The indigena population in the indigena reserves is around 46,000 in total. Of these indigena reserves, one (Matambú) is located in South Guanacaste and two (Guaymi de Oas and Conte Burica) are located in Corcovado-Golfito. The locations of the indigena reserves are shown in Figure 1.6.1, and populations and the land areas are shown in Table 1.6.1.

CONAI is a governmental institution, which is in charge of indigena reserves. CONAI has 39 personnel of which a half consists of indigena people. One of the main activities of CONAI is to convert private owned land in indigena reserves to land owned by indigena communities according to the Law No. 1977 enacted in 1977. CONAI also works for socio-economic development of indigena people by coordinating different institutions, such as Ministry of Health, Ministry of Education, AYA, Development Associations, and NGOs.

The budget of CONAI is allocated from the Ministry of Labor, of which 70% is used for administration and 30% is used for projects for indigena reserves. The budget in 2001 is around 130 million colones which is not enough to cover all 22 indigena reserves.

There are Integral Development Associations in indigena reserves which formally represent indigena communities. However, many indigena people are not involved in the Integral Development Associations and there are other various associations which represent indigena people, such as Mesa National Indigena. In the case of Conte Burica, only 10% of indigena people are members of the Development Association. This complicated situation causes difficulty with conducting projects in indigena reserves. Many projects have been conducted by international organizations but failed to make wider benefits covering the majority of community members.

Figure 1.6.1 Indigena Reserves in Costa Rica

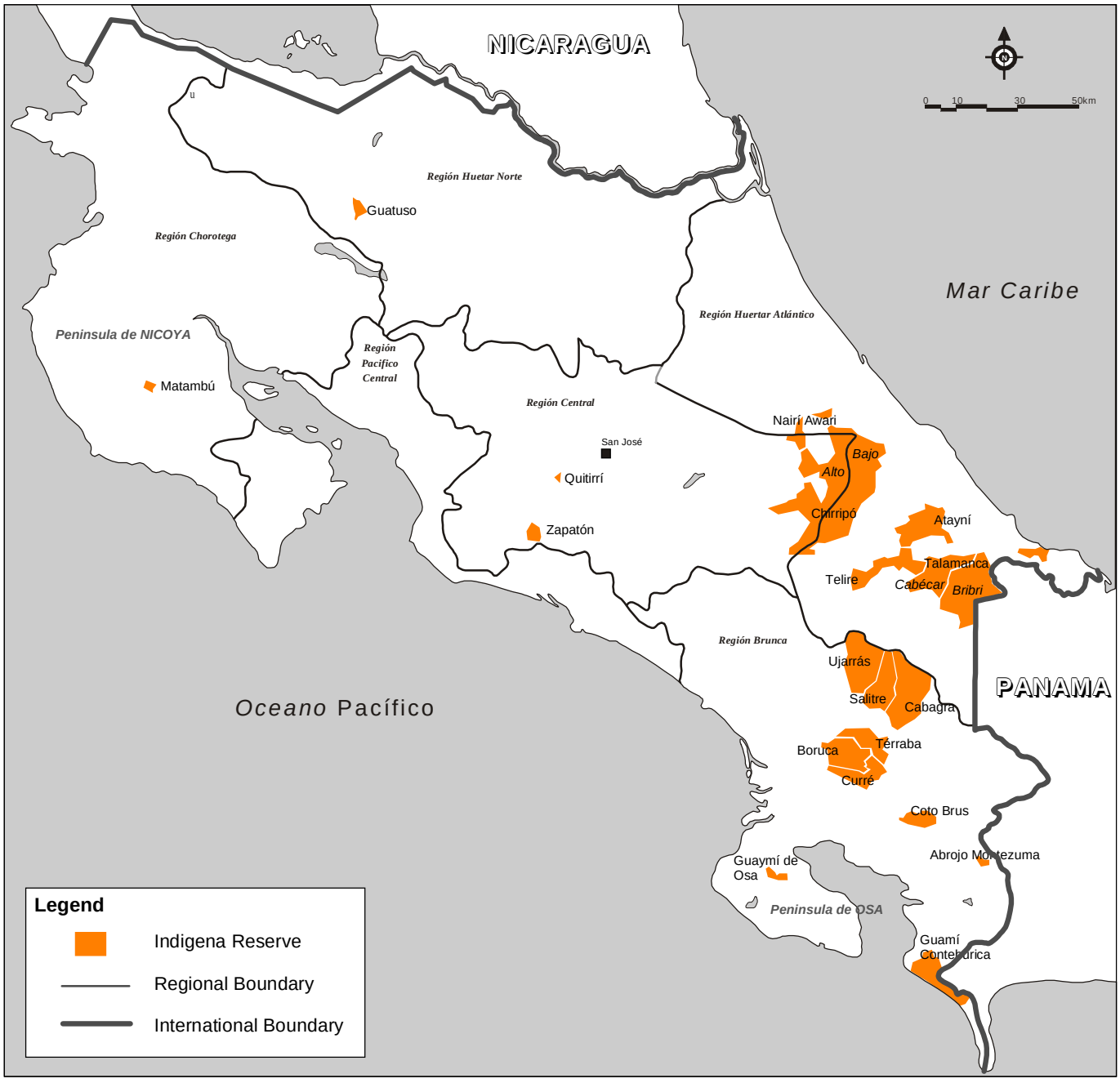


Table 1.6.1 Populations and Land Areas of Indigena Reserves

Group	Indígena Reserve	Population (person)	Indígena Reseved Area Area Total (ha)	share (%)	Indígena Management	share (%)	Indígena Non-management	share (%)	Forest Area (ha)	share (%)
Chorotega	Matambú	1,200	1,855	100%	987	53%	723	39%	145	8%
Malekus	Guatuso	1,800	2,983	100%	411	14%	2,332	78%	240	8%
Huetar	Quitirrisl	1,500	1,059	100%	241	23%	722	68%	96	9%
	Zapatón	800	3,720	100%	571	15%	2,284	61%	865	23%
	sub-total	2,300	4,779	100%	812	17%	3,006	63%	961	20%
Cabecar	Ujarrás	1,700	25,640	100%	6,040	24%	13,000	51%	6,600	26%
	Nairí Awari	950	9,247	100%	4,589	50%	538	6%	4,120	45%
	Bajo Chirripó	2,200	31,931	100%	14,087	44%	4,696	15%	13,148	41%
	Alto Chirripó	7,500	128,555	100%	46,738	36%	31,189	24%	50,628	39%
	Tayní	1,200	16,227	100%	16,216	100%	0	0%	11	0%
	Télire	850	30,081	100%	16,260	54%	0	0%	13,821	46%
	Cabecar de Talamanca	2,600	37,143	100%	19,320	52%	3,049	8%	14,774	40%
	sub-total	17,000	278,824	100%	123,250	44%	52,472	19%	103,102	37%
Bribrí	Salitre	1,500	15,700	100%	4,680	30%	7,020	45%	4,000	25%
	Cabagra	1,800	41,330	100%	16,080	39%	11,300	27%	13,950	34%
	Bribri de Talamanca	7,500	69,903	100%	28,398	41%	15,291	22%	26,214	38%
	Cocles	500	5,938	100%	1,238	21%	2,300	39%	2,400	40%
	sub-total	11,300	132,871	100%	50,396	38%	35,911	27%	46,564	35%
Brunca or Borucas	Boruca	4,300	15,970	100%	4,900	31%	7,570	47%	3,500	22%
	Curré	1,400	11,620	100%	1,700	15%	8,920	77%	1,000	9%
	sub-total	5,700	27,590	100%	6,600	24%	16,490	60%	4,500	16%
Térrába orTélire	Térraba	1,200	10,710	100%	1,100	10%	8,250	77%	1,360	13%
Guaymí	Guamí de Conteburica	2,000	20,110	100%	7,146	36%	4,764	24%	8,200	41%
	Gauaymí de Osa	145	5,086	100%	2,413	47%	300	6%	2,373	47%
	Guaymí de Coto Brus	1,500	7,350	100%	600	8%	1,500	20%	5,250	71%
	Abrojo Montezuma	950	2,516	100%	740	29%	740	29%	1,036	41%
	sub-total	4,595	35,062	100%	10,899	31%	7,304	21%	16,859	48%
Total		45,095	494,674	100%	194,455	39%	126,488	26%	173,731	35%

Source: Estudios de Tierrá CONAI, Estudios de tierra Sección de Asuntos Indígenas IDA

1.6.2 NGOs (Pro-Indigena)

Table 1.6.2 shows the NGOs working for indigena communities in Costa Rica called Pro-Indigena. TUVA Foundation is the international NGO working for five Guaymi indigena reserves. Its main activities are to preserve/revive the indigena culture and customs.

Table 1.6.2 Pro-Indigena NGO

Name of Organization	Indigena Reserves
Proyecto NAMASOL	Talamanca
Fundación Iriria Tsochok	Talamanca
Comisión de Defensa de los Bribris (CODEBRIWAK)	Talamanca
Asociación Regional del Dikes (Aradikes)	Buenos Aires
Ngobewe	Chacarita
TUVA Foundation	Guaymi
YISKI	Guaymi

1.7 REVIEW OF LAND PROVISION/LAND REGISTRATION SYSTEM BY IDA

IDA's main activities are to promote land registrations and to provide lands mainly to farmers for agricultural development. IDA also provides poor people with lands for housing to improve their living conditions. IDA has started projects for land provision since 1961.

To see an example of IDA activities in South Guanacaste, a piece of coastal land from Manzanillo to Santa Teresa formed a big farm owned by one landowner until 1978 when the owner died. After that, many squatters started to live in the area; therefore, IDA purchased the land and distributed lots of land in 1982. In Corcovado-Golfito, IDA purchased land to the north of Puerto Jiménez up to Rincon from Osa Forestal and big farm owners and distributed lots to squatters and the people who had lived in Corcovado National Park in the late 1970s and the early 1980s.

IDA has land registration projects covering Nicoya Peninsula in South Guanacaste and south of Osa Peninsula in Corcovado-Golfito at present. To have land title, the following documents are needed:

- Cadastral map
- MINAE's certification that shows the land is not within MINAE's protected area
- State lawyer's evidence that shows the land has been used for residential or agricultural purpose by the person concerned more than 10 years

In South Guanacaste, there are several IDA projects to provide land to poor people who live with big families in small houses. IDA purchased land in Venado for the people in Lagarto and 3 families have been moved. In San Juanillo, the airstrip land was allocated to around 20 families by IDA projects.

In view of the missions of IDA described above, IDA is not an appropriate institution to implement village resettlements for the purpose of tourism development in coastal areas at present.

1.8 REVIEW OF URBAN PLANNING SYSTEMS

Urban regulatory plans are land use plans formulated for urbanized areas. The formulation of urban regulatory plans is in accordance with the Law of Urban Planning (Ley de Planificacion Urbano No. 4240, established in 1968 and modified in 1985). The National Institute of Housing and Urban Planning (INVU) is in charge of the following aspects:

- Drawing up urban regulatory plans
- Technical guidance and approval of urban regulatory plans

At present, an urban regulatory plan is formulated for one urban district. In principle the minimum unit is therefore an administrative district. Exceptionally, an urban regulatory plan can be made for an area composed of a large private property with several owners. A local regulatory plan can be drawn up to cover more than one urban district.

Urban districts in which there is at least a town with the following conditions and functions are defined as urban districts:

- Population of more than 5,000 at present or in the near future
- Schools
- Heath clinics
- Churches
- Supermarket
- Asphalt roads
- Electricity supply
- Telephones

Urban Districts in the study areas are shown in Figures 1.8.1 and 1.8.2. Most districts except Cuajiniquil District in the study areas are urban districts.

The urban districts are divided into urban areas and rural areas. The boundaries of urban areas are decided by INVU, taking into consideration present land uses and population predictions for the next ten years.

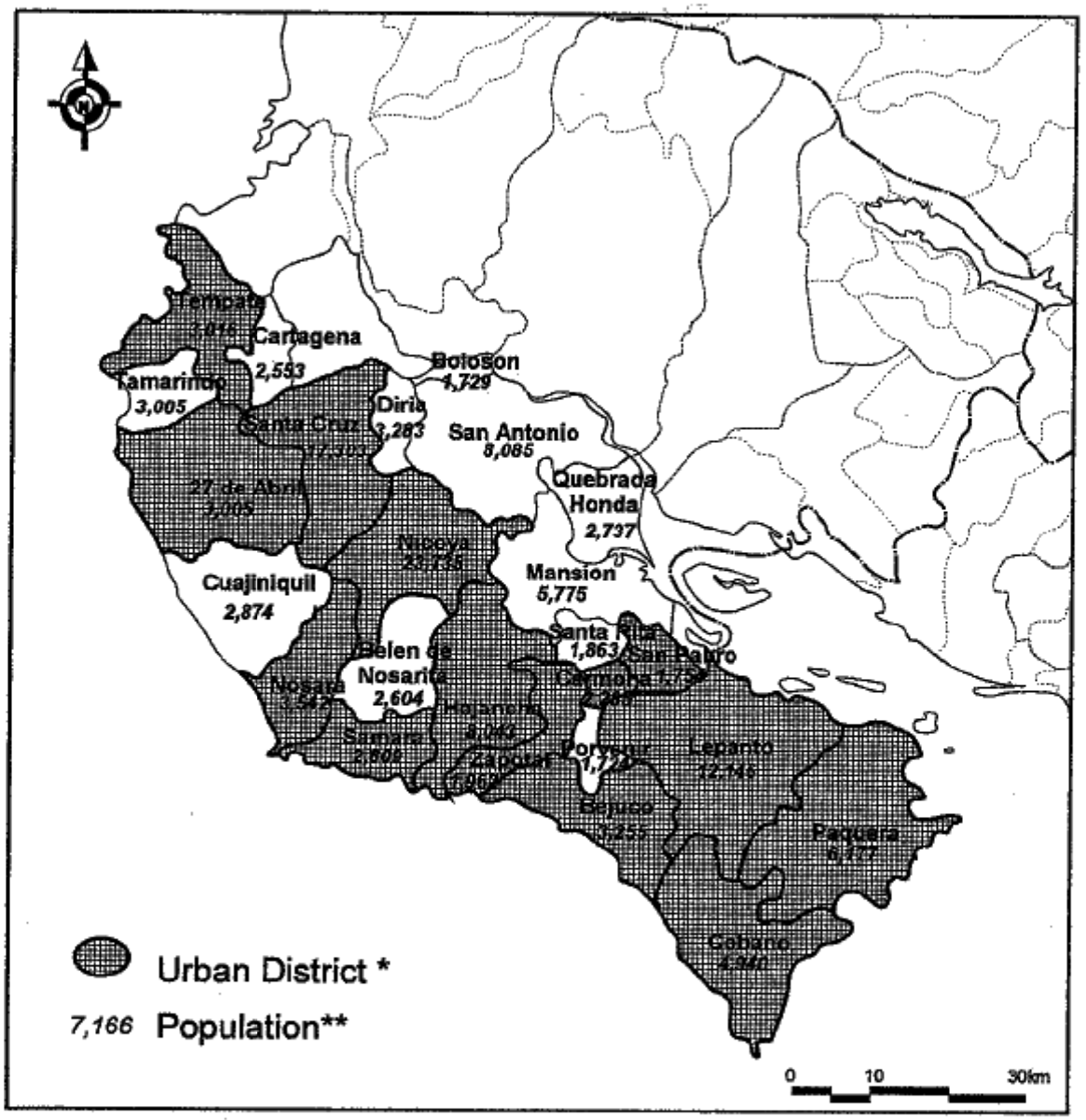
INVU or private entities have made urban regulatory plans. The procedure for formulating urban regulatory plans is as follows:

1) Drawing up of draft urban regulatory plan (INVU or private entities)
2) Review and approval by INVU
3) Review by Municipality
4) Public hearing
5) Approval by Municipality
6) Announcement of approval of urban regulatory plan in a gazette

The Urban Planning Law does not prescribe any periodical mandatory review or revision of approved urban regulatory plans. The approved urban regulatory plans are effective for ten years.

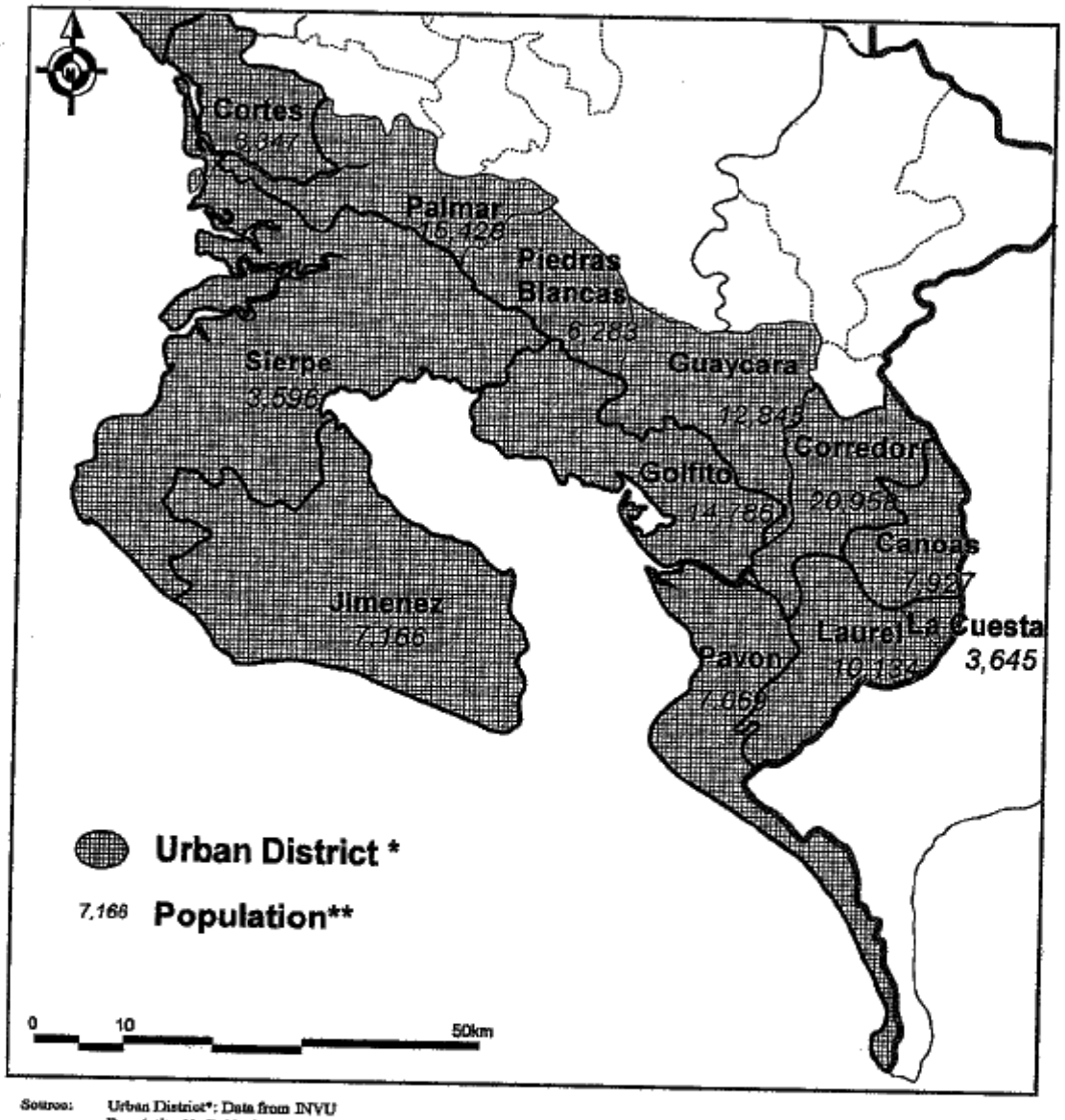
Urban zones are defined within capital towns of cantons (municipalities). The urban zones along the coasts are excluded from Maritime Terrestrial Zones (MTZs). That is, the areas under such urban zones are private lands. For example, Golfito Town has an urban zone along the coast, which is not an MTZ.

Figure 1.8.1 Urban Districts in South Guanacaste



Source: Urban District*: Data from INVU
Population**: Poblacion de Costa Rica por sexo segun provincia, canton y district 1990~1999, Instituto Nacional de Estadistica y Cen

Figure 1.8.2 Urban Districts in Corcovado-Golfito



Sources: Urban District*: Data from INVU
Population**: Poblacion de Costa Rica por sexo segun provincia, canton y district 1990--1999, Instituto Nacional de Estadistica y Cen

Appendix 2
CHARACTERISTICS OF SOUTH GUANACASTE TOURIST PLANNING UNIT

2.1 REGIONAL STRUCTURE

2.1.1 Access to South Guanacaste

(1) Two International Gateways

South Guanacaste has two gateways to other parts of Costa Rica, as well as to places outside Costa Rica. One is San Jose, which has an international airport and domestic airports and acts as the air transport hub of Costa Rica. The other is Liberia airport, which has been operational since 1996, and which acts as the gateway for this region, especially for charter flights from North America and Canada.

(2) Three Access Routes via the Inter-American Highway

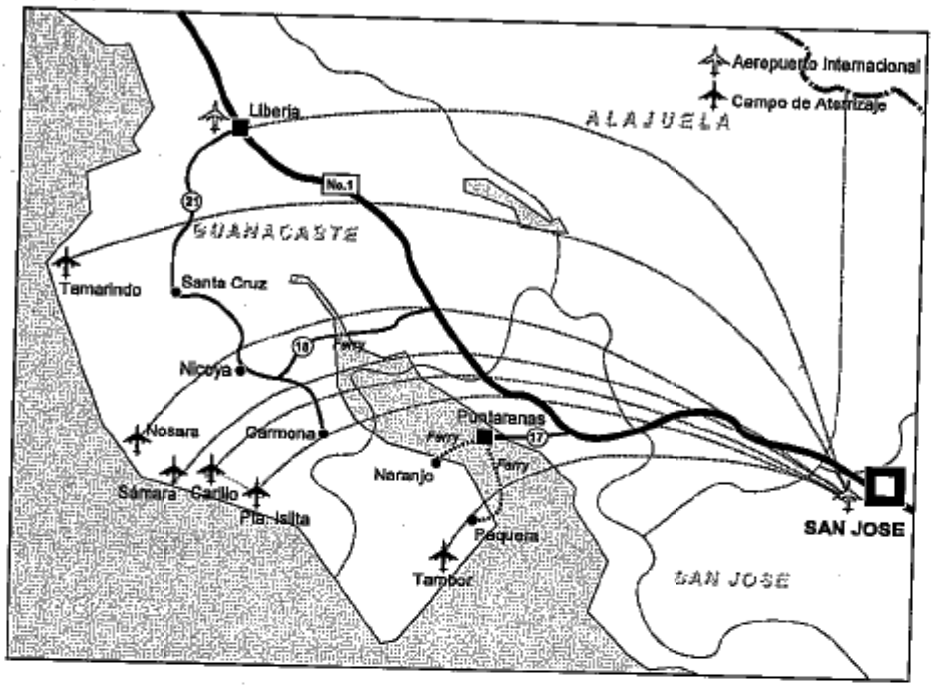
A main route to South Guanacaste is the Inter-American Highway (No. 1), which runs to neighboring Nicaragua. Three national roads, namely Nos. 17, 18 and 21, connect South Guanacaste to the Inter-American Highway, as shown in Figure 2.1.1.

The national road No. 17 connects with the Inter-American Highway and Puntarenas. There are two car ferry routes from Puntarenas to Naranjo and Paquera on the Nicoya Peninsula. The National road No. 18 branches off from the Inter-American Highway and runs to the central part of the Nicoya Peninsula, via a car ferry across the Tempisque River. A bridge is under construction a little upstream of the ferry crossing point. National road No.21 runs from Liberia through Santa Cruz town and Nicoya town to Carmona town.

(3) Domestic Air Network

Costa Rica has two domestic airlines which run flights from San Jose to several places in the region, as shown in Figure 2.1.1. Nosara, Samara, Punta Islita and Tambor have scheduled flights from San Jose every day. However, there are no flights between places within South Guanacaste, except the flight to Punta Islita via Carrillo.

Figure 2.1.1 Inter-Regional Linkage of South Guanacaste

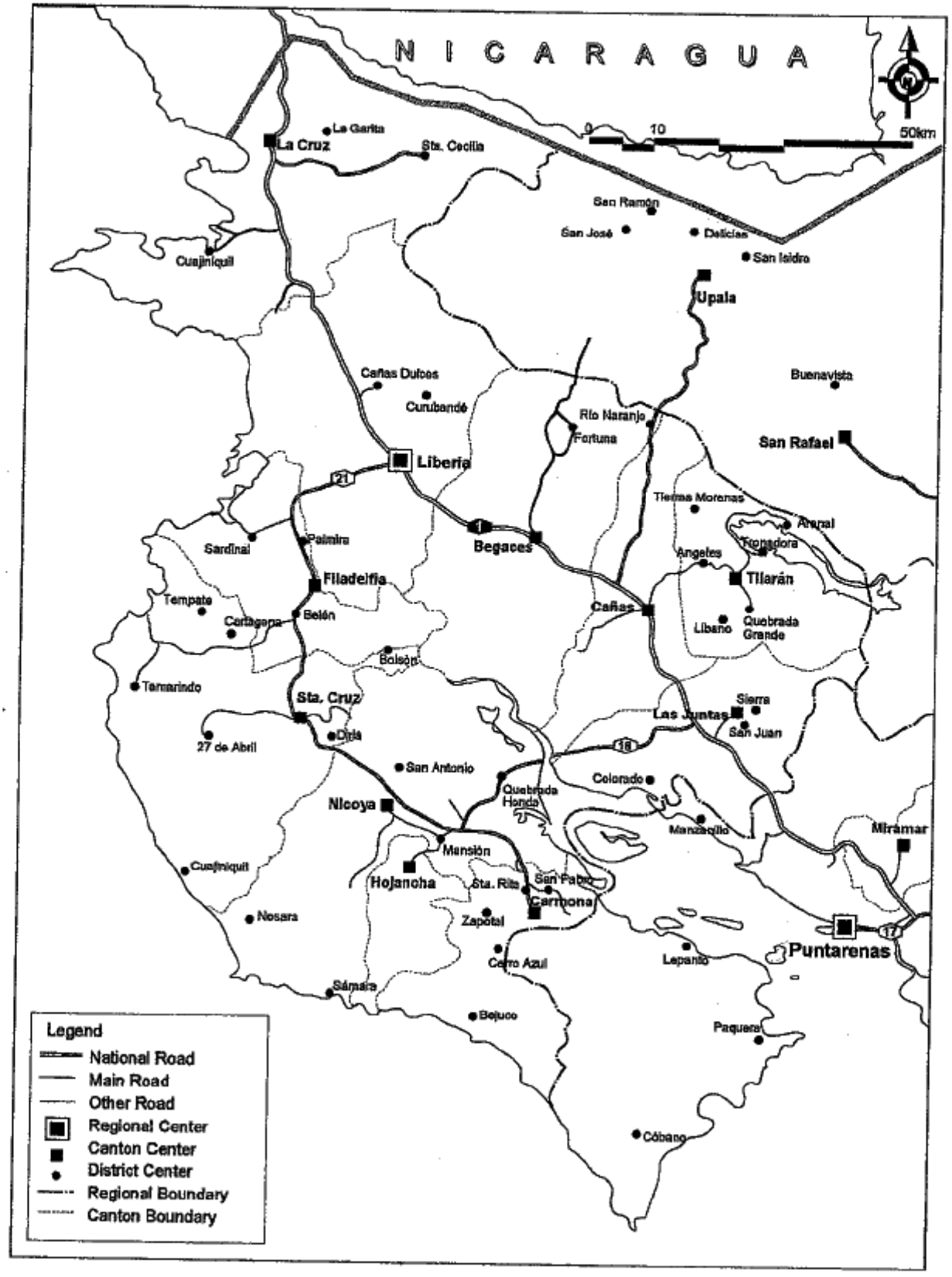


2.1.2 Urban Centers

The region with which the JICA study is concerned for the South Guanacaste tourism planning unit corresponds to Chorotega Region and a part of the Central Pacific Region. The region has two regional centers, Puntarenas and Liberia. Chorotega Region has twelve cantons and a population of 280,000. The region's capital is Liberia, which has a population of 36,000. The Central Pacific Region has six cantons and a population of 180,000. The region's capital is Puntarenas town, with a population of 108,000.

At the water catchment area level, the study area contains five cantons, the capital towns of which are Nicoya town, Santa Cruz town, Hojancha town, Carmona town and Puntarenas town. In the Nicoya Peninshula, Puntarenas Canton has three districts, for which Cabano is a center of commerce and administration. Most of the capital towns of the cantons in the Nicoya Peninsula are located along the national road No.21. The population of Nicoya District is 24,000; Santa Cruz District and the surrounding districts have a population of 2,300. Hojancha District and surrounding districts have a population of 8,000 and Carmona District has 2,300 inhabitants. Two district centers (Samara and Cuajiniquil) are located along the coast.

Figure 2.1.2 Urban Centers



2.1.3 Regional Tourism Structure

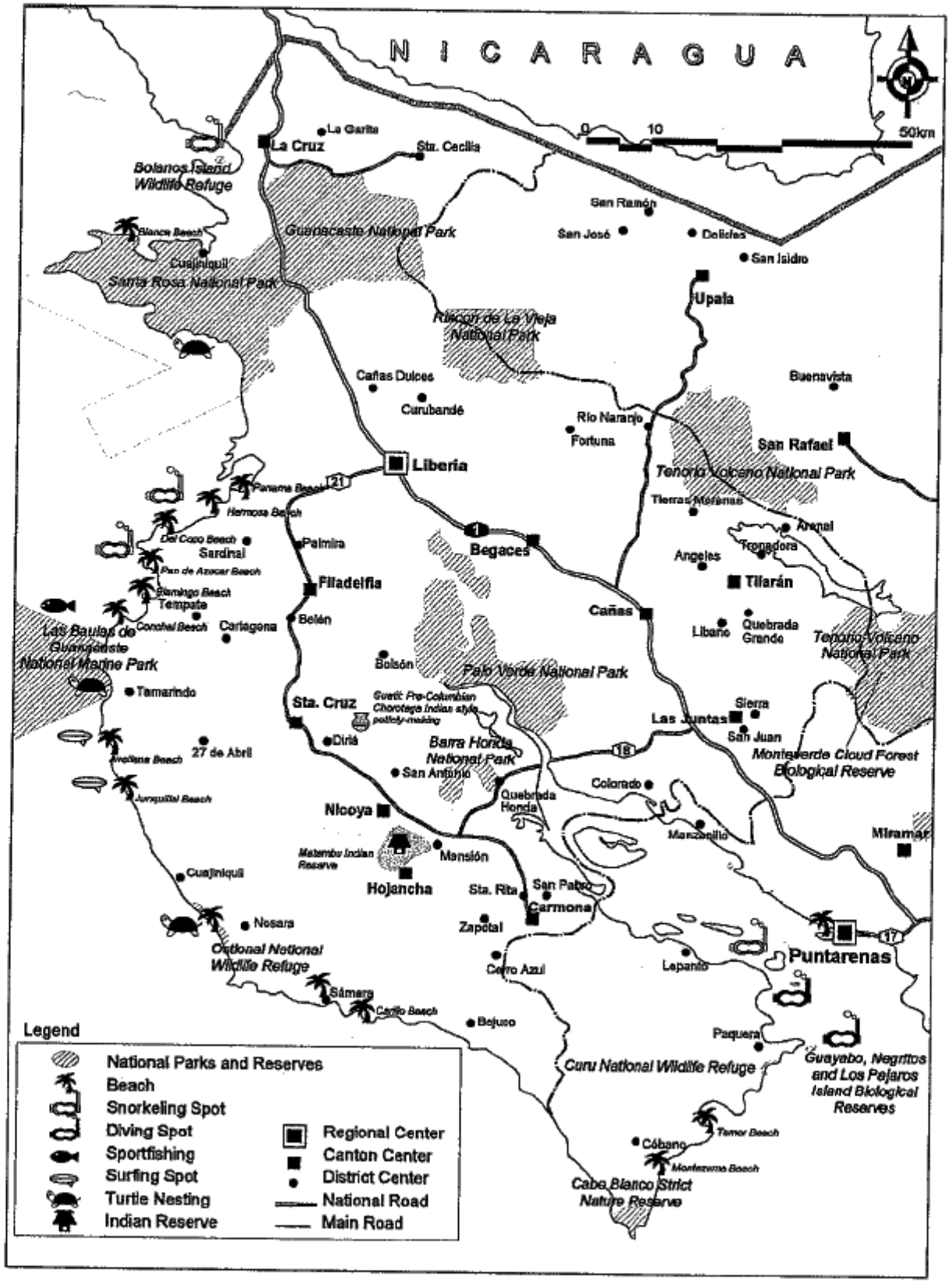
(1) Chain of Three Tourism Corridors

The region with which the JICA study is concerned for South Guanacaste has three tourism planning units (tourism corridors), which all have different characters, as shown in Figure 2.1.3. In particular, the North Guanacaste tourism planning unit has a coastline 171 km long, South Guanacaste tourism planning unit has a 130 km long coastline, and Putarenas, Beaches and Islands of Gulf's coastline in the planning unit extend for 195 km. There is a total of 7,070 rooms in the three planning units (26.6% of Costa Rica's accommodation). According to ICT's strategic plan, the tourist centers in the Chorotega Region are Liberia, El Coco, Flamingo, Tamarindo, Santa Cruz, Nicoya, Samara, Tambor and Puntarenas.

Typical tourist destinations and attractions in the region are the following:

National Parks and Reserves	Beaches	Other Attractions
• Bolanos Island Wildlife Refuge • Santa Rosa National Park • Guanacaste National Park • Rincon de La Vieja National Park • Lomas Barbudal • Biological Reserve • Palo Verde National Park • Monteverde Cloud Forest Biological Reserve • Las Baulas de Guanacaste National Marine Park • Barra Honda National Park • Ostional National Wildlife Refuge • Guayabo, Negritos and Los Pajaros Island Biological Reserves • Curu National Wildlife Refuge • Cabo Blanco Strict Nature Reserve	• Blanca • Panama • Hermosa • Del Coco • Pan de Azucar • Flamingo • Conchal • Tamarindo • Avellana • Junquillal • Nosara • Samara • Carrillo • Montezuma • Tambor • Puntarenas	• Guatil: Pre-Columbian Chorotega Indian style pottery-making community • Matambu Indian Reserve

Figure 2.1.3 Tourist Attractions and Destinations in Chorotega Region



2.1.4 Geography and Climate

(1) Location and Geographical Conditions

The South Guanacaste Planning Unit is located in the southern part of the Nicoya Peninsula, which has a 130.3 km of coast, facing the Pacific Ocean and the Nicoya Gulf. The Nicoya Peninsula is 130 km long and has an average width of 50 km. It is separated from the Guanacaste plains by the Tempisque River and the Gulf of Nicoya, and is famed as one of the driest regions in Costa Rica. It has rugged hills with tropical dry forest and tropical moist forest with two small national parks and several nature reserves.

There are one hundred beaches, from small ones (0.1km) to long ones (5.0km) in South Guanacaste. There are a number of sandy bays separated by headlands along the coast. Most beaches have various colors of sand from black (the most common color) to white with some rocks and sometimes with coral reefs offshore. Access is by inadequate dirt road.

Behind the beaches in South Guanacaste the typical landscape consists of pastures and hilly mountains, and one of the highest mountains in the area is Mt. Azul near Carmona town (1,018m).

(2) Climate

While the Nicoya Peninsula is a generally dry area, the climate differs from north to south and from the coastal areas to the mountain areas. South Guanacaste has more rainfall (max.2400mm/yearly average) than the northern part (1710mm). In the dry season between late November and the beginning of May, the dry climate affects low land, including the coast area, severely, bringing 70-150 moisture-less days in a year because of the strong trade winds from the Caribbean Sea. The climate conditions are shown in Table 2.1.1 and Figure 2.1.4.

Table 2.1.1 Climate of South Guanacaste Area

Location	Part	Temperature °C	Rainfall (mm)	Aridity (%)	Dry months
Coastal area	Southern	23 - 27	1,710 – 2,050	under 20%	12, 1, 2, 3, 4
	Northern	- 27	1,300 – 1,710	under 20%	11,12,1,2,3,4,5
Mountain area		23 - 27	2,050 – 2,400	under 20%	12, 1, 2, 3, 4

Note: All figures indicate annual averages.
The mountain area in the northern part has a similar climate to the southern part of the coastal area.
Source: Clima de Costa Rica. Editorial Univ. 1985/ Luis Gomez.

Figure 2.1.4 Geographical Conditions

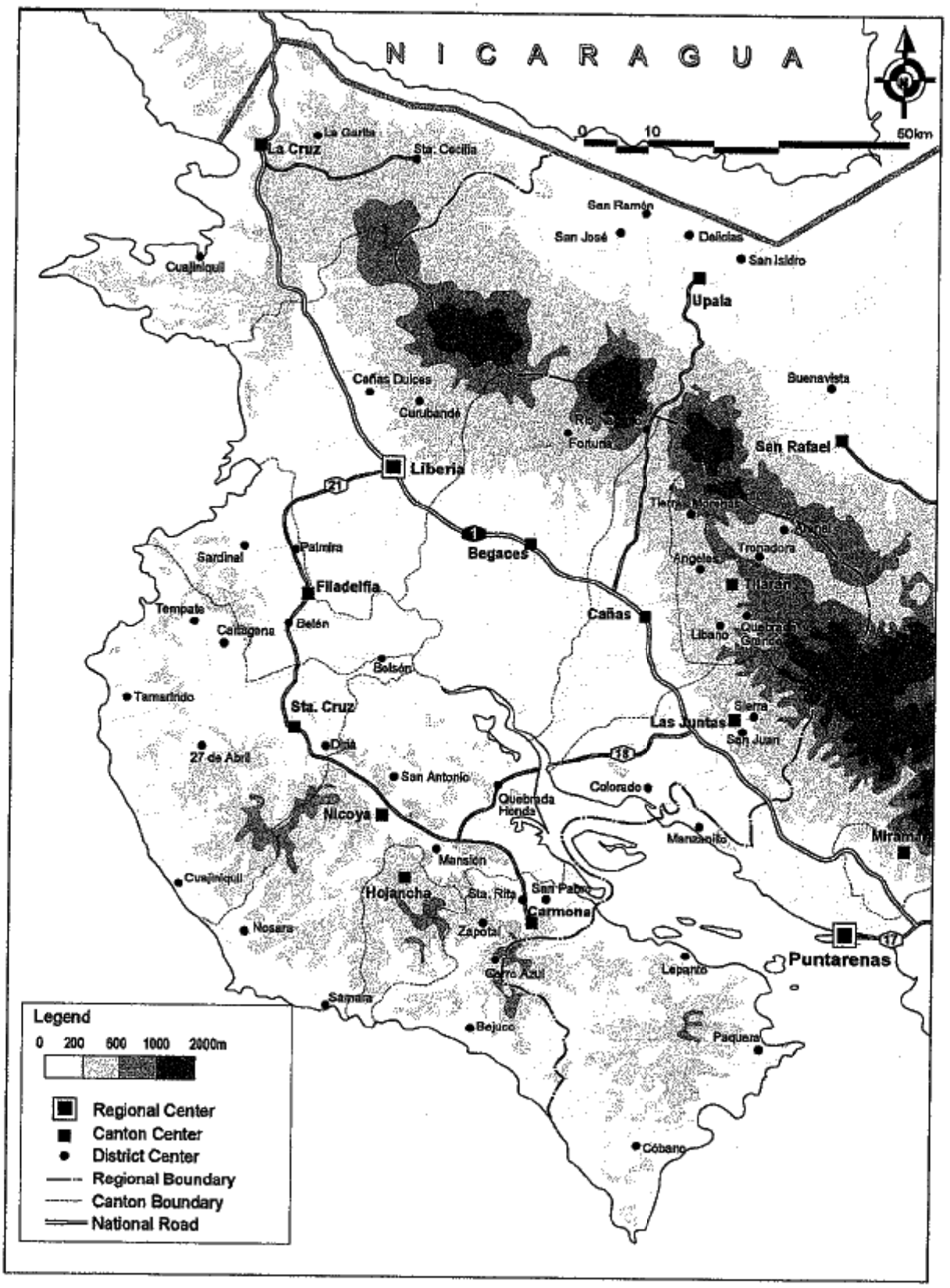
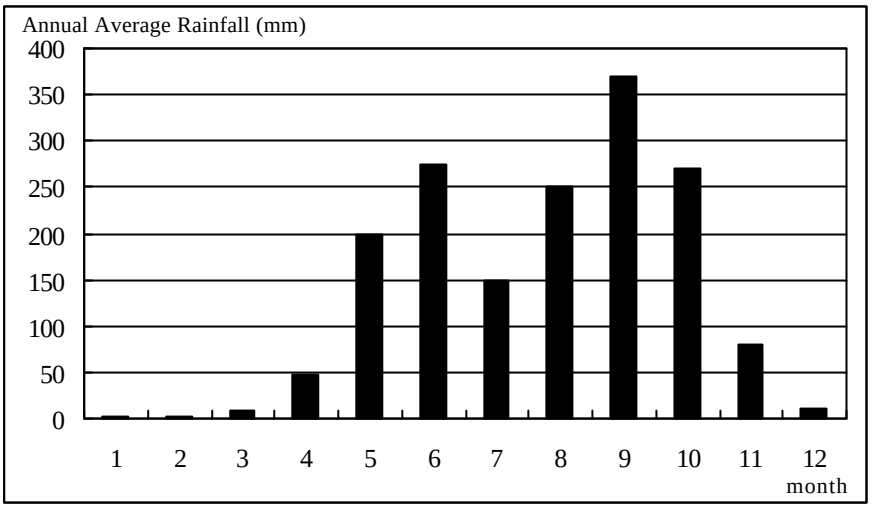


Figure 2.1.5 Annual Average Rainfall in Liberia (1975-1997)



Source: Institution of National Meteorology

2.1.5 Socio-economic Structure of the Study Area

(1) Population and Employment in the Study Area

The Nicoya Peninsula (Santa Cruz Canton, Nicoya Canton, Hojancha Canton, Nandayure Canton and three districts of Puntarenas Canton) had a population of 136,000 in an area of 4,500 km^2 in 1999. The population density of the Nicoya Peninsula is about 30 persons per km^2. The population of the peninsula accounts for 3.8 % of Costa Rica's total population, while the peninsula makes up 8.9% of Costa Rica's total land area.

The population sizes of the cantons vary. Nicoya Canton and Santa Cruz Canton have larger populations than other cantons. The population of Nicoya canton is approximately 50,000 and Santa Cruz has approximately 42,000. See Table 2.1.2.

Changes in the population and rates of employment in the study area (including four cantons and the peninsula part of Puntarenas canton) are shown in Tables 2.1.2 and 2.1.3.

Although the population of Puntarenas Province accounted for 11% of the total population of Costa Rica in 1950, the percentage fell to 7.8% in 1999. As for the Nicoya Peninsula, since 1965, especially in the 1960s, 1970s and 1980s, the annual growth rate of the population has been less than the national average, as shown in Table 2.1.2. This suggests that the area has experienced a substantial volume of out-migration. The number of employed persons in the area still continued to decrease dramatically between 1984 and 1998, as shown in Table 2.1.3.

Table 2.1.2 Population Change in the Study Area

Cantons	Population						Average Annual Rate of Increase (%				
	1965	1975	1985	1990	1995	1999	'65/75	'75/85	'85/90	'90/95	'95/99
Santa Cruz	25,797	29,897	33,565	37,089	39,712	41,929	1.5	1.2	2.0	1.4	1.4
Nicoya	40,471	36,937	39,365	44,007	47,347	49,800	0.9	0.6	2.3	1.5	1.3
Hojancha	***	7,493	6,233	7,098	7,705	8,043		-1.8	2.6	1.7	1.1
Nandayure	13,391	11,552	10,216	11,565	12,431	12,843	-1.5	-1.2	2.5	1.5	0.8
Puntarenas*	nd	nd	nd	20,478	21,965	23,263				1.4	1.4
Puntarenas**	60,558	64,927	80,537	91,365	100,266	105,946	0.7	2.2	2.6	1.9	1.4
Total*				120,237	129,160	135,878				1.4	1.3
Total**	140,217	150,806	169,916	191,124	207,461	218,561	0.8	1.3	2.4	1.7	1.3
Costa Rica	1,447,120	1,969,256	2,638,963	2,993,676	3,301,210	3,558,697	3.1	3.0	2.6	2.0	1.9
Share (%)*				4.02	3.91	3.82					
Share (%)**	9.69	7.66	6.44	6.38	6.28	6.14					

Note: * 3 districts of the peninsula side of Puntarenas Canton
** 12 districts of Puntarenas Canton
*** Hojancha District was the part of Nicoya Canton till 1971

Source: Poblacion de Costa Rica por Sexo Segun Provincia, Canton y District 1990~1999, Instituto Nacional de Estadistica y Censos
Estimación y Proyección de Población por Cantones del Período 1975-2015

Table 2.1.3 Change in Rates of Employment in the Nicoya Peninsula

Canton	No. of Employees			Employees/Population (%)			Annual Rate of Increase (%)	
	1984**	1990***	1998***	1984**	1990***	1998***	1984/90	1990/98
Santa Cruz	7,286	5,166	7,204	21.7	13.9	21.7	-5.6	4.2
Nicoya	8,481	5,481	4,705	21.5	12.5	21.5	-7.0	-1.9
Hojancha	1,381	874	767	22.2	12.3	22.2	-7.3	-1.6
Nandayure	2,355	1,004	1,284	23.1	8.7	23.1	-13.2	3.1
Puntarenas*	19,868	16,746	21,175	24.7	18.3	24.7	-2.8	3.0
Total	39,371	29,271	35,135	23.2	15.3	23.2	-4.8	2.3
Costa Rica	731,446	725,758	974,682	27.7	24.2	27.7	-0.1	3.8
Share (%)	5.38	4.03	3.60					

Note: The Canton of Puntarenas* includes all of the 12 districts of Puntarenas Canton.
Source: ** Censo de Poblacion (Tomo II, 1987)
Estado de la Nacion Project

(2) Profile of Coastal Area

The South Guanacaste coastal area is 130km long from Punta Carritos, the western tip of the peninsula, to Cabo Blanco, the eastern tip. Seven districts and Hojancha canton have coastlines. The total area of the coastal districts is 1,700km2, which accounts for 38% of the Nicoya Peninsula. Its population is 33,700 (25% of the total population for the whole peninsula). The population density is 19.7 people/km2, a low density compared with the national average of 71 people/km2 and 30 people/km2 for the Nicoya peninsula.

The number of wards is 20 and there are 234 communities. The population average in a community is 140. There are 65 tourist facilities and 721 rooms which account for 25 % of those in the Nicoya Peninsula.

Table 2.1.4 Population and Land Areas in the Coastal Districts

Administrative Units		Area	Population (Person			Average Increase	Annual Rate (%)	Population Density
Cantons	Districts	(km2)	1990	1995	1999	1990/95	1995/99	(psn/km2)
Santa Cruz	27 de Abril	300.65	8,044	8,629	6,143	1.4	**1.5	20.4
	Cuajinquil	232.94	2,596	2,765	2,907	1.3	1.3	12.5
Nicoya	Nosara	121.40	3,331	3,430	3,585	0.6	1.1	29.5
	Samara	109.51	2,374	2,631	2,842	2.1	1.9	26.0
Hojancha	-	261.42	7,098	7,705	8,043	1.7	1.1	30.8
Nandayure	Zapotal	103.53	1,814	1,926	1,962	1.2	0.5	19.0
	Bejuco	262.08	2,897	3,128	3,255	1.5	1.0	12.4
Puntarenas	Cobano	316.61	4,091	4,385	4,940	1.4	3.0	15.6
• Study area total		1,708.14	32,245	34,599	33,677	1.4	**1.5	19.7
• Nicoya Peninsula area *		4,547.91	120,237	129,160	135,878	1.4	1.3	29.9
(% of the Coastal Districts)		37.6	26.8	26.8	24.8	-	-	-

Note: * Total of 4 cantons (Santa Cruz, Nicoya, Hojancha, Nandayure) and 3 districts of Puntarenas located in the Peninsula

**To include Tamarindo District, because in 1997 Tamarindo separated from 27 de Abril District.

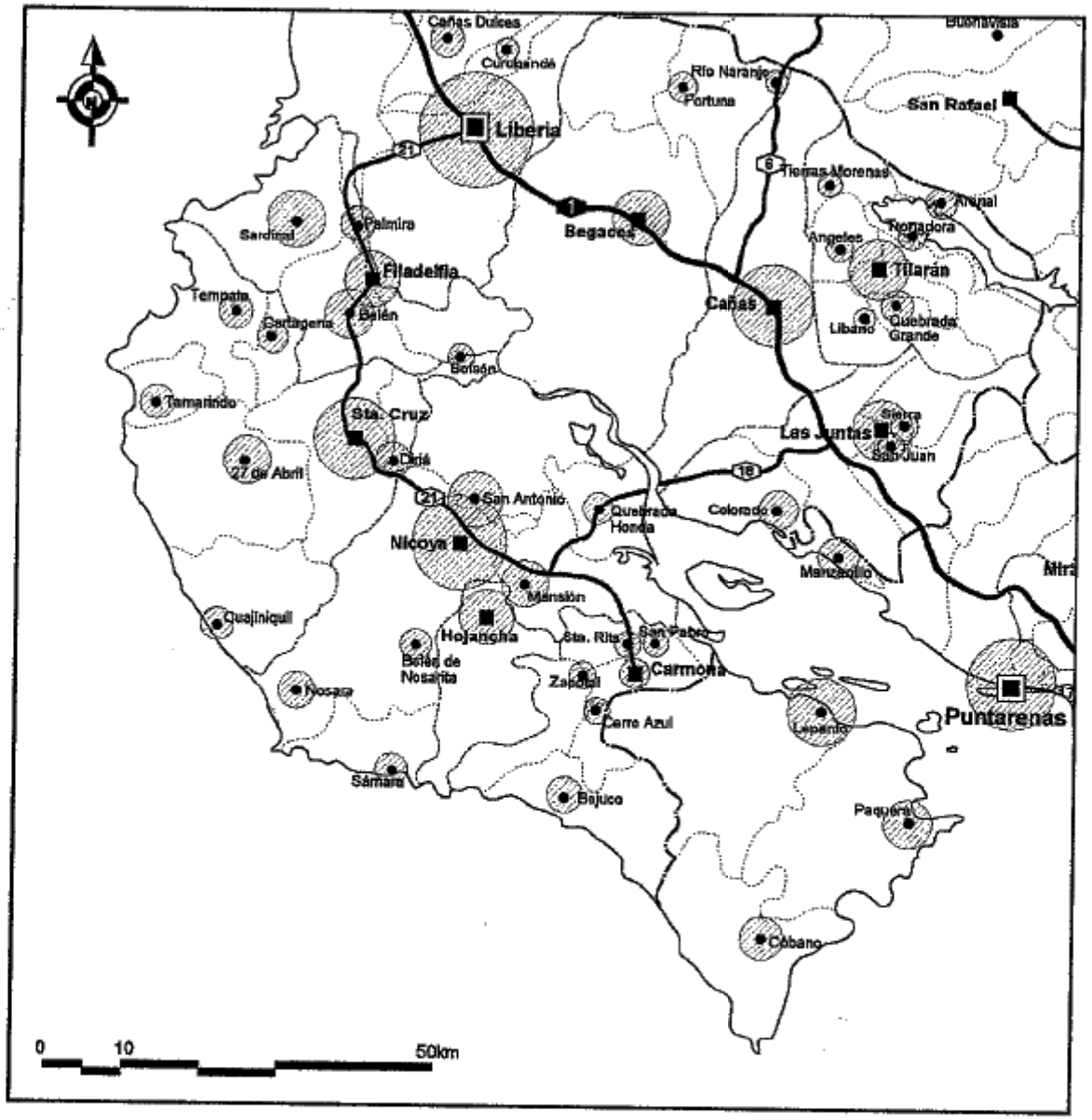
Source: Poblacion de Costa Rica por Sexo Segun Provincia, Canton y District 1990~1999, Instituto Nacional de Estadistica y Censos

Table 2.1.5 Community and Tourism Facilities in the Coastal Area

Administrative Units		Length of Coastline (km)	No. of Community Units (*)		Quantity of Tourism Accommodation 1999 (**)	
Cantons	Districts		Wards	Villages	(Units)	(Rooms)
Santa Cruz	27 de Abril	4.0	-	42	3	13
	Cuajinquil	22.2	-	26		
Nicoya	Nosara	15.6	-	18	45	501
	Samara	21.6	-	20		
Hojancha	-	7.1	-	44	4	75
Nandayure	Zapotal	3.3	-	13	5	50
	Bejuco	29.9	-	30		
Puntarenas	Cobano	26.6	-	41	8	82
• Study area total		130.3	-	234	65	721
• Nicoya Peninsula area		-	20	556	212	2,999
(% of study area)		-	-	42.1	30.7	24.0

Source: (*): No. of community units: "Division territorial administrativa" comision Nacional de Division Territorial Administrativa, 1997
(**): ICT Hotel and Accommodation Facility Data (2000)

Figure 2.1.6 Administrative Boundaries of the Study Area



Legend

Population 1999

20,000
15,000
10,000
5,000
0

- Regional Center
- Canton Center
- District Center
- National Road
- Main Road
- International Boundary
- Regional Boundary
- Canton Boundary
- District Boundary

2.1.6 Road Network

The roads in South Guanacaste form a spidery network of relatively dense roads (1.1 km/km^2) through hilly mountains and pastures in the plain. The total length of road is about 6,100 km., over 96% of which is unpaved road with almost no bridges, lights or traffic signs.

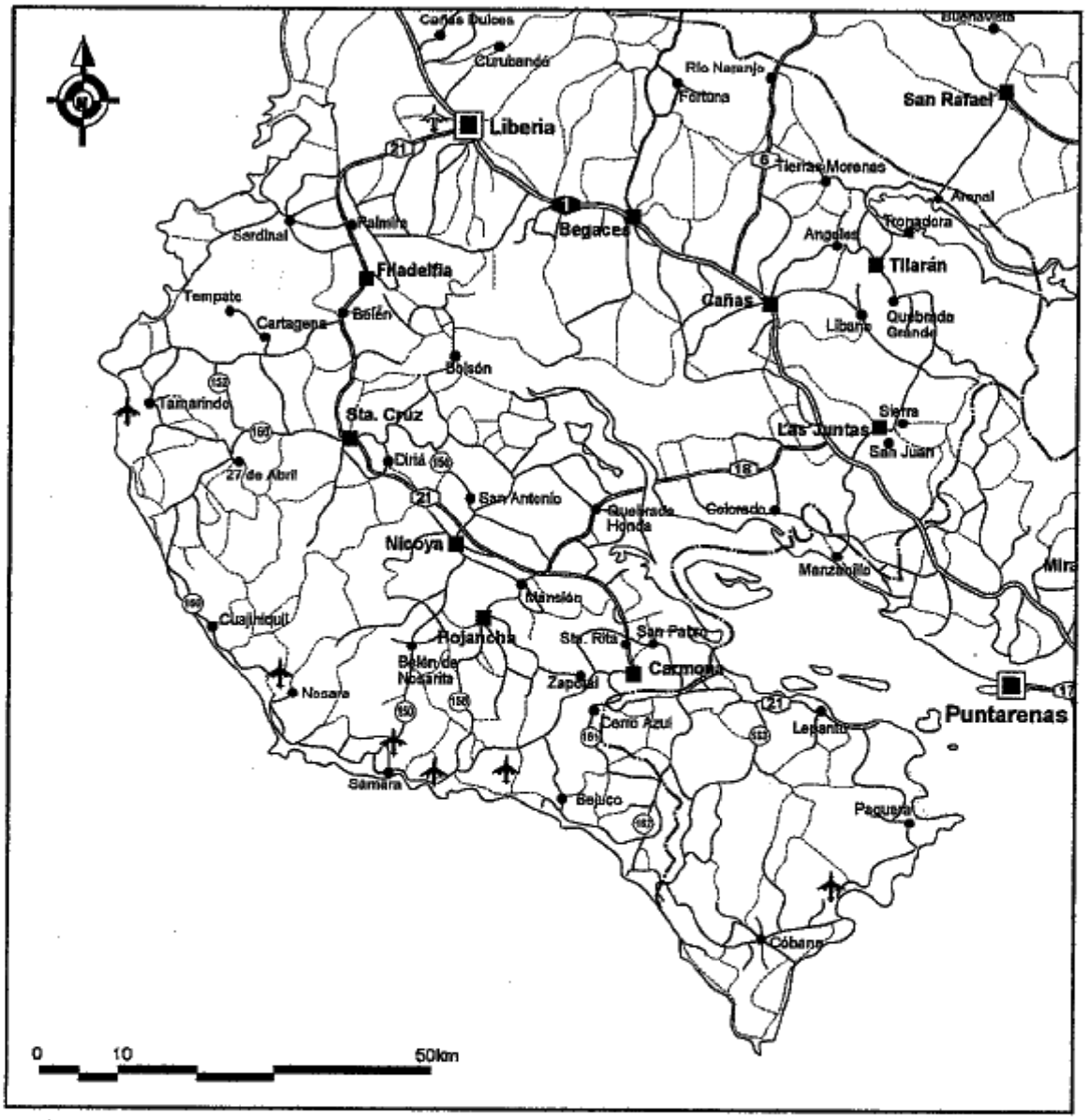
A paved trunk road, Route 21, extends for about 98km to the Inter-American Highway. It penetrates the hillside of Nicoya Peninsula, passing through several major canton centers to Carmona town. Other feeder roads connect local communities and beach resort areas to Route 21. The route from Nicoya to Samara is only paved in the South Guanacaste area. The extent and surface of the road network is shown below.

Table 2.1.6 Road network conditions by Canton in the Study Area

Canton	Total (km)	Paved (%)	Unpaved (%)	km/km2
Santa Cruz	1235.7	71.7 (3.8)	1164.0 (96.2)	0.9
Nicoya	1442.8	69.8 (0.7)	1373.0 (99.3)	1.1
Hojancha	663.8	5.0 (5.8)	658.8 (94.2)	2.5
Nandayure	678.0	14.9 (4.8)	663.1 (95.2)	1.2
Puntarenas	2082.5	80.3 (2.2)	2002.2 (97.8)	1.1
total	6102.8	241.7 (3.9)	5861.1 (96.1)	1.1

Note: Puntarenas Canton includes the area beyond Nicoya Peninsula
Source: Study Team, Cantones de Costa Rica 1992 (original source in 1984)

Figure 2.1.7 Regional Road Network



Legend

- National Primary Road
- National Secondary Road
- Other Road
- (14) (26) Road Number
- International Airport
- Domestic Airport
- Regional Boundary
- Regional Center
- Canton Center
- District Center

2.2 NATURAL RESOURCES AND ENVIRONMENTAL CONDITIONS

2.2.1 Climate, Landform, Land Capability and Water Resources

There is only a small variation in average temperatures over the year, with February and March being the warmest months (about 34 °C). Daily temperatures usually fluctuate between 22–32 °C. Rainfall increases from north to south varying between 150–230 cm (Figure 2.2.1). The rainy season starts at the end of May and finishes in November giving a 5-month dry season. The peninsula has many small, short and steep watersheds, which are seasonally very active. Land capability studies indicate that land use for the upper slopes should be natural forest, for the lower slopes natural or commercial forest and for the flatter land seasonal cultivation or pasture. The rocks in the study area do not hold much water so readily available water resources are limited to riverbed aggregates.

2.2.2 Land Cover and Land Use

Original vegetation cover for the Nicoya Peninsula study area was forest and included well-spaced deciduous trees of tropical dry forest and pre-montane moist forest in the north. Further south the tall multi-layered semi-deciduous or evergreen trees of tropical moist forest occurred. Pre-montane wet forest occurred in the central hills of the Nicoya Peninsula near the 500m contour (Janzen *et al.*, 1983, Costa Rican Natural History). The peninsula was largely forest in 1800, but most of this was cleared towards the end of the 20th century (Figure 2.2.2).

These forests have been replaced gradually by grasslands over hundreds of years (Place Ph.D 1981). At the time of the conquest, a variety of crops were produced using slash and burn agriculture, creating open land. The savanna trees are resistant to fire and grazing (e.g. *Byrsonema crassifolia, Curatella americana, Crescentia alata, Acrocomia vinifera* (palm). Other woody vegetation in overgrazed sites includes spiny shrubs and trees such as *Enterolobium cyclocarpum* (Guanacaste) and *Pithecellobium saman.* The pasture grasses are now dominated by the African species: *Hyparrhenia rufa* (jaragua). Cattle pasture often leads to soil erosion, nutrient depletion and soil compaction and tends to replace numerous small mixed farms with a few large cattle ranches.

Patches of secondary forest occur along the coast with *Ceiba pentandra* and *Ochroma lagopus* being common trees. Some areas of forest include natural vegetation, others are plantations of exotics (teak, *Gmelina*) and the native (pochote, *Bombacopsis quinata*). Fields are often fenced using living trees (*Bursera simaruba, Glyricidia sepium* and pochote) and fruit trees are commonly planted (mango, jocotes, carob, etc). On some points or headlands patches of secondary dry forest remain providing good scenic values. Along water courses some large

trees remain (e.g. Espavel, *Anacardium excelsum*). Typical fragmented land cover on the coast is indicated in Figure 2.2.3 and Land Capability in Figure 2.2.4.

2.2.3 Protected Areas

Designated Protected Areas in Guanacaste Sur are shown in Figure 2.2.5. Cabo Blanco Absolute Natural Reserve contains some 15% primary forest with secondary regeneration dating from 1963. There are moves to establish, in the long term, a biological corridor that will link Cabo Blanco Reserve with remaining forest patches to the north. Three Protection Zones (PZ) have been formally designated on the Peninsula: the Nicoya Peninsula PZ (covering 21,748 ha, in 7 discrete blocks), the Nosara PZ (924 ha) and the Cerro La Cruz PZ (234ha). The secondary forest that has developed in these PZs helps to control run-off from important watersheds. In addition to Ostional and Camaronal (on the coast, see section 2.2.4) there are five National Wildlife Refuges in the area (Table 2.2.1). The largest is the Bosque Nacional Diriá Wildlife Refuge. The vegetation comprises secondary and gallery forests, with remnants of primary forest, and protects the catchments of three rivers (Diriá, Enmedio and Verde). There are populations of white-tailed deer, howler monkeys, northern tamandua and collared peccary in this refuge and scattered populations elsewhere in the peninsula.

Along the Nosara coastline acquisition of land, by a largely foreign community, has allowed regeneration of woody vegetation; the semi-natural secondary forest allows some wildlife to survive. A private reserve at Lagarta Lodge protects 40 ha of forested slope bordering Rio Nosara estuary. A private forest reserve also occurs just west of Punta Islita, protecting riparian and catchment forests. Hotel Punta Islita is planning to establish a private reserve.

Table 2.2.1 National Wildlife Refuges in the South Guanacaste Area

SINAC Code	Name	Area (ha)
V06	Ostional	352
V09	Bosque Nacional Diriá	2,951
V20	Camaronal	234
V24	Estica Ltda.	42
V28	Werner Sauta	140
V31	La Ceiba	273
V43	La Familia Ingalis	158

2.2.4 Coastal habitats

Mangroves line the banks of most river estuaries forming important fish nursery areas and wildlife sanctuaries. Legally protected, these conservation areas can be impacted by development through excessive ground water extraction and water pollution, as well as direct encroachment and clearance.

Away from mangroves, beach vegetation (*Hibiscus* and *Plumeria* near rocks, and beach grass with *Ipomoea pes-caprae* and *Canavalia maritima* on sand) is often cleared and replaced by coconut palms and Indian almond sometimes with Pinguis (*Bromelia pinguin*).

Beaches are particularly important on the Nicoya Peninsula for tourism (sun, sea and sand and associated activities) and wildlife (turtle nesting). The World Conference for the Conservation of Sea Turtles recognised Ostional as one of the world's most important turtle nesting beaches. Tourist development must be very carefully controlled at this national refuge. Harvesting the eggs from the mass nesting of the Olive Ridley turtle (under the supervision of the University of Costa Rica on behalf of MINAE) is a vital part of the economy for Ostional and Nosara. Camaronal National Wildlife Refuge also protects nesting beaches for Leatherback, Olive Ridley and Hawksbill turtles.

Most other beaches in the study area are also used for nesting by other species of turtle at varying intensities. Light pollution is detrimental to sea turtles; it can deter adults from emerging from the sea to nest and can attract hatchling turtles inland, where they die (developments should follow the advice provided by Witherington and Martin (1996) on the use of downward-pointing, shaded lamps and a zone of natural vegetation should be maintained at the back of the beach to block out light).

2.2.5 Marine Environment

The occurrence of coral along the Guanacaste Sur coastline is limited. Mostly the seabed is rocky with sparse, scattered coral colonies. The few areas with denser colonies are used for scuba diving. The main dive sites are among rocks off the north corner of Carillo Beach and the outer rocks protecting Samara Bay. The corals are vulnerable to chemicals coming down Rio Mala Noche and to boat anchoring.

Fishermen from outside the Samara area (from Garza, Cuajiniquil and Playas del Coco) are reportedly a problem, removing fish and conch (*Strombus*) from the Samara coast, having already fished out their own areas. Shrimp boats are also reported to damage marine life by trawling in shallow water (legally limited to 10m depth or more). Marine habitats and some commercial species (*Strombus* and *Panulirus*) are protected up to 1 km offshore around Cabo

Blanco, but high exploitation levels of *Strombus* elsewhere along the Costa Rican coast and inadequate government regulations and control have led to diminished stocks. Offshore sport-fishing is an important tourist activity (e.g. Guanamar & Sueno Tropical on Playa Carillo). Research on fishing stocks is proposed by the UCR Marine Biological Station at Puntarenas.

Seven species of Cetacean have been recorded off the Guanacaste Sur coast, with 5 species being resident and the spotted dolphin and pilot whale especially abundant. Various fishing activities (long-lines, trawling nets and drift nets) are directly responsible for dolphin mortality, while overexploitation of fish stocks can affect cetacean populations indirectly through depletion of their food supply; this and pollution seem to have contributed to the decline of dolphins in the Gulf of Nicoya.

The Isla Cabo Blanco supports the largest brown booby colony (500 pairs) in the country as well as other seabirds.

Figure 2.2.1 Costa Rica: Mean Annual Rainfall

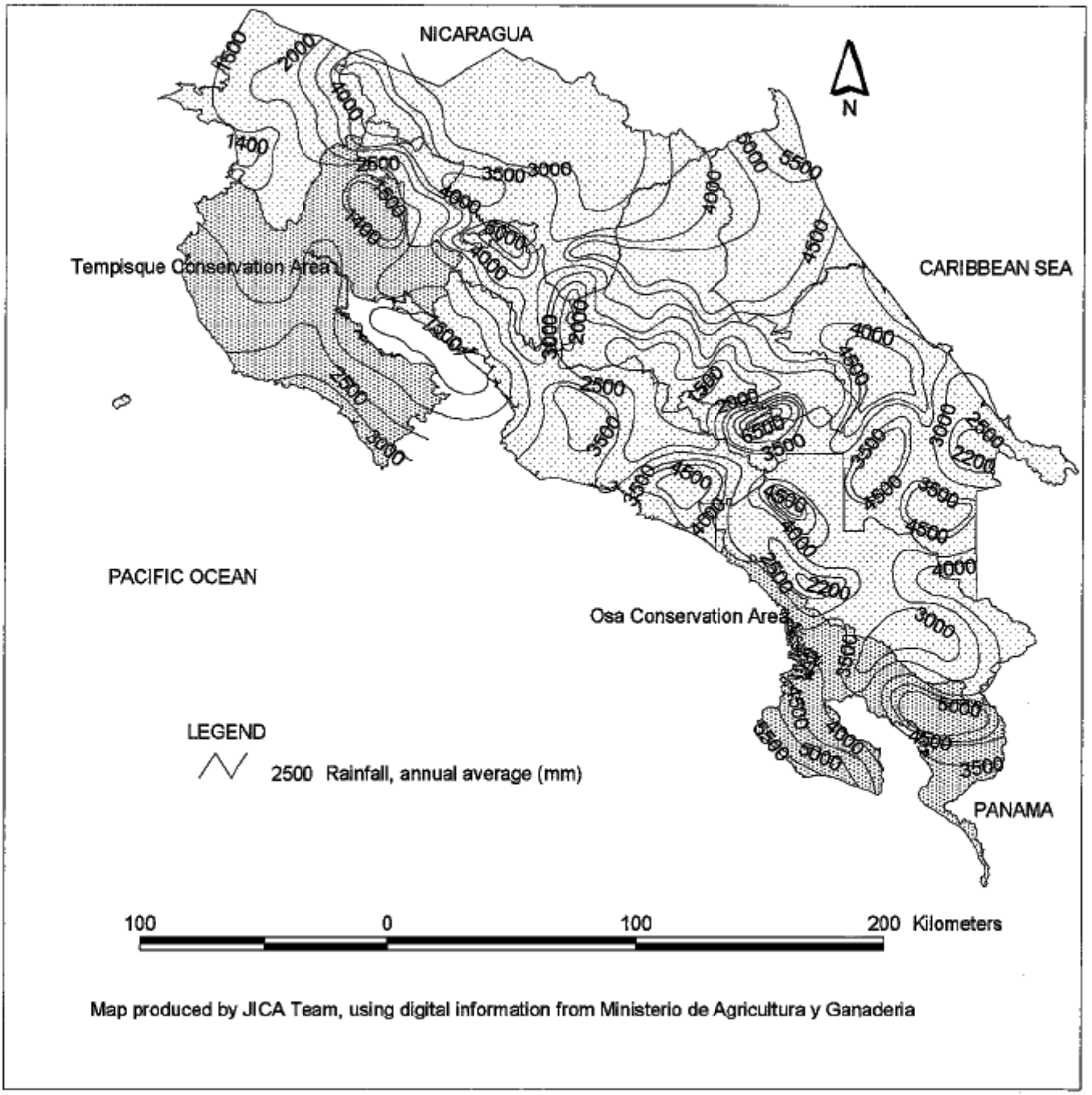
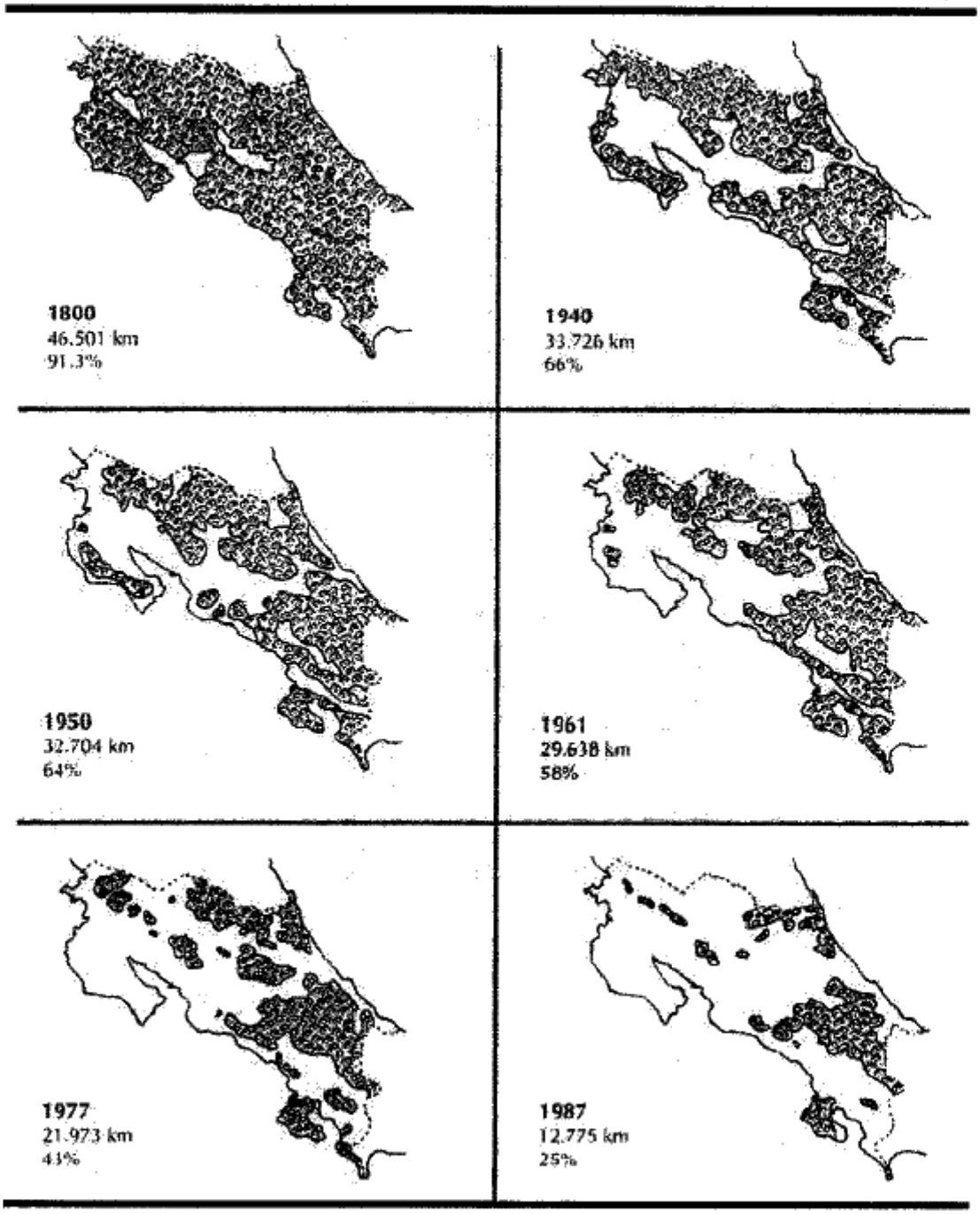


Figure 2.2.2 Changes in Costa Rica's Forest Cover, 1800 – 1987



Source: Vargas, 1994. Quoted by Quesada, et al 1999. Costa Rica contemporánea: raíces del Estado de la Nación. 1ª. Edición, San José, CR. Editorial de la Universidad de Costa Rica. p.216.

Figure 2.2.3 Garza Bay and Surrounding Areas Land Use, 1999

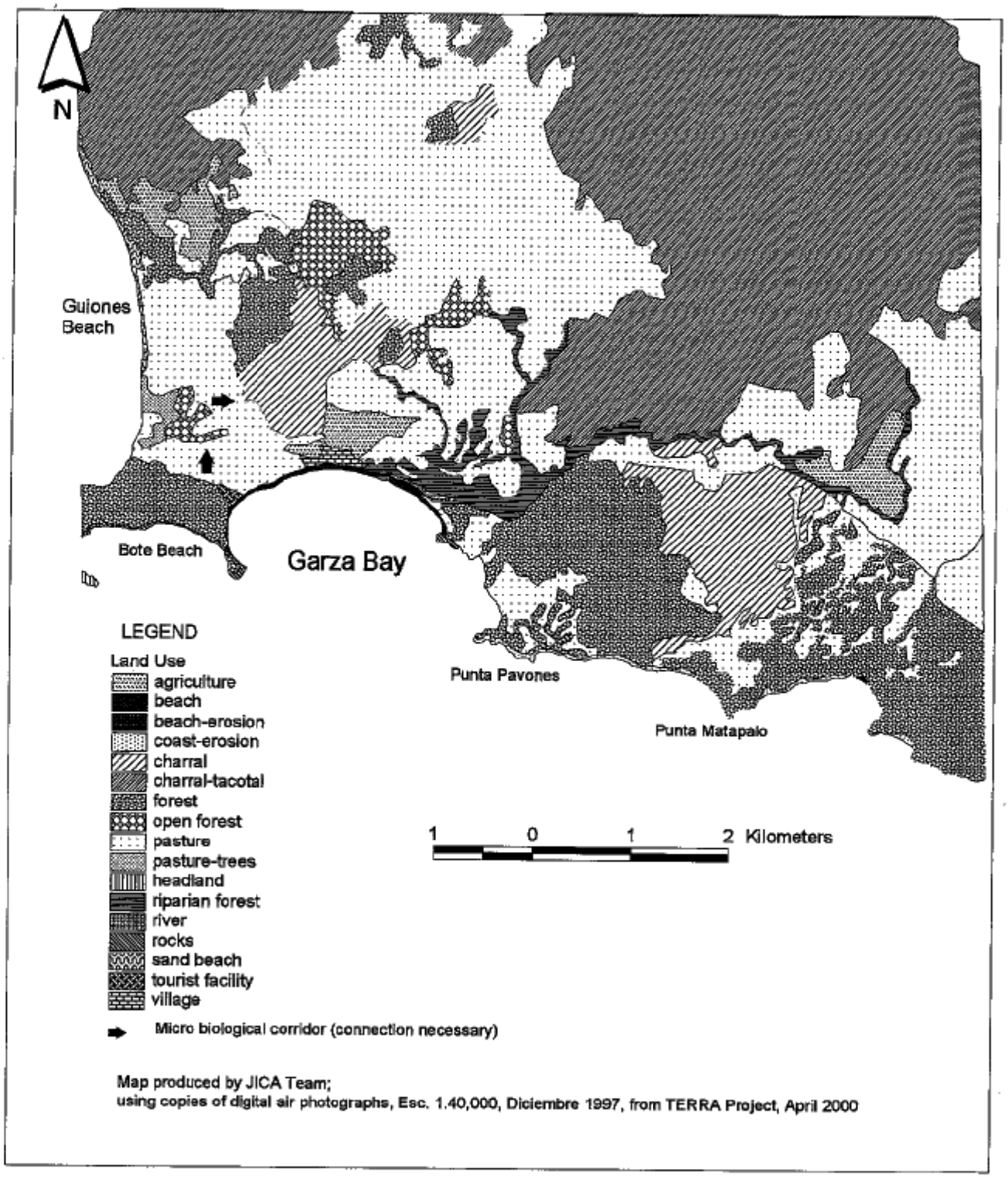


Figure 2.2.4 Garza Bay and Surrounding Areas Land Capability

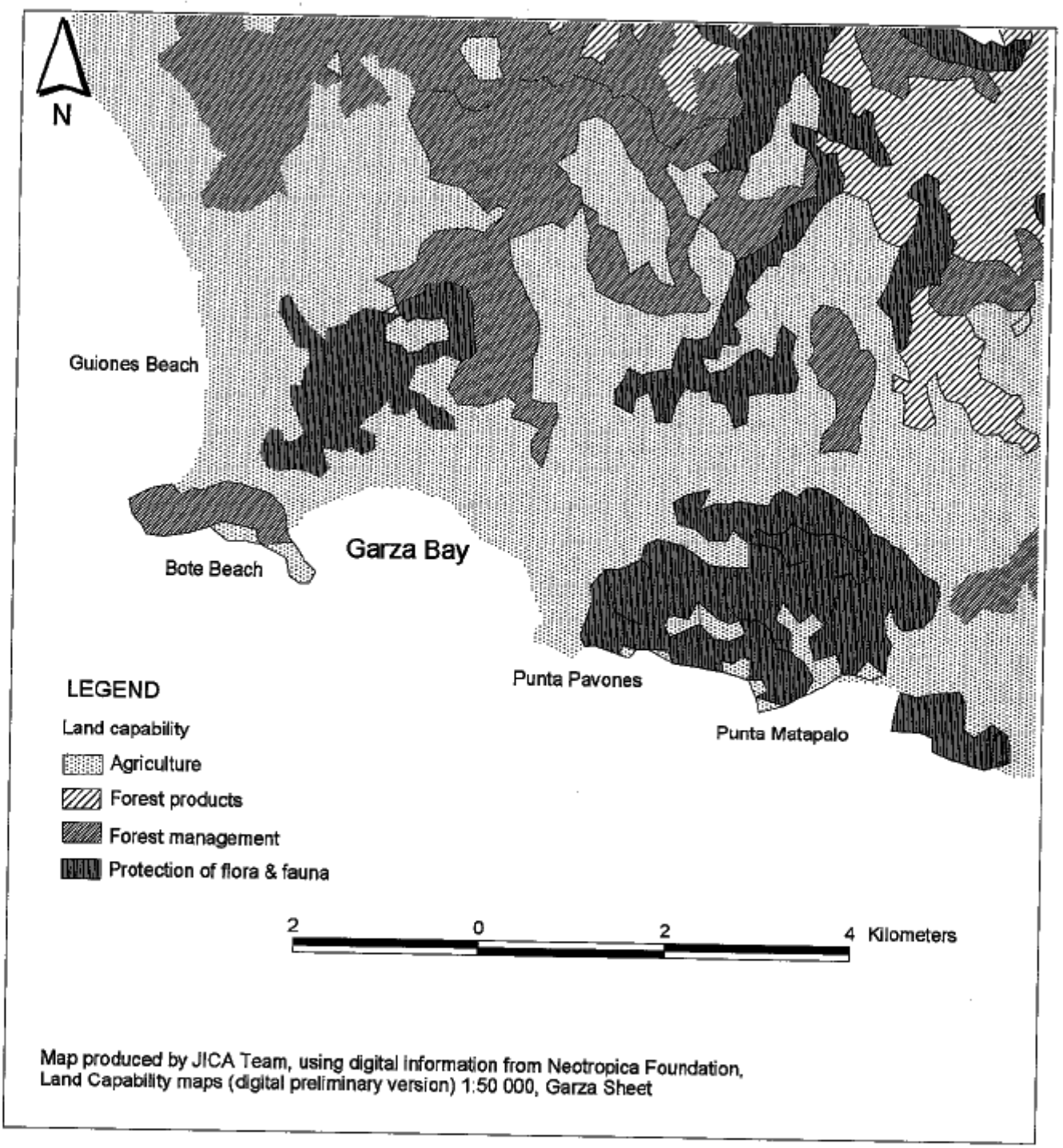
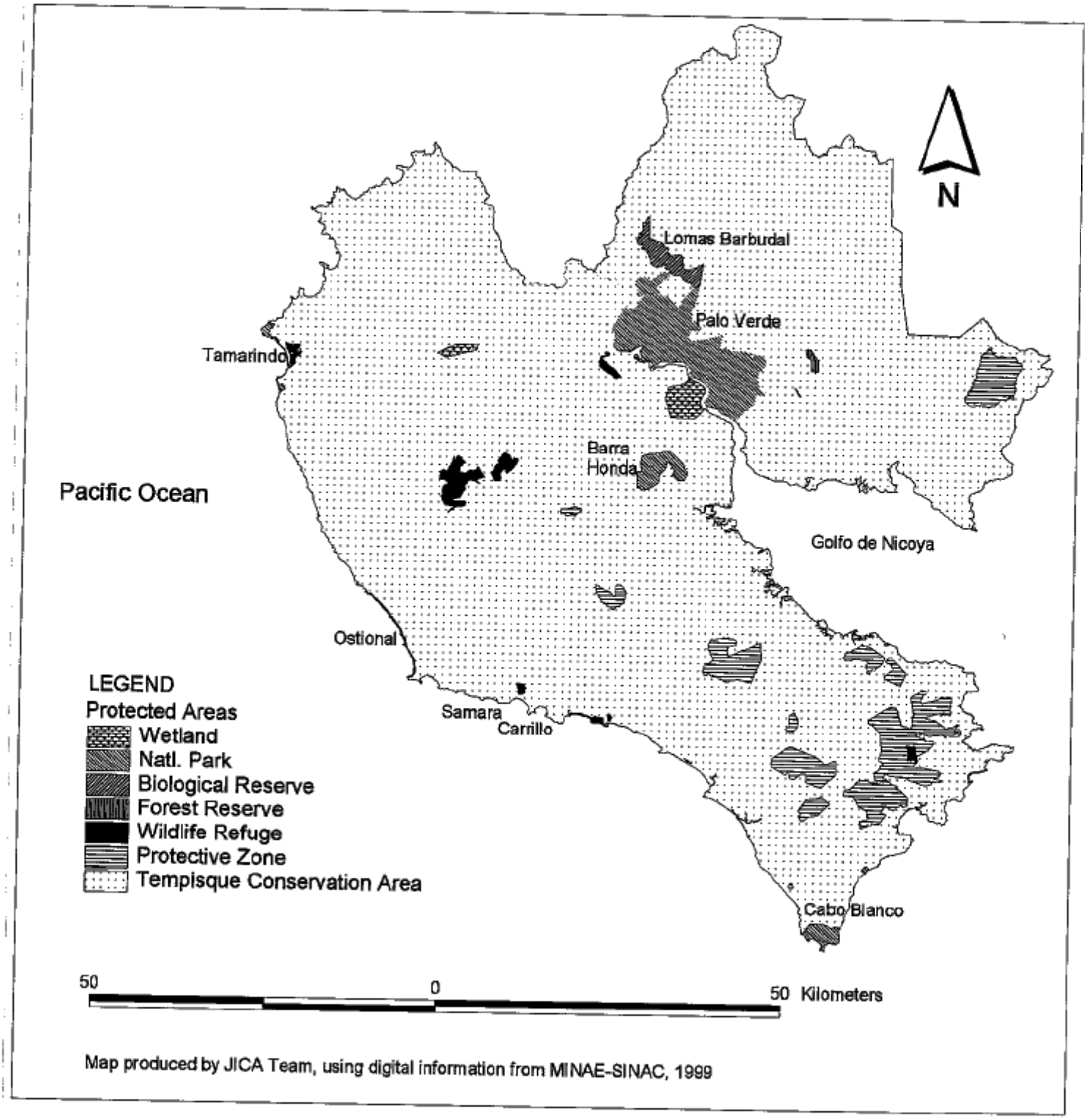


Figure 2.2.5 Tempisque Conservation Area: Protected Areas



2.3 REGIONAL ECONOMY AND LOCAL COMMUNITIES

2.3.1 Historical Background

(1) Cattle Industry for Domestic Market (19th century)

After the annexation of Nicoya Peninsula to Costa Rica in 1824, the number of small farms increased rapidly. The cattle industry became increasingly lucrative, especially the fattening of cheap Nicaraguan cattle for the market in the Central Valley. A road linking the Central Valley to Puntarenas was completed in 1846 to facilitate coffee export. In 1865 boats began commercially shipping agricultural products from the Nicoya Peninsula across the gulf to Puntarenas. Small ports were located along the Tempisque River and at the Nicoyan Gulf coastal settlements. However, the peninsula was still isolated, especially the highland.

Two main peasant types were settled in the nineteenth century in Nicoya Peninsula:

- Majority: The remnants of the pre-capitalist peasantry associated with the cattle pastures (indian and mestizo peasants). Most of them were concentrated on and near the cattle estates located around such towns as Nicoya and Santa Cruz.
- Minority: Small, independent farmsteads, dispersed throughout the frontier highlands. Most of them were of European ancestry, and some were mestizos, mulatos and indians.

(2) 1910s-1940a: Market-oriented Agriculture

The Cartagos began settling in Guanacaste in the 1910s, because in the Central Valley the smaller landowners were displaced by larger landowners, the population increased and the Proletariat was produced at the beginning of 20th century. The Cartagos who migrated from the Central Valley reclaimed and acquired lands by the law of "Tierras Libres" on highlands or purchased farms from the Guanacastecos at low prices. In consequence, the Guanacastecos, who lost the lands, moved to southern or southwestern parts towards the Pacific Ocean in an attempt to recreate their traditional subsistence agriculture. The settlement pattern which emerged at that time can still be observed today: relatively densely populated highlands dominated by people of predominantly European ancestry, and sparsely populated lowlands dominated by mestizos.

The Cartagos began market-oriented agricultural production of crops such as maize, beans and rice. Each month a small number of oxcarts carried the region's production to the towns of Mansion or Nicoya or to coastal Nicoyan ports for eventual shipment to Puntarenas by boat.

The cattle production, financed by profits generated from crop surpluses, became more lucrative in the 1940s and the basic grain agriculture declined as a result of: lack of state-backed assistance such as credit after the 1910s, deceased trade, appearance of middlemen who monopolized trades, and land degradation due to shortening of the fallow period and neglect of land maintenance on pastures.

(3) 1950s-1970s: The heyday of the Cattle Industry for export

Cattle industry for export began and flourished during this period, supported by state policy. The number of cattle in Costa Rica almost tripled in the period from 1950 to 1973 and increased almost 8 times in Hojancha canton in the period from 1950 to 1963.

The national banking system supplied much credit to the cattle industry, and the central government invested large amounts in the cattle industry, especially for roads. The Inter-American Highway from Liberia to San Jose was constructed in the mid-1950s and the paved road between Nicoya and the Inter-American Highway was completed in 1968 by means of the secondary road building programs embarked on by central government. For the first time, Guanacaste was effectively linked with the Central Valley.

Land values skyrocketed on the Nicoya Peninsula. Real estate speculation, fueled by North American investors, as well as wealthy citizens from the Central Valley, pushed the price of land out of reach of most Guanacastecos. Between the mid-1950s and the 1970s, Guanacaste's forests and croplands disappeared at a rapid rate, to be converted into cattle pasture. By the mid-1970s over two-thirds of Guanacaste was pasture and virtually all of Guanacaste was in private hands. While there had been a considerable amount of public land in the early 1950s, little of this remained for the landless peasants by the mid-1970s.

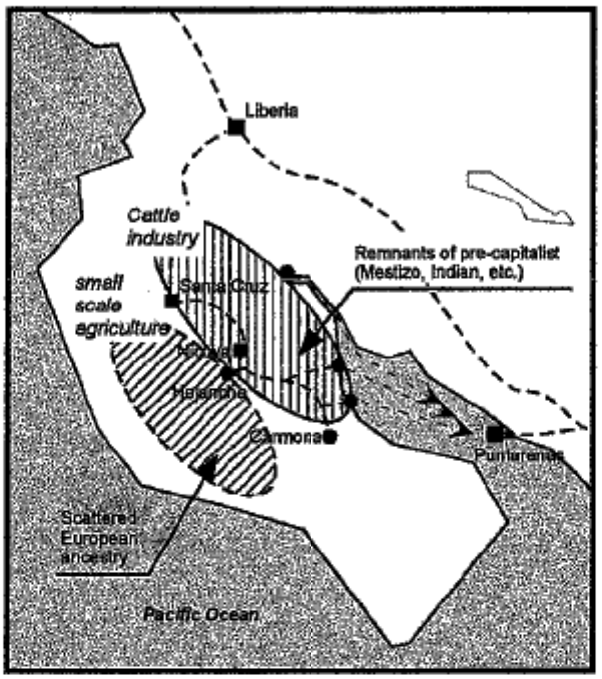
As a result, the employment opportunities per hectare decreased and smaller landowners sold their lands to larger landowners and emigrated to such regions as the country's banana zone in Golfito. Some, who chose not to emigrate permanently from the peninsula, moved to the remote lowland near the coast, in an attempt to engage in traditional subsistence agriculture, and others migrated seasonally to the Central Valley to earn wages from the coffee plantations.

(4) Late 1970s onwards: Mixed Agriculture/Beginning of Tourism

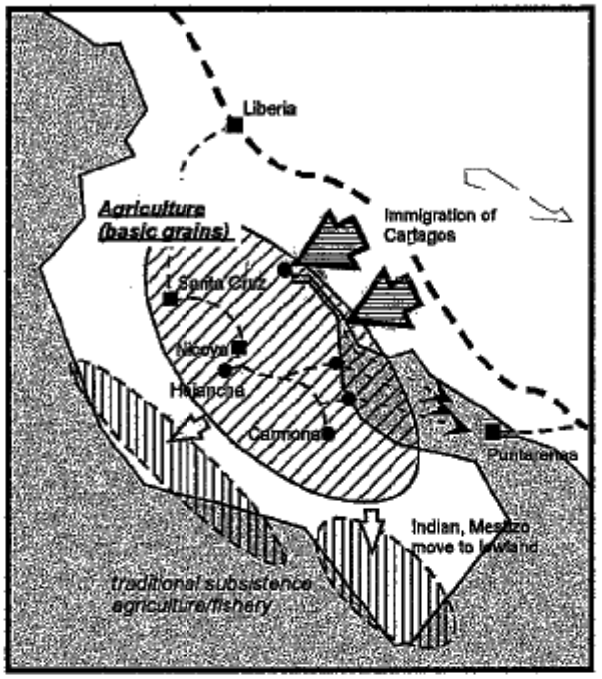
Cattle production had declined by late 1970s due to: crisis in export beef prices (1974-75), a weaker U.S. dollar, the implementation of the Counter-Cyclical Law in the U.S to protect domestic beef production, and a general decrease in per-capita U.S. beef consumption.

In the latter 1970s, forestry was identified as a desirable cornerstone of future development for the region and tree seedling production became an important capital generating occupation. Small-scale commercial agriculture, such as vegetable and fruit production, organized in cooperatives, also became important. In addition, from the late 1980s, tourism started along the coast. However, the socio-economic prospects for Guanacaste are not bright, and people are seeking and struggling for a better future.

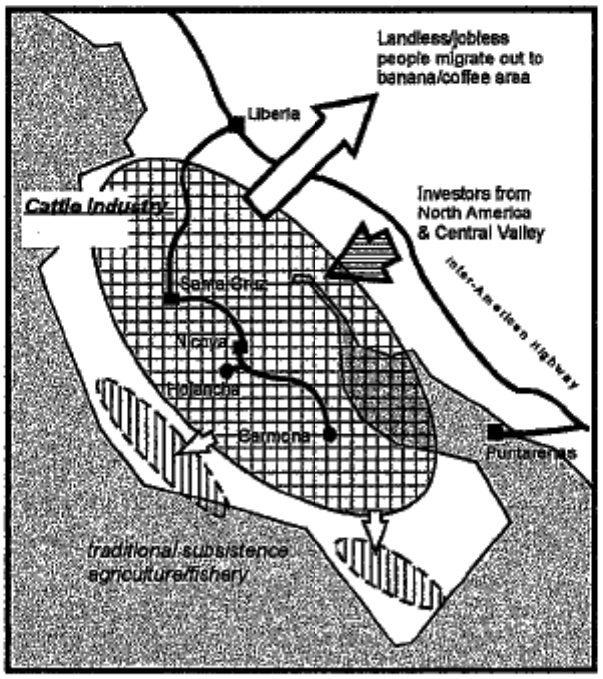
Figure 2.3.1 Historical Socio-Economic Conditions in Guanacaste



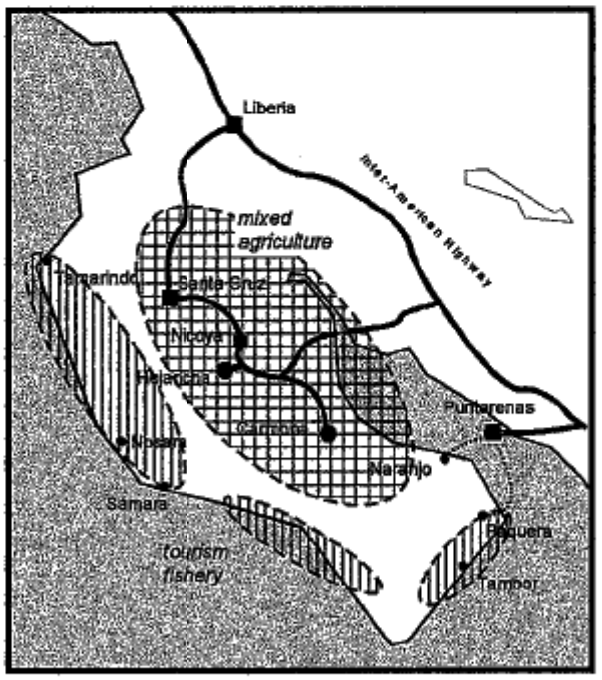
<19th century: Cattle Industry for Domestic Market>



<1910s-1940s: Market-oriented Agriculture>



<1950s-70s The Heyday of Cattle Industry for Export>



<Late 1970s onwards:
Mixed Agrioulture/Beginning of Tourism>

2.3.2 Social and Economical Conditions in South Guanacaste

(1) Regional Disparity in Costa Rica

Costa Rica is a country with an exceptionally good record regarding provision of social benefits. The UN Human Development Index in 1996 ranked Costa Rica as the seventh among all developing countries and fourth in Latin America and Caribbean Region. Concerning the Infant Mortality Rate for 1993, Costa Rica (with a rate of 14/1000) is better than Argentina (25) and Chile (17).

However, in Costa Rica there are still some people in extreme poverty, who do not receive enough income to satisfy their minimum food needs. According to the report "Estado de la Nación," the people in extreme poverty accounted for 5.7% of the Costa Rica's total population in 1997. The percentage of those in basic poverty reached 15% of the population, their income being enough for food but not for other basic needs such as clothing or medicine.

There are large differences in poverty situations between urban and rural areas. Furthermore, there is a clear regional disparity in poverty. According to the report "Estado de la Nación," the Brunca and Chorotega regions had a higher level of poverty than the national level in 1997. (Brunca: 32.3%, Chorotega: 36.0%, National Average: 20.7%)

The poor economical conditions, mostly due to serious decline of the livestock industry, have affected the population of Guanacaste. Some of the farmers have migrated to urban areas or banana farms after selling their land. The decrease in the number of workers has influenced not only the local economy but also the society.

(2) Social Conditions in the Nicoya Peninsula

The availability of primary schools is relatively good. However, the problem of education lies in the availability of high schools in rural areas. If someone wants to enter a high school, they have to stay in a town. This may be very difficult for the rural people, because if they do not have relatives, they have to pay lodging fees for their children's schooling.

PANI is a government institution in charge of inspecting cases in which there are family conflicts involving children; for example, if the parents beat the children there may be a problem such as poverty, sexual discrimination, or drug addiction in the family. The rate of domestic violence in all the cantons, except Santa Cruz, is not very high compared to the national rate, which shows that even poor people have few much conflicts at home.

Table 2.3.1 Comparison of Social Indicators

	Costa Rica	Santa Cruz	Nicoya	Hojancha	Nandayure	Puntarenas
Land Area (km^2)	51,089.04	1,312.27	1,642.67	261.42	1,642.67	1,842.33
Population 1965 *[1]	1,447,120	25,797	40,471	Not established	13,391	60,558
1984	2,416,809	31,133	36,626	5,879	9,604	74,135
1990	2,959,177	37,089	44,007	7,098	11,565	91,365
1998	3,496,423	41,670	49,511	8,097	12,897	106,714
Infant Mortality Rate Average 1990-1998	13	16	16	13	12	14
Cases Attended by PANI *[2] Average 1992-1996	26,757	263	167	12	19	436
Percentage of Cases Attended by PANI % for Population (/1,000)	8.0	7.2	3.6	1.7	1.7	4.4
Abstinence in 1998 for voting (%)	30	26.52	24.87	20.96	26.91	32.75

Source: State of the Nation

Notes

*[1] 1965: Used only as reference

*[2] PANI: Patronato Nacional de la Infancia.
National Office of Children Affairs. This institution is in charge of receiving complaints or reports of child abuse, abandonment, etc.

(3) Population and Employment in the Nicoya Peninsula

In Nicoya, Hojancha and Nandayure, there has been a sharp decrease in employment in the last 15 years. Table 2.3.2 shows a reduction of employed population as much as 45% from 1984 to 1998, while in the same period, the population is still increasing.

Table 2.3.2 Trend of Employment and Population

	1984 *		1990		1998		Increase In Population (1984=100)			Employment Trend (1984=100)		
	Pop.	Emp.	Pop.	Emp.	Pop.	Emp.	1984	1990	1998	1984	1990	1998
Costa Rica	2,416,809	731,446	2,804,769	725,758	3,340,909	974,682	100	116	138	100	99	133
Santa Cruz	31,133	7,286	37,089	5,166	41,670	7,204	100	119	134	100	71	99
Nicoya	36,626	8,481	44,007	5,481	49,511	4,705	100	120	135	100	65	55
Hojancha	5,879	1,381	7,098	874	8,097	767	100	121	138	100	63	56
Nandayure	9,604	2,355	11,565	1,004	12,897	1,284	100	120	134	100	43	55
Puntarenas	74,135	19,868	91,365	16,746	106,714	21,175	100	123	144	100	84	107
Limón	15,494	14,353	66,930	20,245	81,387	22,554	100	432	525	100	141	157

Source: State of the Nation

Notes

* Source: Ministry of Economy, Industry and Commerce

2.3.3 Characteristics of Different Areas

The total length of the Nicoya Peninsula is about 120 km. To understand the economic and social situation, this region can be divided in three areas: coastal area, inland area and inland town. The characteristics of each area are shown in Table 2.3.3.

Table 2.3.3 Characteristics of Different Areas

	COASTAL AREA	INLAND AREA	INLAND TOWN
MAJOR ACTIVITIES OF THE AREA	Small scale fisheries, Tourism	Vegetables, Fruits, Forest, Livestock	Commerce, Services
CHARACTERISTICS OF MAJOR ACTIVITIES	**Small scale fisheries** -- Fishermen have small boats with or without engines; therefore production is limited. They can not go to the ocean during storms or the rainy season. They need larger boats with engines, cold storage rooms, associations, and training for higher production. • There is no pier or wharf in the study area. A pier is for development. • Some fishermen get support from IMAS when they are not able to go fishing. • *El Niño* has also affected the fishing activities in the area. **Tourism** -- This has a strong impact on the local economy regarding construction, employment, food supply for hotels, etc, but it has not appeared yet.	**Production in Chorotega Region (1998)** Sugar cane (1,544,000t), Mangoes (12,000t), Rice (81,000t), Melons (58,000t), Watermelons (5,000t). **Forest** -- Investment from USA has increased the size of the plantation and production. **Livestock** -- has declined. • Guanacaste also suffers the consequences of globalization. With regard to agriculture, for example, rice production is being affected by the importation of rice from Thailand and Argentina. • Most of the jobs on agricultural farms are seasonal.	• The local economy is affected by the food supply coming from the Central Region. • In Guanacaste Sur, PRODAPEN is implementing an integrated agricultural project. It is also contemplating a micro credit system, technical support for cultivation using less chemicals and a new marketing system. • Tourism development is expected to promote local economy in Guanacaste Sur.
DEMOGRAPHY, EMPLOYMENT	• Increase in job opportunities in Guanacaste Norte (Papagayo). People from inland towns are getting jobs in this area. However, people from Guanacaste Sur are not able to find jobs in the province, so they migrate to urban areas or banana plantations in Limón.	• People migrate to urban areas or banana farms in Limón due to the decline of the livestock industry. Such decrease in the population and workers affect the local economy.	
COOPERATIVES	• Few cooperation networks. • Weak level of activities.	• Many cooperation networks. • Effective, diverse activities.	
EDUCATION AND HEALTH SERVICES	• Accessibility to services has developed over many years. However, to enter high school, students have to stay in the urban areas.	• Better than in the coastal area, but they still have problems.	• It is easy to get a high level of services.
ACCESS (ROADS, BRIDGES)	• Accessibility problems are worse for local people. During the rainy season the villages may be closed for some weeks due to landsides, etc.	• Better than in the coastal area.	• There are no problems. • People are awaiting the construction of a river bridge the Tempisque River, which may impact on the local economy.
LAND	• Most of the land for tourism and real estate development is subject to speculation by foreign investors. • It is difficult for Costa Ricans to invest in these lands and develop them.	• Agricultural production has decreased due to the floods and droughts; therefore, farmers sold their land for survival. • Land buyers are investors from San José or foreigners.	

2.3.4 Information on Projects

(1) Islita Hotel and Local Community

The strategy of Islita Hotel (located in Bejuco District of Nandayure Canton) has been very attractive and effective for the local community because they employed many people who lived in the surrounding communities as hotel staff. This style of action was effective for the rehabilitation of the rural economy and society. Usually local people did not have general education or knowledge for example about hotel management; therefore, hotels used to bring their staff from areas other than the project's. The increase in employment for local people is very useful for the hotel owners, too; if they employ local people, there is no need to build dormitories or to pay travel allowance for the staff who live in other areas. So, it seems that the Islita Hotel model may be a useful case study for rural tourism development.

Actions of Islita Hotel and Corozalito Community

(H) – Action of Islita Hotel

(C) – Action of Community

- (H) Around 1993, the construction of high/middle range resort hotels started. During the construction period, local people were hired because of their positive attitude.
- (C) After hearing the news about employment for construction from the relatives who lived in the community, many people came back to the village from the urban area and Limón's banana farms. If they had knowledge of technical skills for construction, they could find jobs as skilled workers. However, most of the people could only find jobs as unskilled workers.
- (H) After finishing the construction, the hotel managed to give training to the people who were going to become the hotel's staff. INA accepted to send a trainer to the hotel to train the local people. Otherwise, it would have been very difficult for the people to attend the courses.
- (C) After obtaining a permanent job in Islita Hotel (twelve months a year), the local people stayed in the village; they did not need to go to other places looking for a job. This increase in population impacted on the rural economy as well as the society. Recently, a school bus system was created making accessibility to high school much easier. This also influenced the workers' decision to stay; now it was easy for their children to attend classes in the rural area.

At present, of 26 households from Corozalito, 25 people work in the hotel as gardeners, maids, maintenance technicians, etc.

Community Corozalito

Around 1970, the population was 300 people. At that time, the village's major activity was livestock. Around 1985, many people migrated due to the economic problem of livestock. As a result, the population decreased to 60 people only. Today, there are 120 people living in the village. Now they have a permanent job, and there is no need for them to ask to their relatives for economic support.

Important Factors for Success

- Islita Hotel has a policy to employ as many local people as possible.
- INA sent a trainer especially for the hotel.
- Those who had left the town kept in contact with the relatives who stayed.
- People always dreamed of going back home.
- People were confident of getting employment after the training.
- Hotel owners were confident that their workers would not go to other hotels after the training.
- Hotel and community trust each other.

(2) Ortega Rural Development Project

In thirty years there have been many factors which have influenced the social and economic condition of Guanacaste's small farmers, such as floods, droughts, and other market-related situations. About 45% of the workers in the Nicoya Peninsula area migrated to urban areas or banana farms in Limón after selling their own land.

Some of the farmers, after selling the land, realized that they needed other economic activity for a livelihood to provide for the education expenses of their children, so they obtained temporary jobs on big farms.

Many young people moved to urban regions, and after that, the village may have lost its community life, manpower and receptiveness to change.

Ortega's Small Farmers Association

In Ortega, the situation is the same as mentioned above. Around 1983, some farmers borrowed land from big farmers for cultivation. Then, after the farmers started working together on this land, they established the association.

After working together, the association became very strong and other NGO's and institutions started supporting them.

About four years ago, the association received support from IDA to obtain land for a mango farm. IDA sold them 92 ha of land for ¢4,500,000 using a special credit system, and CENARA gave them support for an irrigation system.

Usually, five years are needed for the first harvest of a new mango farm; however, thanks to their irrigation system, after only 3 years they already had the first harvest. This year they expect to export to the USA.

The association has a plan to use the Tempisque River and Palo Verde National Park, which are located near the village, as attractions for tourism development. Ortega's association has overcome its difficulties and achieved success because it is strong and very well organized.

Important Factors for Success

- Villagers trust the association's leader.
- They know information about the governmental scheme and know how to access such a scheme.
- There are also women involved, so the group may become strong and diverse.
- Today, the association consists of only 12 families, but in the future, 15 more will join them.
- This type of organizational activities is a very good model for poor farmers to learn how to develop their own village.

(3) Integrated Agricultural Development Project for Nicoya Peninsula (PRODAPEN)

In recent years, agriculture has shifted from livestock industry to non-traditional farming such as melon or other products. Big farmers managed most of the non-traditional agriculture. However, there are many middle or small farmers in Nicoya peninsula. The total number of farmers is 7,247 (for a total of 289,280 ha), of whom 4,431 are small farmers and own 4 ha only, and 91 big farmers own 491 ha on average.

Table 2.3.4 Number of Farmers and Land Area of Agricultural Farms of the Cantons in the Nicoya Peninsula

Canton	Total		Small Farms		Middle Farms		Big Farms	
	Farmer	Area(ha)	Farmer	Area(ha)	Farmer	Area(ha)	Farmer	Area(ha)
Santa Cruz	2,382	90,096	1,555	4,842	798	72,231	29	13,023
Nicoya	2,343	90,952	1,423	2,936	890	70,515	30	17,501
Hojancha	594	17,923	384	1,560	205	13,513	5	2,850
Nandayure	1,081	50,670	663	4,890	397	38,390	21	7,390
Carrillo	843	39,839	406	1,670	431	34,179	6	3,990
Total	7,247	289,480	4,431	15,898	2,721	228,828	91	44,754

Source: PRODAPEN

The present supply system of agricultural products works as an urban-based system. Therefore, Nicoya's production is transported to San José via Cañas and then brought back to be distributed among the hotels or towns.

The case of fish supply is similar. Middlemen take the product from Guanacaste to Puntarenas and then back to Guanacaste to restaurants and hotels in Nicoya.

The aim of PRODAPEN is to change these systems to a more direct and local distribution system and to develop good agricultural products by providing technical assistance for rural development. The project is working on the following objectives: 1) to produce enough quantity and appropriate products for the market's needs by means of checking and controlling system, 2) to create a supply system of appropriate seeds and fertilizers with fewer chemicals and to distribute them through the associations in the rural areas, 3) to provide a distribution center.

People expect that once the project is developed, it will be possible to provide products on a large scale to the market and local hotels, which need a constant supply.

The target areas are Santa Cruz, Nicoya, Hojancha, Nandayure (which are part of the study area) and Carrillo. The number of expected beneficiaries is 2,600 families.

In detail, this project will organize the systematization of the local associations from the bottom level to the distribution center, train local farmers and make the credit system more accessible. Furthermore, it is aims to develop agricultural farms in the coastal districts.

2.4 TOURISM RESOURCES AND TOURISM DEVELOPMENT SITUATION

2.4.1 Tourism Resources and Potentials

The South Guan caste tourism planning unit is located in the dry savanna climate zone. Conditions are advantageous for beach tourism with activity because of a high ratio of fine days in a year compared to the other regions. The most important resources for tourism development in South Guanacaste are approximately 90 km of sandy beaches and 50 headlands, and a variety of scenery stretching over the 130 km coast. The other major potential resources that could diversify tourism activities in the area are natural environment resources, such as marine, beach and terrestrial life, as well as cultural and historical resources in the local communities.

(1) Sandy Beaches

The 130 km long stretch of coast could be divided by geographic feature and sea conditions as follows:

1) Northern Coast (Punta Junquillal-Punta Royo): 10 km long coastline/ 18 sandy beaches

This coast faces west with deeper sea and strong currents. The coast is divided into 18 small beaches, which are not always of crescent shape. Some of the 18 beaches are suitable for small-scale beach resort development. However, the coast itself is not evaluated as a sustainable site for strategic coastal tourism development.

2) Ostional Coast (Punta Royo-Punta Guiones): 13 km long coastline/ 5 sandy beaches

This coast also faces southwest, with deeper sea and strong currents. The coast divides into 5 long beaches, which are straight or of crescent shape. If Ostional National Refuge (a world famous sea turtle nesting ground) was not located halfway down the wide beach, this coast could be identified as one of the most suitable coasts for strategic tourism development

3) Garza/Samara Coast (Punta Guiones-Punta Carrillo): 17 km long coastline/ 8 sandy beaches

This coast faces south with mediums strength currents. The coast is composed of 3 major bay beaches and short and medium-length stretches of 5 beaches. This coast has a potential for strategic tourism development.

4) Camaronal/Islita Coast (Punta Carrillo- Pena Guastomate): 5 km/ 4 sandy beaches

This coast also faces south with medium-strength currents. The coast is divided into 4 smaller beaches by big headlands. Some of the beaches have a potential for small-scale beach resort development.

5) Southern Coast (Pena Guastomate-Punta Pochote): 24 km/ 11 sandy beaches

This coast faces southwest with strong currents. The coast is composed of 7 long beaches (longer than 3 km) and 4 medium-short length beaches with attractive headlands. If accessibility is improved, this coast could have a big potential for strategic development.

6) Cabo Blanco Coast (Punta Pochote-Punta Mocha): 18 km/15 sandy beaches

This coast is located adjacent to the Cabo Blanco National Refuge. Some small beaches in the northwestern part of the area could be used for small-scale gate accommodation for visitors to the national refuge.

(2) Marine Natural Resources

The Pacific Ocean has rich resources for sportfishing, which is one of the potential marine tourism activities. Some of the rocky reefs and islands have coral reefs with rich fish species. These are potential areas for snorkeling and diving activities as well. Ostional and Southern Coast have big, long waves, which offer good potential for surfing.

(3) Coastal Natural Resources

1) Beach Activities

White sand, blue sky and sea are indispensable elements for beach activities and resort development. This area has many white sandy beaches, which could attract tourists of the sun and beach tourism compared to the Corcovado-Golfito.

2) Watching of Sea Turtle Nesting

The most valuable resource on this coast is sea turtle nesting in Aribata on Ostional Beach, where a horde of Ridley sea turtle come every year for nesting (peak season: August and September). Most of sandy beaches not protected by headlands and rocky reefs are also sea turtle nesting beaches. This could become a highlight product of the whole South Guanacaste, if proper conservation measures and programs are put in place and appropriate visitor facilities/amenities are provided, with cooperation of local communities.

3) Mangrove Tours and Bird Watching

Sand bars usually close mouths of permanent rivers in the area. The closed river mouths create a variety of lagoons, wetland and mangrove forests behind the coastal sand bars. Those resources could be used for mangrove tours, birds watching, canoeing and other activities. Palo Verde National Park surrounding the Tempisque River will provide the potential for a most attractive mangrove tour in the planning unit.

4) Surfing

High and long waves also offer potential for surfing. Ostional and Southern Coast have those wave conditions, and could be one potential location for surfing activities.

(4) Terrestrial Natural Resources

The major part of remaining forests in the area is tropical moist forest. Some pre-montane wet forests remain in the national and private forest reserves. Primary forests also remain in the Cabo Blanco part of National Park. Those forests have potential for nature tourism activities as follows:

- Nature trail walks, bird watching, monkey/other animal watching,
- Tasting of natural fruits, etc.

(5) Scenery Resources

1) Panoramic View from Headlands

There are many scenic panoramas of long beaches and crescent-shape bays from the headlands along the coast. These are also important resources of this tourism planning unit. Top of the headland and flat area near shore can be developed into panorama terraces/rest areas.

2) Scenery from Beach

The views from beaches in the area generally has a good combination of sandy beach/sea in the foreground, green hills in the background, sometimes with mangrove estuaries, and attractive headlands at the both ends of the beaches. Such scenery provides important conditions for coastal/beach resort development. The major part of the headlands and hills behind should be declared as a kind of tourism resources and protected from any development including tourism development.

3) Small Island View with Bay

Samara Bay, Cabo Blanco and some other beaches have small islands, which accentuate the monotonous seascape and add scenic value to the area. Those islands are also one of the most important resources in terms of scenery.

4) Sunset Views

Sunset views are often developed into one of the tourist attraction in many destinations. Northern, Ostional, and Southern Coasts in the area have advantageous locations for good sunset views.

(6) Cultural Resources in Local Communities

In the study area, no major cultural and historical heritages sites remain. However, the daily life of the local communities could be developed into attractive tourism activities as follows:

1) Pasture

The major part of the land in the Nicoya Peninsula is used for pasture. However, at present its land use is not as productive as before, due to the low export price of beef. Well-maintained pasture could provide potential resources for tourism activities, such as horseback riding, finca visit, meet-the-people, home-hosted lunch, etc.

2) Local Villages

Beautification of some of the village at tourist access junctions along the coast may have village tourism potentials. It would also contribute to enhancing small-scale local economy and job opportunities such as restaurants, coffee shops and souvenir shops.

3) Fishing Villages

Fishing villages are currently scattered along many beaches. If some of them at scenic locations are reorganized /regrouped with beautification/amenity provision, they may have a potential for "Fishermen's' Wharf-style complex of a Fisherman Wharf style complex of restaurants and souvenir shops."

4) Weekly Bazaars

Weekly bazaars are run in Nicoya Municipality. They have a potential to attract tourists. If those weekly bazaars are organized also in Nandayure, Carmona and in major village centers along the coast, they could collectively become a good tourist attraction.

(7) Historical Resources

More than 100 families in one village (Guaitil) in Nicoya Municipality produce and sell "indigenous" pottery, which is designed and produced using a technique originating from indigenous people (Chorotega people) in the area. Their products are one of the most representative souvenirs in Costa Rica.

2.4.2 Existing Conditions of Tourism Facilities Development

Tourism in South Guanacaste is not developing smoothly. The number of hotels and other accommodation facilities in the area is 65 establishments, with around 720 rooms. This accounts for only 2.5% of the total room stock of the nation in 1999 (28,000 rooms). The average size of accommodation facilities in the area is 11 rooms per establishment. They are mostly small-scale and family-run cabins and lodges.

Table 2.4.1 Hotel and Other Accommodation Facilities in South Guanacaste, 1999

	Hotel/ Accommodation		Rooms		Length of Beach		Average
Canton	Number	Share	Number	Share	km	Share	Room/hotel
Coast of Santa Cruz	3	5%	13	2%	13.4	15%	4
Nicoya	45	69%	501	69%	24.9	28%	11
Hojanch	4	6%	75	10%	2.3	3%	19
Nandayure	5	8%	50	7%	22.6	26%	10
Coast of Puntarenas	8	12%	82	11%	24.6	28%	10
Total	65	100%	721	100%	87.8	100%	11

Source: Hotel List 1999, ICT

(1) Northern Coast and Ostional Coast in Santa Cruz Canton: No Development as Yet Not Started Yet

Tourism development on the Northern Coast and Ostional Coast in Santa Cruz Canton consists of only 3 establishments with 13 rooms on a small-scale cabin operation basis. It can be said that tourism development has not started yet.

(2) Garza/Samara Coast in Nicoya Canton: the Most Active Area

Around 70% of accommodation developments are concentrated in the coastal area of Nicoya Canton, mainly in the Nosara/Garuza area and Samara Bay at present. However, a major part of ZMT and the hinterland in Nosara/ Garuza Coast has been occupied by real estate development for resort and foreign pensioner housing. This is classified as low productive land use compared to tourism use.

Tourism development in the northern part from Guiones headland should bear in mind the negative environmental impact that it may cause on sea turtle nesting on Ostional Beach.

Big bays and long beaches from Garza to Samara are identified as having the best potential for coastal tourism development for the future. For this reason, coastal land should be properly reserved and utilized for tourism.

(3) Eastern Part of Garza/Samara Coast in Hojancha Canton: Actively Developing

Tourism development in Hojancha Canton has started on a short 2.3km sandy beach in Carrillo Bay. The coastal zone and its hinterland of Carrillo Bay have a plan for a large beach resort development.

(4) Nandayure Canton: Cabin Development Starting

On the 22.6 km-long sandy coast, small-scale cabin development is ongoing on some beaches. Tourism development has just started on some of the potential beaches in the area.

(5) Peninsula Coast of Puntarenas: Cabin Development Starting

The tourism development on the coast of the peninsula side of Puntarenas Canton is almost the same as in Nandayure Canton.

2.4.3 Tourism Market Situations

A rather distorted mix of international market segments provides the mainstream of visitors to this Planning Unit, constrained by difficult road access and limited accommodation capacity (size and quality - lack of 50/60/more room properties with 4-star class amenities). Visitors are:

- FIT (individuals) and smaller group (8/10 persons) sun/beach tourists combined with nature experience at cabins/bungalows with basic/basic-medium range amenities. (This is the market base for the majority of existing small property operators),
- FIT and smaller group (8/10 persons) sun/beach only tourists with the same accommodation/amenity needs as above, and
- FIT and smaller group (8/10 persons) niche upmarket sun/beach tourists combined with nature experience at 4/5-star boutique hotels/resorts (represented by Punta Islita/Tango Mar/Barcelo Tambor).

Distortion is apparent in the absence of larger groups of sun/beach tourists combined with nature experience, which would otherwise have been the dominant market segment for this

Planning Unit. The constraints of poor access and lack of suitable properties large enough to accommodate a series of tour packages successively explain the total absence of South Guanacaste in the regular package itineraries organized by tour operators in the major source market of North America/Europe.

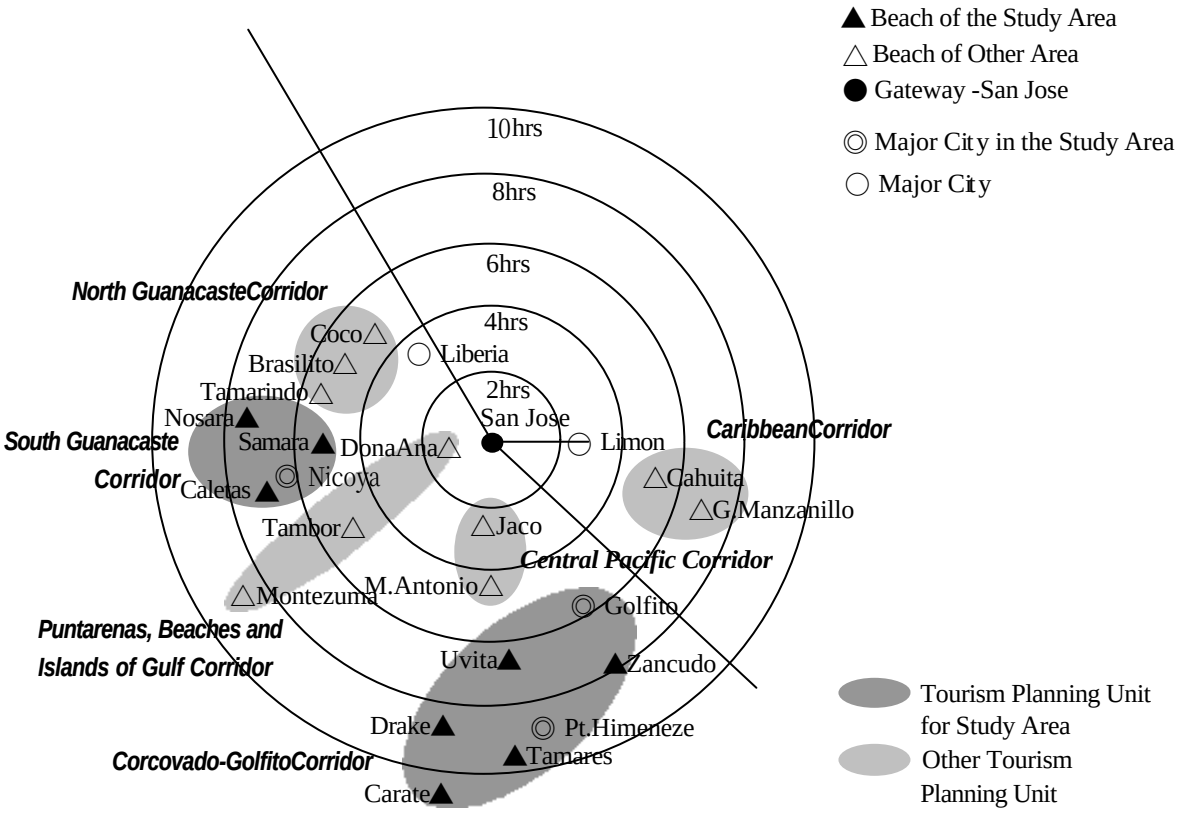
2.5 REGIONAL AND LOCAL ACCESS ROAD NETWORKS

2.5.1 Time and Distance for Access to Major Coastal Tourism Destinations

The accessibility to tourism destinations from gateways is one of the important factors determining tourism potential. The following is a summary of time-distance (travel time) analyses for major coastal destinations in South Guanacaste:

- The travel time by road from San Jose to North Guanacaste is about 5 hours because of relatively good roads including the Pan-American Highway.
- It takes more than 5 hours to get to Nicoya town from San Jose via car ferry to cross the Tempisque river, if there is no waiting time. In the high season, however, cars have to wait for the car ferry for two or three hours, due to limited capacity and frequency of car ferries.

Figure 2.5.1 Travel-Time Analyses of Costa Rican Beaches



As for South Guanacaste, the opening of the bridge over the Tempisque river would largely improve the accessibility from San Jose and make the beaches in South Guanacaste comparable to those in North Guanacaste in terms of journey time by road from San Jose. However, even with the bridge, the travel time from San Jose to South Guanacaste is over five hours. Without more frequent flights from major market regions to the Liberia airport, it is still difficult to improve the international attraction of the beaches in both North Guanacaste and South Guanacaste.

2.5.2 Existing Roads in South Guanacaste Tourism Planning Unit

- The road density of the study area is 1.1km/km^2, which means that the area has a comparatively high-density road network. However, 96% of the roads are dirt roads (unpaved roads).
- The trunk roads account for 1.6% of roads within the study area in road length.
- Dirt roads are widespread connecting almost all villages.
- However, many roads cross over rivers without bridges. Some bridges are inadequate to cope with floods. In the rainy season, some villages become isolated for a certain period due to heavy rainfall.
- Some roads also have negative impacts on the marine environment. For example, they cause soil erosion.

Table 2.5.1 Road network conditions in the Study Areas

Tourism Planning Unit	Road Surface		Road Density (km per km^2)
	Paved	Non-paved	
South Guanacaste	4 %	96%	1.1

Note: Some Canton extends beyond the Study Area.
Source: The JICA study team's compilation based on the data from Cantones de Costa Rica 1992.

Figure 2.5.2 Existing Road Pattern in South Guanacaste