

6. *Guidelines*

6. Guidelines

6.1 General

In order to ensure the realization of a sustainable tourism development, a set of guidelines is necessary with particular regard to the following:

- (1) Infrastructure/tourism facilities development
- (2) Environmental Guidelines
- (3) Investment and management

Guidelines on infrastructure/tourism facilities intend to provide investors with appropriate planning/design concepts and standards so that the infrastructure/tourism facilities can be planned, constructed and maintained without causing any environmental problems. Moreover, authorities can have an effective reference in granting permits and in monitoring the developed infrastructure and tourism facilities. Guidelines on tourism activities are related to Environmental Management Area, which specifies the types and levels of tourism activities allowed for classified sub-zoning. Guidelines on investment and management intend to provide investors/operators with the requirements and incentives in doing business and, at the same time, to ensure the utilization of local resources.

The guidelines preliminarily worked out in this study should be further elaborated on and incorporated into the existing administrative framework or institutions for effective implementation, including enforcement.

6.2 Guidelines on Infrastructure and Tourism Facilities Development

6.2.1 Overall Guidelines Framework

Design standards and guidelines on regional infrastructure, such as roads, airports/airstrips, ports, water supply, sewage, waste disposal etc., are already available in various government agencies. However, it has been found that mechanical application of these standards, that is, without due consideration of specific local conditions, and lowering or neglecting the required standards during the implementation stage are more critical to environmental degradation in Northern Palawan. The only way to improve the situation is the strict application of EIA and the provision of sufficient financial resources and technical measures.

Therefore, a set of design guidelines with particular regard to tourism development for an area in Northern Palawan has been prepared, covering architecture, landscape, environment and resort area planning. Architectural guidelines cover design principles, facility layouts, outdoor-indoor relationships, architectural themes, materials, and color schemes. Landscaping guidelines cover overall policy, conservation of surrounding scenery, and planting. Environmental guidelines cover design principles, shoreline protection, sewage treatment, solid waste disposal, air pollution, and noise. Guidelines on resort area planning cover

density of accommodation units, building height, building setback, landscaping, lighting, signs, fencing, parking, footpaths, etc.

Table 6-1 Guidelines on Infrastructure and Tourism Facilities Development

Guideline/Area	Existing ^{1/}	Proposed
1. Resort Area Planning Guidelines		
Accommodation Units Density	DOT/Prov. Guideline	Regulation on gross density added
Building Height	DOT/Prov. Guideline, R.C.	Modified
Building Setback	DOT/Prov. Guideline, EIA, R.C.	Modified
Landscaping	DOT/Prov. Guideline, R.C.	Modified
Lighting	None	Newly provided for Sea Turtle conservation
Signs	DOT/Prov. Guideline	Newly added
Fencing	None	Newly provided
Parking	DOT/Prov. Guideline	Modified
Footpath		Newly provided
2. Environmental Guidelines		
Design Principles	None	Newly provided
Shoreline Protection	ECAN/DOT/Prov. Guideline, EIA, R.C.	New factors added
Sewage Treatment	DENR Standards, EIA, R.C.	New factors added
Solid Waste Disposal	DOH/DENR Guideline, EIA, R.C.	New factors added
Air Pollution	EIA, DENR Standards	Added for resort environment
Noise Pollution	EIA	Added for resort environment
Regulation of Construction Work	None	Newly added
3. Landscaping Guidelines		
Overall Policy	None	Newly provided
Geographical Feature	DOT/Prov. Guideline, EIA, R.C.	New factors added
Natural Vegetation	DOT/Prov. Guideline, EIA	New factors added
Planting	DOT/Prov. Guideline, EIA	New factors added
4. Architectural Guidelines		
Design Principle	DOT/Prov. Guideline	New factors added
Facility Layout	None	Newly provided
Outdoor-Indoor Relationship	None	Newly provided
Architectural Theme	DOT/Prov. Guideline	New factors added
Materials	DOT/Prov. Guideline	New factors added
Color Scheme	None	Newly provided

Source: Study Team

1/ R.C. denotes Resort Code which applies to the area which B.C. does not cover.

B.C. denotes Building Code which applies to urbanized areas in PPC.

6.2.2 Development Standard and Guidelines for Tourism Facilities

1) Design Guideline: Architectural

Design principles for architectural facilities should incorporate the following:

- to provide a comfortable space with unique ambience;
- to reflect the region's traditional style of architecture and use materials to suit the climate;
- to contribute to local economy by using local materials, such as rattan and bamboo, for construction and repairs; and
- to create harmony with natural environment and scenery of surrounding areas.

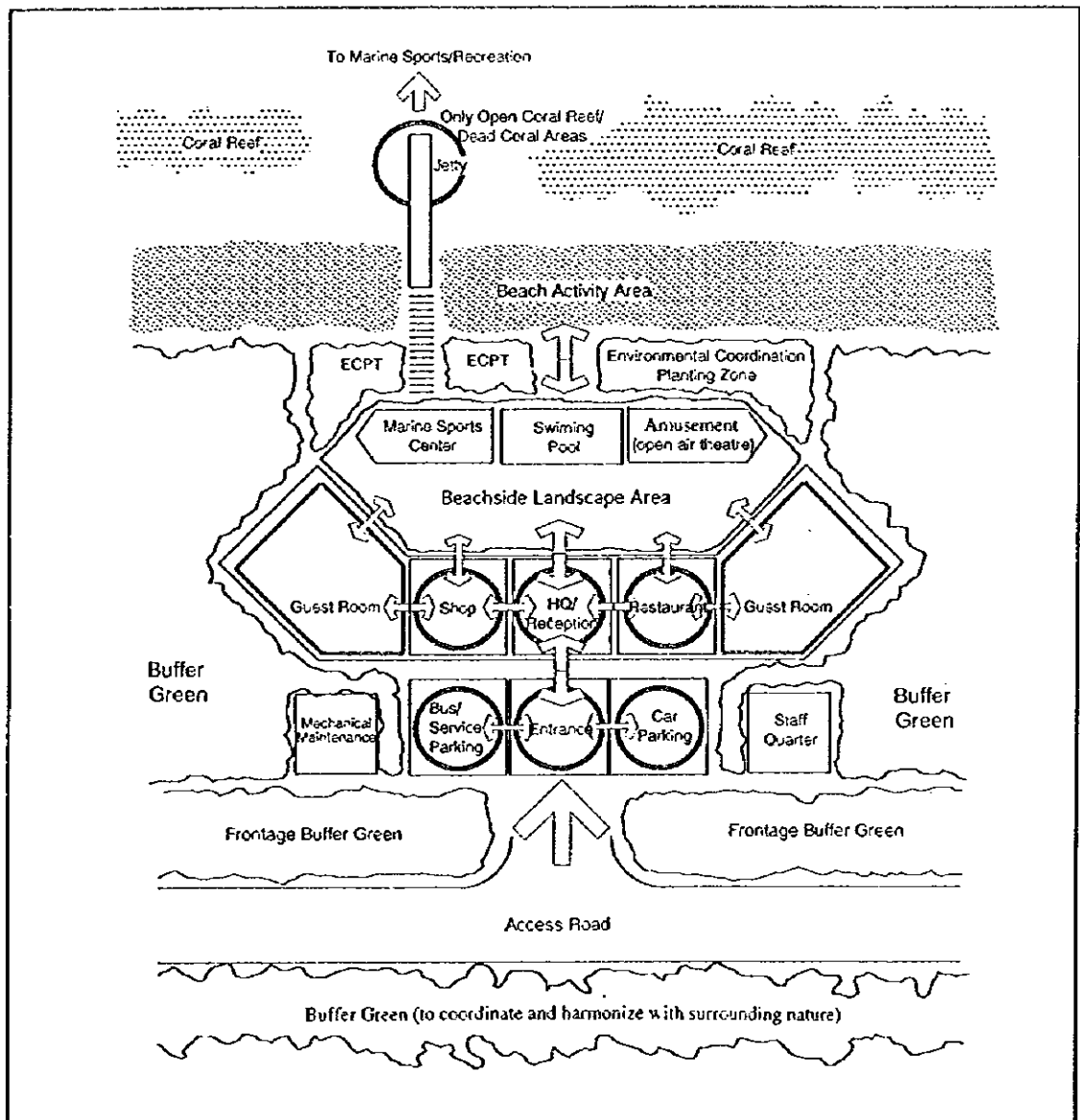
Guidelines and design policies on relevant aspects are as follows:

(1) Facility Layout

The facilities should be located in areas with sufficient public space and low density to maintain quality atmosphere by considering the following:

- site characteristics (topography, shape, size, etc.)
- relationship between amenities/facilities
- availability of water, electricity, sanitation, etc.
- climate, particularly the sun, wind, rain
- gardens, trees, shades, adjoining beaches

Figure 6-1 Layout Pattern of Facilities (Example)



Source: Study Team

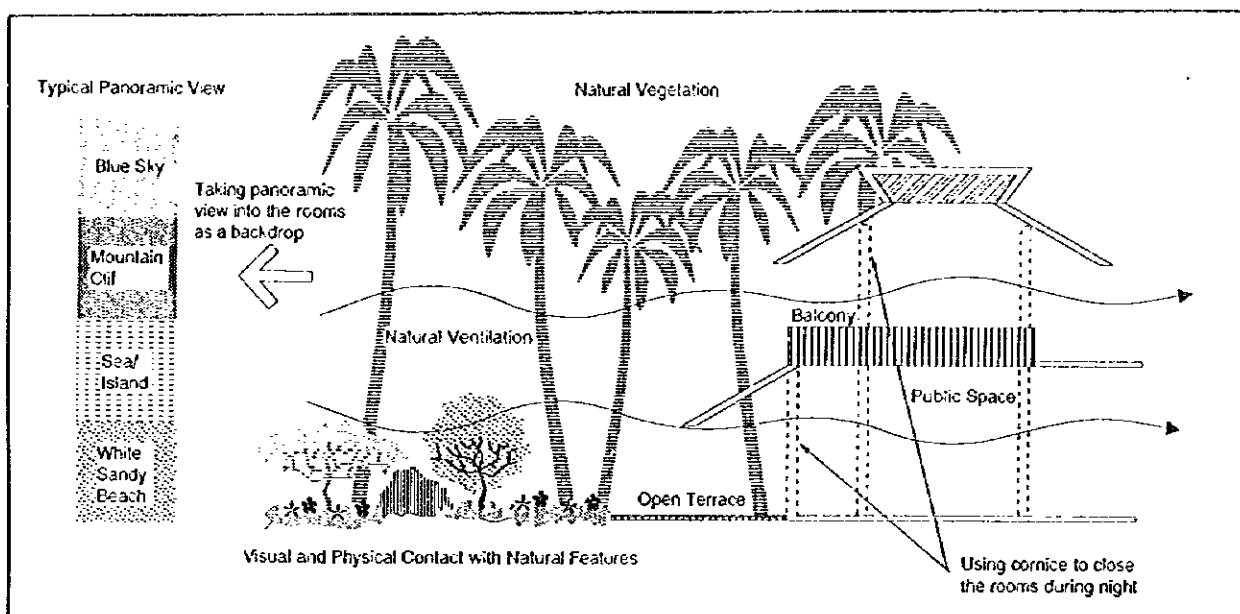
(2) Outdoor - indoor Relationship

Due consideration should be given to outdoor-indoor relationship for architecture, including:

- Use of natural ventilation rather than air-conditioning for public spaces, such as lobbies, dining areas, and other public spaces that open outdoors
- Visual contact with nature, such as panoramic view from a balcony to create a unique atmosphere
- Contact with the immediate surroundings, visually and physically
- Physical contact with flowers, trees, rocks and other features of the natural landscape

However, the above-mentioned spaces that open outdoors should be closed at night to keep away harmful insects, such as malaria-bearing mosquitos.

Figure 6-2 Relationship Between Natural Environment and Resort Areas



Source: Study Team

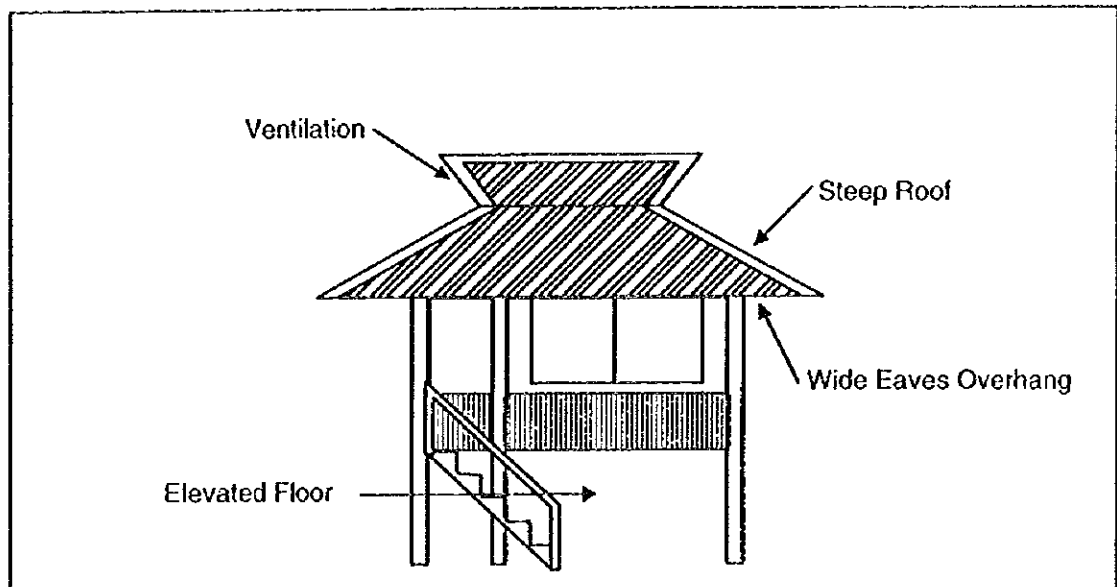
(3) Architectural Themes

Architectural themes should be properly incorporated by:

- Using architectural themes acclimatized to local climate (wind direction and strength, rainfall, humidity)
- Using relatively steep pitched roofs combined with wide eaves overhang

- Incorporating modification of traditional features into modern design rather than reproducing an exact traditional style design

Figure 6-3 Typical Architectural Themes



Source: Study Team

(4) Materials

- Maximum use of local materials to contribute to local economy and encourage employment of local manpower, which facilitate maintenance and repair
- Encourage creation of indigenous character of buildings/facilities

Local rattan and bamboo are available for use as materials for the interior and exterior. There is also good washed river stone which can be used to produce attractive finish both for pre-cast concrete panels and for exposed aggregate concrete paved surfaces.

(5) Colors

Buildings and facilities should be properly colored by considering:

- Predominant colors in the study area, such as the different tropical greens, flowers, natural vegetation, sky/marine blue, and white color of sand beaches.
- Choice of natural tones and colors of traditionally used materials for the exterior in order not to deviate from the predominant colors of the study area.
- Harmony with nature in surrounding areas.
- Creation of contrast through extensive use of flower plants, especially at the entrance and public space

2) Design Guideline: Landscaping

The objective of landscaping is to generate a feeling of relaxation, harmony with the surrounding natural environment and to use scenery resources, such as geographical features and natural vegetation, to a maximum extent. In principle, artificial structures must have less impact on the surrounding scenery. General guidelines are as follows:

(1) Conservation of the Surrounding Scenery

To conserve geographical features, the following guidelines should be considered:

- to conserve peculiar scenery resources surrounding resort areas, such as a hill, forest, white sand beach, cliff, etc.;
- to avoid that buildings and structures spoil sceneries; and
- to retain natural features, such as rocks, trees and running water, even in the densely built-up areas.

Conservation of natural landscape is also effective for landscaping.

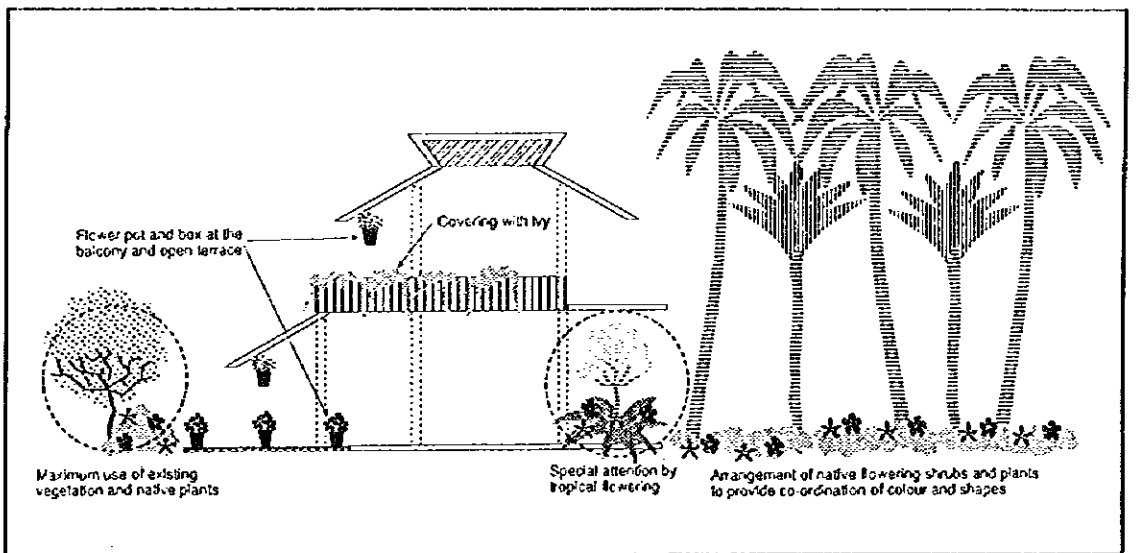
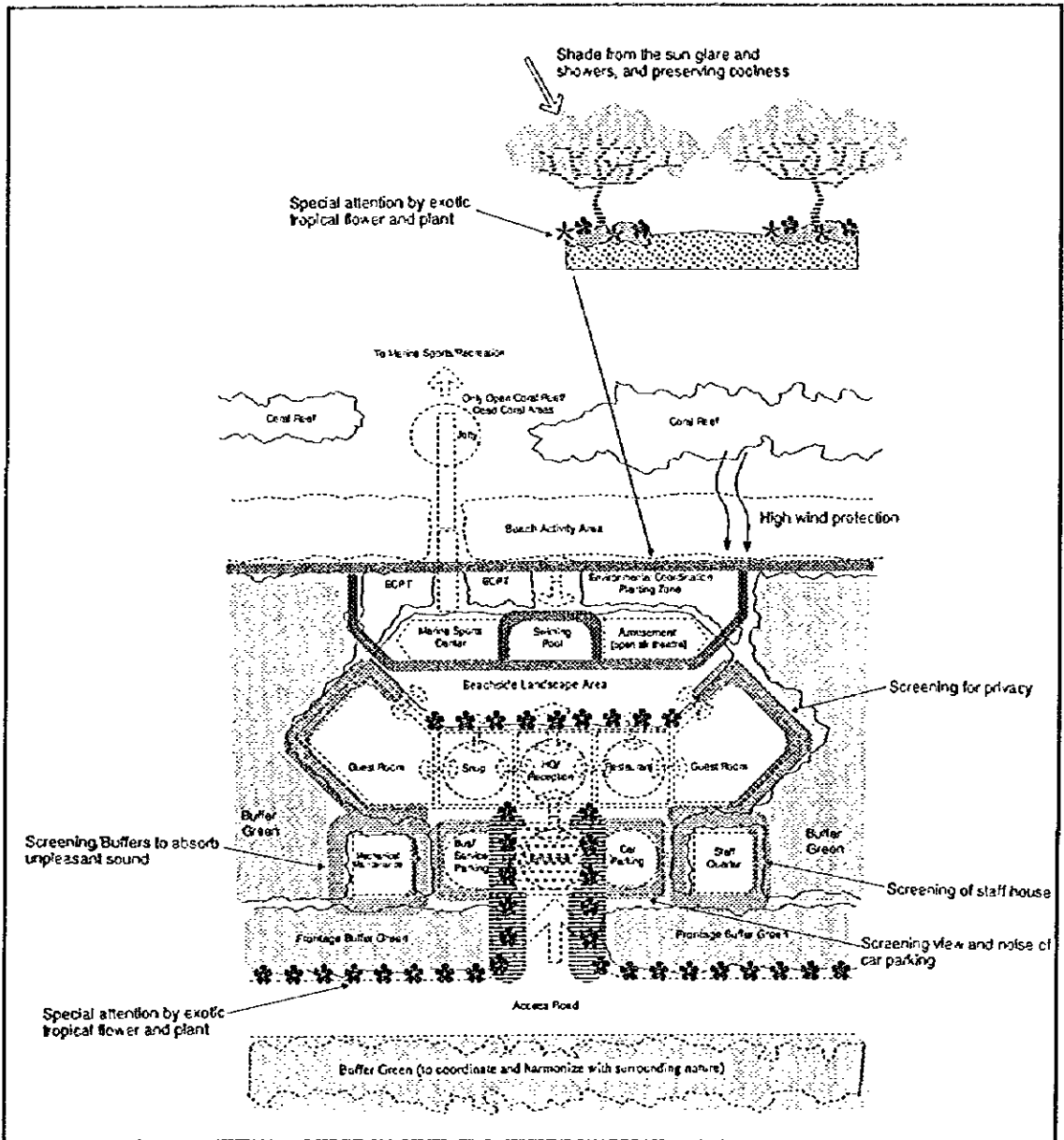
- maintenance and maximum use of natural vegetation, such as palm trees, big/tall trees, fruit trees, flowers for landscaping;
- introduction of new trees, shrubs or ground cover plant suitable to the soil and climatic conditions of the area; and
- conservation of existing trees, shrubs and grasses.

(2) Planting

Planting is aimed at creating an original landscape and attractive atmosphere. For this, the following should be considered:

- to ensure privacy;
- to eliminate unpleasant sounds, smells and dust by providing adequate buffers;
- to allocate plants for shade from intense sun glare and sudden showers and to reduce surface temperatures on the beaches, footpath, poolside, etc.;
- to mitigate the effects of strong winds, particularly along coastal areas;
- to emphasize existing and new plants adequately with maximum use of existing vegetation and native plants by arranging the character of the study area;
- to use tropical or flowering shrubs and plants with lush foliage, particularly at the entrances of hotels/buildings, along promenade and corridor, and at balcony; and
- to cover the ground with plants to prevent erosion.

Figure 6-4 Planting Patterns for Landscaping



Source: Study Team

3) Design Guideline: Environmental Consideration

All kinds of construction work should carefully consider the conservation of natural environment which is the most important tourism resource. Environmental consideration is also important to maintain a comfortable resort atmosphere. The guidelines and policies are as follows:

(1) Shoreline Protection

Shoreline should be protected not only from environmental viewpoint but also to conserve quality and tourism space. The following should be considered:

- to be free from any kind of structures along the beach area, from mean low water mark to the edge of the permanent coastal vegetation towards;
- to maintain the natural conservation function of beaches against erosion due to wave energy dissipation system during rough weather;
- to be free of buildings in a buffer area between the edge of the permanent coastal vegetation and building site;
- to disallow alteration of the shoreline
- to allow cottages to be built near the shoreline subject to an EIA;
- to conduct detailed investigation (comprehensive study for current, pile and erosion of sand and coral reef) when piers, jetties, and breakwaters, which changes current and rate of erosion, are planned;
- to disallow removal of corals or shells;
- to carefully select the location of boat moorings to refrain from damaging coral reef;
- to restrain use of cars, motorcycles and all other vehicles; and
- to prohibit indiscriminate removal of coastal vegetation.

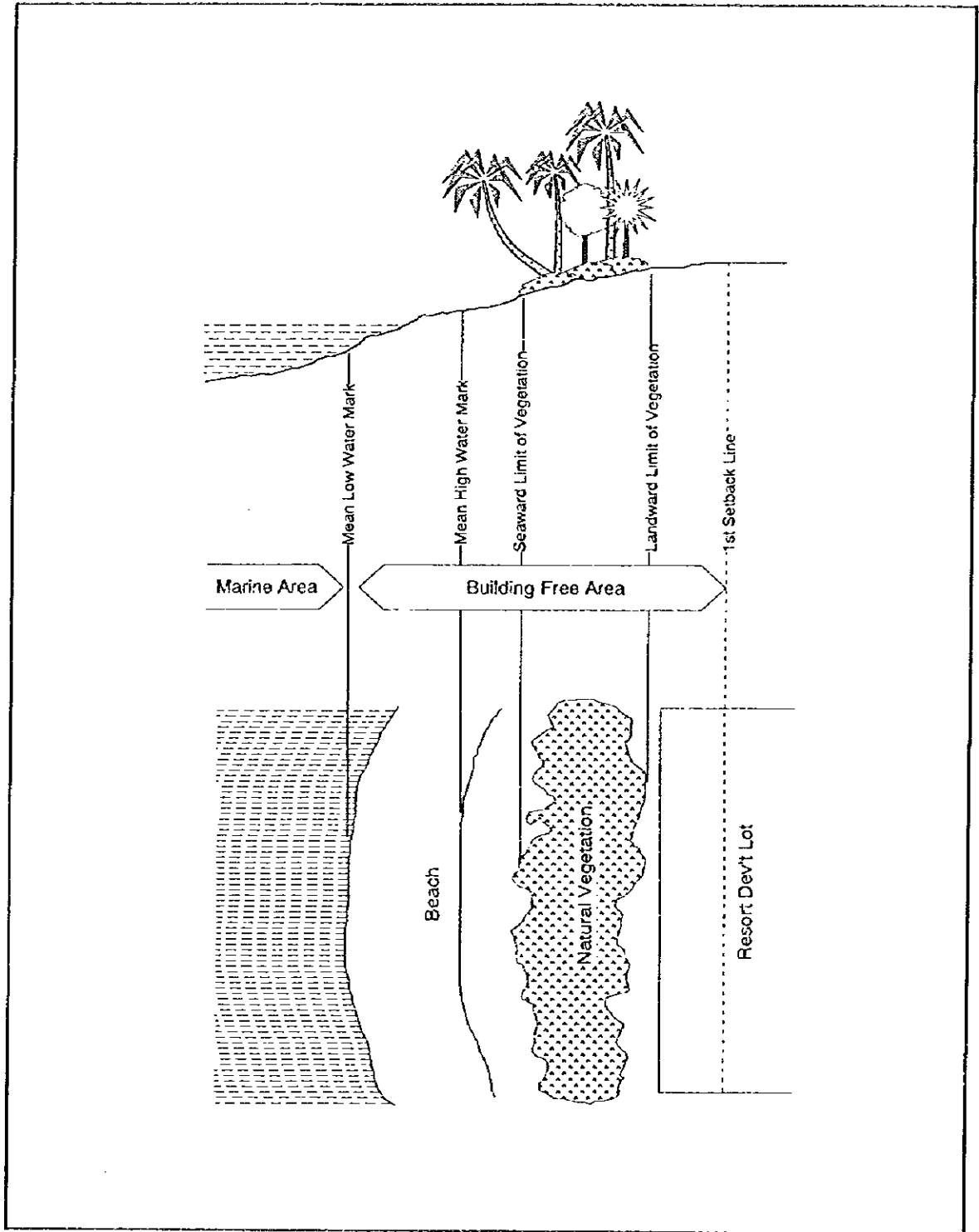
(2) Sewage Treatment

The sewage treatment system of a resort must be adequate, especially in case of resort development at a place close to coral reef in fair condition, on the islands and large scale resort development. Further environmental measures should be encouraged by making good use of the treated sewage to flush toilet or as sprinkle water, thus reducing the amount of sewage.

(3) Solid Waste Disposal

Collection and disposal of solid waste from the resort area must be well-coordinated and properly treated. The disposal area should be provided a separate access from the main entrance to the resort area. The system needs further to be integrated with that of neighboring communities.

Figure 6-5 Shoreline Protection



Source: Study Team

(4) Air Pollution

Air pollution sources, such as power generators, should be removed from the accommodation and recreation areas so that the wind will not carry offensive odors into these areas. Garbage incineration and such other activities should be kept away from the resort area.

(5) Noise

Cars and motorcycles should be removed from the accommodation areas. Only service vehicles should be allowed within the accommodation area. Parking lot and major noise sources, such as power generators, kitchen and laundry, should be removed from the tourist area.

It may be better if all kinds of construction work are done during the dry season in order to avoid serious problems, such as difficulty in transporting construction materials during the rainy season and the high cost of materials and machinery. Particularly, in the case of earthworks, ground covering plantation should be done before the rainy season to prevent siltation to the surrounding environment, especially in rivers and coastal areas.

2) Development Guideline: Resort Area

Resort area may comprise the following: 1) hotels with reception areas, accommodation units for guests, conference facilities, restaurants and nightclubs, small shops for souvenirs and convenience goods, hairdressing salons, prayer rooms, offices, laundries, services and utilities, hotel-operated recreation facilities, and staff accommodations, 2) parking area, and 3) landscaped area, including buffer area.

(1) Accommodation Area

- a) Density: Density of accommodation units should not exceed certain levels (refer to Table 6-2).

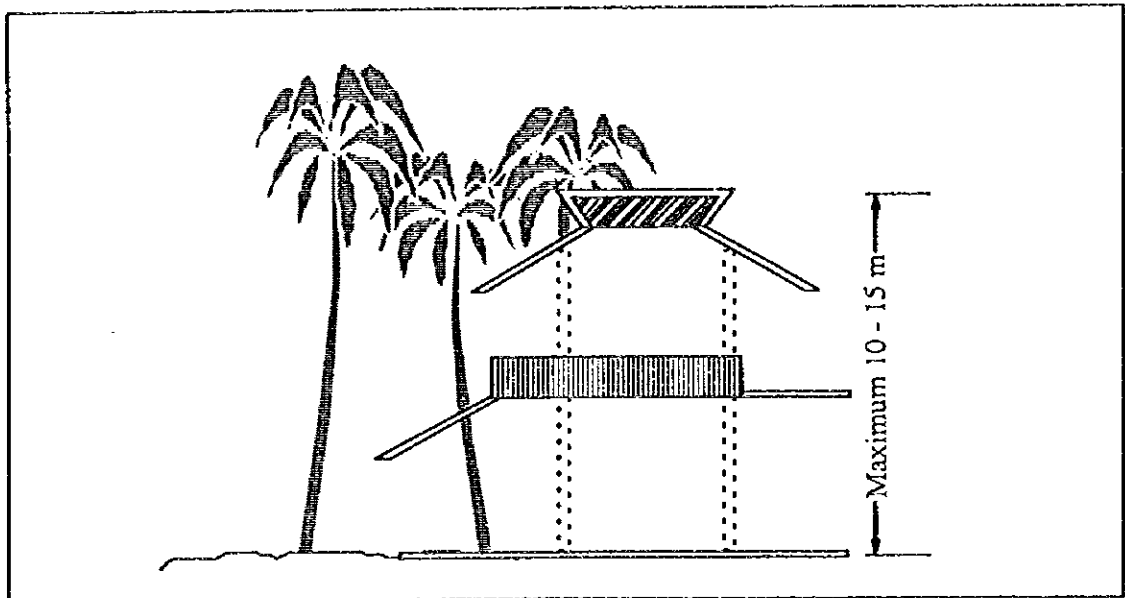
Table 6-2 Allowed Level of Density of Accommodation Units

Type of Structure	Maximum Density (Gross)
1 story	15 units/hectare
1 story and 2 stories	20 units/hectare
3 and 4 stories	30 units/hectare

Source: worked out by the Study Team based on various standards/experience

- b) Building Height: The maximum height of any building should not exceed 3 - 4 storeys and 10 m - 15 m above the average elevation of the finished building to maintain harmony with a line of palm trees (flagpoles, lightning conductors and television antennas may exceed 15 m in height but must not impair the visual appearance of the whole scenery).

Figure 6-6 Maximum Building Height

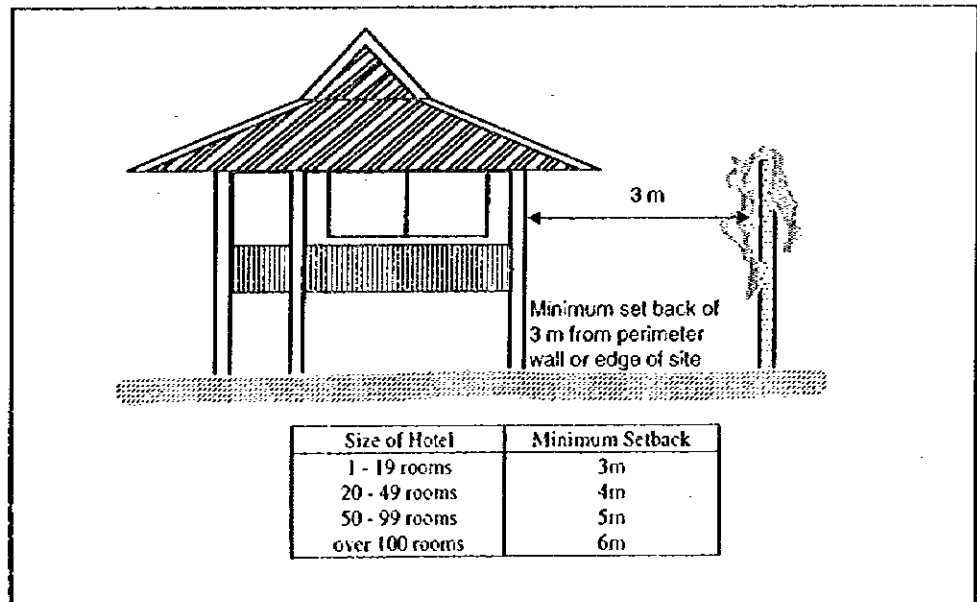


Source: Study Team

c) Building Setback from Edge of the Site

- (a) Small Scale Resort (Island Resort Development/Low Class Accommodations): No building should be erected within the minimum setback area from the edge of the lot boundary or perimeter walls. Unless previously determined, the minimum distance between any building and the lot boundary should be clearly specified (refer to Figure 6-7).

Figure 6-7 Building Setback from Edge of Site in Small Scale Resort

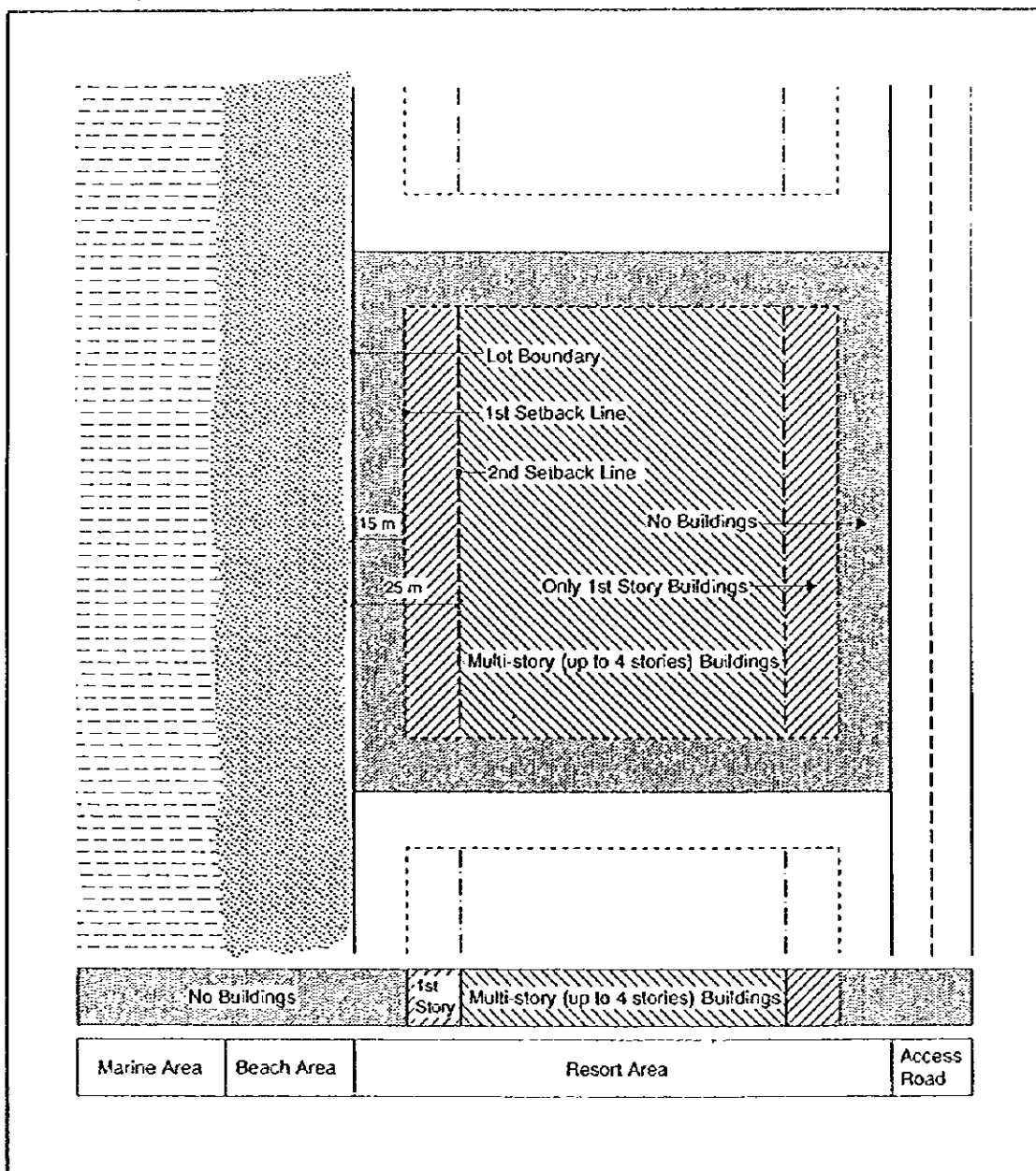


Source: Study Team

(b) Large Scale Resort: Large scale hotel development shall comply with the following setback:

- First setback line is 15 m from the lot boundary, and 2nd setback line is 25 m from the lot boundary toward beach side and main access road.
- No structures should be built in the area between the lot boundary and the first setback line.
- Only single-story buildings can be built in the area between the first setback line and the second setback line.
- Beyond the second setback line, multi-story (up to 15 m, 4 stories) buildings can be built.

Figure 6-8 Building Setback from Edge of Site in Large Scale Resort

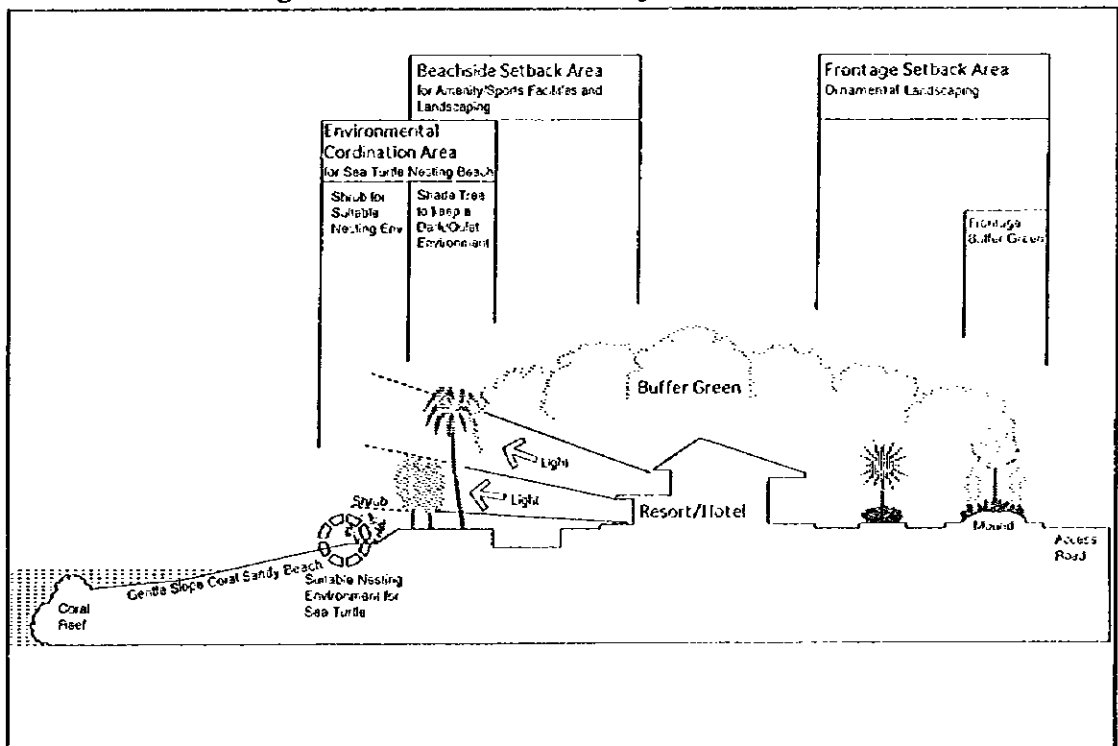


Source: Study Team

d) Building Setback Within the Site

- (a) Between Walls of Buildings with Openings: The distance between accommodation units and public facilities, such as restaurants, shops or any other building where the guests of the hotel ordinarily have access quite often, should be less than 10 m.
- (b) Between Blank Walls of Buildings: The minimum setback between blank walls of buildings made of fire-proof materials should be 2.5 m, and 1.5 m between roofs. In case of buildings made of inflammable materials, the minimum setback between roofs must be 2.5 m.

Figure 6-9 Minimum Building Setback within the Site



Source: Study Team

e) Landscaping

A minimum of 30% of the site area should be landscaped as open space and buffer area, such as planted areas and buffer strips, areas with natural vegetation, lawns, walkways, and gardens with common sitting areas.

Open-air restaurants and bars, swimming pools and minor recreation facilities, children's playgrounds, tennis courts, parking areas, storage areas and internal roadways may not be counted as landscaped open space.

f) Lighting

Lighting should be located and directed such that it does not illuminate areas beyond the boundary of the site or create a glare which can pose hazard to traffic or inconvenience to surrounding environment. Other lighting guidelines are as follows:

- Lighting at the edge of the site should be limited to floodlighting of exterior walls, principal and information signs, access points and landscaping.
- It is desirable that all tall lighting and foot lighting be made of natural materials, such as local wood, bamboo, or stone; otherwise a light post must be screened by planting.
- Especially, lighting toward the beach must be considered carefully so as not to prevent nesting of sea turtles by adjusting the brightness and direction of lighting, or planting for screening.

g) Signs

All signs arranged in the resort area should be for information purpose, and only the advertisement of the hotel can be allowed as a principal sign.

- The principal sign should be ground-oriented, not more than 3 m in height above ground level, and made of natural materials, such as wood, bamboo, or local stone.
- All signs except for the principal sign and traffic direction signs should be subject to the same setback from public roads as for buildings.

h) Walls and Fencing

Between the resorts along long beaches, perimeter walls and fences may be provided on the lot boundary.

- Natural materials are desirable for walls and fencing, and height should exceed 2.5 m.
- Cement, blocks or clay bricks, triplex, zinc or other corrugated metal and wire fencing may not be used. When walls and fences are made of the preceding materials, it must be designed in a manner which minimizes the visual impact with vegetation.
- Untreated metal components which may be subject to rusting should not be used in permanent construction.

i) **Parking**

There is no need for parking areas in the island resorts, even in the coastal resorts where almost all the tourism activities and excursions would be done in the marine area. Also, concerning the inland activities, the areas should not be so far spread from the resort areas. Therefore, parking areas should only be provided for taxis, buses, maintenance cars and carts, subject to the following conditions:

- Parking should be provided in surfaced parking areas, and well-kept away from guest accommodations.
- The surface of the parking area may be covered by concrete, gravel and turf.
- Further, screening around the parking area and the islands between parking lots is needed by planting, vegetation, etc.
- Each parking space may have a minimum measurement of 2.5 m width, 6 m length, and free height of 3 m.

6.3 Environmental Guidelines

6.3.1 Guidelines on Construction of Infrastructure/Facilities

1) **General**

In principle, the development of infrastructure and construction of tourism facilities are not allowed in a preservation area. However, those activities required for environmental management purposes, e.g. setting up of environmental monitoring equipment, signboard and other structures, are allowed. For areas not classified as preservation areas, infrastructure development projects can either be classified as environmentally critical or not. The following environmentally critical projects, under DENR Office Circular No. 3, s. of 1983, require Environmental Impact Statements (EIS):

- (a) heavy industries
- (b) resources extractive industries
- (c) infrastructure projects

The whole Northern Palawan can be categorized as an environmentally critical area under the Philippine EIA system. Thus, even projects that are not environmentally critical require the preparation of a project description. A summary of the requirements is shown in Table 6-3.

Table 6-3 Areas Requiring Environmental Impact Study

Area	Required Environmental Study		Evaluating Agency
Preservation Area	Construction of structure is not allowed		
Other Areas	Environmentally Critical Projects	EIS	EMB/DENR
	Other projects	Project Descriptions	Regional Office DENR

Source: DENR

2) Prohibition of Development Activities in Small Islands

Since small islands do not have a lot of space, island capacity should be considered. Therefore, infrastructure development is prohibited in islands with less than 5 hectares of flat area. However, in such islands, areas can be designated as picnic sites where swimming from sunrise to sunset can be allowed. But the following should be strictly observed:

- all things, including garbage, should be brought back to the mainland;
- animals that are not native to the island should not be brought there;
- native animals should not be fed; and
- plants, sand, coral shells and others should not be taken.

Management of this type of island should be in the hands of only one entity.

3) Appropriate Solid Waste Disposal

Disposal sites should not be established in preservation and conservation areas, and within watershed that is used for water resources.

4) Appropriate Sewage Treatment

Sewage from resort should be treated following the effluent standards of DENR Administrative Order No. 35, s. of 1990, and these should not flow into Marine Preservation Area.

6.3.2 Guidelines on Activities in Relation to Environmental Management

Environmental Management Area is proposed for the “Environmental Management in Tourism Area.” Tourists should comply with the allowable activities in the environmental management area. Each management area has different allowable activities as shown in Table 6-4. The following should be considered by agencies that are involved in tourism development:

(a) **Training and Certification of Tour Guides, Dive Guides and Boat Operators**

Tourists and divers require assistance from tour/dive guides and boat operators with regard to the conduct of activities in environmentally-sensitive areas. It is important that they be made to understand conservation rules in order to gain their support for the proper management of these areas. This is the reason why tour/dive guides and people in the tourism front-line should undertake proper training not only on tourism-related activities but also on environmental awareness/management for they are the ones who come in direct contact with tourists. The PCSD or the Tourism Council should conduct these training courses and issue certificates to successful trainees.

(b) **Prohibition of Indiscriminate Throwing of Trash**

Scattered garbage decreases not only the environmental value but also the tourism value of a place. Tour guides and boat operators should ensure that tourists do not throw trash indiscriminately.

(c) **Prohibition of Collection of Corals and Shells**

Selling and collecting shells and corals are common practices especially in resort areas. Tour guides, dive guides and boat operators should ensure that snorkelers and scuba divers do not take corals and shells and should warn tourists about buying and collecting these items.

(d) **Trampling on Corals**

Novice snorkelers and divers sometimes accidentally trample on and destroy corals while diving in shallow reef flats. Dive guides should caution them on this.

(e) **Prevention of Anchor Damage**

Coral reef are also damaged when a boat anchors. In the Preservation Area, anchorage should be prohibited. However, mooring buoys could be installed at sand bottoms. The following should be considered when installing mooring buoys:

- the sinker should be located at sandy sea bottom where no healthy corals can be disturbed;
- the length of the mooring rope should be 1.5 ~ 2 times of the sea depth depending on the current; and
- the weight of the sinker should be just enough, depending on the current and size of boat (a light sinker may move by tension).

Table 6-4 Guidelines on Allowable Activities by Environmental Management Area

Management Area Type of Activity	Management Area													
	Forest Preservation Area	Forest Conservation Area	Terrestrial Wildlife Conservation Area I	Slope Preservation Area	Slope Conservation Area	Coral Reef Preservation Area	Coral Reef Conservation Area	Seagrass Conservation Area	Mangrove Preservation Area	Mangrove Conservation Area	Sea Turtle Conservation Area	Dugong Conservation Area	Ancestral Lands/Domain for ICC	Landscape Conservation Area
A. Community Activities														
1. clearing (slash-and-burn)	D	D	D	D	D				D	D			D	D
2. logging/cutting trees	D	C	D	B	C				D	D			C	C
3. hunting	D	C	D	B	C				D	D			C	C
4. extensive agriculture	D	D	C	D	C				D	D			C	D
5. navigation by small boat						D	C	B	D	B	B	B	A	
6. navigation by large boat						D	D	D	D	C	D	D	C	
7. boat landing on beach						D	D	B	C	B	D	D	C	
8. anchoring						D	D	B	C	B	D	D	B	
9. commercial line fishing						D	C	C	C	C	B	B	C	
10. commercial trawling						D	D	D	D	D	D	D	D	
11. commercial coral net						D	D	D	D	D	D	D	D	
12. collection of shells						D	D	D	C	C	D	D	C	
13. collection of aquarium fishes						D	D	D	C	C	C	C	C	
14. collection of reef materials (sand, corals, rocks)						D	D	D	D	D	D	D	D	
B. Small Scale Facilities														
1. irrigation facilities	D	D	D	D	C								C	D
2. fish/shrimp ponds			D			D	D	D	D	D	D	D	C	D
3. fish pens			D			D	D	D	D	D	D	D	C	D
C. Tourism Activities														
1. hiking/trkking	C	C	C	A	A				C	B			C	C
2. picnic	C	C	C	A	A	D	C	B	C	B	D	D	C	C
3. camping	D	C	D	B	A	D	D		D	D	D	D	C	D
4. walking on reef and beach			B			D	D	B	C	B	C	D	B	B
5. snorkelling/swimming						D	D	B	B	B	D	D	B	B
6. scuba diving						D	C	B	B	B	D	D	B	B
7. river cruise	D	B	B						C	B	D	D	C	B
8. wind surfing						D	D	B	B	A	D	D	B	B
9. rowboat						D	B	A	C	A	B	B	B	B
10. operation of boat including glass bottom boat						C	C	C	B	C	C	C	C	
11. sailing						D	D	B	B	B	B	B	B	
12. cruising/yachting						D	D	D	B	B	B	B	B	
13. boat landing on beach						D	D	D	C	B	D	D	C	
14. anchoring - Size of Hotel						D	D	B	B	B	D	D	B	
15. collection of shell 1 - 19 rooms	6m					D	D	D	D	D	D	D	C	
16. line fishing by 20 - 49 rooms	3m					D	D	D	D	D	D	D	C	
17. spearfishing by 50 - 99 rooms	4m					D	D	D	D	D	D	D	B	
	5m					D	D	D	D	D	D	D	D	
D. Small Scale Tour over 100 rooms	6m													
1. trails for nature observation	C	C	C	C	B				C	C			C	C
2. resting facilities	C	C	C	C	B	D	D	C	C	C		D	C	C
3. observatories	C	C	C	C	B	D	D	C	C	C		C	C	C
4. mooring buoys						D	D	C	C	C		C	C	

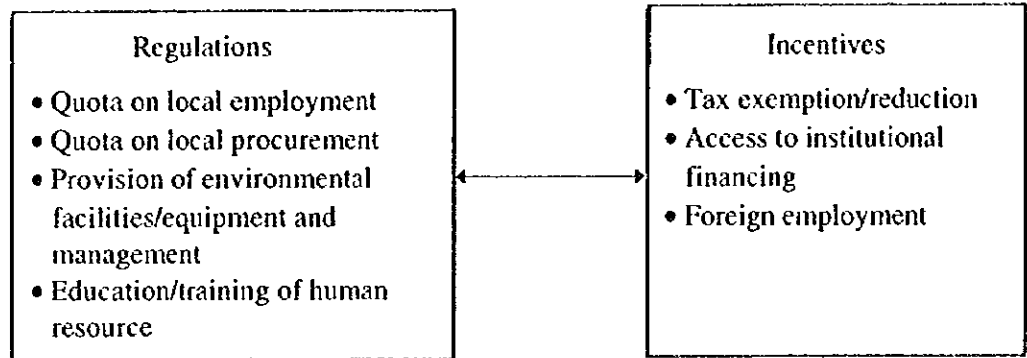
Source: Study Team
 A: allowed
 B: restricted activities; environmental consideration necessary
 C: permission required
 D: not allowed

6.4 Guidelines on Investment and Management

With regards to tourism investment, there are a couple of investment guidelines at national level, namely, "tourism estate" under DOT and "economic zone" under EPZA. However, in order to ensure the sustainability of the proposed tourism development, it is necessary to prepare guidelines for investors on local employment, local supply, environmental management within their activity area, cost-sharing for regional infrastructure and environmental management. Current

incentives to be extended to investors should be more specifically directed to the above areas.

The guidelines shall be composed of a mix of “regulations” and “incentives” as conceptually shown below:



7. Conclusion and Recommendations

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It is concluded that tourism development can provide a good opportunity to promote sustainable development in Northern Palawan. The proposed tourism development generates significant economic benefits to the country as well as communities, and can become a potential revenue source to shoulder part of the environmental/restoration as well as regional infrastructure costs.

A number of conditions, however, have to be met in order that the proposed tourism development can materialize positive effects. These conditions are as follows;

- (1) Environmental management system should function effectively. ECAN zoning (statutory land use plan) must be prepared and enforced. EIA procedure and environmental monitoring be properly and strictly applied, followed by necessary corrections and introduction of adequate countermeasures when and where necessary;
- (2) Public sector should take the lead on development. Unless the public sector takes the lead on and control of developments of private investors, it is likely that planned developments may not be realized. Tools of controlling the development include effective enforcement of ECAN zoning, provision of basic infrastructure and acquisition or consolidation of lands by the public sector^{1/};
- (3) Human resource development should be duly considered by Government to match the needs of tourism development. Otherwise, the proposed development may not benefit communities; and
- (4) Local government and communities should be involved in different areas of tourism development, i.e. planning, investment, and operation and management.

Toward the implementation of the proposed development, it is recommended to consider the following:

- (1) Strengthening of PCSD which should function as a central arm of environmental management for Northern Palawan in close coordination with DENR. Priority areas for this include establishment of updated environmental data, conduct of scientific research, provision of necessary equipment and facilities for environmental planning, training of manpower, further elaboration of ECAN zoning criteria and planning procedure, etc. Enforcement function currently being undertaken by provincial/municipal governments also needs to be strengthened in terms of manpower, facilities and equipment.

- (2) Formulation of regional development plan, including ECAN zoning, wherein proposed tourism development plans are effectively integrated based on which infrastructure developments may be re-prioritized; and
- (3) For priority development areas, ECAN zoning should be immediately prepared and acted upon. A Tourism Development Authority may be organized to coordinate different interests and concerns of relevant bodies, in particular, the consolidation of necessary lands for development.

While the formulation of ECAN zoning and establishment of more effective environmental management system including strengthening of PCSD are the minimum preconditions to tourism development in Northern Palawan, realistic financing mechanism for non or less profitable undertaking such as environmental restoration /conservation and regional infrastructure development should be worked out. For this, the following need to be considered:

- (1) A strong reason why the public sector should be involved in the development intensively is not only to fully realize sustainable development in respective area but also to ensure cross-subsidy between sectors (tourism, environment, infrastructure) and geographical areas^{2/}.
- (2) Reliance on increased allotment of the central government may not be realistic as it involves great uncertainties, though the proposed development contributes significantly to the national economy. For local government to promote the development more independently, the creation of a new funding source such as environmental fee as well as charging system of regional infrastructure on resort investors/developers should be further considered.
- (3) Once the above financing mechanism is worked out, ODA funding may be an advantageous option to finance the proposed development.

^{1/} Concept of Land Readjustment may be an alternative wherein owners of lands join the project if they do not want to sell their lands. Land values are assessed before and after the project and land with the same or higher value of original land will be given back in desired locations (refer to Appendix E for the explanation of Land Readjustment).

^{2/} For example, case study areas are those with the best tourism resources requiring less environmental conservation/restoration costs. Therefore these blessed areas should shoulder the costs of other handicapped areas in Northern Palawan.

8. *Bibliography*

BIBLIOGRAPHY

- A joint venture of Dames & Moore International. Sustainable Natural Resources Assessment- Philippines: *A Review of the present status with the recommendations for the future directions - Birds and Mammals of Palawan Including Balabac, Calamianes, Cagayan Sulu, Cagayan and Cuyo Group.* USAID, September 1989.
- Agoo, Esperanza Maribel G. **An Ecological Study of the Forest Over Limestone of Coron Island, Palawan,** February 1994.
- Agrodev Canada, Inc. **Fisheries Sector Development Program Final Sector Study Report.** December 1988.
- A. Soriano Foundation. **Resource Inventory and Livelihood Potentials of the Pilot Target Communities.** 1994.
- Bountiful Palawan.** Aurora Publishing Inc., 1991.
- Austria & Austria Law Office. Pictures on Calamian and Balalai Island. n.p., n.d.
- Baseline Environmental Study for the Oction Drilling 3 & 4 Wells.** Philidrill Corp. Operator Service Contract, 1995.
- BIMP-EAGA. East ASEAN Growth Area (BIMP -EAGA). Final Overall Integrative Report (Draft).** Feb. 1996.
- Board of Investment. **Primer: "Foreign Investments Policies in the Philippines".** 1988.
- Briones, Nicodemus D. et.al. **Environmental Impact Statement of Marine del Nido.** n.p., 1992.
- Brown, Elaine Carol. **Tribal Peoples and Land Settlements. The Effects of Philippine Capitalist Development on Palawan.** UMI Dissertation Services, 1991.
- Bureau of Agricultural Statistics. **Commercial Fishery Production Statistics.** (1994).
- _____. **Commercial Fishery Production Statistics,** (1993).
- _____. *Fishery Statistics Bulletin.* 1994.
- _____. **Fishery Statistics,** 1994.
- _____. **Fishery Statistics,** 1984-1993.
- _____. **Marine Municipal Fishery Statistics in the 12 FSP Priority Bays.** 1993.
- Bureau of Fisheries and Aquatic Resources. *Annual Report 1986.*

_____ . *Annual Report 1987.*

_____ . *Annual Report 1989.*

_____ . *Annual Report 1993.*

Calada, Marcelo R. **Population Ecology of Palawan Peacock Pheasant.** n.p., 1991.

CDT Monitoring Inspection and Surveillance Team (MIST). **Field Report on Illegal Fishing Activities in Municipalities of Cuyo, Magsaysay and Agutaya.** n.p. 1995.

Center for Development Studies. **Ground Inventory and Assessment of Mangrove Area in the Philippines.** 1978.

Chiong, Dexter J.L. Ph.d. **Tourism Palawan: An Assessment of Development Potential.** n.p., n. d.

Choy, Dexter J.L. **Tourism in Palawan: An Assessment of Development Potential.** Department of Tourism and the Philippine Tourism Authority, 1989.

Civil Aviation Master Plan - Final Report. UNDP.ICAO (DOTC), July 1992.

Collection of Tourism Expenditure Statistics - Technical Manual #2. World Tourism Organization, 1995.

Collection of Tourism Expenditure Statistics - Technical Manual #3. World Tourism Organization, 1995.

Concept for Development of Palawan, Philippines. The Ellicol Group, September 1989.

Coral Reef Community Ecology Group-UP Marine Institute. **Coral Reef Habitat Assessment and Dive Site Mapping Final Report .** Vol. 1 & 2. Prepared for: Ten Knots Development Corporation. 1996.

Cortez , Nelia P., et.al. **Preliminary Cross Sectional Study of the Health Impact of Mercury Exposure.** n.p. , n.d.

Cuadra Nick C. **Palawan Ethnographic Catalogue Vol. I.** National Museum, 1985.

Culion Foundation, Inc. and Local Government Unit of Culion. **Culion - Municipal Study on Development Opportunities 1996 .** Municipality of Culion, 1996.

Dans, Andres Thomas L. **Population Estimate and Behavior of Palawan Tree Shew.** n.p., 1993.

Davies, Jon, et.al. **A Directory of Philippine Wetlands: Vol. 1.** Department Environment and Natural Resources-Asian Wetlands Bureau of Philippine, 1990.

- De los Reyes, Antero M. **The Fifty Natural Wonders of El Nido in the Philippines.** El Nido Plaza Enterprises, 1993.
- Deocadiz, Leo. **Paggawa ng Palaisdaan (Fish Construction),** Bureau of Fisheries and Agricultural, n.d.
- Department of Agriculture. **Municipal Fishery Production by Province and Landing Site,** 1995.
- Department of Agriculture-Bureau of Agricultural Statistics. **Characterization of Coastal Habitats and Fishery Resources of Ulugan Bay,** n.d.
- Department of Agriculture - Bureau of Fisheries and Aquatic Resources. **A Handbook of Selected Philippine Fishing Gears and Methods.** 1988.
- Department of Agriculture-Bureau of Fisheries & Aquatic Resources. *Fisheries Newsletter* Vol. 15. 1987.
- Department of Environment & Natural Resources-Environmental Management Bureau. **Philippine Forestry Statistics (1990).**
- _____. **Sea Cow (*Dugong-Dugong*) Research and Information Campaign Project in Paladin, Philippines.** DENR-PAWB, 1990.
- _____. **The Philippine Environment in the Eighties.** Manila, 1990.
- Department of Public Works and Highways & SPIADP. *Environmental Impact - Magara - Little Caramay - Caruray Road Project.* 1995.
- Department of Science and Technology-PCAMRD.* 1995.
- Draft 1-2 Component Copy Limited: Natural Resources Management and Development,** 1990.
- DOST-PAGASA. **Storm Surges,** 1994.
- Department of Tourism. *Accomplishment Report, (1986-1991).*
- _____. *DOT and Attached Agencies Annual Report.* Department of Tourism, 1995.
- _____. *Annual Report . (1993).*
- _____. *Annual Statistical Report.* DOT, (1992-1995).
- _____. **Resort Code of 1989.**

- _____ . **Rules and Regulations to Govern the Accreditation of Hotels, Tourist Inns, Motels, Aparteles, Resorts, Pension Houses and other Accommodation Establishments.** n.d.
- _____ . **Rules and Regulations to Govern the Accreditation of Tourism-Related Establishments .** 1995.
- _____ . **Rules and Regulations to Govern the Accreditation of Travel and Tours Services** n.d.
- _____ . *Statistical Report on Travel and Tourism .* 1991.
- _____ . *Survey on Manila-NAIA.* n.d.
- _____ . **Visitor Sample Survey (AVSS) Summary of Tabulations Results.** 1994.
- Department of Tourism - Philippine Tourism Authority. *Socio Economic Household Survey for Northern Palawan.* n.d.
- DOT-JICA. **Survey on Sustainable Tourism Development in Northern Palawan. Part One: Summary of Survey Results.** n.d.
- _____ . **Survey on Sustainable Tourism Development in Northern Palawan. Part Two: Summary of Survey Results.** n.d.
- EIS Pragmatic Compliance Policy - Industrial Management Project. **Pragmatic EIS Compliance Guidebook for Industrial Development Area Vol. I - Administrative Framework and Procedures.** Environmental Management Bureau-DENR. n.p., n.d.
- El Nido Tourism Office. *El Nido Tourist Arrival -Annual Report, 1995.*
- El Nido Municipal Tourism Council. *El Nido Tourism Agenda 2000, 1995.*
- El Nido Resort Cooperative - A Model Eco-Tourism Project -.n.p., n.d.
- Environmental Management, Inc. "*Business for a Cleaner Environment*". n.d.
- Forest Register (PALAWAN) - The result of "*Wide Area Tropical Forest Resources Survey (in fiscal 1993)*". Japan Forest Technical Association.
- FORI and Planning Officer of PIADP. *Survey and Inventory of Wildlife fauna with Emphasis in Asian Species Vol. III.* FORI and PIADP, n.d.
- FORI-PIADPO. *Executive Summary Vol. I Survey and Inventory of Flora, Fauna and Outdoor Recreation of Palawan.* n.d.
- Fox Robert B. **Religion and Society among the Tagbauua of Palawan Island, Philippines.** National Museum, 1982.

- Gonzalez, Benjamin J. **Cataloging and Inventory of Municipal Fishing Gears and Crafts in Palawan Area.** PNAC-Regional Institute of Fisheries Technology. n.d.
- Governance and Local Democracy (GOLD) Project Paper.* US-AID, September 1994.
- Guide To Philippine Flora and Fauna Vol. 1.** Natural Resources Management Center - Ministry of Natural Resources and University of the Philippines, 1996.
- Hodgkin, Gregor J.D. **Logging Versus Fisheries and Tourism in Palawan.** n.p. 1988.
- Hoff & Overgard, WTO, DOT, United Nations Development Program. **Area Plan for Northern Palawan.** n.p.
- How to Go To Palawan.** Provincial Government Tourism Office, n.p.
- IBRD - assisted Second Rural Roads Improvement Project Palawan Vol.III - Provincial Report -. Department of Interior and Local Government, December 1993.
- IEMP. Industrial Management Project (Success Stories),** n.d.
- IEMP (DENR-USAID). Financial Evaluation of Waste and Management Projects.** n.d.
- International Marinelife Alliance - Philippines. *Accomplishment Report: Activities of Cyanide Detection Test (CDT) Laboratory.* n.p., 1995.
- Lambert, Frank Dr. et. al., **The Status of Philippine Cockatoo in Palawan and the Sulu Islands, Philippines.** IUCN - The World Conservation Union, 1994.
- Lebar, Frank M. **Ethnic Groups of Insular South East Asia. Vol. 2 (Philippine Formosa).** Human Relations Area Files Press, 1975.
- Limberg, Kreg & Hawkins, Donald. **Ecotourism: A Guide for Planners and Managers.** Ecotourism Society, 1993.
- Lucero, Cristobal B. **Provincial Code: Appraisal and Assessment of Real Properties in the Province of Palawan.** n.p., n.d.
- Malacanang Office. **Executive Order No. 63: Granting Incentives to Foreign Investment in Tourist - Related Projects and Tourist Establishments and for Other Purposes.** n.d.
- Marine Benthic Communities. Environmental Impact Studies for the Pamalican Resort Development Project Vol. II.** 1990

- Miller, Edward Y. **The Batak Tribes of Palawan.** n.p., n.d.
- Morco, Rodolfo B. & Evelyn Rodriguez. *Comprehensive Development Plan (1995-2000) of Taytay.* Municipality of Taytay.
- Municipality of Culion. *Medium Term Development Plan (1996-2000) of Culion.*
- Municipality of El Nido. *Medium Term Development Plan (1996-2000) of El Nido.*
- Municipality of Taytay. *Comprehensive Development Plan (1995-2000) of Taytay.*
- Municipality of San Jose. *Human Resource Development of San Jose,* n.d.
- National Census and Statistics Office. **Facts and Figures about Palawan.** 1985.
- National Economic Development Authority-NSO. **1980 Census of Population and Housing Vol. 1 Final Report.** National Statistics Office, (1980).
- National Integrated Protected Area System (NIPAS ACT) and Implementing Rules and Regulations.** Department of Environment and Natural Resources, 1992.
- NEPC-EMB. NAMRIA Publication . NEPC-EMB, n.d.
- National Museum. **Laws Protecting Filipino Heritage,** 1977.
- National Museum. *Philippine Fauna Vol.1, No.1,* January - June 1995.
- _____ . *Philippine Fauna, Vol. 1 No. 2.* July-December 1995.
- National Statistics Office. **Census of Population and Housing for Palawan,** 1995.
- National Statistics Office. **1990 Census of Population and Housing.** (1990).
- _____ . **1990 Census of Population and Housing, Palawan: Socio-Economic and Demographic Characteristics.**
- _____ . **1995 Census of Population and Housing.** (1995).
- NIDA Consulting Center. *Tourism Market Survey Summary Report Vol. 1 Tourist, Vol.2 Hotel, Vol. 3 Travel Agent, Vol. 4.* JICA, 1989.
- Non Government Organization List, 1996.
- Northern Palawan Tourism. **The Club Noah Perspective.** Club Noah Group of Companies. 1996.

Number of Tourist Accommodations in Palawan. Palawan Government Office-Tourism. 1995.

OIDC. Iwahig Land Use Study Final Report. 1995.

Office of the Environment Asian Development Bank. *Environmental Assessment Requirements and Environmental Review Procedures of the Asian Development Bank.* 1994.

_____. *Environmental Guidelines for Selected Agricultural and Natural Resources.* n.d.

_____. *Environmental Guidelines for Selected Industrial and Power Development Projects.* 1993.

_____. *Environmental Guidelines for Selected Infrastructure Projects.* 1993.

Office of Southern Cultural Communities. *Indigenous Cultural Communities of Palawan.* n.d.

One Mile Report on Apulit's Marine Sanctuary. n.p., 1995.

Organizational Structure: DOT, PTA, Intramuros, PCVC. compiled data from DOT. n.p. n.d.

Palawan Botanical Expedition: Final Report. Hilleshog Forestry AB, n.d.

Palawan Council for Sustainable Development . **Municipal Data of Palawan.** 1994.

_____. **Second Palawan Integrated Area Development Project.** 1990.

Palawan General Information. n.p., n.d.

Palawan Integrated Development Project Phase II. Final Draft Vol. IV. PIADP-PCSD, 1993.

Palawan Integrated Area Development Program: *Integrated Environmental Program Final Report Vol. I,* October 1983.

Palawan Integrated Area Development Project Phase II Feasibility Study Draft Final Report Infrastructure Component Annexes (PIADP-I). 1990.

Palawan Integrated Area Development Project Phase II Feasibility Study Draft Final Report Social Services and General Component and Appendices (PIADP-I). 1990.

Palawan Statistics. PIADPO. 1993.

Palawan Sun Newspaper.

- Palawan Tourism Council. *Community Tourism: "Initiative Program of the Municipality of Brooke's Point"*, n.d.
- Palawan Tropical Forestry Protection Programme(PTFP): Financing Memorandum Including Technical and Administrative Provisions.** Protected Areas and Wildlife Bureau, DENR. 1993.
- Palma, Joel M. *First ASEAN Symposium - Workshop on Marine Turtle Conservation*. WWF, n.d.
- Pawikan Conservation Project Profile.* Pawikan Conservation Project Office. n.d.
- PCAMRD-DOST. **Integrated Crop-Livestock Fish Farming Systems.** Committee on Agri-Aqua Integrated, 1990.
- PDCP. *Highlights of the Provincial Development Council Planning.* 1995.
- Peralta, Jesus Dr. *The Sandoval Gateway: The World's Access to Palawan-A Pictorial Report.* n.p., n.d.
- _____. **TAU'T BATU: People of the Rock.** National Museum, 1979.
- Philippine Calendar of Festivals and Events.** Philippine Convention and Visitors Corporation. 1995 & 1996.
- Philippine Convention and Visitors Corporation. **The World Meeting in Manila.** (1995-1999).
- Philippine Tourism Master Plan 1991-2010.* Department of Tourism - Office of Product Research and Development.
- Philippine Tourism Office. *Eco-Tourism Development Plan for El Nido 2000*, n.d.
- Philippine Tourism Office. **List of Accommodations/Travel/Agencies & Tour Guides,** 1996.
- PIADP. Environmental Impact Statement Project of the Rehabilitation of the Ports of the Puerto Princesa City, 1991.
- PIADP-FORI. *Flora Survey of Priority Areas.* Province of Palawan, n.d.
- PIADP. **Municipal Data,** 1993.
- Predicted Tide and Current Tables.** NAMRIA, Mapping and Reprography Department, 1996.
- Preliminary Presentation of the Tourism Development Plan for Northern Palawan.** Tour Consult & International S.A. 1994.

- Prepared by: PAGASA,CAB & CDS. Rainfall Data - Average Wind Direction and Speed of Coron 1961-1996. n.p. n.d.
- Primer on Anti-Illegal Fishing: "Conserve and Protect our Fishery Resources".** PCAMRD-DOST. n.d.
- Project Profile: Strategic Environmental Plan of San Vicente.* n.p. n.d.
- Proposed El Nido Class "C" Airport.* Prepared for: Gov. Salvador Socrates. 1996.
- Provincial Government of Palawan. Northern Palawan Tourism Project, 1993 .
- Provincial Planning Development Office. **Cultural Celebrations by Municipality in Palawan.** n.p., n.d.
- Provincial Planning and Development Office. *Provincial Budget of Palawan 1995 & 1996.*
- Provincial Planning and Development Office. *Provincial 20% Development Fund CY 1992/1995&1996.*
- Puerto Princesa Airport - Final Report 1994.* SWEDAVIA. (1994).
- Recapitulation of Apprehension on Illegal Logging and Illegal Fishing 1993-1996.* n.p.
- Rapid Rural System Appraisal of Malampaya Sound, Taytay. n.p. 1990.
- Review of the 1st Palawan Integrated Area Development Project (PIADP-I).* Asian Development Bank, n.d.
- Reyes, Efred C. **Manual on Fish Capture I.** U.P.- Visayas, 1987.
- R.S. Sariego et. al. **Follow-up and Occupational Assessment of the Palawan-Rift First Batch Graduates.** PNAC-IMS, 1994.
- SAGIP Wildlife Program.** Protected Areas and Wildlife Bureau - Department of Environment and Natural Resources. n.d.
- Sandoval Airport File. IEE & Palawan Council for Sustainable Development. n.d.
- SEASTEMS INC. Environmental Survey of Pangulasian Island Resort . 1993.
- Second Palawan Integrated Area Development Project: *Project Implementation Details and Loan Covenants (PIADP-II).* Palawan Council for Sustainable Development, n.d.

- Selected Fishery Statistics 1982-1991*. Department of Agriculture - Bureau of Agricultural Statistics. n.d.
- Scott, Derek A. **A Directory of Asian Wetlands**. IUCU, 1989.
- Socio Economic Profile of Busuanga*. Municipality of Busuanga, n.d.
- Socio Economic Survey in El Nido*. Municipality of El Nido, 1987.
- Socio-economic Profile of Puerto Princesa*. Municipality of Puerto Princesa, 1992.
- Socio Economic Profile of Roxas* . Municipality of Roxas. n.d.
- Socio Economic Profile of San Vicente*. Municipality of San Vicente, 1993.
- Socio Economic Indicators of Taytay*. Municipality of Taytay. 1996.
- Socrates, Jose Antonio Dr. *A Proposed Agenda of Task Force Asoge*. n.p., 1995.
- _____ . *Dr. Mercuric Mercurous Mercurial Mercurism of Palawan* . n.p., n.d
- Sta. Cruz E. Characterization of Coastal Habitats, Environment, Resources and its People for Coastal Management: Program for Turtle Bay and Binunsalian Marine Sanctuary** . n.p., n.d.
- Statement of Fund Operation (Municipal Budget) 1993-1996. n.p.
- Strategic Environmental Plan for Palawan Tourism Towards Sustainable Development*. PIADPO, 1995.
- Strengthening of the Malaria Control Program in El Nido, Palawan. n.p., n.d.
- Sualog, Delia F. **Ecological Profile of Palawan**. n.p., 1994.
- Supplemental Survey of the Characterization of the Marine and Coastal Environment in Northern Palawan* Draft Report: (Feb. 1996). SEASTEMS, 1996.
- Survey and Inventory of Outdoor Recreation Potential of Palawan. FORI, n.d.
- Survey and Inventory of Wildlife Fauna in Palawan with Emphasis on Avian Species. n.p., n.d.
- Survey on Tourism Development in Northern Palawan. Department of Tourism-Japan International Cooperation Agency. n.d.
- Sylvatrop. **Philippine Forest Research Journal**. FORI, 1977.
- Tapay, Nenita & Baling, Nilda. *The Need for Social Impact Assessment for Quality Tourism in the Philippines: (The Case of El Nido)*. n.p., n.d.

- Technical Working Group on Tourism of the Inter-Agency Committee on Trade and Tourism, NEDA and the Asian Institute of Tourism, University of the Philippines. **A Glossary of Selected Tourism Terms**, 1980.
- Ten Knots Development Corporation & U.P. Marine Institute. "Coral Reef Habitat Assessment for Quality Tourism in the Philippines (The Case of el Nido)". n.p., n.d.
- Texon, Juliet V. "A Case Study on Women's Participation in El Nido Marine Reserve Project Marine Ecosystem". n.p., n.d.
- The Aquino Administration. **Major Development Programs and Projects**. Palawan, 1986-1992.
- The Calauit Game Reserve and Wildlife Sanctuary. *The Calauit Project Profile*. PCSD, (1996-2000).
- The Fisheries Component: Annex C. PAID 1990.
- The Fisheries Component PIADP Phase II 1990. PIADP .
- The Local Government Code 1991**. n.p. 1991
- The Medium Term Development Plan of Palawan 1994-2000. Provincial Planning & Development Office.
- The Palawan Botanical Expedition. Hilleshog Forestry AB. n.d.
- The PCAMRD "Waves". PCAMRD. 1995
- The Provincial Planning and Development Office. **Provincial 20% Development Fund CY 1992/1995/1996**, n.p.
- The Revised Comprehensive Zoning Ordinance (Land and Water Ordinance)*. Municipal Government of San Vicente. 1995
- The Sandoval Gateway - A Pictorial Report - . April 1993.
- The South China Sea Fisheries: **Test Fishing for Tuna and Small Pelagic Species**. South China Sea Fisheries Development and Coordinating Programs. 1978.
- Timbancaya, Selma . **El Nido Town Fiesta Souvenir Program**. (Mar. 12-16, 1995). El Nido Tourism Office, 1995.
- _____ . *Tourism Project Proposal for El Nido 2000*. El Nido Tourism Office, n.d.

- _____. *Proposals and Reports on Some On-Going and Future Activities in El Nido, Palawan*. El Nido Tourism Office, n.d.
- TODAY and Forest Management Bureau. *"Illegal Logging: Kaingero and Area Covered; Changes of Forest Lost Course*, n.p. n.d.
- Trono, Romeo B. **Dugongs of the Philippines - A Report of the Joint Project Research and Conservation Program**. Dugong Research and Conservation Program, May 1995.
- Tourism Master Plan for Puerto Princesa Volume 4**. n.d. 1994
- Tourism Master Plan**. UNDP,WTO, 1991.
- US-AID. **Governance and Local Democracy (GOLD) Project Paper**. Annexes. Sept. 1994.
- _____. **Governance and Local Democracy (GOLD) Project Paper**. Sept. 1994.
- US AID Projects for Palawan. US AID. n.d.
- Walters, Jeffrey S. **Environmental and Social Information for Coastal Resources Management Planning**, US-AID, n.d.
- Warren, Charles. **The Bataks of Palawan: A Culture in Transmission 1964**. Philippine Study Project, 1964.
- Water Quality Monitoring Manual**. Department of Environmental & Natural Resources, 1994.
- Water Supply Feasibility Study City of Puerto Princesa. KAMPSAX-KUGGER, 1994.
- Water Supply, Sewerage and Sanitation Development Plan 1994-2010. Main Report Vol.I & Annexes Vol.II. Asian DevelopmentBank, January 1994.
- Williams, T.M., J.M. Weeks, A. Apostol & C. Miranda. *Assessment of Mercury Toxicity Hazard Associated with Former Clinnibar Mining and Tailings Disposal in Honda Bay, Palawan*, n.d.
- World Bank. **Fisheries and Aquaculture Research Capabilities and Needs in Asia**. World Bank, 1991.
- Yearbook of Tourism Statistics Vol. 1-47 ed**. World Tourism Organization, n.d.
- Yearbook of Tourism Statistics Vol. 2-47 ed**. World Tourism Organization, n.d.
- Zoning Plan for El Nido Marine Reserve*. n.p., n.d.

List of Acronyms/Abbreviations

ABS-CBN	Alto Broadcasting System-Chronicle Broadcasting Network
APHIT	Asia Pacific Hotel Training Institute
ASEAN	Association of Southeast Asian Nations
ATO	Air Transportation Office
BFAR	Bureau of Fisheries and Aquatic Resources
BHS	Barangay Health Station
BISELCO	Busuanga Island Electric Corporation
BUTEL	Bureau of Telecommunications
CADC	Certificate of Ancestral Domain Claim
CARP	Comprehensive Agrarian Reform Program
CENRO	Community Environment and Natural Resources Officer
CEP	Coastal Environmental Plan
CSTFAL	Community Special Task Force on Ancestral Lands
DA	Department of Agriculture
DAO	Department Administrative Order
DAR	Department of Agrarian Reform
DENR	Department of Environment and Natural Resources
DOH	Department of Health
DOT	Department of Tourism
DOTC	Department of Transportation and Communication
DME	Distance Measuring Equipment
DMO	District Management Office
DPWH	Department of Public Works and Highways
ECAN	Environmentally Critical Area Network
ECC	Environmental Compliance Certificate
EIA	Environmental Impact Assessment
EC	European Community
EMB	Environmental Management Bureau
EMES	Environmental Management Evaluation System
ENRO	Environmental and Natural Resources Office
EPZA	Export Processing Zone Authority
EU	European Union
FMB	Forest Management Bureau
FSP	Fishery Sector Program
FSS	Flight Service Station
GMA-7	Greater Manila Area-Channel 7
GRDP	Gross Regional Domestic Product
HRAP	Hotel and Restaurant Association of the Philippines
IA	Intramuros Administration
IEE	Initial Environmental Examination
ICC	Indigenous Cultural Community
IP	Indigenous People
IUCN	International Union for the Conservation of Nature and Natural Resources
JAFTA	Japan Forest Technical Association
JICA	Japan International Cooperation Agency
LGU	Local Government Unit
LMB	Land Management Bureau
MAO	Municipal Agricultural Officer
MENRO	Municipal Environment and Natural Resources Officer
NAMRIA	National Mapping and Resource Information Authority
NAPOCOR	National Power Corporation
NCR	National Capital Region

NDB	Non-directional Beacon
NEDA	National Economic and Development Authority
NEA	National Electrification Administration
NGO	Non-Governmental Organization
NIPAS	National Integrated Protected Area System
NPDC	National Parks Development Committee
NPF	Nayong Pilipino Foundation
NWRC	National Water Resource Council
OECF	Overseas Economic Cooperation Fund
OPA	Office of Provincial Agriculturist
OPRD	Office of Product Research and Development
OSCC	Office of Southern Cultural Communities
OTC	Office of Tourism Coordination
OTDP	Office of Tourism Development and Planning
OUSEC	Office of the Undersecretary
PAGCOR	Philippine Amusements and Games Corporation
PALECO	Palawan Electric Company
PANLIPI	<i>Tanggapang Pangligal ng Katutubong Pilipino</i> (Legal Assistance for Indigenous Filipinos)
PAPI	Precision Approach Path Indicator
PAWB	Protected Areas and Wildlife Bureau
PBC	Palawan Broadcasting Corporation
PCB	Philippine Convention Bureau
PCSD(S)	Palawan Council for Sustainable Development (Staff)
PCVC	Philippine Convention and Visitors Corporation
PD	Presidential Decree
PENRO	Provincial Environment and Natural Resources Officer
PIADPO	Palawan Integrated Area Development Project Office
PILTEL	Pilipino Telephone Company
PNRCC	Philippine Natural Resource Conservation Center
PPC	Puerto Princesa City
PPDC	Planning, Product Development Coordination
PPDO	Provincial Planning and Development Office
PRCS	Palawan Radio Communication System
PSA	Philippine Statistical Association
PSTFAD	Provincial Special Task Force on Ancestral Domain
PTA	Philippine Tourism Authority
PTV-4	Philippine Television-Channel 4
PTFPP	Palawan Tropical Forestry Protection Program
RC	Review Committee
R.C.	Resort Code
SALS	Single Approach Lighting System
SCO	Special Concerns Office
SEHS	Socioeconomic Household Survey
SEP	Strategic Environmental Plan
SPIADP	Second Palawan Integrated Area Development Project
TESDA	Technical Education and Skills Development Authority
TSRO	Tourism Standards and Regional Offices
UP/AIT	University of the Philippines-Asian Institute of Tourism
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
WTO	World Tourism Organization

JICA