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## 1.0 INTRODUCTION

Despite their universal appeal for recreation, tourism, conservation and ecosystem services, few if any natural protected areas in the world enjoy a fully funded status. This imposes limits both on the conservation programs that can be undertaken and the services that can be offered to visitors. With more resources more can always be done. Thus, *financial self-sufficiency* probably represents the *greatest single challenge* to protected area management agencies and organizations all over the world, especially those in the less developed countries.

This Report outlines the development management framework, the proposed development project package including the budgetary requirements, proposed business approach, the mechanism to finance the Subic Bay Protected Area Management Plan, as well as project and investment promotion strategies.

## 2.0 DEVELOPMENT MANAGEMENT FRAMEWORK

### 2.1 The Community Importance of the Subic Bay Protected Area

The delineated protected areas of Subic Bay cover areas of land and sea especially dedicated to the protection and maintenance of *biological* diversity, and of *natural* and associated *ethnographic* resources, and managed through political and administrative instrumentalities like the Subic Bay Metropolitan Authority (SBMA), national government agencies like the Department of Environment and Natural Resources (DENR) and local government units in the provinces of Zambales and Bataan.

These protected areas represent special places that are managed for conservation purposes. These sites contain a unique combination of biological, ecological, historical and ethnographic features. Together they are expected to play a key role in conserving natural ecosystems and, when *planned and managed as a system* effectively, contribute substantially to *biodiversity conservation*.

The delineated protected areas of Subic Bay are important for other equally significant reasons. They include

- Ensuring the continued *flow of ecosystem services*, such as the provision of clean water and the protection of soil resources;
- Providing significant *economic benefits* to surrounding communities and contribute to *spiritual, mental* and *physical well being*; and
- Helping fulfill an *ethical responsibility* to respect nature and provide opportunities to learn about nature and the environment.

Each of these values of protected areas is important and should be taken into account in developing a business plan for the delineated protected areas of Subic Bay.

### 2.2 Key Socio Economic Problem Areas Underlying the Threats to the Subic Bay Protected Area

The macro-regional and community-level development assessment of the Subic Bay Freeport Zone indicates that the threats to the protected areas of the Subic Bay Freeport Zone and its environs often result from the following kinds of underlying problem, all of which tend to be accentuated by rapidly increasing human population densities:

- *Planning failure*, in which resource utilization plans are made to use living systems within the Subic Bay area in ways that they cannot sustain because of their inherent fragility;

- **Market failure**, in which the people who benefit from damaging living systems do not also bear the full cost of that damage;
- **Excessive wealth and power among many individuals**, making them so remote from the rest of Subic Bay community that they become reckless of damage to the living systems which sustain the community;
- **Excessive poverty among many individuals**, making them unable to avoid abusing living systems within the protected areas in order to live while depriving them of the means to use such systems better; and
- **Open access exploitation**, in which social rules governing access to resources within the Subic Bay protected areas have broken down, allowing them to be exploited competitively by different groups and individuals.

A combination of these problems acting together is leading to a "*colonized*" and *uncontrolled* use of the protected areas of Subic Bay.

### **2.3 The Basic Development and Resource Management Approach**

Pressures to use natural resources in an area unsustainably often reflect economic or social events outside the area. This means that conservation intervention should not be limited, for example, to the enforcement of legal protection for habitats and biodiversity. Instead, projects need to go beyond the borders of protected areas, to improve underlying circumstances elsewhere that may otherwise continue to generate problems.

#### **2.3.1 Overall Resource Management Approach**

Natural ecosystems such as those within the protected areas and buffer zones of Subic Bay can provide a wide range of economic products, and diverse exploitation and utilization systems may achieve multiple yields from the same environment.

The most durable resource management system for a complex conservation project such as the Subic Bay PAMP should be characterized by:

- **Minimization of open-access use of resources**, through tenure and usufruct arrangements providing for long-term and exclusive accesses by individuals or communities.
- **Limitation of external intervention to technical advice and monitoring**, to ensure sustainable harvests. Prohibiting such harvesting may cause economic loss to the local people and prompt their hostility. Traditional ways of gleaning nature products for human use need not conflict with conservation aims if they are sustainable. Project designs provide for **Research** and **management planning** to balance the

demands of each kind of production, while also putting in place measures needed for monitoring and enforcement.

- ***Limitation of open-access use to traditional use zones*** within conservation areas, buffer zones adjacent to them, or community lands elsewhere, which may all be available for certain kinds of continued exploitation by people.

The resource management approach utilizes the ***social and economic benefits*** from sustainable use of the protected areas as powerful ***incentives*** to the Subic Bay communities to ***conserve*** it by ensuring that:

- The people most likely to have a direct impact on the protected areas will receive what they perceive as a ***fair share of the benefits*** from the use; and
- There is a ***clear connection*** between the ***benefits*** obtained from using the environmental resources of Subic Bay and ***conservation*** of them.
- Thus, the resource management approach taken by the overall proposed development project package would involve:
  - Respecting and promoting ***traditions of local communities*** that are compatible with conservation of the protected areas;
  - Providing ***economic, institutional, biological and other technical assistance*** on request;
  - Developing ***community-level education programs*** especially those that deal on the uniqueness of protected area resources;
  - Cooperating with the protected area communities and buffer zone communities to develop sustainable use projects that demonstrate the ***value of the*** Subic Bay area ***resources***, and
  - Assisting in the ***development of markets***, and ***promoting access*** to those markets on favorable terms, for the products of sustainable management of the Subic Bay resources.

In the short and medium term we require ***command and control policing*** - offset perhaps by the provision of increased support services to the promotion of an ***improved agro fishery systems*** perspective in order to achieve sustainable and participatory protected area and buffer zone management.

### **2.3.2 Guiding Principles for Investments in the Subic Bay Protected Area**

Investments in the Subic Bay Protected Area and its buffer zones should be guided by the following principles:



- Respecting and promoting *culture, traditions*, and the *way of life* of *local communities* that are compatible with conservation of the protected area and the buffer zones;
- Promoting the development of *community-level education programs* especially those that deal on the uniqueness of the resources in the protected area and buffer zones;
- Fostering *cooperation*, especially *commercial joint venture* activities, between the protected area and buffer zone communities to develop sustainable use projects that demonstrate the *value of the forest and marine resources*; and
- Assisting in the *development of markets*, and *promoting access* to those markets on favorable terms, for the products of sustainable management of the forest and marine resources.

The project component of the Subic Bay PAMP aims to achieve a balance between these four approaches, reflecting the fact that none of them alone is likely to be sufficient in a seriously threatened place like the Subic Bay Freeport Zone.

### 2.3.3 Focus of Proposed Development Projects

The development projects to be promoted and implemented in Subic Bay may be classified into three major categories:

- **Conservation activities** -- to protect flora and fauna within the protected area by prohibiting illegal logging, hunting, fishing and agricultural encroachment and promoting sustainable use of forest and marine resources, different variants of commercial wildlife, and nature tourism;
- **Agri-fishery and agro-forestry** -- to develop alternative sources of income in adjoining areas to relieve the need to exploit the resources of the protected area and buffer zones for profit or survival; and
- **Community development programs** -- to ensure that local people are involved in all aspects of the project, and to provide an effective interface between the local population and the implementing entities.

In order to allow the communities to derive social and economic benefits from the sustainable use of the protected area and buffer zones, there should be powerful incentives to the communities to conserve it by ensuring that:

- The people most likely to have a direct impact on the protected area and buffer zone will receive what they perceive as a *fair share of the benefits* from the use; and

- There is a *clear connection* between the *benefits* obtained from using the resources and *conservation* of them.

The existence of a cohesive investment promotion package for the Subic Bay Protected Area will help assure that conservation programs are undertaken alongside economic projects from which revenues can be derived by the investors and communities.

### 2.3.4 Project Development Considerations

The design of the various development project components are anchored on the following socio-economic-political development considerations:

- *Balance incentives and disincentives* since providing alternative sources of income will not stop people from over-harvesting resources unless linked to other measures such as enforcement and education.
- *Negotiate formal and monitored agreements*, preferably recognizing traditional and communal ownership and usage rights, whereby project benefits are exchanged for co-operation with conservation aims.
- *Maximize local participation* by helping local communities express their own development options and priorities in a form to which the project can respond.
- *Employ and train local people* wherever possible, either directly or through local NGOs, who can be involved in long-term community development programs.
- *Localize management authority* to a group in which all local interests are represented, consistent with the need for national oversight, coordination with other agencies, and conflict resolution.
- *Seek to ensure sustainable financing* through local cost recovery, endowments, or other means to reduce dependency on subsidies from outside the project area.
- *Manage whole ecological units* rather than trying to manage the protected area in isolation from its geographical, social, economic and political context.
- *Help to build local capacity* and encourage local participation and flexibility by starting with, and then building upon, small pilot activities.

Given these inherently complex considerations, considerable but necessary delays are expected before a final consensus on the most suitable project-level approaches to the overall development of the Subic Bay protected areas and its buffer zones can be expected.

**2.3.5 Potential Community Benefits**

The implementation of the investment and livelihood package is expected to generate the following benefits for the communities within and around the protected areas.

- **Local Manpower Development:** This is to ensure that the locals will look after their own resources. In terms of capacity building, the training that the communities will receive reinforces local empowerment that is crucial to sustainable communities. It is training they demand and which is relevant to their daily work. Skills also ensure sustainability when government/donor support is withdrawn.
- **Infrastructure Development:** Projects if selected by the local communities on a demand-driven basis represent choices that the local people make in order to improve their living standards. The chosen projects also represent a firm commitment by locals that they can take their destiny in their own hands.

**Increased Incomes and Co-Management of Benefits:** By increasing revenues without drastically increasing natural resource exploitation within the protected areas, the local communities are improving their economic returns while ensuring conservation of the protected areas. This is the very basis of sustainable development. Their increased economic status also improves their bargaining position vis-à-vis their LGUs and the national government agencies in the utilization of the protected area and its resources.

**3.0 PROPOSED DEVELOPMENT PACKAGE**

Table 1 presents the sectoral and implementation phase breakdown of the proposed *Php 295.8 million* development project package for the implementation of the Subic Bay Protected Area Management Plan.

The time phasing of the package takes the view that over the short-term, the conservation of the protected area hinges on addressing the urgent socio-economic and human development needs of the communities. Thus, bulk of the proposed investments for livelihood projects are allocated for the first five years.

**Table 1 Financial Requirements, Proposed Development Projects  
Subic Bay Protected Area Management Plan  
In Philippine Pesos (Php)**

Project Title & Code	Cost (In Php)					
	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
<b>1. Park Administration</b>						
PA-1 Park Administration Headquarters & Infrastructure	22,764,267	23,111,867	23,459,467	11,872,800	11,872,800	93,081,201
<b>Subtotal, Park Administration</b>	<b>22,764,267</b>	<b>23,111,867</b>	<b>23,459,467</b>	<b>11,872,800</b>	<b>11,872,800</b>	<b>93,081,201</b>
<b>2. Livelihood Development</b>						
<b>Integrated Livelihood Assistance Program:</b>						
LD-1 Improved Production Through Utilization of Appropriate Technologies	1,060,000	1,060,000	1,060,000			3,180,000
LD-2 Product Processing, Product Design & Development	1,060,000	1,060,000	1,060,000			3,180,000
LD-3 Expanding Marketing Network	1,060,000	1,060,000	1,060,000	1,060,000	1,060,000	5,300,000
LD-4 Livelihood Credit Financing	4,240,000	4,240,000	4,240,000	4,240,000	4,240,000	21,200,000
LD-5 Vocational/Technical Training Project	1,060,000	1,060,000	1,060,000	1,060,000	1,060,000	5,300,000
LD-6 Educational Scholarship Program	1,060,000	1,060,000	1,060,000	1,060,000	1,060,000	5,300,000
LD-7 Capability Enhancement & Organizational Development	1,060,000	1,060,000	1,060,000			3,180,000
LD-8 Social Development Program	1,060,000	1,060,000	1,060,000	1,060,000	1,060,000	5,300,000
LD-9 Establishment of Livelihood Management Information System & M&E System	1,060,000					1,060,000
<b>Subtotal, Livelihood Development</b>	<b>12,720,000</b>	<b>11,660,000</b>	<b>11,660,000</b>	<b>8,480,000</b>	<b>8,480,000</b>	<b>53,000,000</b>
<b>3. Marine Resource Management</b>						
MR-1 Demarcating Critical Ecosystems & Establishing Mooring Buoys	19,875,000					19,875,000
MR-2 Integrated Coastal Management Training	3,577,500	3,577,500				7,155,000
MR-3 Determining Fish Population Recovery	4,452,000	4,452,000	4,452,000			13,356,000
MR-4 Coral Reef Monitoring		4,452,000	4,452,000			8,904,000
MR-5 Tourist Information Drive	3,180,000	3,180,000	3,180,000			9,540,000
<b>Subtotal, Marine Resource Management</b>	<b>31,084,500</b>	<b>15,661,500</b>	<b>12,084,000</b>	<b>-</b>	<b>-</b>	<b>58,830,000</b>

# SECTION THREE

## Proposed Development Package

**Table 1. Financial Requirements, Proposed Development Projects (Continued)**

Project Title & Code	Cost (In Php)					
	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
FR-8 No-Fire Incentive System	212,000	212,000	212,000	212,000	212,000	1,060,000
FR-9 Training of Fire Fighters	159,000	159,000	159,000	159,000	159,000	795,000
Subtotal	<b>1,103,000</b>	<b>583,000</b>	<b>583,000</b>	<b>583,000</b>	<b>583,000</b>	<b>3,435,000</b>
<b>4.3 Community Based Forest Management:</b>						
FR-10 Strengthening of Institutional Partnerships	26,500					26,500
FR-11 Formation of Community Based Forest Management Team	53,000					53,000
FR-12 Census of Forest Occupants	159,000					159,000
FR-13 Information, Education & Communication on Community Based Forest Mgt	106,000					106,000
FR-14 Community Organization & Strengthening		159,000				159,000
FR-15 Issuance of Tenure		106,000				106,000
FR-16 Formulation of Management Plan		212,000				212,000
FR-17 Implementation of Management Plan		212,000	212,000	212,000	212,000	848,000
Subtotal	<b>344,500</b>	<b>689,000</b>	<b>212,000</b>	<b>212,000</b>	<b>212,000</b>	<b>1,669,500</b>
<b>4.4 Assisted Natural Regeneration:</b>						
FR-18 Baseline Survey of Woody Species	265,000					265,000
FR-19 Fire Protection	371,000	371,000	371,000	371,000	371,000	1,855,000
FR-20 Releasing of Woody Species	159,000	159,000	159,000			477,000
FR-21 Supplemental Planting	159,000	159,000	159,000			477,000
Subtotal	<b>954,000</b>	<b>689,000</b>	<b>689,000</b>	<b>371,000</b>	<b>371,000</b>	<b>3,074,000</b>
<b>4.5 Research and Development:</b>						
FR-22 Utilization Studies of Bayto	106,000	106,000	106,000			318,000
FR-23 Growth and Yield Study for Buho	106,000	106,000	106,000			318,000
FR-24 Ethno-Botanical Study	159,000	159,000	159,000			477,000
FR-25 Attitudinal and Perception Study	79,500	79,500				159,000
FR-26 Phenology of Fruit Bats' Foodplants	53,000	53,000	53,000			159,000
Subtotal	<b>503,500</b>	<b>503,500</b>	<b>424,000</b>	-	-	1,431,000
<b>Subtotal, Forest Resource Management</b>	<b>3,700,000</b>	<b>3,153,500</b>	<b>2,226,000</b>	<b>1,484,000</b>	<b>1,484,000</b>	<b>12,047,500</b>

# SECTION THREE

# Proposed Development Package

**Table 1. Financial Requirements, Proposed Development Projects (Continued)**

Project Title & Code	Cost (In Php)					
	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
<b>5. Research and Monitoring</b>						
RM-1 Carbon Sequestration	795,000	530,000	265,000	265,000	265,000	2,120,000
RM-2 Establishment of Field Research Station	1,325,000	1,060,000	795,000	795,000	795,000	4,770,000
<b>Subtotal, Research and Monitoring</b>	<b>2,120,000</b>	<b>1,590,000</b>	<b>1,060,000</b>	<b>1,060,000</b>	<b>1,060,000</b>	<b>6,890,000</b>
<b>6. Institutional Strengthening</b>						
IS-1 Capability Building of Protected Area Management Office (PAMO)	150,000	150,000	150,000	150,000	150,000	750,000
IS-2 Education, Information, and Communication	150,000	150,000	150,000	150,000	150,000	750,000
IS-3 Participatory Planning and Management	150,000	150,000	150,000	150,000	150,000	750,000
IS-4 Traffic Management Planning	150,000	150,000	150,000	150,000	150,000	750,000
IS-5 Institutionalization of PA Management Systems & Networking	250,000	250,000	250,000	250,000	250,000	1,250,000
IS-6 SBPA Management and Coordination Project	600,000	600,000	600,000	600,000	600,000	3,000,000
IS-7 Organizational Refinement of Ecology Center for PA	500,000	500,000	500,000	500,000	500,000	2,500,000
IS-8 PA Management Systems Development Project	1,000,000	1,000,000	1,000,000			3,000,000
IS-9 Resource Mobilization and Equipment Support Project			6,700,000	6,700,000	6,700,000	20,100,000
IS-10 Advocacy Studies	500,000	500,000				1,000,000
IS-11 PA Management Institutional Advisory Services	1,700,000	1,700,000	1,700,000			5,100,000
IS-12 Comprehensive Training Program on Protected Area Management	1,000,000	2,000,000	3,000,000	2,000,000	2,000,000	10,000,000
IS-13 Preparation of Marketing Plan for the Subic Bay Protected Area	3,000,000					3,000,000
IS-14 TA on the Preparation of an Investment Promotion Plan for the Subic Bay PA	3,000,000					3,000,000
IS-15 Development of Marketing Collaterals and Investment Promotion Materials	2,000,000	3,000,000	3,000,000			8,000,000
IS-16 Technical Assistance to the Subic Bay Board	2,000,000	2,000,000	2,000,000			6,000,000
IS-17 Technical Assistance on Financial Systems Design and Management	3,000,000					3,000,000
<b>Subtotal, Institutional Strengthening</b>	<b>19,150,000</b>	<b>12,150,000</b>	<b>19,350,000</b>	<b>10,650,000</b>	<b>10,650,000</b>	<b>71,950,000</b>
<b>GRAND TOTAL</b>	<b>91,538,767</b>	<b>67,326,867</b>	<b>69,839,467</b>	<b>33,546,800</b>	<b>33,546,800</b>	<b>295,798,701</b>

## 4.0 A BUSINESS APPROACH TO SUBIC BAY PROTECTED AREA

The business approach to the management of the delineated protected areas of Subic Bay is a *means to an end*, that of a *better, more sustainable protected area*.

The managers of the protected areas of Subic Bay should view their job as *running a business* in order *to preserve* the basic *environmental values* represented by the protected areas.

### 4.1 Overall Guiding Principles

- Business plans should be developed within the overall context of the protected area management plans and legal frameworks, thus ensuring that generating revenue remains a means towards the end of more effective environmental conservation and does not become an end in itself.
- A business approach should be adopted towards financing protected areas, which entails defining relevant consumers and identifying ways of capturing a fair return from them.
- Both public and private revenue streams are important with public revenue streams linked to public goods and private revenues to private goods.

### 4.2 Overall Planning Approach

The successful planning for the delineated protected areas of Subic Bay requires an effective *bi-directional layering* of three equally important sets of plans and strategies. The three layers of plans and strategies are:

- The *Protected Area Management Plan (PAMP)* that provides the essential *policy framework* for the business and financial plans, by clarifying the *management objectives* of the protected area, the relevant *users*, the financial *needs* of the protected area and the *resources* available to the protected area.
- The *Business Plan* that examines in more detail the *customer base*, *goods* and *services*, *marketing* strategy and *implementation* strategy for the protected area system within the framework of the PAMP. The protected area managers of Subic Bay should also think of their work in terms of 1) *products*; 2) existing and potential *customers*; and 3) *marketing*.
- The *Financial Plan* that identifies financial *sources* and opportunities and matches these with the financial *requirements* of the protected area system.



The information flow should be *two-way*. Financial matching and other information in the financial plan feedback into both the business and management plans while information from the business plan feeds back into the management plan.

### 4.3 The Business Plan

Based on the core mission and objectives of the protected area and the main financial needs for maintaining the area, the Business Plan then identifies the range of *potential customers* who are willing to pay for the goods and services they derive from the protected area. These customers may either directly or indirectly use the protected area; they range from neighboring communities to global stakeholders. When these customer groups have been identified, the Business Plan then tackles how the *needs of the customer base* should be addressed and how they can contribute financially to maintaining the protected area.

The *business plan* develops the *concept of customer bases for protected areas* to encourage the Subic Bay protected area managers to think innovatively about sources of revenue for their protected area. The business plan for the delineated protected areas of Subic Bay needs to be developed around this customer base. A clearly thought-out business plan provides a structured approach to building a customer base and achieving a sustainable income flow for the protected area.

*Coordinative efforts* between the *PAMP Team* and the *Strategic Planning Team* seeks to strike a balance between business concerns in the use of the revenue generating areas as well as limited use of the protected areas and the preservation of the basic environmental values represented by the protected areas.

### 4.4 The Financial Plan

A *financial plan* is a tool that helps to determine the protected areas funding requirements (including the amount and timing of that funding) and to *match income sources* with those *needs*. Financial planning differs from financial budgeting in that it not only identifies how much money is needed for different types of activities, but also locates the most appropriate funding sources for short, medium, and long-term needs.

Different sources of funding have different characteristics. Some are more reliable than others, some sources are easier to mobilize than others, and some can be used freely according to management priorities while others come with strings attached. Some funding mechanisms take a long time and a lot of effort to establish; they therefore do not provide a short-term return, but over the longer term they offer the possibility of steady, reliable financing to meet recurrent costs. Some sources of funding have short-term time horizons and others have longer-term horizons.

A good financial plan for the protected areas of Subic Bay identifies these characteristics, and builds a revenue stream that matches both the short and long-term requirements of the protected area system. Ensuring effective management and securing sufficient financial resources are vital if the protected areas of Subic Bay are to continue to provide benefits and fulfill their role in biodiversity conservation.

#### **4.5 The Potential Resource Value of the Subic Bay Protected Area Management Zones**

Viewed from the perspective of a financial planner, a protected area can be seen as a business operation. The goods from a protected area include recreational opportunities, basic food items and genetic materials, while the services are such things as biodiversity conservation, crop pollination, water purification and game viewing. Such goods and services provide people with a stream of benefits from the existence of the protected area.

These benefits can be divided into *use* and *non-use* benefits. Use benefits can be subdivided into *direct*, *indirect*, and *option* benefits. Non-use benefits can be subdivided into *bequest* and *existence* benefits. The various goods and services of a protected area fall into one or more of these categories. For instance, fishing is of direct use to a person who actually visits the protected area and fishes its streams and lakes. Fishing may also be an option benefit for a person who may one day wish to visit the protected area to fish, but has not yet done so, or a bequest benefit for a person who would like future generations to have the chance to fish the stream or lake.

##### **4.5.1 The Economic Potential of Nature-Based Tourism**

###### *Visitor Attraction Potential of the Subic Bay Freeport Zone*

SBMA has been attracting a large number of visitors, mostly local, who come to enjoy available **natural attractions**, **sports/recreational facilities**, and **shopping** opportunities.

A 1997 survey conducted by the University of the Philippines' Asian Institute of Tourism (AIT) for the Department of Tourism (DOT) showed that nearly **one-fifth** (19.5%) of **foreign** visitors in Region III visited the region because of natural attractions (12.2%), sports/recreation/adventure (4.9%), and shopping opportunities (2.4%). More than **one-fourth** (25.9%) of **local** visitors to the region did so for the same reasons.<sup>1</sup>

The AIT findings are well within the **10 to 90%** range of credible estimates attributing international arrivals in **South Africa** to nature tourism.<sup>2</sup>

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<sup>1</sup> See UP-AIT, Study On Regional Travel In The Philippines: Region III, 1997, June 1998.

<sup>2</sup> See M. Wells, The Economic And Social Contribution Of Protected Areas In The New South Africa, Land And Agriculture Policy Centre, Johannesburg, 1996.

**Kenya** attributes **29%**<sup>3</sup> of their tourism to their national parks while **Canada** estimates that **25%**<sup>4</sup> of tourist expenditures can be attributed to wildlife tourism.

As shown in Table 2, visitor arrivals in SBMA have been growing at about 30% per annum during the past 5 years.

While foreign visitors constitute less than 3% (2.96%) of total foreign visitor arrivals in the Philippines, it has a **good growth potential** as can be seen from the growth rates achieved from 1995 to 1997. Its growth elasticity with respect to total foreign visitor arrivals in the Philippines is 7.14<sup>5</sup> meaning that it has the potential to capture a large proportion of the potential increases in Philippine visitor arrivals.

**Table 2 Visitor Arrivals in SBMA: 1995-2000**

Year	Foreign	Local	Total
1995	17,472	2,457,669	2,475,141
1996	49,764	1,786,388	1,836,152
1997	95,554	2,604,082	2,699,636
1998	91,280	2,261,655	2,352,935
1999	61,844	3,406,018	3,467,862
2000			6,739,889

Source of Basic Data: SBMA Tourism Department

The seasonality pattern of visitor arrivals in SBMA is shown in Figure 1.

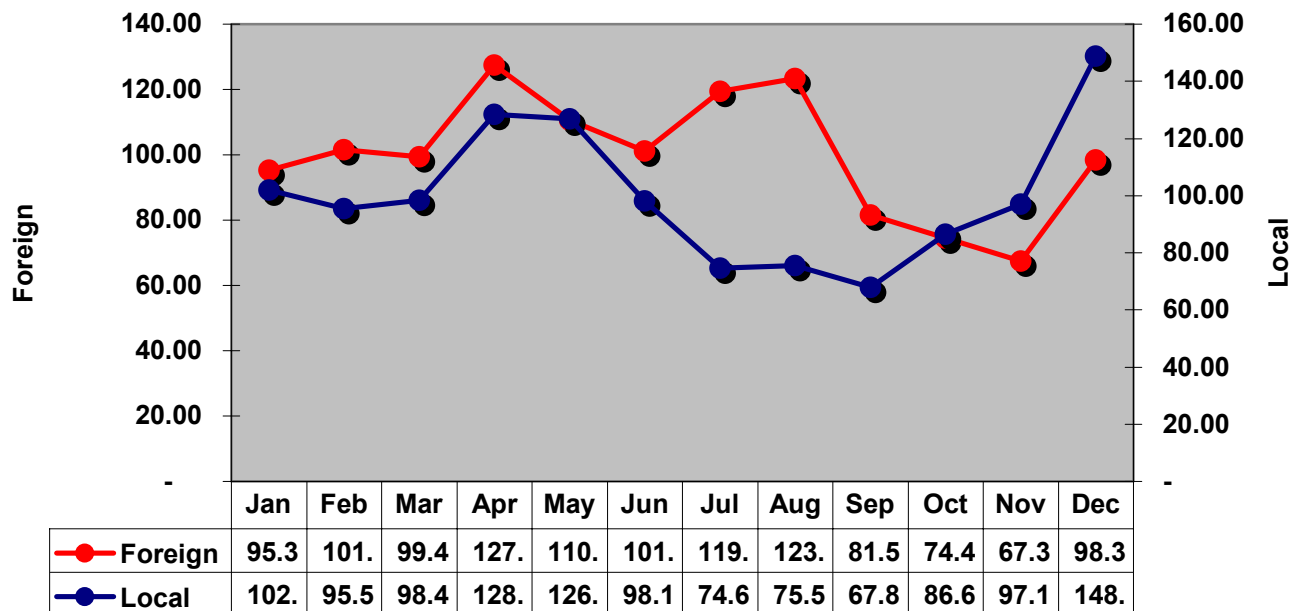
The *peak season* for *foreign* visitors run from *April to August* while for *local* visitors, it runs from *December to January* and from *April to May*.

<sup>3</sup> See M. Norton-Griffith and C. Southey, The Opportunity Costs Of Biodiversity Conservation In Kenya, Ecological Economics 12, 1995.

<sup>4</sup> See F. Filion et al., The Economics Of Global Ecotourism, in Protected Area Economics And Policy: Linking Conservation And Sustainable Development, J. Munasinghe and J. McNeely (Eds), World Bank, 1994.

<sup>5</sup> Estimated from available 1995 to 1999 foreign visitor arrival data for SBMA and the Philippines.

**Figure 1 Seasonality Patterns In SBMA Visitor Arrivals**



*Potential Economic Multiplier of Visitor Arrivals at the Subic Bay Freeport Zone*

The economic impact of visitor arrivals results from the so-called “economic multiplier effect” or the process by which tourist spending stimulates further spending and increased economic activity.

The tourism multiplier is mathematically expressed in the following equation:

$$TIM = \frac{(1 - TPI)}{(MPS + MPI)}$$

Where: TIM = Tourism Income Multiplier or the factor by which tourism expenditures should be multiplied to determine the tourist income generated by these expenditures; TPI = Tourists’ Propensity to Import, or buy imported goods and services that do not create income for the area; MPS = Marginal Propensity to Save or the resident’s decision not to spend an extra peso of income; and MPI = Marginal Propensity to Import or the resident’s decision to buy imported goods or spend money abroad.

The potential range of values of MPS as shown in Table 3 seems to converge at a most likely value of about **0.3111**. These range of potential values were statistically estimated from available cross-section Family Income and Expenditure Survey (FIES) data from the National Statistics Office (NSO) for the years 1985, 1988, 1991, 1994 and 1997 and from available link-series national income account data from the National Statistical Coordination Board (NSCB) for the years 1946-1995.

Table 3 Estimates of the Marginal Propensity To Save

	1985	1988	1991	1994	1997	1946-1995
			FIES Surveys			Time Series Data
Marginal Propensity To Save (MPS)	0.2772	0.3518	0.3355	0.3043	0.3244	0.2796
R-Squared	0.9716	0.9764	0.9834	0.9850	0.9861	0.9848
Statistical Significance	95%	95%	95%	95%	95%	95%
Transferability Coefficients	1.0000	1.0050	1.0121	1.0138	1.0149	

The potential range of values for MPI seems to converge at a most likely value of **0.5118**. The maximum potential value of **0.6471** was statistically estimated from available link series national income account data from the NSCB for the years 1970-1995. The minimum potential value was estimated from the same data source for the period 1950-1995, which included import control period. The average import ratios for private recreational services and hotels and restaurants from the 1990 and 1994 59 X 59 Sector Input-Output Tables of the Philippines indicated a lower range of **0.10 to 0.21**.<sup>6</sup> The higher range was used considering the trends towards trade liberalization and to make the analysis more conservative.

The potential range of values for TPI seems to converge at a most likely value of 0.1536. The maximum potential value of **0.2110** was based on the imported inputs of private recreational services, hotels and restaurants as derived from the 1990 59 X 59 Sector Input-Output Tables of the Philippines. The minimum potential value of **0.0962** was based on the imported inputs of private recreational services, hotels and restaurants as derived from the 1994 59 X 59 Sector Input-Output Tables of the Philippines.

The range of values considered in the analyses along with the derived tourism income multiplier based on the most likely values are presented in Table 4.

Table 4 Estimated Tourism Income Multiplier

		Minimum	Most Likely	Maximum
Tourists' Propensity to Import (TPI)	Tourist	0.0962	0.1536	0.2110
Marginal Propensity to Save (MPS)	Resident	0.2772	0.3111	0.3518
Marginal Propensity to Import (MPI)	Resident	0.4081	0.5118	0.6471
Tourism Income Multiplier (TIM)			<b>1.0286</b>	

<sup>6</sup> The results are in line with the findings of Smith and Jenner that leakages as a percent (%) of gross tourism receipts range from 11 to 60%. See C. Smith and P. Jenner, The Leakage of Foreign Exchange Earnings From Tourism, Travel and Tourism Analyst No. 3:52-66, Economist Intelligence Unit, 1992.

Monte Carlo simulations of 2,000 trials each were run using five alternative continuous probability distributions to establish a most likely value for TIM based on the assumed range of probable values for the three parameters determining TIM.<sup>7</sup> The results of the 10,000 simulation runs are presented in Table 5. They indicate a most probable value of **1.03** for the TIM.

**Table 5 .Monte Carlo Simulation Results for the Estimated Tourism Income Multiplier**

	<b>Most Probable Value Of The Tourism Income Multiplier</b>
TRIANGULAR	1.0285
Normal	1.0331
Lognormal	1.0262
Logistic	1.0267
Exponential	1.0300

The TIM represents the **gross impact** of tourist expenditures on the economy. It, however, only measures the **economic value** of the **direct use** by tourists of the Subic Bay Freeport Zone. It does not describe the broader economic benefits of conservation that are often substantial but are very difficult and costly to quantify.

**4.5.2 The Potential Economic Value of Nature-Based Tourism in the Subic Bay Freeport Zone**

A very rough estimate of the potential economic value of nature-based tourism can be generated from available data by estimating what visitors to Subic would be willing to pay to enjoy its natural attractions, sports, recreation, and adventure opportunities.

A 1997 survey conducted by the Asian Institute of Tourism of the University of the Philippines (UP AIT) for the Department of Tourism (DOT) showed that 18.1% of visitor arrivals in Region III (mostly in the Clark-Subic area) went to the place to enjoy the natural attractions, available sports, recreation, and adventure opportunities.

This percentage was applied on available SBMA visitor arrival data from 1995 to 2000 to estimate the number of visitors that went to the area for nature-based tourism during the period. A statistical distribution was then fitted on this synthesized data. The best among the plausible distributions was the log-normal distribution with a mean of 583,765 visitors and a standard deviation of 251,741.

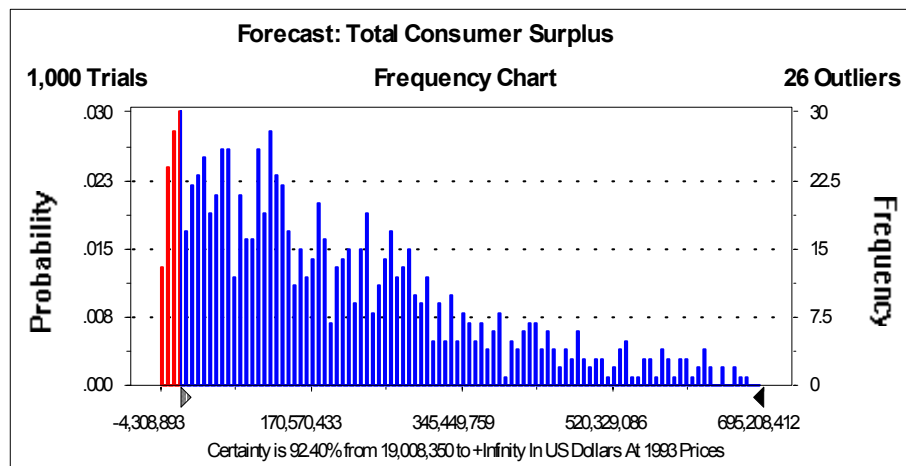
Similarly, a distribution was fitted on available consumer surplus per visitor data (low estimates) on 20 nature tourism sites in Kenya, Botswana, Zimbabwe, Tanzania, Costa

<sup>7</sup> The simulations were done using Crystal Ball 2000.

Rica, Madagascar, Kenya, Egypt, and Thailand. The best fit was provided by a triangular distribution with a minimum value of US\$ -14.40 per visitor, a maximum value of US\$ 1,065.71 per visitor, and a most likely value of US \$ 6.37 per visitor at 1993-1995 prices.

A 1,000 trial Monte Carlo simulation was then run on the product of these two parameters and the results are shown in Figure 2.

**Figure 2 Simulated Total Consumer Surplus Arising From Nature-Based Tourism Subic Bay Freeport Zone In US\$ At 1993-95 Prices**



The results indicate a most likely value of the *annual consumer surplus* for nature-based tourism in the Subic Bay area of **US\$ 19.0** (with a probability of 92.40%) or over **Php 1.0 billion** at a Php 53.00:US\$ 1.00 exchange rate. The figure represents less than 1% (0.68%) of the 1997 estimated US\$ 2.80 billion tourist receipts of the country.

The simulated figure gives a crude indication of the potential economic value of nature-based tourism in Subic Bay if it can be developed to a level that is at par with that of other sites in the world.

While very limited, the tourism impact multiplier and the economic value of nature-based tourism can be considered *critical for conservation efforts* in developing country settings like the Philippines since they could, if *properly* and *responsibly* tapped, yield substantial *financial resources* for both local and national conservation efforts

**4.5.3 The Water Resource Value of the Protected Area**

Available data from Subicwater & Sewerage Company, Inc. show that for their Fiscal Year 4 that runs from April 2000 to March 2001, the company extracted a raw water

volume of 21,464,532 cu.m. Of this total, 11,391,185 cu.m. or 53.07% came from protected areas of SBMA.<sup>8</sup>

The water resource value of the protected areas can be roughly estimated from available data using an *opportunity cost approach* that is, what it would cost to source the raw water derivable from the existing sources within the protected areas from the next best alternative source.

Based on discussions with Mr. Graham Fairclough of Subicwater, it is estimated that if the SBMA protected area sources were not available and will have to be replaced by sources from Dinalupihan, the unit production costs of Subicwater will increase by an average of Php 4.00/cu. m. at Year 2001 Prices.

At existing production levels (FY 2000-2001), this would mean a total *annual production cost increase of Php 85.9 million* at constant Year 2001 Prices. Assuming that such a volume can be maintained in perpetuity, and a discount rate that ranges from 12 to 15% annually, the *present water resource value* of the SBMA protected areas can range from *Php 715.5 million* (US\$ 13.5 million at an exchange rate of Php 53.00:US\$ 1.00) at a 12% discount rate to *Php 572.4 million* (US\$ 10.8 million) at a 15% discount rate.

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<sup>8</sup> The information was kindly supplied by Mr. Mark Waite and Ms. Jasmin del Rosario of Subicwater.



## 5.0 FINANCING AND MANAGEMENT ARRANGEMENTS

Financial resources are expected to be a constraining factor in the effective management of the protected areas of Subic Bay, falling well short of needs. Protected areas have to compete with pressing demands from other sectors, such as education, defense and health. For various reasons, these other demands often prove more effective than protected areas at capturing government revenue. The result is that the proportion of public funding going into investment in protected areas especially in the developing countries remains insignificant relative to the funding requirements. For example, because of the effects of the 1997 Asian economic crisis, the budget of the Department of Environment and Natural Resources (DENR) was cut by 25% in 1999.

Traditionally, protected areas have been managed by government agencies and have thus tended to rely almost exclusively on government coffers. In many places, however, these arrangements are changing.

New models are emerging all over the world. They include:

- Protected area *para-government* agencies in Africa,
- *Private* protected areas in Southern Africa and elsewhere,
- *NGO*-managed protected areas like the La Mesa Dam watershed in Metro-Manila and in some parts of Latin America, and
- The growing band of *volunteers* assisting with protected areas management in the Philippines and Australia.

These rapidly growing and evolving institutional arrangements closely *link resource use* and *livelihood* issues at the community level so that *economic incentive measures* play a crucial role in nature conservation.

Such institutional arrangement options may be considered in the Subic Bay situation, and may provide greater flexibility and be more innovative in securing financial resources from public and private sources.

### 5.1 Implementing Framework Option 1: Creation of a Subic Bay Conservation Society and Subic Bay Heritage Fund

#### 5.1.1 The Subic Bay Conservation Society

Conservation and enhancement activities should hinge around an *empowered locally-based and run Subic Bay Conservation Society* that will serve as a:

- **Conduit** for donor funding for conservation and education, funds going to the area,
- **Conservation** organization, convening planning meetings with villagers, training field staff, demarcating boundaries, planting boundaries, running village nurseries etc.
- **Information** organization issuing press releases and news sheets, documenting issues,
- **Policing** and **advocacy** organization, increasingly and openly pushing Government to seek a solution.
- **Facilitator** or networking organization, bringing together national/LGU administrations, villagers and the press.

Success in setting up such a resource management system will heavily depend on the extent that the implementation mechanism of the Subic Bay PAMP can maximize the:

- **Use of local consultants** and limit the use of internationally-recruited consultants to highly specialized and focused assignments,
- **Use of local NGOs** to perform services, instead of local commercial companies or government agencies; and
- **Participation of local people** within the project area as employees or volunteers in project activities.

Financially and economically, this resource management approach will ensure that scarce development finance resources will be spent in safeguarding areas within the protected areas and in the areas affecting the protected areas which are both viable and important for conservation, but which are threatened by factors which can be controlled and where investment will be likely to succeed and be cost effective.

This approach would tend to discourage major investments in areas that have been allowed to become critically threatened and are likely to be destroyed in the immediate future despite the investment.

It would also tend to discourage major investment in areas that are remote and under little threat; although in such cases the role of monitoring and early warning of incipient threats is likely to be very important. Since this would not necessarily be expensive, such actions would be likely to be highly cost-effective.

### **5.1.2 The Subic Bay Heritage Fund**

The proposed development project package will be financed through a ***Subic Bay Heritage Fund***.

The Subic Bay Heritage Fund will be an *environmental fund* that will support the *conservation* of the *areas delineated by the PAMP* as well as *nearby areas* identified to have *present and future critical impacts* on the operationalization of the PAMP.

Support for conservation efforts will cover not just *direct project funding* for protected area administration and physical development projects but will also include *channelling grants and loan funds* to others -- typically non-governmental organizations (NGOs) and community groups -- for conservation and/or sustainable development projects within the operational area to be defined by the Subic Bay Conservation Society as well as *land banking activities* to secure areas with significant impact to the operationalization of the PAMP.

The proposed fund will absorb substantial amounts of money from local and international sources, and release them as reliable, if modest, cash flows over a long period -- theoretically in perpetuity.

On the *environmental* side, the Subic Bay Heritage Fund will offer new possibilities for *public-private partnerships* and *decentralization* of decision-making by supporting and strengthening the capacity of local environmental efforts.

On the *financial side*, the Subic Bay Heritage Fund will serve as a *long-term source* of finance for conservation and sustainable development, act as a *tool for leveraging* additional resources, and as a *cost-effective instrument* for managing environmental funds.

### **Potential Fund Sources**

The potential fund sources include:

- Revenues derived from *limited use* of the *management zones* including portions of the Protected Area. The revenues derivable from nature-based tourism need to be more firmly established. The US\$ 19.0 million annual consumer surplus estimate provide a very crude figure of the gross revenue potential, especially after the first five year development package has been implemented. A share in the payments of Subicwater to SBMA could provide additional sources especially during the first five years of the PAMP.
- *Share in the revenues* derived from *revenue-generating areas* of the Subic Bay Freeport Zone. The rationale for this is that one of the main attractions of the Subic Bay Freeport Zone as acknowledged in SBMA's own Strategic Plan (2001-2005) is the "*freedom to live and work in a high quality environment.*" As such, it is just proper that the revenue generating areas of Subic share part of the SBMA-derived

revenues to the conservation of the protected areas. The sharing process can be made in two levels:

- ✓ The major component will come from a share in the SBMA revenues from the revenue generating areas of the Subic Bay Freeport Zone. The same Strategic Plan estimates revenues to increase from Php 2,282 million in 2000 to Php 3,500 million in 2005.<sup>9</sup> Earmarking just **1% of the annual potential SBMA revenues** will be enough to meet the estimated park administration costs. The final earmarking level and remittance schedule to the heritage fund will have to be established with SBMA as part of the formulation of the detailed implementation plan.
- ✓ The second source is a share in the 5% gross receipts tax paid by the Subic Freeport Zone locators to the national government. With Subic Bay being regarded as a national heritage, part of the cost of its conservation should be borne by national government taxes, especially tax revenues specifically derived from the area. Starting from Php 39.5 million in 1994, it consistently grew to Php 90.1 million in 1995, Php 107.3 million in 1996, and Php 208.6 million in 1997. The effects of the Asian financial crisis caused gross receipts tax collection to dip to Php 159.6 million in 1998, but it has since recovered as available data for the period Jan-Jun 1999 showed a collection level of Php 266.0 million.<sup>10</sup> The final earmarking level and remittance schedule to the heritage fund will have to be established with Department of Finance (DOF) as part of the formulation of the detailed implementation plan.
- Local **agricultural credit lines** from the Land Bank at 12% annual interest rate can be secured for the commercially viable agricultural and aquaculture projects. Many of the proposed development projects can be commercially viable assuming that they are properly set up and operated.
- A **trust fund** for the financing of research and the setting up of some of the prototype projects can also be set up through a **check-off**. (Check off fees are collected by private businesses and deposited in a trust fund. The trust fund is operated by a NGO managed by the elected representatives of the group that pays the check-off.) Local businessmen interested in the commercial production/operation and marketing of some of the proposed product and service lines can contribute to the organization of such a trust fund and advance the required funds. The funds advanced by the check-off can eventually be recovered from the revenues generated by the prototype set-ups. By placing the check-off under the Subic Bay Heritage Fund, the contributors can save on management and operating costs.

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<sup>9</sup> See Table 8.3, Draft Strategic Plan, 2001-2005.

<sup>10</sup> The figures cited here were kindly supplied by the SBMA Accounting Office.

- **Infrastructure loan packages** to be contracted by the national government from the World Bank, the JBIC of Japan, and the ADB.
- Forms of **debt conversion** - transaction in which the holder of a debt instrument issued by a debtor country exchanges its rights to receive payment under the instrument for something else of value given in return by the debtor country; the parties to the transaction are usually the applicant organization, the original creditor (or subsequent holder of the debt), and the Central Bank of the debtor country: the transaction results in cancellation of the debtor country's obligation to pay the creditor.
  1. **DEBT-FOR-DEVELOPMENT** - a debt conversion for the purpose of funding a development project.
  2. **DEBT-FOR-ECOTOURISM** - a debt conversion for the purpose of funding the creation of tourism businesses.
  3. **DEBT-FOR-ENDOWMENTS** - a debt conversion for the purpose of funding an endowment.
  4. **DEBT-FOR-NATURE** - a debt conversion for the purpose of funding a nature preservation or conservation project.
  5. **DEBT-FOR-EDUCATION or RESEARCH** - debt conversions for funding education or research.
  6. **DEBT-EQUITY SWAP** - a debt conversion for the purpose of funding equity investments.

Debt swaps usually involve a **20% discounting** of the face value of the debt. It has already been successfully tried to generate US\$ 15.0 million for a package of development projects in Zambia, and US\$ 5.7 million to protect Ghana's last remaining rainforest and some important cultural heritage sites. In the Philippines, a US\$ 1.5 million endowment fund was set up to fund the operations of the Foundation for Philippine Environment (FPE). The Philippine government already has a formal debt conversion program with the Paris Club -- 10 of the principal industrial nations (United States, the Netherlands, United Kingdom, Sweden, France, Japan, Germany, Italy, Belgium, and Canada) along with Switzerland (an unofficial member).

- The **World Wildlife Fund (WWF)** is a potential source for technical assistance grants as well as endowment-type grant funds for the propagation of various forms of commercial wildlife management programs.
- The **European Community** through the Biodiversity Convention is another potential source of technical assistance grants as well as endowment-type grant funds for

species conservation. The Biodiversity Convention included the Philippines in the list of 25 priority countries with the most diverse wildlife species.

Such a mechanism will ensure that local institutions and programs for the development of the communities within and around the protected areas are not flooded with a rapid, short-term influx of capital. The mechanism can develop according to a *natural cycle* that enables institutions and programs to grow over the long term.

A critical component of the concrete *involvement of local people*, NGOs, and the private sector in all project undertakings within the protected area will be their:

- **Resource contributions** (funds, labor, in-kind contributions) to the initial project investments; and
- Periodic **cost recovery payments** for many of the projects that will individually and collectively benefit them.

In this manner, the proposed long-term financial mechanism should provide opportunities for local people and groups to participate in funding decisions that affect their communities.

### **Legal and Financial Structure**

The Subic Bay Heritage Fund will be set up as a *trust* to be managed by the Subic Bay Conservation Society. Ideally, the Subic Bay Conservation Society should be operated as a *non-profit, tax-exempt foundation* to attract contributions from individual or private entities.

The financial structure of the Subic Bay Heritage Fund can combine the three following funding mechanisms:

- **Revolving Funds** that receive new resources on a regular basis -- e.g., proceeds from the limited use of the protected areas and share in the revenues derived from the revenue generating areas of Subic Bay, and special taxes, fees or levies designated to pay for conservation programs -- which replenish or augment the original capital of the fund and provide a continuing source of money for specific activities.
- **Endowments** which invest their capital and use only income from those investments to finance activities.
- **Special Project Funds** to carry out specific projects, particularly major infrastructure as well as research projects.

### 5.1.3 Proposed Cost Sharing

The proposed development project package will be financed through a *fair cost-sharing* mechanism.

The cost sharing will primarily be between *Philippine government, private sector investors, and international donors* — the main contributors to the proposed “*Subic Bay Heritage Fund*” — and *the community beneficiaries*.

The proportion of full project costs to be recovered from the community beneficiaries was arrived at using the following methodology.

- 1) Evaluate each service according to the seven questions in Table 6. Each "Yes" answer is assigned the full weight from Column 3. Each "No" answer counts as zero.
- 2) The total score indicates the percentage of the full cost of the service that should be borne by the beneficiaries.

The weights or even some of the questions could be changed depending on the preferences and values of the stakeholders.

The weights used in the present analysis are based on "perceptions" of the Consultant of what people, particularly the political leadership in the area, consider as important.

**Table 6 Checklist for Rating the Private Benefits of Development Projects**

No.	Question	Weight (%)
1	DOES USE OF THE RESOURCE GENERATE MINIMAL SPILLOVER EFFECTS ON OTHER MEMBERS OF THE COMMUNITY?	30
2	Is it possible to identify a specific beneficiary for this project?	20
3	Is the imposition of a beneficiary charge for this project statutorily and administratively feasible?	5
4	Would the imposition of beneficiary charges for the project evoke negligible political opposition?	15
5	Would beneficiary charges for this service not affect access by the low-income groups?	20
6	Would the imposition of beneficiary charges for the service lead to substantial revenues to the project?	5
7	Would benefit-based funding of this project result in enhanced efficiency?	5

The result of the analyses for each of the proposed project type is shown in Table 7.



Table 7 Proposed Proportion of the Full Project Costs to be Recovered from Beneficiaries

## Subic Bay Protected Area Management Plan

Proj Code	Weights/Criteria	1	2	3	4	5	6	7	Total
		30%	20%	5%	15%	20%	5%	5%	
<b>1. Park Administration</b>									
PA-1	Raw Score (0,1)	1	0	1	1	0	1	1	60
	Weighted Score (%)	30	0	5	15	0	5	5	
<b>2. Livelihood Development</b>									
LD-1	Raw Score (0,1)	1	1	1	1	0	1	1	80
	Weighted Score (%)	30	20	5	15	0	5	5	
LD-2	Raw Score (0,1)	1	1	1	1	0	1	1	80
	Weighted Score (%)	30	20	5	15	0	5	5	
LD-3	Raw Score (0,1)	1	1	1	1	0	1	1	80
	Weighted Score (%)	30	20	5	15	0	5	5	
LD-4	Raw Score (0,1)	1	1	1	1	0	1	1	80
	Weighted Score (%)	30	20	5	15	0	5	5	
LD-5	Raw Score (0,1)	1	1	1	1	0	0	1	75
	Weighted Score (%)	30	20	5	15	0	0	5	
LD-6	Raw Score (0,1)	1	1	1	1	0	0	1	75
	Weighted Score (%)	30	20	5	15	0	0	5	
LD-7	Raw Score (0,1)	1	1	1	1	0	0	1	75
	Weighted Score (%)	30	20	5	15	0	0	5	
LD-8	Raw Score (0,1)	1	1	1	1	0	0	1	75
	Weighted Score (%)	30	20	5	15	0	0	5	
LD-9	Raw Score (0,1)	1	1	1	1	0	0	1	75
	Weighted Score (%)	30	20	5	15	0	0	5	
<b>3. Marine Resource Management</b>									
MR-1	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
MR-2	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
MR-3	Raw Score (0,1)	1	0	0	0	0	1	0	35
	Weighted Score (%)	30	0	0	0	0	5	0	
MR-4	Raw Score (0,1)	1	0	0	0	0	1	0	35
	Weighted Score (%)	30	0	0	0	0	5	0	
MR-5	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
<b>4. Forest Resource Management</b>									
<b>4.1 Forest Protection &amp; Law Enforcement:</b>									
FR-1	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
FR-2	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
FR-3	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	



# SECTION FIVE

## Financing and Management Arrangements

Proj Code	Weights/Criteria	1	2	3	4	5	6	7	Total
		30%	20%	5%	15%	20%	5%	5%	
FR-4	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
FR-5	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
<b>4.2 Fire Prevention and Control Program:</b>									
FR-6	Raw Score (0,1)	1	0	0	0	0	1	1	40
	Weighted Score (%)	30	0	0	0	0	5	5	
FR-7	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
FR-8	Raw Score (0,1)	1	0	0	0	0	0	1	35
	Weighted Score (%)	30	0	0	0	0	0	5	
FR-9	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
<b>4.3 Community Based Forest Management:</b>									
FR-10	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
FR-11	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
FR-12	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
FR-13	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
FR-14	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
FR-15	Raw Score (0,1)	1	1	0	0	0	0	0	50
	Weighted Score (%)	30	20	0	0	0	0	0	
FR-16	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
FR-17	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
<b>4.4 Assisted Natural Regeneration:</b>									
FR-18	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
FR-19	Raw Score (0,1)	1	0	0	0	0	1	1	40
	Weighted Score (%)	30	0	0	0	0	5	5	
FR-20	Raw Score (0,1)	1	0	0	0	0	1	1	40
	Weighted Score (%)	30	0	0	0	0	5	5	
FR-21	Raw Score (0,1)	1	0	0	0	0	1	1	40
	Weighted Score (%)	30	0	0	0	0	5	5	
<b>4.5 Research and Development:</b>									
FR-22	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
FR-23	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
FR-24	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	

# SECTION FIVE

## Financing and Management Arrangements

Proj Code	Weights/Criteria	1	2	3	4	5	6	7	Total
		30%	20%	5%	15%	20%	5%	5%	
FR-25	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
FR-26	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
<b>5. Research and Monitoring</b>									
RM-1	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
RM-2	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
<b>6. Institutional Strengthening</b>									
IS-1	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-2	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-3	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-4	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-5	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-6	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-7	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-8	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-9	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-10	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-11	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-12	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-13	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-14	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-15	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-16	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	
IS-17	Raw Score (0,1)	1	0	0	0	0	0	0	30
	Weighted Score (%)	30	0	0	0	0	0	0	

**5.1.4 Proposed Cost Recovery Mechanism**

The proposed Subic Bay Heritage Fund will largely advance the cost of the development project package. The advances made will later on be recovered based on the proportions arrived at in Table 7 for each project proposal using the criteria and weights presented in Table 6 through *fees, charges, and loan amortization*.

The following sample cost recovery schedules for loans and advances to be made by the Subic Bay Heritage Fund for the set-up of the various development project components:

Aqua-culture Projects:	5-year for share in investment costs amortization at 12% interest beginning at the first year of commercial harvest.
Forestry Project:	5-year for share in investment costs amortization at 12% interest beginning at the first year of commercial harvest.
Agricultural Project:	5-year amortization for share in investment costs at 12% interest beginning at the first year of commercial harvest.
Nature Products Enterprises:	5-year amortization for share in investment costs at 12% interest beginning at the first year of commercial harvest.
Handicraft and Furniture Making:	5-year amortization for share in investment costs at 12% interest beginning at the first year of commercial operation.
Food processing	5-year amortization for share in investment costs at 12% interest beginning at the first year of commercial operation.
Tourism-Related Facilities:	Full cost recovery and financing to be secured from commercial sources.
Cost of Electrical Connection:	10-year amortization for share in capital costs; monthly consumption charges.
Cost of Level 1 Water Supply:	10-year amortization for capital costs with collection to be deposited as a sinking fund for future replacement and upgrading of facilities; monthly fixed charges per household for facility operations and maintenance.

Livelihood and Skills Upgrading      Beneficiary share in the cost of training and materials to be charged on a per participant basis.

### **5.2 Implementing Framework Option 2: Protected Area as SBMA Special Project with Regular Funding**

Another implementation option is to treat the management of the Protection Area as a special project of the SBMA. As a special project under the Ecology Center, it will be given annual appropriations and funding by the SBMA, thus assuring the regular flow of funds.

As an SBMA special project, it is envisioned that the project activities will be better synchronized with the other SBMA projects and activities.

Aside from regular SBMA funding, the Protection Area Management may also receive grant funds. Grant funds may be channeled to SBMA specifically for the special project, with grant agreements to be entered into between the donor agency and SBMA.

### **5.3 Preferred Implementing Framework Option: Protected Area as SBMA Special Project**

The preferred option is the Protected Area Management as a regular project of the SBMA.

This will help ensure the regular inflow of funds for project implementation. This option will also assure that the special project's accounting and financial systems are compatible with that of the integrated financial system of SBMA.

## 6.0 PROJECT AND INVESTMENT PROMOTIONS STRATEGIES

### 6.1 Technical Capacity Building for SBMA Board

The SBMA Board will have to play roles in building intra- and inter-governmental (i.e., within SBMA, within LGUs, between SBMA and LGUs, and among LGUs) *institutional capacity* and *private-public partnerships*, developing *agile management approaches*, *nurturing community groups*, becoming involved in environmental activities many for the first time, and contributing to the articulation of environmental priorities and strategies.

The SBMA Board will have to be strengthened for it to be able to properly reflect these broader roles. The Board and its technical staff will need capability building assistance in the following areas:

- Developing fund-raising strategies;
- Managing and strengthening governing boards;
- Understanding and working with local government units, national government agencies, non-government organizations, and international organizations;
- Developing an asset management strategy and engaging an effective assets manager;
- Assistance in mobilizing resources from external and in-country sources;
- Assistance in strategic planning; and
- Assessing resource values and developing indicators for measuring the effectiveness and impact of project implementation.

### 6.2 Creation of a Protected Area Management Zones Investments Promotion Sub-Group

It is proposed that a Protected Area Management Zones Investment Promotion Sub-Group be designated within the existing *SBMA Business Group* to work closely with the *SBMA Ecology Center* and the *Subic Bay Conservation Society* and be responsible for the following:

- Identification of specific preferred sustainable development-oriented projects/investments consistent with the guiding principles of the PAMP.

- Drawing up of incentives that will attract investors to do sustainable development-oriented business in the Subic Bay Protected Area and its environs.
- Development of the awareness and interest of investors in the various investment opportunities in the protected area and its environs, particularly development projects where private sector participation is encouraged.
- Provision of support and assistance to protected area management zones investors in the gathering of pertinent information, liaison with government offices, and other activities that will facilitate their entry and setting up of operations.

The sub-group, which will give specific attention to the overriding sustainable development component of the SBMA vision, may be completely or partially drawn from the existing personnel complement of SBMA Business Group.

### **6.3 Provision of Special Incentives for Enterprises with Direct Community Participation**

Incentives should be provided to the following:

- Joint ventures between the communities and investors;
- Community- owned and managed enterprises; and
- Enterprises that provide profit sharing to the community.

These types of businesses encourage the active participation of the communities and allow them to directly share in the social and economic benefits to be derived. Experience in other nature parks and protected areas in the world have shown that these types of enterprises provide the communities with greater benefits than if they were to be merely employed.

The enterprises can be related to nature tourism activities, the provision of services in support of tourism, and livelihood projects for the communities.

### **6.4 Development of Information Materials and Marketing Collaterals**

Printed, audio-visual and even e-based materials providing information on Subic Bay, the Protected Area, the communities, and preferred investments would be useful for prospective investors. These may specifically include as follows:

- Fact Sheet on the Subic Bay Metropolitan subregion
- List of preferred investments

- Investment incentives offered
- Primer on the natural resources of the Protected Area (can be culled from the various technical studies on flora and fauna)
- Primer on the culture of the Aeta communities showcasing their indigenous knowledge in forest management

### **6.5 Intensive Market Development**

The *wide range* of tourist products that will capture different segments of the tourism market should be emphasized especially their varied natural attraction that distinguishes Subic Bay from other tourist destinations in the Philippines.

Linkages with local and foreign travel agencies and local transportation operators should be established to encourage the inclusion of the Subic Bay Protected Area in organized group tours. Different types of itineraries should be offered with varying duration, tourist products, and bed-and-breakfast packages.

Linkages should likewise be made with restaurants and resort operators in Bataan and Zambales to ensure their cooperation in the marketing of Subic Bay Protected Area as a tourist destination.