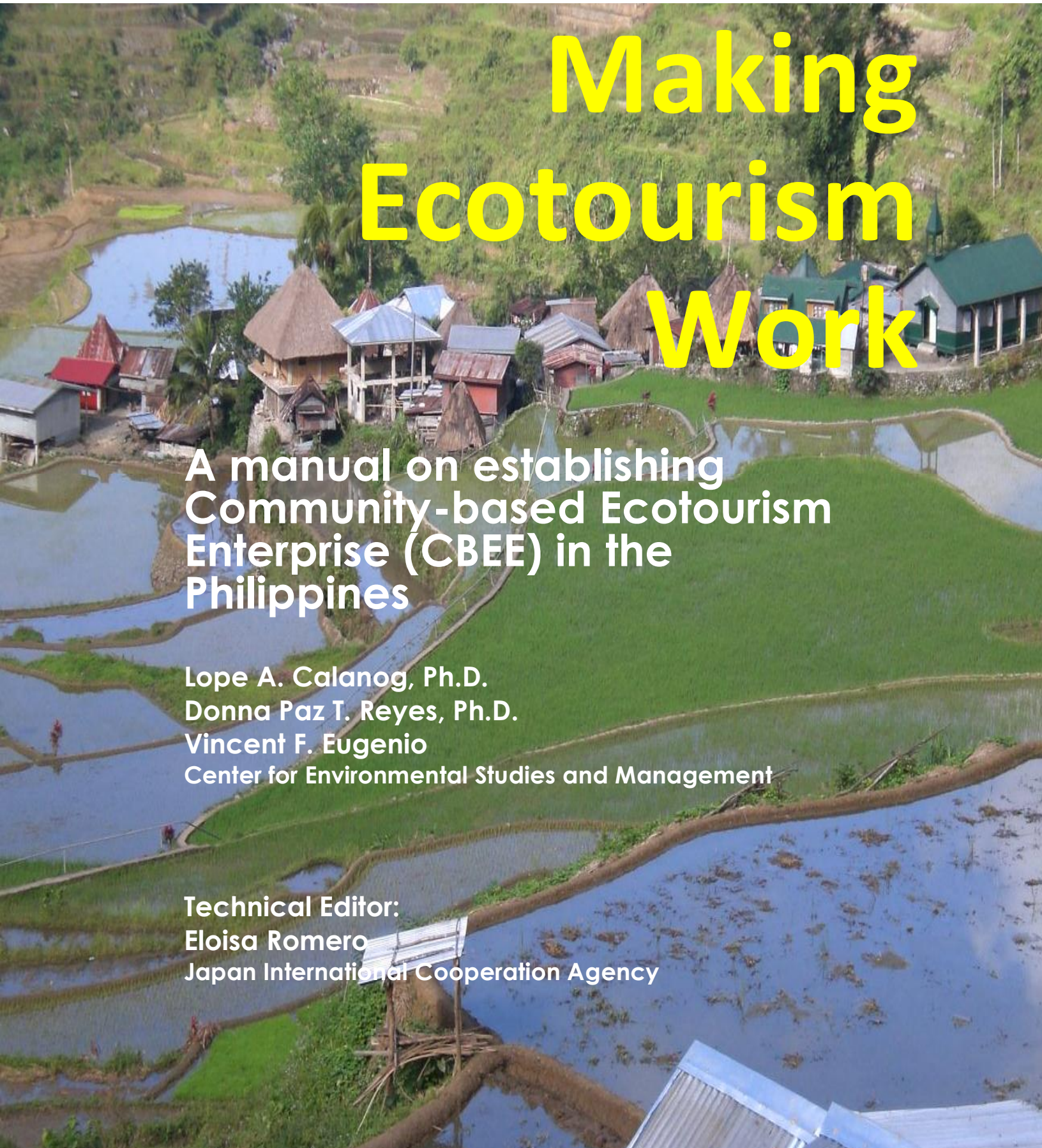

Making Ecotourism Work

A manual on establishing Community-based Ecotourism Enterprise (CBEE) in the Philippines

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PREFACE

The Philippines is indeed a country with 'megadiversity'. To date, there are about 556 recorded species of birds, 180 mammals, and 293 reptiles and amphibians, as well as a wide array of forest trees, plants, and flowers. About 67% of these plants and animals cannot be found anywhere else in the world (Tarsier Foundation, 2012). These figures do not yet include the country's vast water resources coming from the Pacific Ocean, Philippine Sea, Celebes Sea, and the numerous lakes and rivers that crisscross the country.

Biodiversity conservation is important. It can only be deemed successful if it can sustain life while allowing some level of human intervention that does not endanger its ecological existence. This can only happen if local people have stable source of livelihood that will divert their attention from destructive use of natural resources. However, with limited local capacity, the Philippine ecological landscape is facing an alarming situation. The Philippines is now included in the list of biodiversity endangered countries in the world.

Much effort is exerted to formulate management strategies that will address this pressing concern, and one of these is ECOTOURISM. Nowadays, ecotourism is fast becoming a popular buzzword for both local and foreign tourists, nature enthusiasts, and other individuals who view nature and nature-based tourism as educational, recreational, and a form of relaxation. With the Department of Tourism's (DOT) current slogan *"It's more fun in the Philippines!"* and the many positive responses to it, the national government expect a big lift in the country's tourism industry. For 2012, the DOT is optimistic to attract at least 4.2 million tourists.

In line with this target, the need to conserve and protect the country's biodiversity while supporting the livelihood of local communities, ecotourism is considered as an alternative approach. More than advocacy, ecotourism is now viewed as an "enterprise" that, if properly developed, will benefit not only local communities, but most importantly, the very local resources that local people heavily depend on.

This manual, therefore, hopes to contribute in attaining this cause. Chapter 1 provides an overview of the tourism industry in the country, the basic principles and theoretical framework surrounding ecotourism, including its opportunities and threats and value chain. The chapter also provides a discussion on the manual's general scope, its purpose and intended users. Chapter 2 provides the foundation in planning and developing community-based ecotourism enterprise (CBEE), the preliminary analyses to be done, scoping, checklist to consider, SWOT analysis, community mobilization, undertaking full feasibility analysis, preparing the logical framework, and accomplishing the sustainability assessment tracking tool. Chapter 3 focuses on the environmental conservation strategies that need to be incorporated in building a CBEE, i.e., calculating the

site's tourism carrying capacity; zoning; equipment, facilities and infrastructure requirements; signage and interpretative signs; restoration and rehabilitation techniques; biodiversity conservation strategies; disaster risk and reduction management; and heritage conservation. Chapter 4 provides the social and economic foundation in building CBEE. These include: social safeguards and considerations that touch on visitor's security and management, ethical standards, sex and tourism, gender roles, respect for indigenous knowledge system, and issues related to resettlement; economic and financial tools like the benefit cost ratio, net present value, return of investment, value chain analysis; and market research. Chapter 5 outlines the mechanisms and strategies in setting up the CBEE, i.e., from spotting the CBEE opportunities, to finding the CBEE business deal and models, writing the business plan, looking for funding, until registration, permitting and accreditation and incentives for CBEE building. Finally, chapter 6 discusses the management and operations techniques which include personnel management, marketing and promotions, revenue generation and fee systems, and monitoring and evaluation.

The manual is comprehensive in scope. It provides the intended users practical tips in building a CBEE. Through this initiative, we hope to assist the Philippine government in advancing the country towards economic growth and sustainable development.

JICA Philippines

ACRONYMS

3R	Re-use, Reduce, Recycle
AusAID	Australian Agency for International Development
BAI	Bureau of Animal Industry
BFAR	Bureau of Fisheries and Aquatic Resources
BFD	Bureau of Forest Development
BHU	Barangay Health Unit
BIR	Bureau of Internal Revenue
BLE	Bureau of Local Employment
BPI	Bureau of Plant Industry
BPI	Bank of the Philippine Islands
BFAR	Bureau of Fisheries and Aquatic Resources
CAFGU	Citizen Armed Force Geographical Unit
CARCAP/CC	Carrying Capacity
CATE	Calamianes Association of Tourism Establishment, Inc.
CBA	Cost-Benefit Analysis
CBE	Community-based Enterprise
CBEE	Community-based Ecotourism Enterprise
CCTV	Closed Circuit Television
CDA	Cooperative Development Authority
CDO	Cease and Desist Order
CENRO	Community Environment and Natural Resources Office
cf	Corrective Factor
CFC	Chlorofluorocarbons
CLUP	Comprehensive Land Use Plan
CPR	Cardiopulmonary Resuscitation
CSO	Civil Society Organization
CSTC	Coron Sustainable Tourism Cooperative
DA	Department of Agriculture
DAO	DENR Administrative Order
DAP	Danao Adventure Park
DBP	Development Bank of the Philippines
DENR	Department of Environment and Natural Resources
DOF	Department of Finance
DOLE	Department of Labor and Employment
DOST	Department of Science and Technology
DOT	Department of Tourism
DRRM	Disaster Risk and Reduction Management
DRRMO	Disaster Risk and Reduction Management Organization
DTI	Department of Trade and Industry
EAT	Educational Adventure Tour
ECC	Environmental Compliance Certificate
EIA	Environmental Impact Assessment
EMB	Environmental and Management Bureau
EO	Executive Order
EO 111	Establishing the Guidelines for Philippine Ecotourism in the Philippines
EO 120 of 1987	Re-organizing the Ministry of Tourism, Defining its Powers and Functions, and for Other Purposes

ERDB	Ecosystems Research and Development Bureau
FDA	Food and Drug Administration
GM	Gross Margin
GMP	General Management Plan
HCFC	Hydrochlorofluorocarbons
HCS	Heritage Conservation Society
HRD	Human Resource Development
ICC	Indigenous Cultural Communities
ICOMOS	International Council of Monuments and Sites
IEC	Information, Education, and Communication
IEE	Initial Environmental Examination
IKS	Indigenous Knowledge Systems
IP	Indigenous People
IPO	Intellectual Property Office
IPRA	Indigenous Peoples Rights Act (or RA 8371)
ITK	Indigenous Technical Knowledge
IUCN	International Union for Conservation of Nature
JICA	Japan International Cooperation Agency
KSA	Knowledge, Skills, and Abilities
LAC	Limit to Acceptable Change
LBP	Land Bank of the Philippines
LDRRMO	Local Disaster Risk and Reduction Management Office/Officers
LGU	Local Government Unit
LK	Local Knowledge
M&E	Monitoring and Evaluation
MAP	Marketing and Promotion
MBG	Makiling Botanic Garden
Metrobank	Metropolitan Bank and Trust Company
MFI	Microfinance Institutions
MOA	Memorandum of Agreement
MOV	Means of Verification
MPDO	Municipal Planning Development Office
MRF	Materials Recovery Facility
NCCA	National Commission for Culture and the Arts
NCIP	National Commission on Indigenous People
NEDC	National Ecotourism Development Council
NES	National Ecotourism Strategy
NGA	National Government Agencies
NGO	Non-government Organization
NHI	National Historical Institute
NIE	Net Income Expected
NOV	Notice of Violation
NPV	Net Present Value
NTC	National Tourism Congress
OFW	Overseas Filipino Worker
OVI	Objectively Verifiable Indicators
PA	Protected Areas
PACAP	Philippines-Australia Community Assistance Program
PAMB	Protected Area Management Board

PASU	Protected Area Superintendent
PAWB	Protected Areas and Wildlife Bureau
PCA	Philippine Coconut Authority
PCC	Potential Carrying Capacity
PCG	Philippine Coast Guard
PENRO	Provincial Environment and Natural Resources Office
Philhealth	Philippine Health Insurance Corporation
PNP	Philippine National Police
PNRC	Philippine National Red Cross (also known as Red Cross)
PO	Peoples' Organizations
PPP	Participatory Planning Process
PPSRNP	Puerto Princesa Subterranean River National Park
PR	Public Relations
PRA	Participatory Rural Assessment
PTA	Philippine Tourism Authority (now known as TIEZA)
RA	Republic Act
RA 10121	Philippine Disaster Risk Reduction and Management Act of 2010
RA 7042	Foreign Investments Act of 1991
RA 7277	Magna Carta for the Disabled Persons
RA 7586	National Integrated Protected Areas System (NIPAS)
RA 8371	Indigenous Peoples Rights Act of 1997
RA 9593	Tourism Act of 2009
RBMF	Results-based Management Framework
RCC	Real Carrying Capacity
ROI	Return on Investment
SATT	Sustainability Assessment Tracking Tool
SBGFC	Small Business Guarantee and Finance Corporation
SCAA	Special Civilian Armed Forces Geographical Unit Active Auxiliary
SEC	Securities and Exchange Commission
SEO	Search Engine Optimization
SSS	Social Security System
SWOT	Strengths-Weaknesses-Opportunities-Threats
TAC	Total Additional Cost
TAI	Total Additional Income
TCARCAP	Tourism Carrying Capacity
TCC	Total Cash Cost
TCI	Total Cash Income
TESDA	Technical Education Skills Development Authority
TEZ	Tourism Economic Zone
TIES	The International Ecotourism Society
TIEZA	Tourism Infrastructure and Enterprise Zone Authority
TIN	Tax Identification Number
TK	Traditional Knowledge
TMP	Tourism Master Plan
TPB	Tourism Promotions Board
UK	United Kingdom
UNDP	United Nations Development Programme
UPLB	University of the Philippines Los Baños

URL	Universal Resource Locator
VCA	Value Chain Analysis
WTO	World Tourism Organization

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CHAPTER 1

Introduction

It is indeed more fun in the Philippines!!!

With the Philippines' innumerable island destinations, beautiful sceneries, amazing wildlife, rich culture, and inherently warm Filipino people, it is truly a one fun, exciting, and must-see place in the world.

Figure 1. Department of Tourism's (DOT's) current tourism slogan: "It's more fun in the Philippines"

The Philippine Development Plan (2011) cites tourism as "a powerful driver for economic growth, infrastructure, local area development, and employment generation". Because of its growth potential, tourism is tapped as one of the Philippine government's priority areas for development.

THE PHILIPPINE TOURISM INDUSTRY ...

- ✓ In 2011, tourist arrival reached record high of 3.9 million (11.2% higher than the previous year).
- ✓ Peak tourist arrival was observed in July.
- ✓ The lean month for visitor arrivals was in September.
- ✓ Most of the tourists came from South Korea (26%), USA (15.9%), and Japan (9%).
- ✓ In 2000 to 2010, the average share of tourism to direct gross value added (TDGVA) of the country's GDP is 5.8%.
- ✓ In 2010, TDGVA reached PhP 518.5 billion (13% higher than last year's PhP 459 billion).
- ✓ In 2011, nearly 3.4 million Filipinos were directly employed in tourism, meaning for every tourist that arrived, one Filipino had a job.
- ✓ By 2012, the Department of Tourism (DOT) is targeting 4.6 million tourists and 10 million in 2016 with the help of the brand new slogan: *It's more fun in the Philippines!*

In the country, majority of the tourism industry is anchored on natural and cultural attractions, or also known as nature-based tourism. Commonly, it is also referred to as **ECOTOURISM**.

Figure 2. From left, a popular village-based ecotourism destination, Banga-an Village in Banaue, Ifugao (Calanog, 2012); canopy walk in Makahambus Adventure Park in Cagayan de Oro City (Calanog, 2009); and the swimming area in Taytay Falls in Mts Banahaw-San Cristobal Protected Landscape in Laguna (Calanog, 2009).

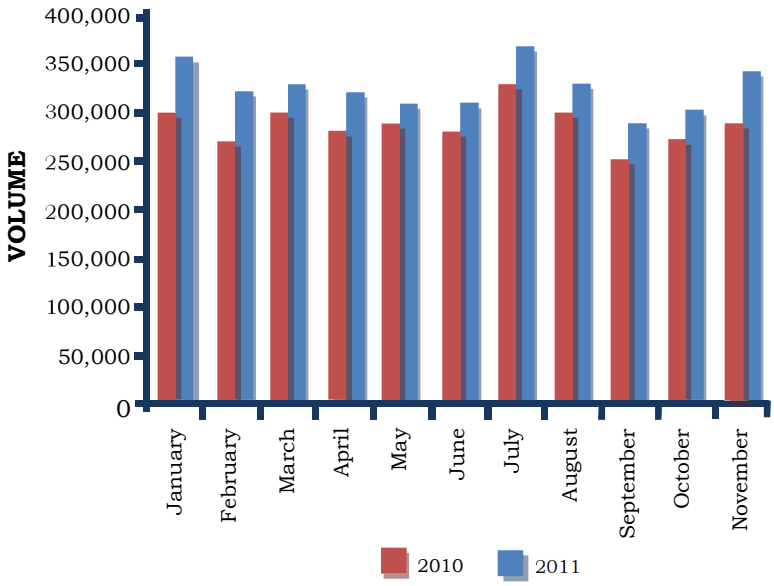


Figure 3. Visitor Arrivals to the Philippines from January to November 2010-2011 (DOT, 2011)

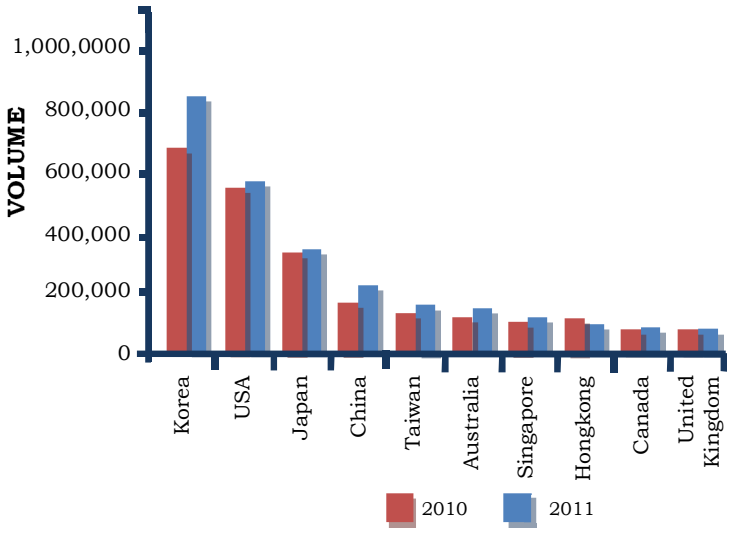


Figure 4. Top Ten Visitor Markets (by country) from January to November 2011 (DOT, 2011)

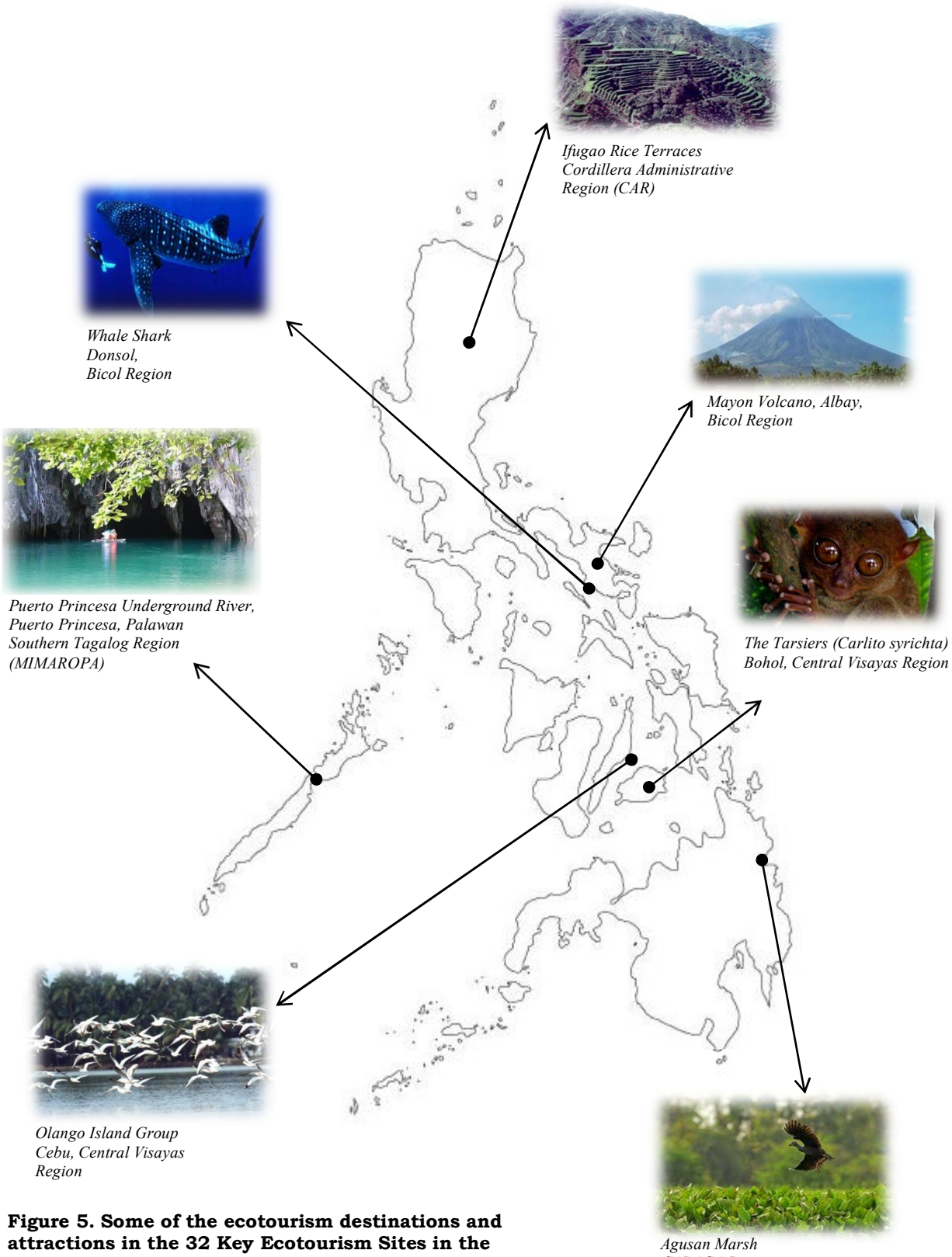


Figure 5. Some of the ecotourism destinations and attractions in the 32 Key Ecotourism Sites in the Philippines

SCOPE AND PURPOSE OF THE MANUAL

Building Capacities of Local Community in Ecotourism

Nowadays, the private sector is encouraged to be at the forefront of development, promotion, and enhancement of tourism /ecotourism in the country. However, while the local people have inherent talent and skills in entrepreneurship, they are not fully tapped; as a result, they do not get the full benefits from ecotourism.

Faced by this scenario, poor local people resort to destructive means of exploiting natural resources through illegal logging, dynamite fishing, and wildlife poaching, among others.

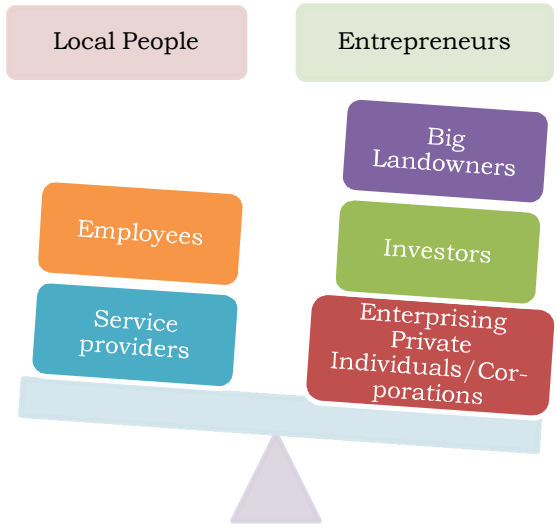


Figure 6. Entrepreneurs outweigh the local people in the development, promotion, and enhancement of tourism/ecotourism in the country.

Because of the increasing need to re-build, enhance, and utilize the natural and cultural resource base of the country, the capacity of local people needs to be strengthened and redirected, particularly in the aspect of ecotourism development, more specifically by looking at it as a - *community-based enterprise*.

This manual, therefore, aims to:

- provide a guideline on how to make ecotourism work at the community level;
- cultivate local talents, skills, and indigenous knowledge, and translate them into productive community-based ecotourism enterprise; and
- integrate and mainstream ecotourism, including its processes and technologies, into their specific needs without compromising local culture.

Prior to applying the basic principles and concepts of community-based ecotourism enterprise (CBEE) and the step-by-step approach in building such an enterprise in this manual, readers should bear in mind that CBEE will only succeed if it is:

- *Flexible (Stakeholders are willing to use the applicable ecotourism principles on varying situations).* Stakeholders, from the national to the local level, are flexible in applying the basic principles of an ecotourism project. This manual merely provides a "basket of opportunities" and not a "package deal of rules and guidelines" that can be applied and implemented depending on the ecotourism site and conditions.

- *Participatory (The local people personally take part in project activities).* The local community, including women, takes an active role in the development project. Local people are not merely end-users of ecotourism endeavor but are active participants that should primarily benefit from their very own natural resource base.

- *Experiential (First-hand knowledge is considered when planning, monitoring, and evaluating ecotourism project).* The learnings and experiences of all stakeholders, particularly the local people, are taken into consideration from project planning to monitoring and evaluation. At the same time, local people will also be able to learn, not just being spoon-fed of their needs, and take part in the problem-solving processes of the project.

- *Proactive (Stakeholders are fully-aware and prepared for the future success and failures of the project).* All stakeholders focus on the long-term goals and objectives of the project. Ecotourism projects can only be deemed successful if it can constantly adapt to changes, major perturbations, and inevitable conditions that pose threat to its implementation in the community.

The intended users of this manual are:

- The **local people and concerned stakeholders** who are interested in venturing into CBEE;

- **Local private entrepreneurs** who wish to invest in CBEE;

- **Local Government Units** (LGUs) who will regulate the enterprise at the local level, and who may be also interested to engage in this enterprise or partner with other institutions in establishing the CBEE in their locality;

Figure 7. Main users of this manual are the local people, concerned stakeholders and local entrepreneurs

- **Non-Government Organizations** (NGOs) who will partner or assist the community in undertaking the CBEE, particularly in the advocacy and conservation activities;

- **Private corporations** who can provide the capital or investment or be a partner with the local community in this enterprise;

- **Researchers** who use the CBEE in undertaking scientific investigation or generation of technologies and relevant information necessary in making the CBEE a viable and sustainable enterprise;

- **The academe** who may assist in the information, education, and education (IEC) and related advocacy activities;

- **Policy makers** who will formulate the necessary legislation, policies and rules and regulation to make the CBEE a workable enterprise; and

- **Funding agencies** that will provide funding or similar technical assistance to the local community in building the CBEE.

CONCEPTUAL FRAMEWORK AND PRINCIPLES

Sustainable Development Principle

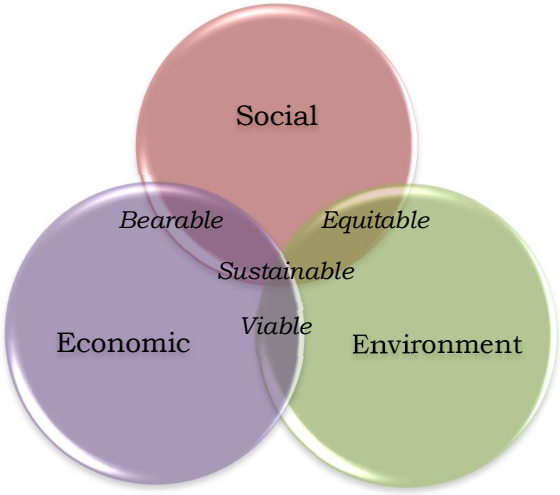


Figure 8. The Sustainable Development Framework

According to the International Union for Conservation of Nature (IUCN), a development project can be considered sustainable if it would adhere to the following basic ingredients of a successful project (2006):

1. Social;
2. Economic; and
3. Environmental

- Project is ***bearable*** if it only considers the social + economic aspects.
- Project is ***equitable*** if it only considers the environmental + social aspects = the project is deemed only as.
- Project is ***viable*** if it only considers the economic + environmental aspects.
- Project is ***sustainable*** if it involves *all the three components* of Sustainable Development principle.

Sustainable Tourism Framework

Ecotourism's ***sustainability*** can be further enhanced if it is grounded on holistic science.

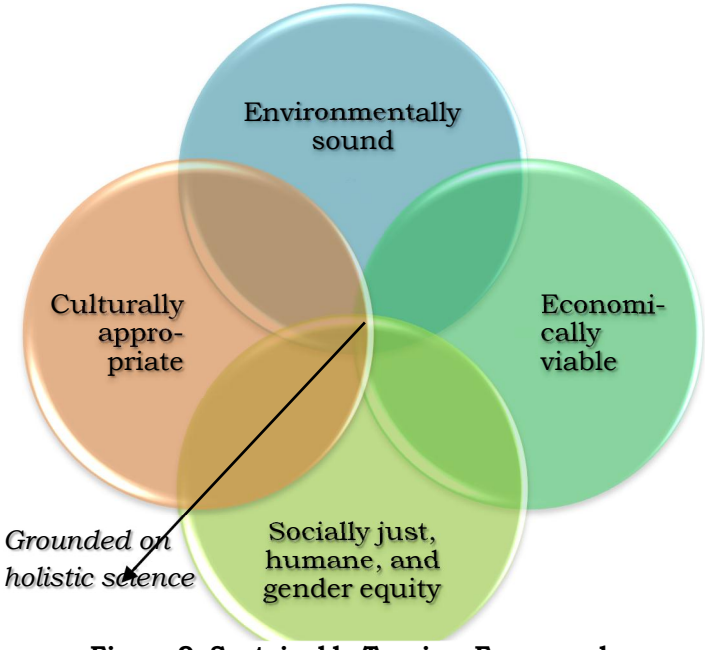


Figure 9. Sustainable Tourism Framework

Ecotourism is an emerging niche that provides direct and indirect livelihood to the community, while supporting key development objectives such as poverty alleviation, employment generation, income redistribution, people empowerment, and environment and natural resource conservation. As emphasized by the First National Ecotourism Congress (1999):

> "it is the policy of the State to develop and promote ecotourism as a tool for sustainable development to support the development, management, and protection and conservation of the country's environment, natural resources and cultural heritage. The state shall establish an integrating system to focus greater efforts to sustain the viability of ecotourism development in the country."

Framework Indicators
(Adapted from Zamora, et. al., 2002)

Environmentally sound. Ecotourism should not be degenerative to nature but instead enriches the natural resource base. It should value every living (biotic) and non-living (abiotic) component of nature.

Economically viable. Ecotourism should be self-sustaining and provide long-term livelihood opportunities to the community.

Socially just and humane. Ecotourism should value the dignity, rights, and inherent abilities of grassroots. Local community, as the primary beneficiary of ecotourism, has the right to timely and accurate information, financing, and other basic needs that would help enhance their way of life.

Culturally appropriate. Ecotourism activities should be appropriate to the locality, and with respect to indigenous knowledge systems (IKS) and information, despite the inevitable access to introduced technologies. Gender role should actively take part in ecotourism development and enhancement.

Grounded on holistic science. Sustainable tourism values the direct and indirect integration, interaction and interrelationships of the local ecosystem (environmental, socio-political, and economic).

What is Ecotourism?

- "…the environmentally responsible travel and visitation to relatively undisturbed natural areas in order to enjoy and appreciate nature (and any accompanying cultural features – both past and present) that promotes conservation, has low negative visitor impact, and provides for beneficially active socio-economic involvement of local populations." (World Conservation Union or IUCN)

- "…a form of sustainable tourism within a given natural and/or cultural area where community participation, conservation and management of biodiversity, respect for culture and indigenous knowledge systems and practices, environmental education and ethics as well as economic benefits are fostered and pursued for the enrichment of host communities and satisfaction of visitors." (First National Ecotourism Congress, 1999)

- "…a form of tourism involving visiting fragile, pristine, and usually protected areas, intended as a low impact and often small scale alternative to standard commercial tourism. Its purpose may be to educate the traveler, to provide funds for ecological conservation, to directly benefit the economic development and political empowerment of local communities, or to foster respect for different cultures and for human rights. Since the 1980s ecotourism has been considered a critical endeavor by environmentalists, so that future generations may experience destinations relatively untouched by human intervention (Honey, M., 2008).

- The International Ecotourism Society (TIES) defines ecotourism as: "The responsible travel to natural areas which conserves the environment and improves the welfare of local people" (The Echo Traveller, 2011).

Brief History of Ecotourism in the Philippines

1991. The DOT in collaboration with the United Nations Development Program (UNDP) and the World Tourism Organization (WTO) prepared the Philippine Tourism Master Plan (TMP).

1992. "Ecotourism" concept was formally introduced during the second National Tourism Congress (NTC).

1994 to 1998. Series of regional seminars discussed sustainable tourism and ecotourism concepts. Elements of sustainable tourism development key issues and framework were identified. The DOT, Protected Areas and Wildlife Bureau (PAWB) of DENR, the National Commission for Culture and the Arts (NCCA), and the National Museum collaborated in fostering ecotourism.

1999. Executive Order (EO) 111 (a national ecotourism strategy and program for the promotion and development of ecotourism in the country) was issued. It also created the National Ecotourism Development Council (NEDC).

2002. National Ecotourism Strategy (NES) was issued to provide framework for sustainable tourism development.

Over the last 20 years, ecotourism has evolved as a conservation strategy, improving the well-being of local communities, and generating new businesses.

- "…a low impact, environmentally sound and community-participatory tourism activity in a given natural environment that enhances the conservation of bio-physical and cultural diversity, promotes environmental understanding and education and yields socio-economic benefits to the concerned community" (DENR-DOT, 1998).

Figure 11. The Ati-Atihan Festival of Kalibo, Aklan, the mother of all festivals in the country, is a popular ecotourism attraction in honor of the Sto. Niño (Infant Jesus). It also pays homage to the Aetas, the early settlers of the locality, through cultural dances and the use of indigenous costumes and weapons.

Figure 12. Philippine ecotourism also expand to adventure activities such as paddle boating and snorkeling at Siete Picados Marine Park in Coron, Palawan, a popular tourist destination (Calanog, 2012).

Figure 10. The evolution of native Ifugao houses in Banga-an Village, Banaue, Ifugao (Eugenio, 2012).

OPPORTUNITIES AND THREATS TO ECOTOURISM

Ecotourism brings socio-economic benefits to the local community. It likewise provides for environmental conservation. However, it also poses inevitable impacts that could be harmful if mitigating measures are not put in place.

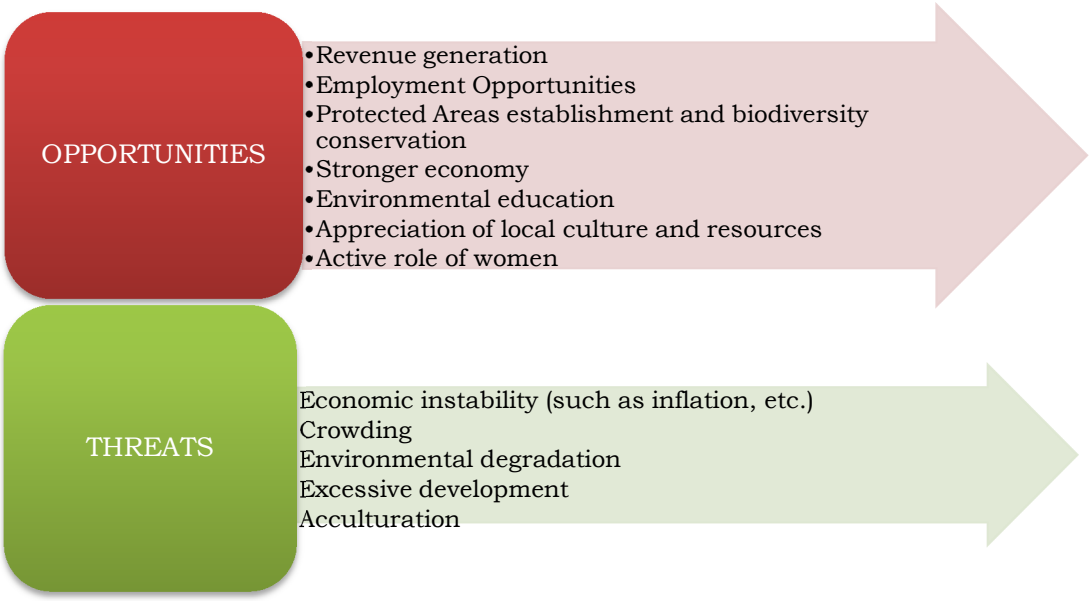


Figure 13. Opportunities and Threats to Ecotourism

Ecotourism Opportunities

1. **Revenue generation**. For ecotourism to become a sustainable enterprise, it must generate income opportunities for the local community. Revenue is attained through:

    a. **Entrance or user fees**. Visitors pay an amount to gain access or conduct special activities in the site.
    b. **Allowing concessionaires in an ecotourism site**. Food or snack bar operators, restaurants, gift shops, tour guides, and the like, are some of the concessionaires that attract tourists and bring income opportunities to the site.
    c. **Donations**. It is used in soliciting assistance for advancing tourism campaigns such as "adopt-an-endangered-species".

> ***What are Opportunities and Threats?***
>
> *Opportunities and threats are external interventions, or interventions outside the project in terms of scope and location, that can be beneficial (opportunity) or harmful (threats) to project activities. Also refer to section on SWOT Analysis for further details.*

2. **Employment opportunities**. The flow of tourists coming in and out of the ecotourism site creates employment opportunities for local people from

being service providers (such as: security guards, tour guides, project staff, etc.) to being ecotourism enterprise managers, operators, and entrepreneurs of locally-produced products.

3. **Protected Areas (PA) establishment and biodiversity conservation**. The effective implementation of the National Integrated Protected Areas System (NIPAS) law is attained if local people actively participate in promoting sustainable tourism. The growing appreciation for nature further motivates the local people to strengthen their nature management efforts and change their "old habits" on resource use towards biodiversity conservation.

4. **Stronger economy**. Tourism boosts the local economy as it provides livelihood and business opportunities such as homestay, restaurants, souvenir shops, communication, transport systems, and other form of service facilities.

5. **Environmental education**. Local people become instrumental in educating visitors about the habitat, animal behavior, plant uses, unique natural features, as well as the challenges in conserving these resources.

6. **Appreciation and pride of cultural heritage and natural wealth**. As more and more visitors become aware of its cultural heritage and natural wealth, the interest and attention being given to the ecotourism site boosts local pride.

7. **Active role of women**. Ecotourism provides an opportunity for women to take an active role in a development project. Their roles range from being tour guides, waiters, cooks, sales ladies to organizational leaders, innovative local product makers, and gatekeepers of indigenous knowledge systems (IKS) and natural resource base. This boosts their self-confidence and opens up more opportunities for personal growth.

Figure 14. A local lass (left) welcomes a visitor with a *Calachuci lei* in Pamilacan Island, Bohol. The active hospitality of women play a significant role in boosting ecotourism in the locality (Calanog, 2012).

Ecotourism Threats

Threats associated with ecotourism are inevitable, even when threats are outweighed with every positive intervention. On the other hand, the very same opportunities could also serve as an obstacle towards attaining a sustainable tourism enterprise. The following are some of the threats associated with ecotourism implementation:

1. **Environmental degradation**. The increase in the number of tourists, as well as the resulting changes in the lives of local people, can drastically affect the population of plants and animals and the current environmental state of the project site. Visitors can also be instrumental in the destruction of natural resource, directly and indirectly through: trampled vegetation, trail erosion, litter, and changes in animal behaviors.

2. **Economic instability**. Increase in demand for local supply creates inflation, which can be seasonal or selective (different rates for foreign and local guests). Too much dependence on tourism may also create instability, and wider gap between businessmen and local people.

3. **Crowding**. Too many visitors may not allow appreciation of the beauty of nature as each person, including local residents, may compete for space and accessibility.

Figure 15. Overcrowding in ecotourism sites

4. **Excessive development**. Increased economic activity brings about excessive development, which in effect, also brings competition on revenue, basic commodities (such as water, wastewater treatment, electricity, land, etc.), local infrastructures, and other tourism services, thus defeating the purpose of implementing sustainable tourism in the site.

5. **Acculturation**. With tourists and visitors coming in and out of the ecotourism site, as well as the strong influence of external organizations helping in CBEE establishment and implementation, there is a chance that they could strongly influence the beliefs and behaviors of the local community within the CBEE site.

Figure 16. The inactivity of the Pamilacan Island Dolphin and Whale Watching Organization has caused the continuous illegal poaching of manta ray and other marine mammals in the area (Eugenio, 2012)

To be able to alleviate, if not fully resolve the threats to ecotourism, the following are some of the ways to address these bottlenecks:

Figure 17. Some Ways to Address the Threats to Ecotourism

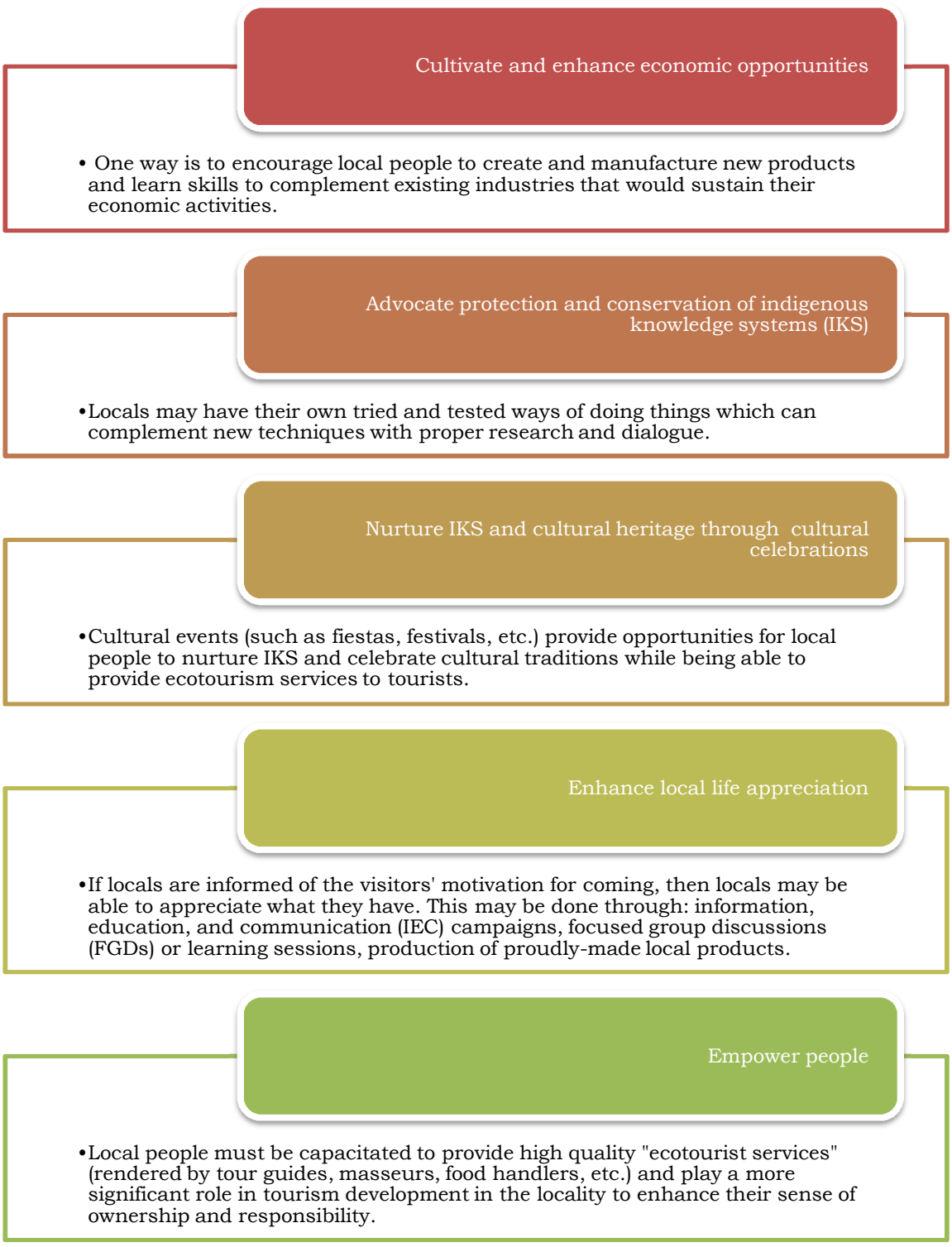


Figure 17. Some Ways to Address the Threats to Ecotourism (continuation)

Enhance participation of visitors in ecotourism activities

- Provide opportunities for visitors to participate in ecotourism activities that directlycontribute benefits for the community such as donating to local programs, personal assistance to local staff, hands-on handicraft-making, tree/rice planting, etc.).

Periodic assessment and evaluation of ecotourism projects

- Ecotourism projects should be continuously assessed and evaluated to ensure all goals are reached.

Economic viability of ecotourism programs

- Ensure that ecotourism projects are based on competent fund management while being able to provide economic gains to community livelihood. Local counterparting is necessary to enhance sense of ownership. Eventually, self-sufficiency in local funding must be attained.

Figure 18. The Bohol Bee Farm Crafts and Livelihood in Panglao Island, Bohol provides an alternative source of income for the local people while diverting their attention from unwarranted collection of natural resources (Calanog, 2012).

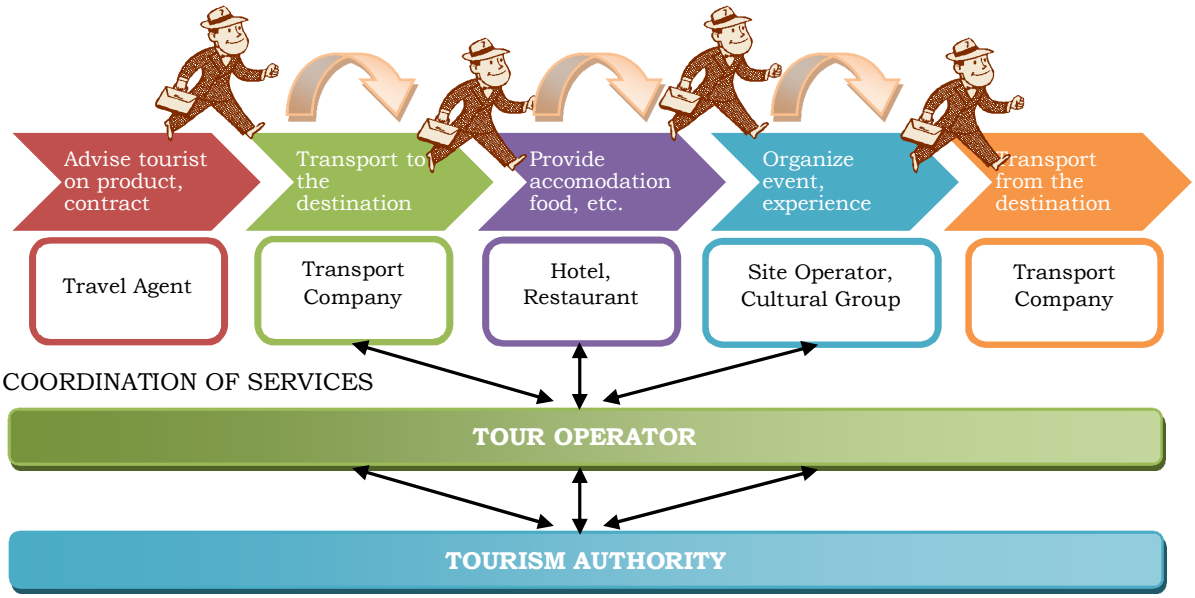
THE ECOTOURISM VALUE CHAIN

What Is A Value Chain?

"A value chain describes the full range of activities which are required to bring a product or service from conception, through the different phases of production, delivery to consumers, and final disposal after use." (Kaplinsky and Morris, 2002).

Tourism affects the lives of locals and visitors alike. It involves many stakeholders, hence there is a need to consider the "value chain." According to Springer-Heinze (2006), "tourism value chains are quite different to manufactured or agricultural commodities. In tourism, the market (tourists) moves to the product (destination)" (Donovan, 2008).

Figure 19. Simple Tourism Value Chain (Donovan, 2008)



A change in the value chain operation can benefit marginalized community members in three different ways:

1. **Accessibility**. Increased access to the tourism value chain to more poor people, thus creating new entrants. Example: Expanding sub-sectors of the chain or the total sector size, to include the marginalized.

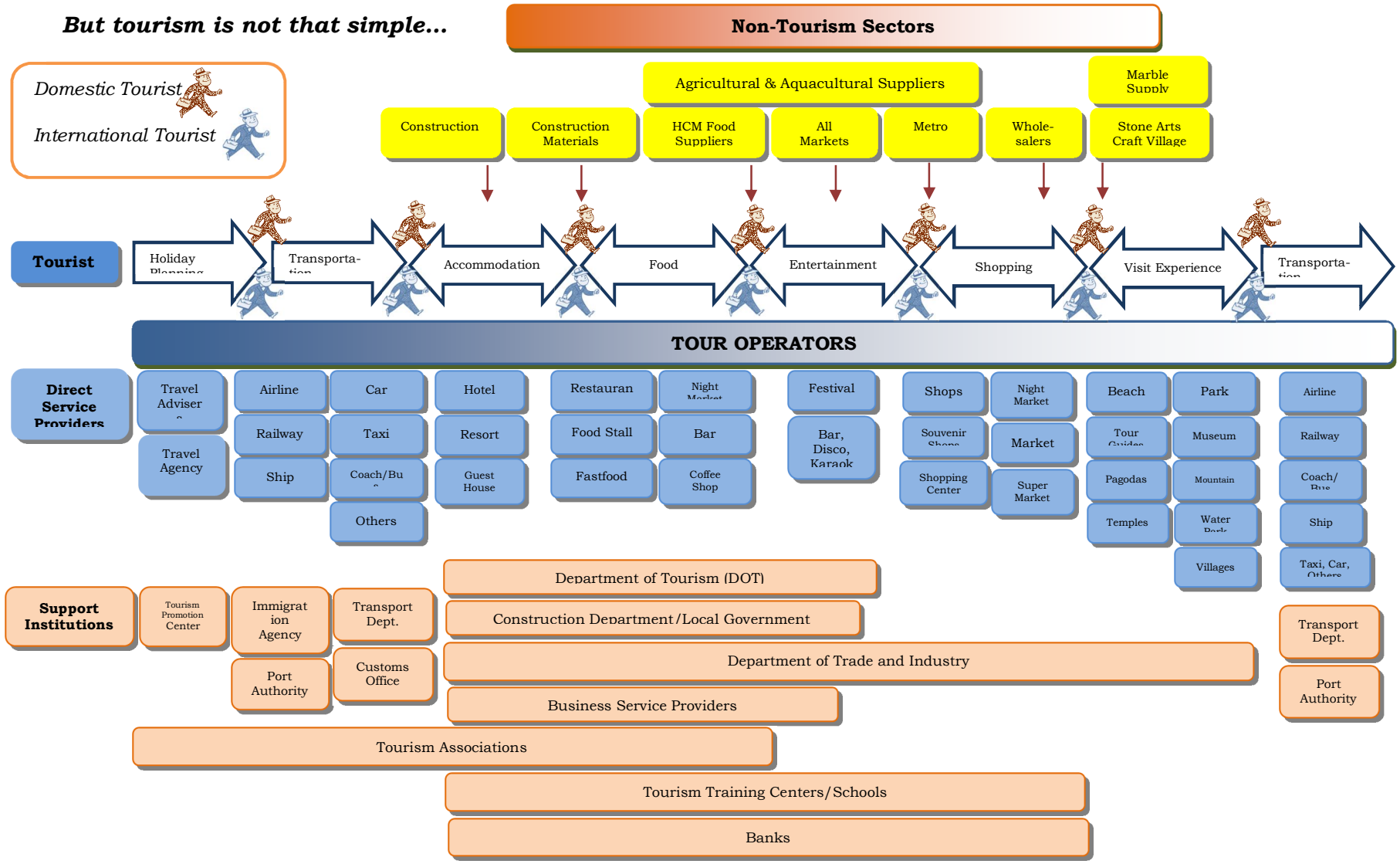
2. **Financial benefits**. Increased income of marginalized participants in tourism. Example: Helping them upgrade to new / more profitable activities.

3. **Non-financial benefits**. Increased non-financial benefits to poor households. Example: Greater gender equity, building self-confidence, education, etc.

Figure 20. Marginalized sectors of society like this local entrepreneur selling *calamay sa bao* in Bohol benefits from the economic boom of ecotourism activities in the province, thus becoming an active part in the ecotourism value chain (Calanog, 2012). *Calamay sa bao* is a sweet mixture of brown sugar, coconut milk, ground sticky rice, and vanilla packaged in smooth coconut shells sealed in a red band.

Figure 21. Ethnolinguistic group residents of the Gardens of Malasag Ecotourism Village produce and sell native products such as bags, fans, and costumes, among others in Cagayan de Oro City (Calanog, 2008).

Figure 22. Expanded Tourism Value Chain (Adapted from Springer-Heinze, 2006)



Impacts of the Value Chain Approach on Tourism Growth

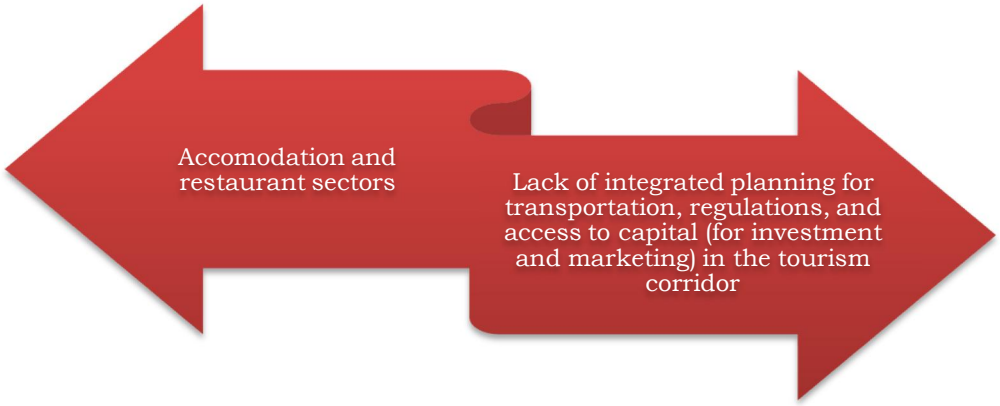


Figure 23. Opportunities and Constraints in Tourism Growth

Through the value chain analysis, opportunities that contribute to tourism growth include:

1. Accommodation sector – through wages and other benefits for employees;
2. Restaurant sector – this sector provides stable source of income and it has impact on the poor through the supply chain; and
3. Other relevant sectors.

On the other hand, the constraints associated with tourism growth are:

1. Lack of integrated planning – especially in rural areas;
2. Marketing – lack of understanding of market (segments) and their needs;
3. Transportation – coming in and out of remote tourism areas;
4. Regulations – restrictions on certain tourism areas, travel tours, tour operators, etc.;
5. Corridor tourism – inaccessible or problematic road networks; and
6. Access to capital (for investment and marketing).

The value chain approach is presented in this manual to provide an alternative tool for local CBEE investors in identifying the tourism players and their various interrelationships. On the other hand, these players may either provide value to an ecotourism enterprise or constrain the attainment of such value.

CHAPTER 2

Planning and Developing Community-Based Ecotourism Enterprise

COMMUNITY-BASED ENTERPRISE (CBE) CONCEPTS AND DEFINITION

What is Community-based Enterprise?

Community-based enterprises are an example of the so-called social enterprises. A social enterprise is defined as "businesses with primarily social objectives whose surpluses are principally reinvested for that purpose in the business or in the community, rather than being driven by the need to maximize profit for shareholders and owners" (UK Department of Trade and Industry, 2011)

Key Characteristics of CBE

A Community-based Enterprise (CBE) should have the following characteristics (Community Partnering for Local Development, 2010):

- ✓ **Community-owned**. Assets (fixed and current) must solely belong to the community and not placed on sale to attain private financial gain.
- ✓ **Community-led**. Local stakeholders take an active role in the enterprise.
- ✓ **Community-controlled**. Organizational leadership, like the Board of Directors, is represented by the local people. This leadership is held liable to the community.
- ✓ **Income-generating**. The income generated is re-invested or surplus is distributed for the benefit of the community.
- ✓ **Socially and environmentally responsible**. As a social enterprise, it is not driven by the need to maximize profits but primarily to help the community as a whole without neglecting the environment.
- ✓ **Financially self-sustaining**. The CBE is able to sustain its operations, even without the aid of external funding. Otherwise, the CBE should be on its way to being self-sustaining.

Table 1. Difference between CBE and Micro-Enterprise

Point of Comparison	Community-based Enterprise	Micro-enterprise
Size	• have the potential for larger scale operations (expand operations) • can have more than 10 employees • capital is beyond PhP 1M	• often small-scale • have less than 10 employees • vulnerable to competition • under-capitalized, with less than PhP 1M start-up capital

Point of Comparison	Community-based Enterprise	Micro-enterprise
Generation of jobs	• can generate more jobs and return benefit to the community beyond those directly employed	• unable to generate more jobs
Owners / Operators	• can be operated as a worker-owned cooperative or as a member-based association • profits equitably distributed to members/ owners	• usually owned by single proprietorship or a family • profits are privately accumulated

Advantages of and Benefits from CBE

Most enterprises in the country are owned and managed by private businessmen and investors. Business growth in the country's famous ecotourism destinations employ a "top to bottom approach," with the interest of investors at the center of operations. In this set-up, local people are mere employees while the businessmen are at the helm of decision-making. The income of these enterprises primarily goes to the businessmen. And depending on their self-interest, the revenue generated is mostly spent or invested elsewhere, while the local people earn their keep from the basic salaries they receive.

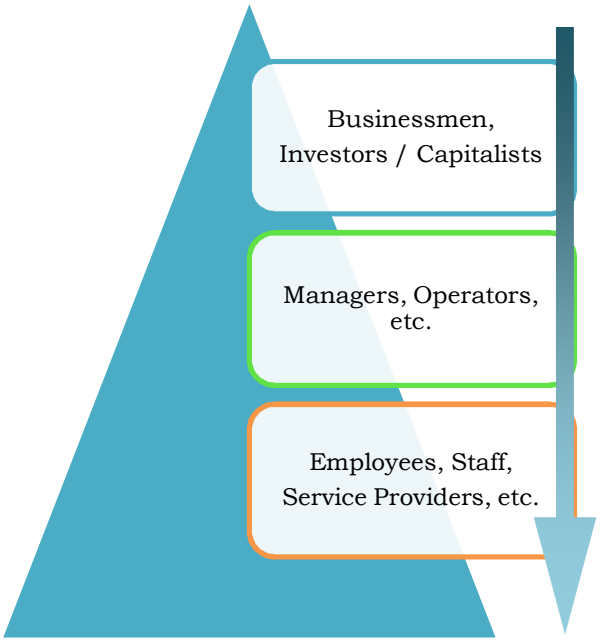


Figure 24. Top to Bottom (centralized) Approach in Conventional Enterprises

With the CBE, the income generated locally is also utilized locally, as local people earn from their very own enterprise while being able to maintain and improve their local biodiversity. The CBE utilizes the "bottom-up approach" (decentralized approach), with the local people and their leadership at the focal point of decision-making and primary beneficiaries of the enterprise. The community is ensured of direct benefits in every project activity.

Aside from the previously mentioned advantages, other benefits of CBE include the following:

1. CBE provides employment and income for marginalized people in the locality.

2. Agriculture, forestry, and marine products and by-products are showcased and marketed, thus bringing local heritage and products back into the ecotourism map.

3. Cash is not leaked out of the community. Instead, local supplies are produced for local consumption.

4. Surpluses and income revenues can be allocated to social development projects in the community.

5. Surpluses and income revenues can also be utilized as capital for new community enterprises (or as an alternative for more or other community enterprises).

6. Decentralized approach in decision-making allows local people to become economic decision-makers and actively-engaged citizens.

Since the CBE involves all stakeholders from the community, their hands-on approach in enterprise implementation makes them competent strategists in coping with competition and capitalization. These developed strategies could also be used as tools in organizing a local development plan of their respective local government units (LGUs), and/or organizations (including non-government organizations or NGOs).

Figure 25. Through the initiative of Corong Galeri Lokals, the *Coron Sustainable Tourism Cooperative* (CSTC) was formed in 2010. In photo, members of the cooperative are having an orientation on acquiring a group insurance from the Cooperative Insurance System of the Philippines (Calanog, 2012).

COMMUNITY-BASED ECOTOURISM ENTERPRISE (CBEE): CONCEPTS AND UNDERSTANDING

What is Community-based Ecotourism Enterprise?

CBEE is an enterprise controlled and managed by concerned local people and stakeholders in a community whose main product is to "sell" ecotourism services.

- ✓ It is concerned with the **protection of the environment**
- ✓ It aims to provide **a meaningful satisfaction to visitors**.
- ✓ There is **equitable distribution of income** and share benefits to local community
- ✓ It encourages **people empowerment and active gender role** in the enterprise

The following are some of the opportunities and limitations that may be encountered, on a case-to-case basis, during CBEE establishment. It is important to know the CBEE limitations at the earliest possible time to avoid, if not fully prevent, the unforeseen problems that may arise during the implementation stage.

Figure 26. Opportunities and Limitations in CBEE establishment

Initial Steps in Building Community-Based Ecotourism Enterprise (CBEE)

1. Identify an initiator/leader

- A CBEE will need the guidance of a leader or initiator (could be an individual or group) to set-up the ecotourism enterprise.
- The leader should (or can be) from the community itself and somebody who is respected and well-received by the community members.
- He or she has an exemplary character, with vision for the community, enthusiastic, committed to excellence, focused, a good communicator, listens to others, etc.

Figure 27. A leader is crucial in initiating a CBEE project

2. Discuss with key stakeholders if CBEE is appropriate

Identify the following aspects that could be utilized by the community in the CBEE:

- Community assets (bio-physical, social, cultural
- Community needs that needs to be addressed
- Economic practices that could be redirected to support CBEE establishment

Figure 28. Discussions with key stakeholders in assessing community assets (Calanog, undated)

- Current community actions that support or damage the environment
- Kind of motivation needed to encourage CBEE building
- Problems that may result from CBEE

3. Check pre-conditions for CBEE

Before proceeding to the next stage in developing CBEE projects, the following conditions must be met at the national and community level:

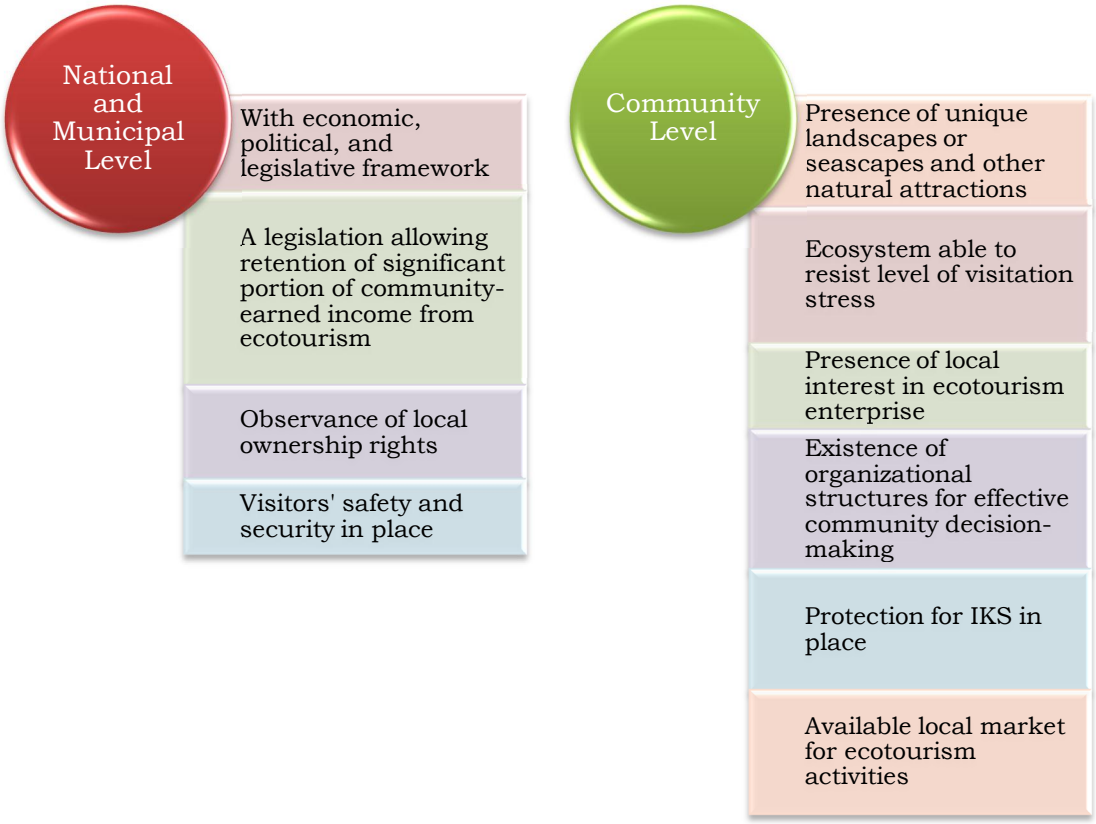


Figure 29. Pre-conditions for CBEE Establishment at the National, Municipal, and Community Levels

At the national/municipal level:

- ✓ An economic, political and legislative framework must be in place to ensure effective trading and security of investment;
- ✓ A national legislation on protecting local ownership of ecotourism projects must be present, thus allowing financial benefits from ecotourism be earned and retained within local communities;
- ✓ Local ownership rights on natural and cultural resource base must be properly observed; and
- ✓ Visitors' safety and security, as well as the local people, are established.

At the community level:

- ✓ The community must have unique natural features and attractive scenery, with the presence of endemic plants and animals;
- ✓ The ecosystem must be able to resist and adapt to varying levels of visitation stress;
- ✓ The local community is fully interested and aware of the opportunities and risks involved in ecotourism;
- ✓ The presence of a community organization is necessary to ensure effective decision-making;
- ✓ The respect and protection measures must be well-accorded to local indigenous systems and values; and
- ✓ The community must provide an avenue for marketing ecotourism activities/enterprise in partnership with other stakeholders in the value chain.

Although meeting these pre-conditions does not guarantee success, addressing these concerns provides smoother implementation of succeeding steps.

4. Consider the following factors in selecting CBEE sites, products, and services

- Å **Legal considerations**. Prioritize sites if identified in the National Ecotourism Strategy or NES, NIPAS Law, etc.
- Å **Cultural considerations**. Situated in the Cordilleras, the Banga-an Village rice terraces and the indigenous people's way of life is one example of a CBEE site with rich cultural resource.
- Å **Religious belief and practices**. The Mt. Banahaw-San Cristobal Protected Landscape in Laguna is a site popularly known for its religious practices and beliefs.

Figure 30. Barangay Kinabuhayan, Dolores, Quezon, situated within Mts. Banahaw-San Cristobal Protected Landscape, is a traditional retreat of religious fanatics especially during the Lenten season (Calanog, 2009).

- Å **Agricultural perspective**. The Rice Museum (Balay sa Humay) in Bohol highlights everything about

rice, from production to harvesting, research and development, and other by-products which can be tapped for income generation.

- **Natural attractions and unique physical characteristics**. Various natural attractions in the country include: Taal Crater Lake in Batangas, Mayon Volcano in Bicol, Chocolate Hills in Bohol, and the Kayangan Lake in Palawan, among others.

- **Icon biodiversity species**. This includes the whale sharks in Donsol, Sorsogon, dolphins in Pamilacan Island, tarsiers in Bohol, and majority of the Philippine Eagle in Mindanao.

- **Level of social-political support**. The level of socio-political support is essential in selecting a CBEE site. The Danao Adventure Park has been successful due to the efforts of the LGU.

- **Historical perspective**. The Danao Adventure Park in Bohol is the seat of the Dagohoy Revolutionary movement. On the other hand, the Aguinaldo Shrine in Kawit, Cavite is where General Emilio Aguinaldo, the country's first president, declared Philippine Independence on June 12, 1898.

Figure 31. (L-R) The famous Aguinaldo Shrine in Kawit, Cavite, where the first Philippine Independence was declared by General Emilio Aguinaldo, is being established as the Philippine Independence Park cum Ecotourism destination (Calanog, 2008); perspective of the proposed Philippine Independence Park cum Ecotourism Destination (Solis, 2008).

CRITERIA IN SELECTING CBEE SITES

Within a Protected Area (PA)

If the ecotourism site is within a Protected Area (PA), determine whether ecotourism and other forms of recreational activities are suitable using the categories of PA.

Categories of PAs in the Philippines (According to the NIPAS Act or RA 7586)

IA. **Strict Nature Reserve** – area having an exceptional ecosystem, features, and/or species of flora and fauna of national scientific importance maintained to protect nature and maintain processes in an undisturbed state to have ecologically representative examples of the natural environment available for scientific study, environmental monitoring, education, and maintenance of genetic resources in a dynamic and evolutionary state.

IB. **Natural Park** – refers to a forest reservation essentially of natural wilderness character which has been withdrawn from settlement, occupancy, or any form of exploitation except in conformity with approved management plan exclusively to preserve the scenery, the natural and historic objects, wild animals and plants within and to provide enjoyment of these features in such areas.

II. **Natural Monument** – a relatively small area focused on protecting small features to preserve nationally significant natural features on account of their unique characteristics.

III. **Wildlife Sanctuary** - an area, which assures the natural conditions necessary to protect nationally significant species, group of species, biotic communities, or physical features of the environment where these may require specific human manipulation to maintain them.

IV. **Protected Landscapes and Seascapes** – areas of national significance characterized by the harmonious interaction of man and land while providing opportunities for public enjoyment through recreation and tourism within the normal lifestyle and economic activity of these areas.

V. **Resource Reserve** – an extensive, rather isolated, uninhabited, and normally inaccessible area selected to protect natural resources of the area for future use and prevent or contain development activities that could affect the resource pending the formation of objectives based upon appropriate knowledge and planning.

VI. **Natural Biotic Area** – an area reserved allowing societies living in harmony with the environment to adapt to modern technology at their own pace.

Other Categories established by law, conventions, or international agreements in which the Philippine Government is signatory.

Table 2. Checklist on determining the suitability of varying forms of tourism activity within a PA category (IUCN, 1994 and Lawson, 2001).

Category	Description	Tourism and Recreation as Management Objective	Applicability of Hard[1] Tourism	Applicability of Soft[2] Tourism	Other Forms of Tourism
Ia	Strict Nature Reserve	Not applicable	No	No	**No**
Ib	Wilderness Area	Secondary objective	Yes	No	**No**
II	National Park	Primary objective	Yes	Yes	**No**
III	Natural Monument	Primary objective	Yes	Yes	**No**
IV	Habitat / Species Management Area	Potentially applicable objective	Yes	Yes	**No**
V	Protected Landscape / Seascape	Primary objective	No	Yes	**Yes**
VI	Managed Resource Protected Area	Potentially applicable objective	No	Yes	**No**

Seek the help of …. A Local CENRO or PENRO officer of the Department of Environment and Natural Resources

When the site being eyed for CBEE is inside the Protected Area, consult the local DENR officials for some piece of advice to determine if the planned ecotourism products, activities, and services are allowed inside the PA, especially in the target management zone(s).

Refer to R.A. 7586 (NIPAS Law) for more detailed information.

[1] Activities involving specialist interest or dedicated activity, and a willingness to experience outdoors or wilderness with few comforts.
[2] Are those activities where a more casual, less dedicated approach is taken to the activity or natural attraction, and a desire to experience it with some basic degree of comfort.

Management Zones in a Protected Area

What are Management Zones?

Management zones are subdivisions of a Protected Area (PA), with each zone distinct from the other. A PA is zoned according to how it will be utilized. However, zones can change depending on the level of applicability and appropriateness.

According to the NIPAS Law, Protected Areas in the Philippines are classified according to different **management zones**, with corresponding purposes and uses. This has implications on the establishment of ecotourism, especially to the activities and services that can be allowed in the specific zone.

Figure 32. Types of Management Zones according to purpose and use

a. **Strict protection zone**. Zones with high biodiversity value. Except for scientific studies and religious use by indigenous communities, all human activities are prohibited.

b. **Multiple use zone**. Zones that allow different human activities, but within the prescribed management plan such as: human settlement, traditional and sustainable land use, agriculture, agroforestry, extraction activities, and other income generating or livelihood activities. Land tenure may be granted

to tenured residents, whether indigenous cultural community members or migrants.

c. **Sustainable use zone**. These are natural areas where its habitat and biodiversity is conserved in line with the Protected Areas Management Board (PAMB) management plan:

- Indigenous community members, tenured migrants, and buffer zones residents are allowed to collect and utilize natural resources using traditional and sustainable practices that enhance biodiversity conservation;

- Research and reintroduction of indigenous species may be undertaken; and

- This zone has limited use to park visitors. Clearing, farming, settlement, commercial utilization, or other activities harmful to biodiversity conservation are not allowed. Allowable levels of human activity vary from situation to another.

d. **Restoration zone**. These are environmentally degraded zones that need to revive its natural habitat and biodiversity. Area re-zoning and stricter protection level is employed. Natural regeneration is done through initial human interventions such as fire control, cogon suppression, and indigenous species (such as the use of pioneer tree species and climax species). Exotic species are not used in the restoration process. Existing houses and agricultural developments are eventually phased-out in a timely manner.

e. **Habitat management zones**. These zones contain natural habitats, particularly rare, threatened, and endangered species that require periodic maintenance and management practices. For example, the Philippine Tamaraws require maintenance of forest openings. On the other hand, the Philippine Tarsiers need brushy forests for their survival.

f. **Special use zones**. These zones are set aside for special uses (such as telecommunication facilities, irrigation canals, or electric power lines) and are retained upon mutual agreement among the concerned parties provided such use do not violate any of the prohibitions inside the protected area.

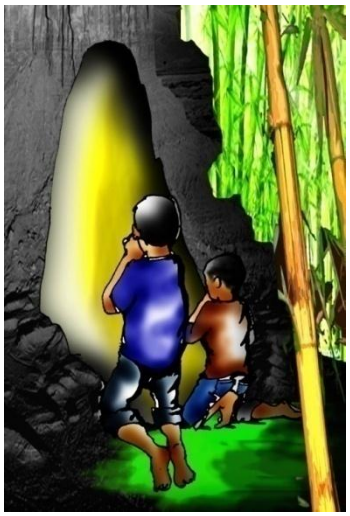


Figure 33. An example of a cultural zone where religious practices take place.

g. **Cultural zone**. Zones with significant cultural, religious, spiritual, and anthropological values where traditional rites exist and cultural ceremonies and practices take place.

h. **Recreational zone**. Zones that promote recreational, tourism, educational, and environmental awareness values. Sustainable tourism, recreational conservation education, and public awareness activities are allowed in accordance with the PAMB management plan.

i. **Buffer zone**. Situated outside the PA, these are zones adjacent to the PA that are still under the control of the PAMB. These are effective multiple-use zones that serve as a social fence to prevent human intervention and other threats into the PA.

Figure 34. Canopy walk is one of ecotourism activities allowed in a recreational zone.

Not all PAs may contain all these zones. The number of zones that can be applied will depend on research and studies that will be conducted in the PA.

Why do we need to zone a Protected Area? If a PA is not zoned according to its varying uses, tourists and local people may over utilize and abuse its natural resources. Hence, zoning is a management tool that helps utilize and maximize the potentials of a PA. Before, the concept of PA management meant total restriction of all activities. But with the introduction of management zones, PA managers now have greater flexibility in dealing with different human activities and needs within the PA.

How are management zones created?

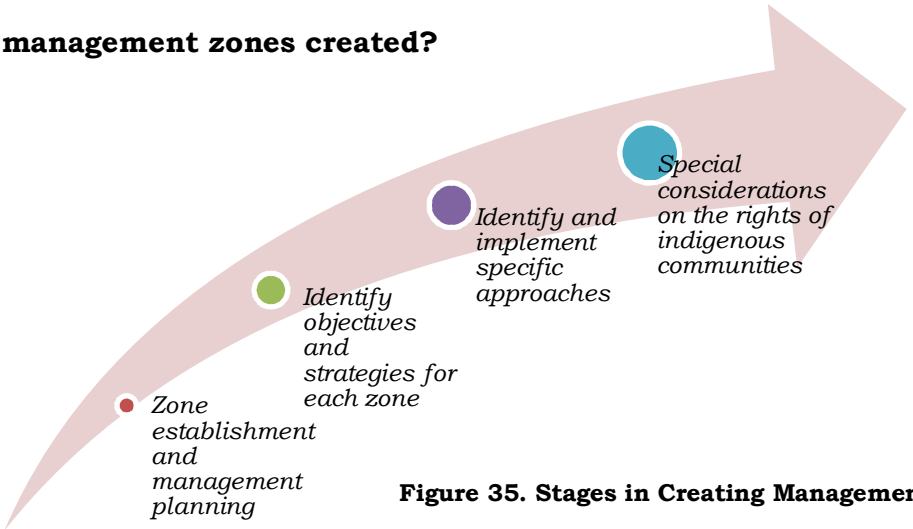


Figure 35. Stages in Creating Management Zones

Management zones are created using the following steps:

1. During zone establishment and management planning, cultural communities, tenured migrants, other existing PA users and the local government form part of the decision making process.

2. The management objectives and strategies are developed for each zone.

3. After which, specific approaches and technologies are identified and implemented in accordance with the objectives and strategies agreed upon.

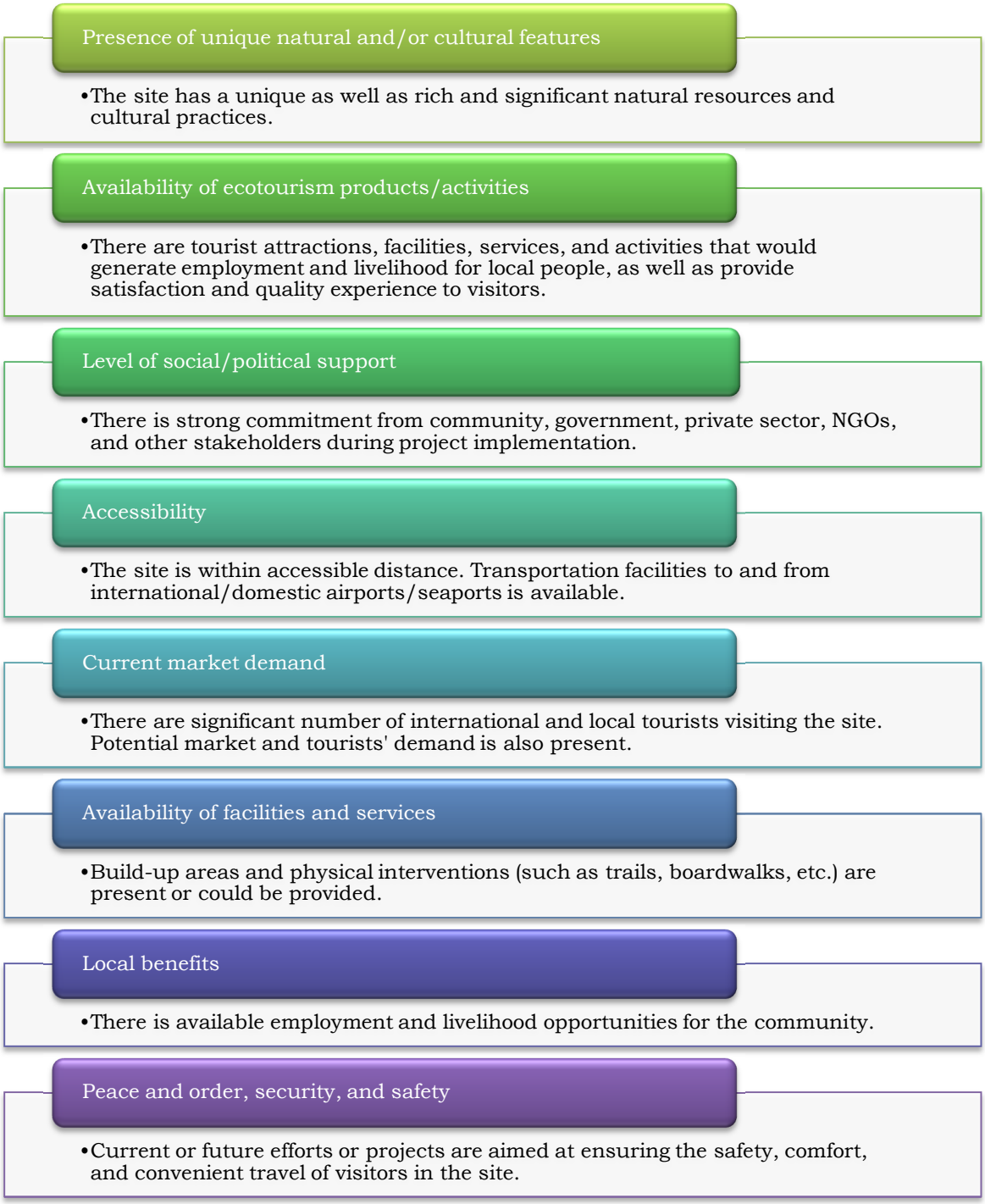
4. The rights of indigenous communities in pursuing traditional and sustainable means of livelihood within their ancestral domain must also be taken into special consideration.

Figure 36. Management zoning should be discussed with concerned and affected communities.

Outside a Protected Area

If the ecotourism site is outside a PA, determine whether ecotourism and other forms of recreational activities are suitable using the following criteria (Philippine National Ecotourism Strategy, 2002):

Figure 37. Criteria for Selecting Ecotourism Sites outside a Protected Area



PRELIMINARY ASSESSMENT TOOLS

Preliminary assessment tools are used prior to CBEE establishment. These tools are helpful in determining the existing natural and cultural resource base of the community, its needs and weaknesses, potential opportunities and threats (in the community and CBEE), while providing a solid foundation in developing CBEE. The following are some of the preliminary assessment tools that can be used:

1. Participatory Rural Assessment (PRA)
2. Scoping/Pre-feasibility Study
3. Strengths-Weaknesses-Opportunities-Threats (SWOT) Analysis

Participatory Rural Assessment (PRA)

What is a PRA?

PRA is an approach that incorporates the profile, local knowledge and opinions of rural people in the planning and management of development projects and programs.

Although it primarily aims to collect and analyze information given by the local community, PRA emphasizes and gives substantial value to local knowledge and the "bottom-up" approach in organizational management.

In an ecotourism enterprise, PRA seeks to empower marginalized communities by making them active participants during project planning, operation, and management.

Features of PRA

- It can be used to collect and analyze information in a participatory manner.
- It examines interaction between social, economic, and biophysical systems.
- Interdisciplinary teams (such as researchers, extensionists, and planners) deal directly with farmers and local communities in a sensitive manner. Each team member uses his/her specific expertise to develop lines of inquiry with local people.
- Data gathered provides a picture of the area while current resource management issues are identified to determine major project constraints.
- Learning is from and with rural people. Stresses local knowledge, skills, and practices.

Advantages of Participatory Approaches

- Allow close interaction between local people and outsiders.
- Provide insights to complex, multidimensional problems.
- Identify key problems quickly and cheaply.
- Can be followed by a survey to provide in-depth analysis and understanding of selected components.
- Allow local people to identify problems and empower them in seeking solutions.

This process is rapid, progressive, and iterative (not a fixed blueprint).

- The information gathered is only a selective sample of a range of conditions and extremes (not solely based on averages).
- Probing and "triangulation" (also known as cross-examination) of methods and sources of information ensure reliability and validity.
- Based on the information they provide, local people can analyze and make decisions on the spot.
- PRA techniques help mobilize and organize local people around issues they consider important.

PRA Categories

The PRA technique is generally categorized into four (4):

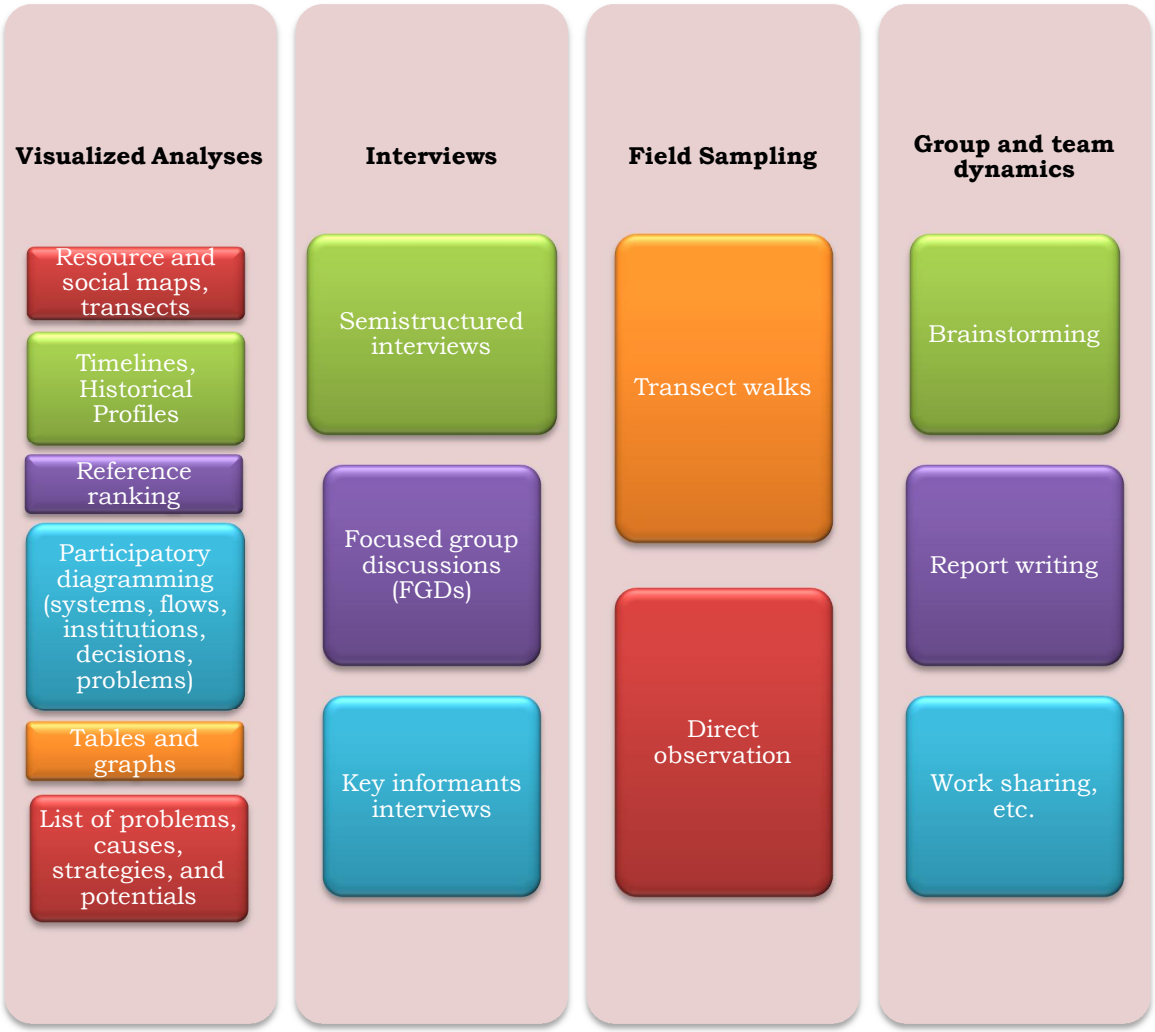


Figure 38. Categories of the Participatory Rural Assessment (PRA)

Limitations of PRA

Figure 39. Participatory Rural Assessment

- It is difficult to build the right team dynamics.
- The data generated tends to be superficial (shallow), data collection and too generalized due to small sample size.
- It does not involve all members of the community.
- The PRA tends to overlook the invisible (unseen aspects in the project/community).
- It focuses more on lecturing instead of learning and listening.
- At times, PRA facilitators, community organizers, and other individuals impose external ideas and values without realizing it.
- It raises expectations in the community, especially on follow-up activities and interventions.

Participatory assessment methods are not an end themselves, but a process that must be carefully used in combination with other tools, including secondary data, surveys, and other more in-depth investigations into key problems and constraints.

Figure 40. Key informant interview with the President of the Tour Guides Association, at left, in Taal Volcano Island, Talisay Batangas (Eugenio, 2012).

Seek the help of …. Local NGOs and Advocacy Groups

There are many NGOs and advocacy groups in the locality that provide free assistance in doing participatory rural assessments, scoping study, SWOT, and community mobilization-related activities.

Go to the Municipal Planning Development Office for assistance.

Scoping/Pre-Feasibility Study

What is a Scoping Study?

A scoping study is another method of preliminary analysis involving series of consultations and analysis to come up with a definitive project plan of action.

Steps in conducting a Scoping/Pre-feasibility Study:

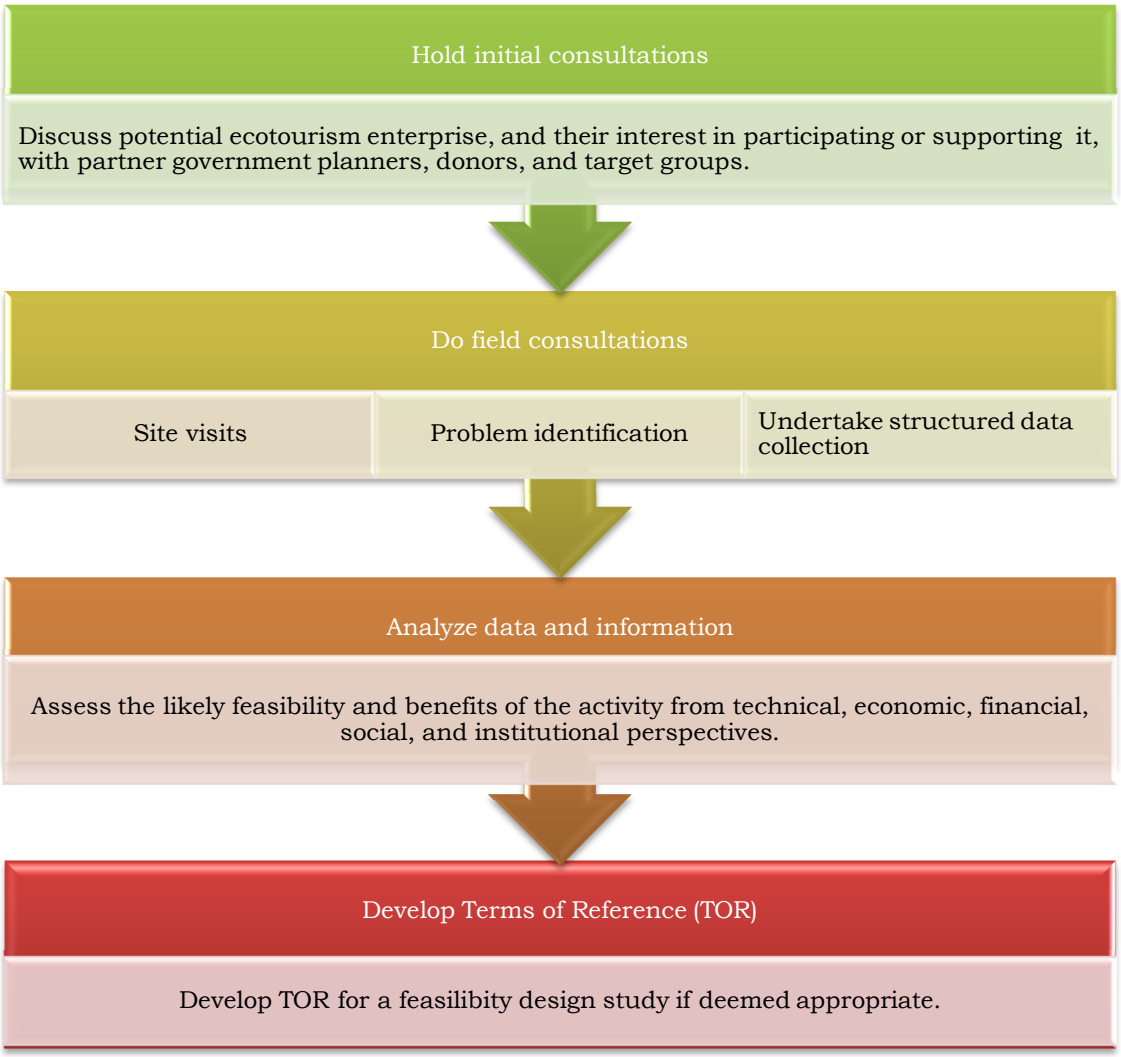


Figure 41. Steps in Conducting a Scoping/Pre-feasibility Study

The scoping/pre-feasibility study is done to determine the needs of all project stakeholders involved and the level of participation they can contribute towards the success of every project activity. Present and future problems and needs are carefully discussed and assessed to determine whether it would benefit the project. Afterwards, a terms of reference (TOR) is developed to formalize the start of the ecotourism project.

Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis

What is a SWOT Analysis?

*SWOT is a strategic planning method used to evaluate the **S**trengths, **W**eaknesses, **O**pportunities, and **T**hreats involved in a project*

Another way of assessing the local community and stakeholder's profile (in terms of their capability in undertaking a project) is through the SWOT Analysis.

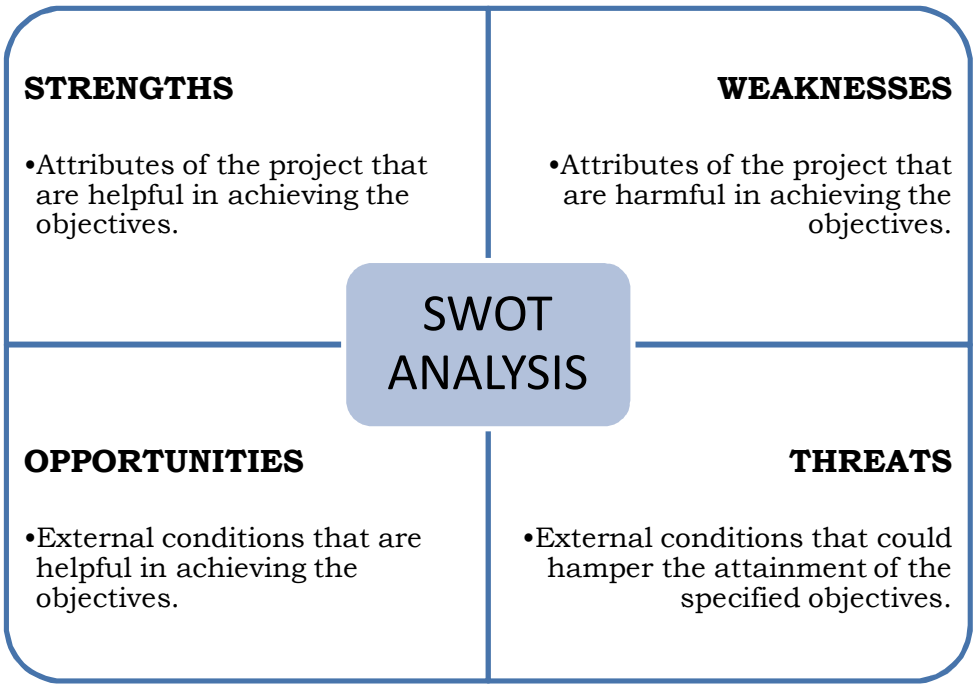


Figure 42. Brief Description of SWOT Analysis

External conditions are conditions outside or way beyond the project site that could indirectly affect or influence the project goals or objectives.

In Butuan City and Tubay, Agusan del Norte, the SWOT analysis is used in identifying the key internal and external factors that would affect the mining cum sustainable tourism project establishment and implementation (Calanog, 2009):

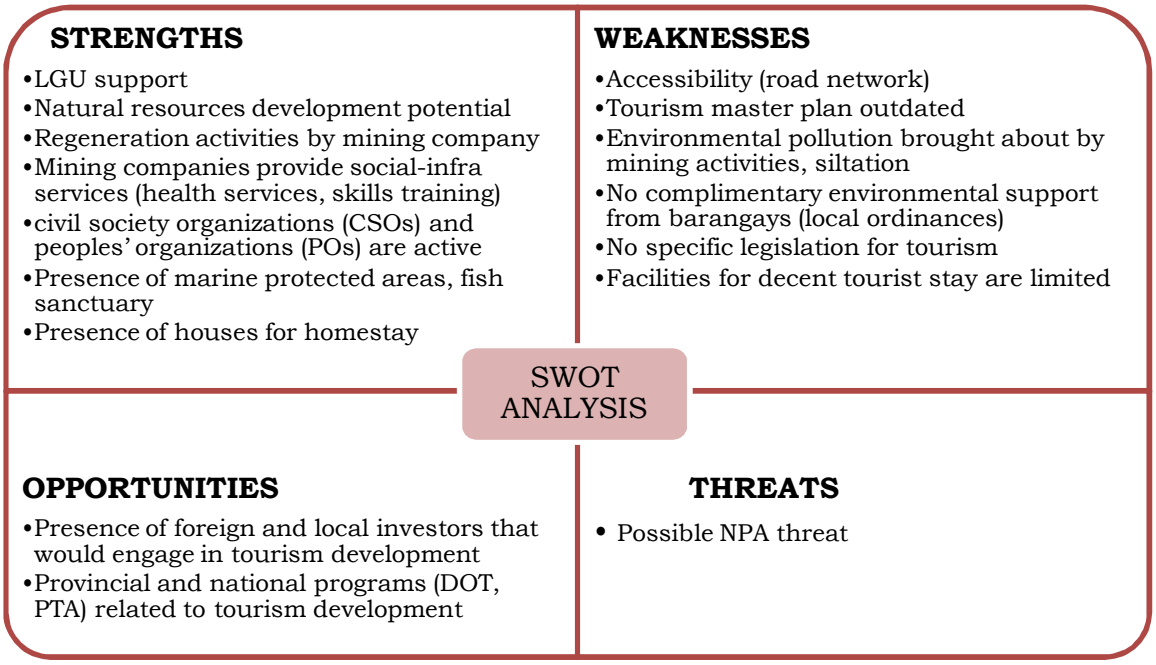


Figure 43. SWOT Analysis of the Mining cum Sustainable Tourism Project in Butuan City and Tubay, Agusan del Norte.

Table 3. Analysis of the S-O, S-T, W-O, and W-T in the Butuan City and Tubay, Agusan del Norte Mining cum Sustainable Development Plan (Calanog, 2009).

Combination	Strategies
S-O • The LGU is supportive of the project. • There is a strong potential for natural resources development. • The mining company continues to conduct regeneration activities for the environment. • The mining company provides social-infrastructure services such as health services, and skills training among others. • There is active participation from CSOs and POs. • The marine protected areas are well-established, as well as the fish sanctuary in the area. • There are available houses for homestay.	• Tourism Congress/Investment Forum (prepare proposal to be submitted to the governor, DOT, and other funding institutions) • Strengthen and tap federated POs for tourism development

Combination	Strategies
• There are foreign and local investors who engage in tourism development. • Currently, provincial and national programs related to tourism development such as the DOT and Philippine Tourism Authority or PTA (now known as Tourism Infrastructure and Enterprise Zone Authority or TIEZA) are present.	
S-T • The LGU is supportive of the project. • There is a strong potential for natural resources development. • The mining company continues to conduct regeneration activities for the environment. • The mining company provides social-infrastructure services such as health services, and skills training among others. • There is active participation from CSOs and POs. • The marine protected areas are well-established, as well as the fish sanctuary in the area. • There are available houses for homestay. **T** • Possible NPA threat	• There should be coordination between Municipal Local Government Unit (MLGU), Barangay Local Government Unit (BLGU), and the Philippine National Police (PNP). • There is a need to strengthen auxiliary unit of PA (Special Civilian Armed Forces Geographical Unit Active Auxiliary or SCAA) and the Citizen Armed Force Geographical Unit or CAFGU) and the PNP to abort possible NPA threat.
W-O • There is poor road network accessibility. • The local Tourism Master Plan is outdated. • The presence of environmental pollution brought about by mining activities and heavy siltation. • There is no complimentary local environmental support from barangays (especially on local ordinances). • There is lack of specific legislation for tourism. • There are limited facilities for a decent tourist stay. **O** • Presence of foreign and local investors to engage in tourism development • Provincial and national programs (such as the DOT and PTA) related to tourism development	• There is a need to formulate the Tubay Tourism Master Plan that will compliment with the mining companies' social and environmental plan. • There is a need to explore a massive IEC/advocacy on tourism and environmental protection. • There is a need to reiterate request for funding support in infrastructure.

Combination	Strategies
W-T • There is poor road network accessibility. • The local Tourism Master Plan is outdated. • The presence of environmental pollution brought about by mining activities and heavy siltation. • Based on the distribution of rainfall, the locality's weather pattern belongs to Type II Coronas Classification (no pronounced dry season but with distinct maximum rainfall period from November to January). • There is no complimentary local environmental support from barangays (especially on local ordinances). • There is lack of specific legislation for tourism. • There are limited facilities for a decent tourist stay.	

FULL FEASIBILITY STUDY (FFS)

What is Feasibility Study?

A feasibility study (FS) is a tool or procedure that seeks to assess the economic viability of a project (especially the CBEE), its strengths, weaknesses, opportunities, and threats as presented by the environment. Positive outcome of an FS leads indicates that the local community can proceed with the CBEE project (Bielik, 2012)

Feasibility study is important because it...

- provides the things needed to make a proposed project or enterprise work;
- identifies the logistical and other business-related problems and solutions;
- recommends strategies to convince concerned stakeholders, corporations, or funding institution to invest in the project; and
- provides solid foundation in developing the CBEE business plan.

Table 4. Feasibility Study Elements Checklist

What to investigate?	What to include/consider?
Economic viability	• Benefits and savings expected from the proposed project • Comparison with estimated project costs and prevailing market prices • If benefits outweigh costs, then decide to implement the project
Financial soundness	• Total estimated cost of the project • Project financing in terms of its capital structure, debt equity ratio and proponent's share of total cost • Potential lenders and their required terms and limitations of borrowing • Projected cash flow and profitability, break-even point
Market potentials	• Demand for the proposed project • Competition • Adequacy of demand level (if the level of demand is not adequate, then the proposed venture should not be pursued)
Technical feasibility	• Details of how a project will be delivered (in terms of materials, labor, transportation, location, technology requirements, etc.) • Logistical or tactical plan on how a project will be implemented

What to investigate?	What to include/consider?
	• Time frame in building the proposed project; when it can be built or implemented; • Consider its effects on normal business operations • Type and amount of resources required, dependencies, etc.
Environmental friendliness	• Environmental risks involved; • Compliance with existing environmental laws and regulations and covered by the Environmental Impact Statement (EIS) System
Social acceptability and cultural sensitivity	• Impact of the proposed project on local community's social structure, their culture and way of life • Overall acceptability, especially by those communities that will be directly affected
Organizational soundness	• Workable organizational structure for the project • Identification of key staff positions and their respective qualifications to manage and operate the project • Type of management experience • Availability of competent staff to fill the position

The FFS Process

Figure 44. Full Feasibility Study Process

1. **Stocktaking Review (Secondary Data)**. This includes secondary data on biophysical data and socio-economic profile of the area. Sources of data are: (a) the General Management Plan (if the site is inside a PA); (b)

Comprehensive Land Use Plan (CLUP) of the municipality; (c) market surveys; and (d) other relevant or related studies conducted about the area.

2. **Primary Data Requirements (Bio-physical Resources)**. This can be done in three (3) ways: (a) vegetation survey; (b) faunal survey; and (c) soil and water survey. Other than surveys, key informant interviews and questionnaires are also used.

3. **Primary Data Requirements (Social Resources)**. It provides clear understanding of the profile, needs, aspirations, problems, potentials, and capabilities of the local people as far as ecotourism is concerned.

4. **Data validation**. Hold consultation meetings and workshops to confirm and validate the data generated and the analysis and interpretations made. It also helps in evaluating the acceptability and workability of the proposed ecotourism enterprise.

Seek the help of .... Private Consulting Firms

There are also NGOs and advocacy groups that extend assistance in doing Full Feasibility Study. But this is normally undertaken by reputable consulting firms.

Consult the Municipal Planning Development Officer for help.

Figure 45. Gathering accurate data is a must in undertaking a Full Feasibility Study.

PARTICIPATORY PLANNING PROCESS (PPP) FOR CBEE

Participatory planning process involves the active, informed, and equitable participation of all stakeholders in the various CBEE processes. Local people become fully aware of their problems and needs, while being able to determine and use the appropriate natural and cultural resources in line with the goals and objectives of the CBEE. The following are some of the requirements for effective participation (Geoghegan, T., et. al., 2004):

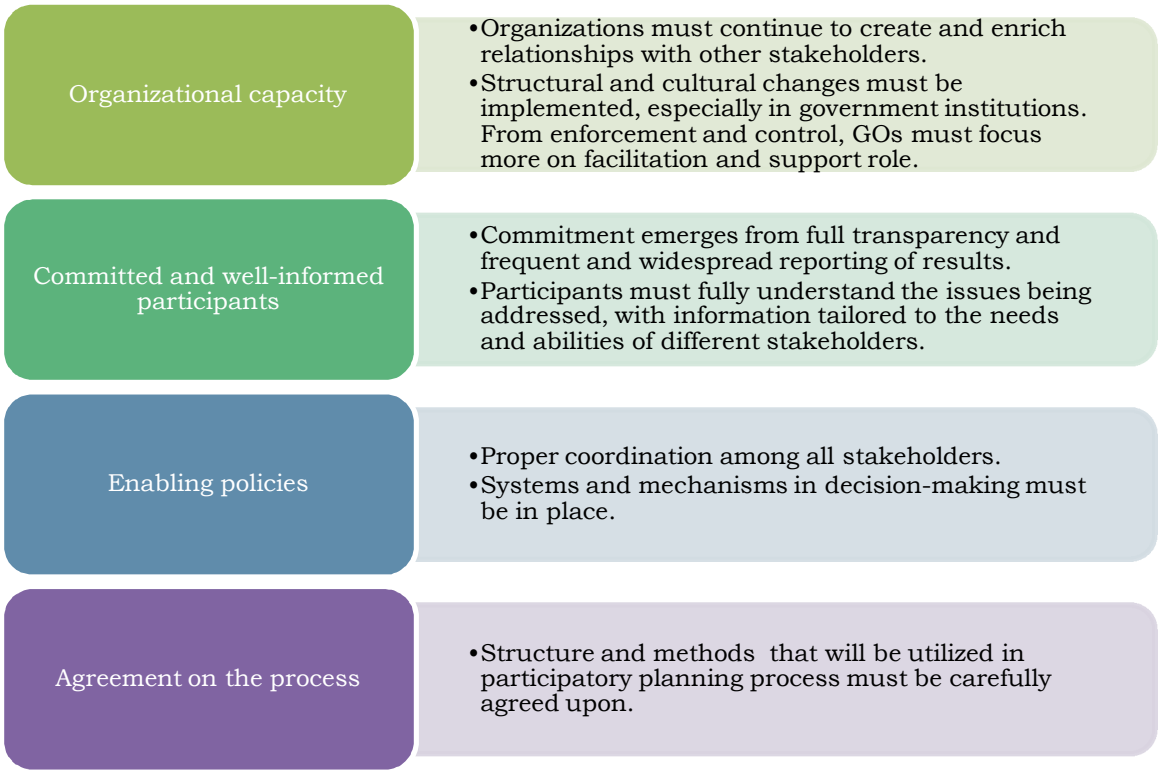


Figure 46. Requirements for Effective Participatory Planning Process

Elements for Successful Participatory Planning Process for CBEE

a. Active leadership in resolving differences
b. Local community empowerment
c. Economic benefits do not compromise conservation efforts
d. Active participation of all stakeholders at every project stage
e. Local participation in project monitoring and evaluation

Steps in Participatory Planning Process

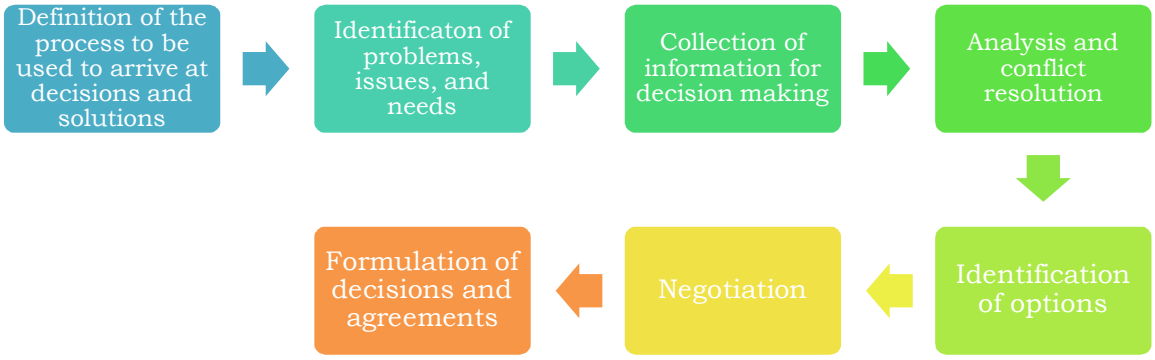


Figure 47. Steps in Participatory Planning Process

1. **Definition of process to be used to arrive at decisions and solutions.** The process must be clear, concise, and acceptable to all stakeholders. It must be transparent, appropriate (cultural, social, and political aspects), and built upon a general consensus.

2. **Identification of problems, issues, and needs.** This step must involve all stakeholders.

3. **Collection of information as a basis of decisions**. Data collection is done through the use of the PRA (and its categories), surveys, impact assessment studies, SWOT analysis, focus group discussions (FGDs), etc.

4. **Analysis and conflict resolution**. Research and technical assistance may be employed in analyzing conflicts and arriving at resolutions, especially during group conflicts.

Figure 48. Focused group discussion (FGD) with the youth officers of Uhaj Kabataan that manage the Lagud Village Learning Inn in Barangay Uhaj, Banaue, Ifugao (Calanog, 2012).

5. **Identification of options**. The results of analyses are used to define the CBEE priorities and the available opportunities of the project.
However, stakeholders must also consider the costs and benefits associated with each opportunity identified. In essence, this step must build the confidence and ability of all participants during decision-making process.

6. **Negotiation**. Usually done in stages, negotiation processes effectively identify areas of agreement and build a common vision for these, from resolution of simple to more complex issues. Guidance of a leader or community organizer is critical in this step.

7. **Formulation of decisions and agreements**. Negotiation must develop the following results:

    a. decisions on what to do;
    b. strategies for how to go about the task;
    c. agreements on the conditions and responsibilities for implementing the decisions made;
    d. institutional arrangements for executing the agreements; and
    e. arrangements for monitoring the process and its results.

The following are some of the advantages and disadvantages of PPP. It must be noted that the PPP can only be properly implemented if all concerned stakeholders are willing to participate in an interactive manner, while the advantages of the PPP are further nurtured and carried out throughout the CBEE project stages.

Advantages of PPP

1. There is increased sense of ownership among community members.
2. The local community can better realize the benefits of the CBEE project through their own understanding.
3. The beneficiaries are able to build upon their capabilities while making them understand what ecotourism is and how it can contribute to sustainable development.
4. There is local people empowerment through greater control over community decisions and resource use.
5. Local people become more involved and accountable in enterprise management (particularly on labor costs, costs of financing, operating and maintaining the enterprise, etc.).

Disadvantages of PPP

1. There is greater expectation for the enterprise coming from the local people thus leading to greater dissatisfaction or frustration should it fail.
2. There is a need to lengthen the time needed to bring controversial projects to reality.
3. Local interest may prevail, especially in denying employment to outsiders (or people outside the community) access to employment and business opportunities.

As the advantages and disadvantages are identified, it is also important to determine how each group of stakeholder or project beneficiary participates in the CBEE project. This will help community organizers, LGUs, NGOs, and other concerned groups and individuals in the type of approach that must be used in order to capture their varying interests, while turning these interests into valuable project inputs and outputs towards the successful CBEE establishment.

Table 5.Typology of Participation: How People Participate in Development Projects (Bass, et. al., 1995)

TYPE	CHARACTERISTICS
1. Manipulative participation	Local people have representation in official boards but do not have power over decision-making processes.
2. Passive Participation	The information, may it be decisions or minutes of the meeting, is just relayed to the local people. Unilateral announcements are made, without the consulting their opinion or responses while information shared. The views and opinions of external professionals are more favored.
3. Participation by consultation	There is consultation among local people. External professionals such as NGOs, community organizers, LGUs, among others help define the problems and information gathering process. They act as consultants but have no share in making decisions.
4. Participation for material incentives	Local people actively participate by contributing resources (such as the food for work program, or work in return for other material incentives). However, they usually do not continue to work or prolong the use of such technologies when materials incentives end.
5. Functional Participation	With the help of external professionals, local people form themselves into organized groups due to a common cause or as a means to achieve project goals. This is also done to reduce project costs and become involved in shared decision-making. At worst, local people may still only be co-opted to serve external goals.
6. Interactive Participation	The local people are involved in project analysis, development and formation of action plans, as well as organizational strengthening. Unlike functional participation, interactive participation encourages groups to make active decisions, control, and use over local resources and not just a means to achieve project goals. And as compared to participation for material incentives, the local people have a stake in maintaining structures and practices.
7. Self-mobilization	A type of participation that is encouraged in developing CBEE projects, self-mobilization allows local people to take initiative in developing contacts with external professionals/institutions for technical advices

TYPE	CHARACTERISTICS
	and resources needs. With the help of LGUs, CSOs, NGOs, and other likeminded individuals, self-mobilization can push through with enabling framework and support. In effect, it may or may not challenge existing distributions of wealth and power.

Figure 49. Participatory planning activity in Taal Volcano Island, Talisay, Batangas (Calanog, 2010).

ASSESSING COMMUNITY RESOURCES AND CAPABILITY IN CBEE

Before undertaking the CBEE, existing resources (natural, cultural, physical, infrastructure, etc.) and local capabilities (current livelihood, talents, skills, attitudes, values, etc.) must be identified and assessed in order to determine the opportunities and constraints, as well as the activities, products, and services available in the area. There are five steps in assessing community resources and capability:

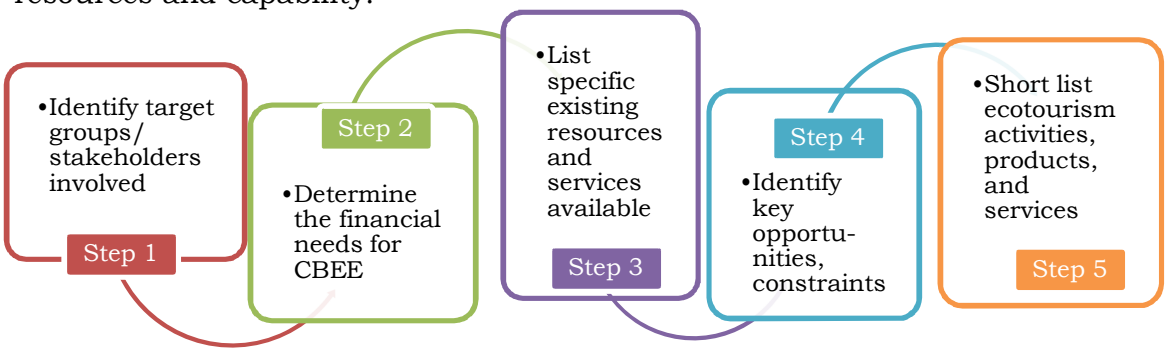


Figure 50. Steps in Assessing Community Resources and Capability

What assets to look at:

- **Community's demography**. This refers to the community's age structure, gender, race and ethnicity, marital status, education, population, sources of income, etc.
- **History**. These are traditions that define the community (through its weaknesses and achievements) and those which they prefer to talk or not to talk about.
- **Community leaders**. Leaders are grouped into the formal and informal, elected and recognized leaders.
- **Community culture**. It refers to the spoken and unspoken rules and traditions to which the community lives in.
- **Existing groups**. Examples of existing groups include service clubs, faith groups, youth organizations, etc.
- **Physical resources**. This may refer to the community size, buildings and structures, topography, rivers, roads, and other features.
- **Infrastructure**. Community infrastructures include roads, bridges, transportation (local public transportation, airports, and pier), electricity, water system, land line and mobile telephone, and broadband services.

- **Existing institutions**. Existing institutions include colleges and universities, libraries, religious institutions, hospitals, etc.

- **Economics**. Some of the questions that is needed to assess the economic assets of the community include: Who are the major employers in the community? What business or industry does the community heavily rely upon? Who exercises economic power? How is wealth distributed?

- **Government/Politics**. There is a need to assess the current local government and political status of the community. Some communities may have strong mayors and weak city councils, others the opposite.

- **Social structure**. Many aspects of social structure are integrated into other areas such as relationships, politics, and economy. However, there is also the question of how people in the community relate to one another.

- **Attitudes and values**. This asset is related to the community's culture. Valuable questions that must be asked relate to the following: What does the community care about, and what does it ignore? What are the assumptions (norms) about the proper way to behave, to dress, to do business, to treat others?

MOBILIZING THE COMMUNITY IN CBEE

What is Community Mobilization?

These are the activities carried out in order to stimulate a group of people living or working together to address a specific problem or achieve a specific objective. (Geoghegan, T., et. al., 2004)

Participatory planning process is instrumental in effectively mobilizing all stakeholders involved in the CBEE. However, community mobilization assures that all stakeholders are well-informed and encourages local people to take initiative and become better involved in all project activities. The following are the phases involved in mobilizing the community in CBEE:

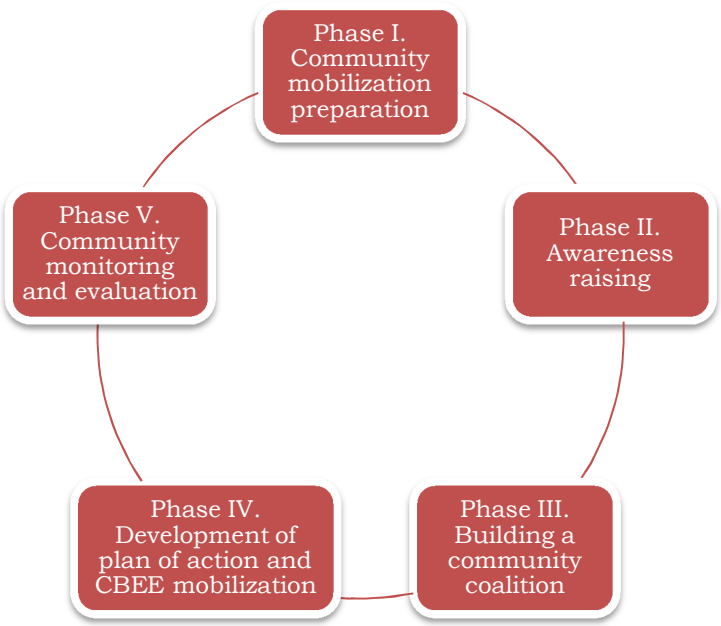


Figure 51. Phases in Community Mobilization

Phase I: Community mobilization preparation

- Assess community opinion on CBEE development.
- Involve tourism professionals, service providers, operators, and others who have interest in CBEE.
- Bring together people who have different perspectives and vested interests to support the CBEE with the help of the recognized leader.
- Identify funding, resources needed, and their possible sources.

Phase II: Awareness raising

- Prepare information, education, and communication (IEC) materials, focusing on the needs and advantages of CBEE.

- Disseminate IEC materials with partner organizations/individuals.
- Develop an open line of communication between and among stakeholders and partner groups, organizations, and individuals.

Phase III: Building a community coalition

- Decide together in taking action on CBEE development by focusing on the community's common need.
- Maintain community coalition and partnerships.
- Define community goals and strategies in parallel with the common vision for the CBEE.

Figure 52. Community mobilization helps stimulate people to work together.

Phase IV: Development of plan of action and CBEE mobilization

- Develop an ecotourism strategic plan of action based on community's needs and available resources. This should include specific steps, a timeline, and needed resources (that are not available in the community).
- Delegate the responsibilities among community members involved in CBEE through an even manner.
- Implement defined actions.

Phase V: Community monitoring and evaluation (to be linked with M & E system in Chapter 6)

- Develop ways to regularly measure progress by tracking achievements and maintain the momentum necessary for the success of the CBEE.
- Monitor activities that are most effective in the community and those that need improvement so as to successfully meet CBEE goal and vision.

Figure 53. Public consultation in Taal Volcano Island, Talisay, Batangas (Calanog, 2010).

Levelling the Playing Field

In any community development effort, it is inevitable for all stakeholders to have the same opportunity and ability to actively participate. The level and degree of participation is affected by a number of factors (personal, social, and cultural) that are not directly involved with the actual CBEE issues being addressed. These factors include the following:

1. **Education**. People living in rural areas have lower levels of education as compared to those living in the urban setting. And because participatory planning processes and community mobilization heavily relies on written documents, presentations, and the like, there is a need to have an active profiling of all stakeholders in order to determine the degree of discussions and preparation of IEC materials without being oversimplified.

2. **Gender**. Women participation in community organizations often depend on the demands of the household. Less demand in the household entails more time for the organization. Likewise, organizations with family membership usually rely on the level of participation of men (may be spouse, brother, father, among others). Hence, in designing and scheduling community mobilization activities, such constraint must be carefully taken into account.

3. **Race, religion, social class and political affiliation**. In mobilizing the community, there is a need to develop a multi-sector, multi-coalition, and non-sectarian approach to CBEE development. Groups with greater economic power must also be taken into account.

4. **Language**. CBEE efforts must institutionalize the use of local dialect in every project activity. However in the presence of visitors, *Tagalog* or English may be used provided careful local dialect translation is done.

BUILDING ON INDIGENOUS KNOWLEDGE

What is Indigenous Knowledge (IK)?

Indigenous Knowledge (IK) is broadly defined as the knowledge that an indigenous (local) community accumulates over generations of living in a particular environment. It encompasses all forms of knowledge – technologies, know-how, skills, practice, and beliefs – that enable the community to achieve stability in relating to their environment. A number of terms are used interchangeably to refer to the concept of IK, including Traditional Knowledge (TK), Indigenous Technical Knowledge (ITK), Local Knowledge (LK) and Indigenous Knowledge System (IKS) (UNEP, 2012)

Indigenous knowledge is an inherent time-tested resource or approach that plays a huge contribution to development activities, especially in CBEE establishment. Because it is based on cumulative experience and adapted to local culture and environment, applicable skills, practices, and beliefs may be far better than introduced technologies brought by development agents, extensionists, among others. But since the influx of new technologies and information in a community is inevitable, CBEE initiatives must properly blend and compliment with these IK.

Roles of Indigenous Knowledge in Development (FAO & IIRR, 1995)

- ✓ Basis for self-sufficiency and self-determination
- ✓ Strengthens people's participation and empowerment process
- ✓ Ensures viability and sustainability
- ✓ Promotes the use of appropriate technology
- ✓ Ensures cost-effective approaches
- ✓ Provides the opportunity to understand and facilitate the design of appropriate development approaches

Seek the help of .... National Commission on Indigenous People (NCIP)

NCIP has community service centers all over the country that could provide assistance and advice if the planned CBEE is within an ancestral domain area.

Remember, NCIP's main mandate is to protect and promote the interest and well being of the ICCs/IPs with due regards to their beliefs, customs, traditions and institutions.

Refer to R.A. Republic Act 8371, Indigenous Peoples Rights Act, for details.

Types of Indigenous Knowledge

1. **Information**. Examples: Which trees and plants grow well together? Which tree species are best suited for mulching?

2. **Practices and Technologies**. Examples: food preparations and preservation, ways of seed storage, rice threshing devices, terracing (like in Banaue Rice Terraces), use of medicinal plants, various soil and water conservation practices, etc.

3. **Beliefs.** Beliefs can play a fundamental role in local people's livelihood and environmental conservation. Examples: rituals that regulate the access and pattern of water distribution, religious beliefs used in Mt. Banahaw, etc.

4. **Tools**. Examples: agricultural tools devised for planting and harvesting, fodder grass carriers.

5. **Experimentation**. Examples: integration of new local-culture into existing tourism activities.

6. **Human resources**. Examples: council of elders of the Ifugaos, kinship groups, labor sharing groups particularly during rice harvesting, community organizing skills, etc.

7. **Biological**. Examples: local animal breeds, crops, and tree species, among others.

8. **Materials**. Examples: stone walls in building houses and irrigation canals, construction materials, etc.

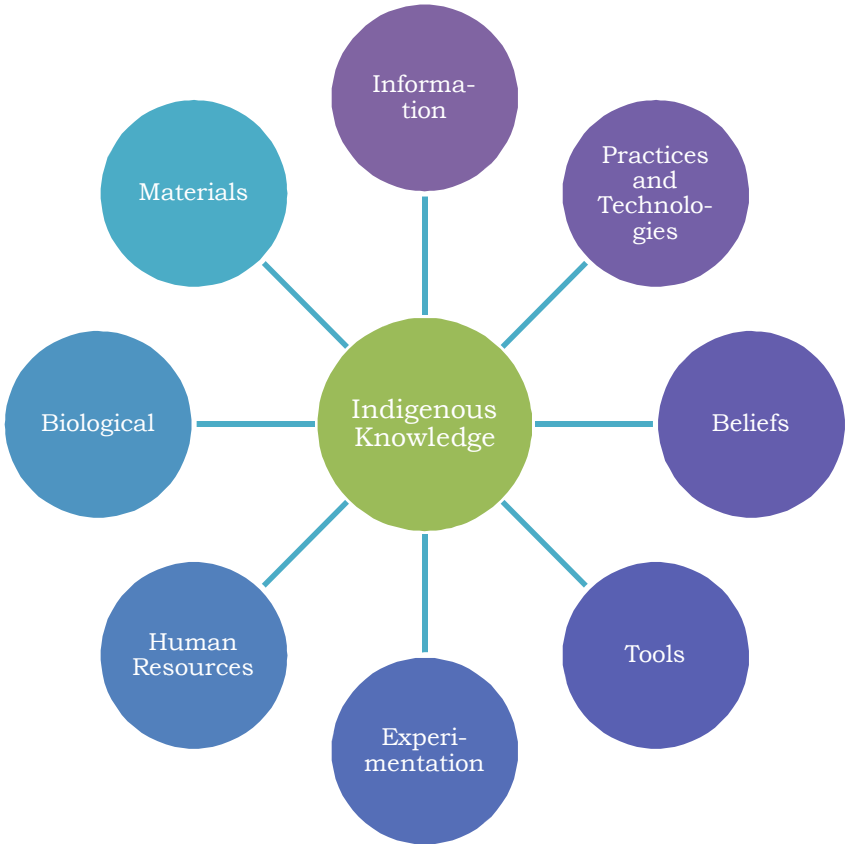


Figure 54. Types of Indigenous Knowledge

Deciding on Appropriate Interventions

The applicability of IK in a given locality may vary, according to the local people's current needs and wants. However in most cases, not all indigenous knowledge is equally useful in a development project. Hence, there is a need to decide on which appropriate interventions must be utilized. Indigenous knowledge must be cautiously and judiciously used in CBEE activities. Nevertheless, there is still a need to document IK practices and its validity prior to the introduction of appropriate interventions. The diagram below illustrates how IK is integrated in CBEE development efforts:

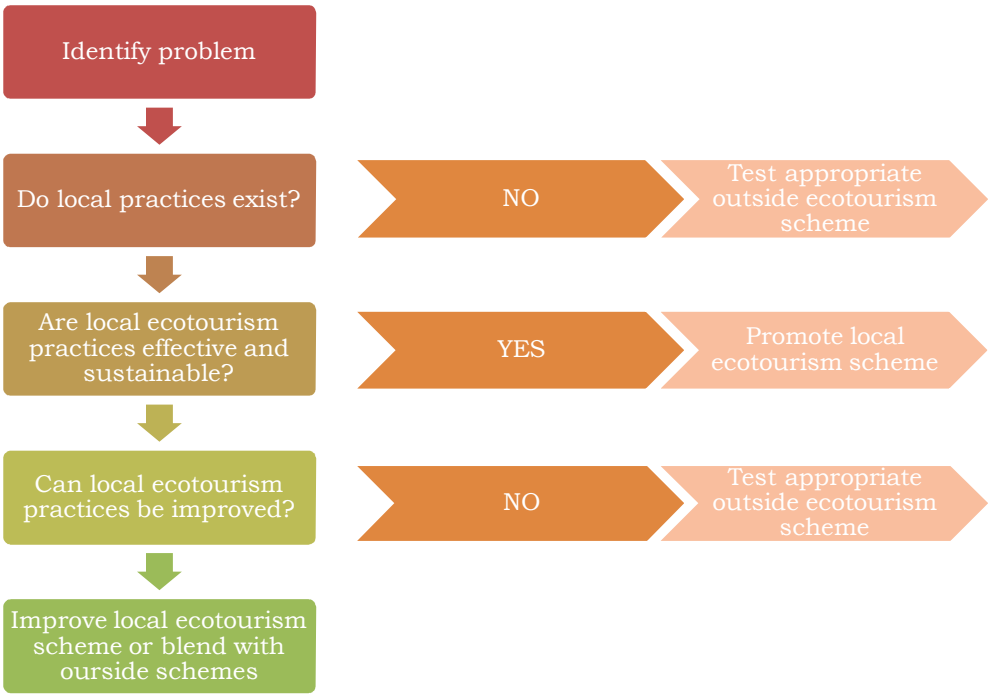


Figure 55. Steps in Integrating Indigenous Knowledge to CBEE

Figure 56. The interview with a recognized IP leader in Banga-an Village, Banaue, Ifugao helped provide insights on the potential ecotourism activities and services that can be developed (Eugenio, 2012).

PREPARING THE LOGICAL FRAMEWORK/RESULTS-BASED MANAGEMENT FRAMEWORK

What is a Logical Framework?

A logical framework is an analytical, presentational, and management tool used to:

- analyze existing situation of a planned CBEE during activity preparation;
- establish a logical hierarchy of means by which CBEE objectives will be reached;
- identify potential risks to achieving the objectives, and to sustainable outcomes;
- establish how outputs and outcomes might best be monitored and evaluated;
- present a summary of the activity in a standard format; and
- monitor and review activities during implementation.

What is a Result-Based Management (RBM) Framework?

The RBMF is an approach to management that integrates strategy, people, resources, processes, and measurements to improve decision making, transparency, and accountability through the following:

- define realistic expected results based on appropriate analysis;
- identify beneficiaries and designing projects to meet their needs;
- monitor progress of the results and resources consumed with the use of appropriate indicators;
- identify and managing risks while considering expected results and necessary resources;
- increase knowledge by learning lessons and integrating them into decisions; and
- reports on the results achieved and resources involved.

Stages in Preparing the Logical and RBM Frameworks (Barreto, 2010)

1. First Stage: TOP DOWN

Activity Description	Objectively Verifiable Indicators (OVI)	Means of Verification (MOV)	Assumptions
Goal (Impact)			
Purpose (Outcome)			
Component Objectives (Intermediate Results)			
Outputs			
Inputs and Activities		**Means and Cost**	

a. **Goal (Impact).** From the top of the table, write the overall objective of the project with the help of the project information sheet. The overall

objective may be beyond the reach of this project. For instance: *To contribute in overall improvement of the socio-economic and environmental condition of the community.*

b. **Purpose (Outcome).** Describe the outcome that the project desires to achieve. This should be clear and brief. Example: *Improved delivery of ecotourism products and services.*

c. **Component Objectives (Intermediate Results).** Describe the project intervention strategy. Several outputs can be identified. Example: *Reduced incidence of wildlife poaching in the community.*

d. **Outputs.** Identifies the tasks needed to achieve the desired outputs. Several tasks can comprise each output. Statements should be brief and with an emphasis on action words. Examples: *1.1. Conduct an inventory of wildlife species*; *1.2. Conduct training program on alternative livelihood.*

e. **Inputs and Activities.** If required, additional information needed to carry out the desired activities can be specified (such as the means and costs).

2. Second Stage: WORK ACROSS

ACTIVITY DESCRIPTION	OBJECTIVELY VERIFIABLE INDICATORS (OVI)	MEANS OF VERIFICATION (MOV)	ASSUMPTIONS
Goal or Impact			
Purpose or Outcome			
Component Objectives or Intermediate Results			
Outputs			
Inputs and Activities		**Means and Cost**	

- **Objectively Verifiable Indicators of Achievement (OVI) and Means of Verification (MOV) columns.** Starting from the top to the bottom of the hierarchy of the objectives, begin to work across the logframe by identifying the OVI and MOV.

a. The OVI measures the project progress in terms of quantity, quality, and time. There are two kinds of OVI indicators:

i. **Impact indicators.** This is related to the overall goal, helps to monitor the achievement and the impact of the project, for example:

number of employed local community members increased 50% by 2012, specifically among low income families living along the river;

ii. **Process (outcome) indicators.** This is related to the purpose and results. It measures the extent to which the stated objectives have been achieved, for example: *Incidence of wildlife poaching reduced by 25%* (compared to levels in 2010).

b. **Means of Verification (MOV).** The MOV should be considered and specified at the same time as the OVI formulation. This helps determine whether the OVI can be realistically measured at the expense of a reasonable amount of time, money, and effort. The MOV specifies how, who, and when the information will be gathered.

4. Third Stage — BOTTOM UP

ACTIVITY DESCRIPTION	OBJECTIVELY VERIFIABLE INDICATORS (OVI)	MEANS OF VERIFICATION (MOV)	ASSUMPTIONS
Goal or Impact			
Purpose or Outcome			
Component Objectives or Intermediate Results			
Outputs			
Inputs and Activities		**Means and Cost**	

- **Assumptions:** Reflecting from the bottom of the logframe, consider how (if each assumption holds) it will be possible to move to the next stage of the project. Assumptions are external factors that have the potential to influence (or even determine) the success of a project. However, it is outside the direct control of project and its managers. Also, the project does not have direct control over these assumptions but these may still affect project implementation and impose

Seek the help of .... Private Consulting Firms and NGOs

Again, NGOs, advocacy groups and private consulting firms may come to the rescue in helping prepare the Logical and RBM Framework.

The Ecosystems Research and Development Bureau of the DENR could help prepare the CBEE Sustainability Tracking Tool.

Consult the Municipal Planning Development Office and Municipal Tourism Office for help.

impact on the project environment.

Usually, assumptions are progressively identified during the analysis phase. The analysis of stakeholders, problems, objectives, and strategies highlights a number of issues (i.e. policy, institutional, technical, social and/or economic issues) that impacts the project 'environment' but over which the project may have no direct control. In the case of the wildlife example, important assumptions might include issues related to:

1. Effective protection and advocacy campaigns by proper authorities
2. Local members' willingness to engage in alternative livelihood activities.

Table 6. General structure of a Logical Framework Matrix (AusAID, 2012).

ACTIVITY DESCRIPTION	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
Goal or Impact – The long term development impact (policy goal) that the activity contributes to at a national or sectoral level	How are the achievements measured (including appropriate targets such as quantity, quality, and time)?	Sources of information on the Goal Indicator(s) – including who will collect it and how often	
Purpose or Outcome – The medium term result(s) that the activity aims to achieve – in terms of benefits to target groups	How is the purpose achieved (including appropriate targets such as quantity, quality and time)?	Sources of information on the Purpose Indicator(s) – including who will collect it and how often	Assumptions concerning the Purpose to Goal linkage
Component Objectives or Intermediate Results – This level in the objectives or results hierarchy can be used to provide a clear link between outputs and outcomes (particularly for larger multi-component activities)	How is the component objectives measured (including appropriate targets such as quantity, quality and time)?	Sources of information on the Component Objectives Indicator(s) – including who will collect it and how often	Assumptions concerning the Component Objective to Output linkage

Outputs – The tangible products or services that the activity will deliver	How are the outputs measured (including appropriate targets such as quantity, quality and time)?	Sources of information on the Output indicator(s) – including who will collect it and how often	Assumptions concerning the Output to Component Objective linkage
Inputs and Activities – this normally comprises the work and financial program of the project	What are the specific inputs and activities to be implemented to meet a particular output?	Sources of information on the Input/Activity Indicator(s) – including who will collect it and how often	Assumptions concerning the Input/Activities to Output Objective linkage

Table 7. RBM Framework utilized in a project entitled: Gender Analysis and Tourism Carrying Capacity in Pamilacan Island, Bohol, Philippines (Calanog, 2012).

ACTIVITY DESCRIPTION	STATEMENTS	PERFORMANCE INDICATORS	RISKS AND ASSUMPTIONS
ULTIMATE OUTCOME	Local people capacitated on sustainable ecotourism (whale watching) management in Pamilacan Island	1. Equitable involvement of capacitated men/women/youth in managing ecotourism (whale watching) project 2. Habitat of marine mammals in Pamilacan protected	
INTERMEDIATE OUTCOME	Relevant local groups (both men and women) informed on management strategies, i.e., CARCAP on ecotourism (whale watching) project.	No. of local stakeholders (both men and women) informed of sustainable management tool (i.e., CARCAP on whale watching)	Full cooperation from stakeholders
IMMEDIATE OUTCOME	Guidelines on whale watching activities with emphasis on carrying capacity	One guideline on whale watching cum visitor management via tourism carrying capacity (TCARCAP)	DENR adopts the proposed guidelines and translated into a formal policy
OUTPUT (1)	Relevant data and information on CARCAP generated	All relevant data and information (including gender data) generated	No inclement weather condition during data gathering
ACTIVITIES	1. Stocktaking review of relevant secondary data, literature, document	No. of secondary data and literature reviewed and gathered	

ACTIVITY DESCRIPTION	STATEMENTS	PERFORMANCE INDICATORS	RISKS AND ASSUMPTIONS
	2. Primary data gathering and interviews 3. Data management (computation, analysis and interpretation)	No. of local people and visitors interviewed Tables of data generated from statistical computation	Local people available during interviews
OUTPUT (2)	Optimum number of visitors (carrying capacity) computed that can be allowed whale watching activities in Pamilacan island	No. of visitors that can be allowed whale watching at a given point in time	
ACTIVITIES	1. Local stakeholders consulted in the computation of CARCAP	No. of local stakeholders consulted	Local stakeholders available and cooperative during consultations
	2. Result of CARCAP consultation presented to concerned officers/offices	No. of presentations made	
	3. Computation of TCARCAP verified in one GREAT WOMEN project sites in Quezon province	No. of verified TCARCAP	
INPUTS	1. PhP 322,160 budget allocation 2. Six (6) technical staff from ERDB		Budget released on time

PREPARING CBEE SUSTAINABILITY ASSESSMENT TRACKING TOOL (SATT)

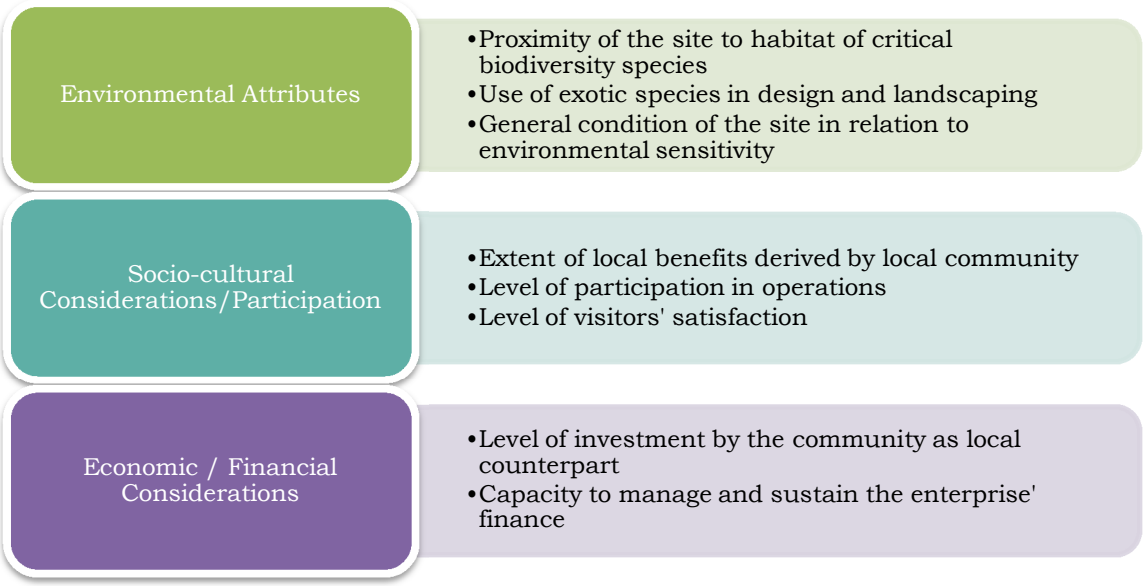
What is a CBEE Sustainability Assessment Tracking Tool?

It is a system used to track the implementation progress of CBEE, to be prepared and accomplished during the project conceptualization and implementation period, mid-term implementation, and final/completion phase.

Seven Factors in Tracking Sustainability of CBEE

Figure 57. Seven Factors in SATT

Figure 57. Seven Factors in SATT (continuation)



Steps in Conducting the SATT:

1. The Sustainability Assessment Tracking Tool (SATT) is applied three times: at CBEE project conceptualization/initial phase of implementation, at CBEE project mid-term implementation, and at CBEE project completion/closure.

2. Seven key factors are identified and assessed using a checklist composed of 38 questions. After which, these are evaluated with the aid of sustainability scores. All questions must be answered accordingly.

3. The checklist is made by assigning a simple score ranging from 0 (poor) to 3 (excellent). A series of four alternative answers are provided against each question to help make an objective judgment as to the level of score given. In addition, there are supplementary questions, indicators and/or criteria that elaborate on key parameters in the preceding questions and provide additional information and points. Positive response to each supplementary indicators and/or criteria is assigned an additional score of one (1). Similarly, there are supplementary indicators and/or criteria concerning the negative strategies applied. Agreement to each of this “negative” indicators and/or criteria is assigned a score of negative one (-1).

4. There are situations in which none of the four alternative answers appear to fit the conditions in the area/site being evaluated. Parameters/Questions that are not relevant to a particular area should be excluded in the summation of total score and maximum score, with reason given in the comment/explanation section.

5. The maximum score to the 38 questions is 114 (excluding the additional score for supplementary questions). The final total score from completing the checklist can be calculated by adding individual scores generated from each

question that are relevant to the area/site being evaluated. Thus, if an area garnered a total score of 65 out of a maximum score of 114, the percentage can be calculated by dividing 65 by 114 and multiplying by 100.Such that [65 ÷ 114] x 100 = 57.02%.

6. The box next to each question is allotted for the detailed qualitative judgment. This could range from: local staff knowledge (in many cases, staff knowledge will be the most informed and reliable source of knowledge), a reference document, and monitoring results or external studies and assessments (the point being to give anyone reading the report an idea of why and how the qualitative interpretation of evaluation is made).

   It is very important that this box be completed as it provides greater confidence in the results of the evaluation, thereby making the basis of decision-making more transparent. More importantly, it provides a future reference point and information for the local staff. This column also gives way for comments and reasons, such as why a particular question was not answered.

7. The criteria under each factor is scored and summed according to its sustainability. The percentage qualitative interpretation is used to assess the ecotourism area's level of sustainability:

Percentage Qualitative Interpretation		
83.0% to 100%	-	**Highly Sustainable**
66.4% to 82.9%	-	**Sustainable**
49.8% to 66.3%	-	**Moderately Sustainable**
33.2% to 49.7%	-	**Moderately Unsustainable**
16.6% to 33.1%	-	**Unsustainable**
01.0% to 16.5%	-	**Highly Unsustainable**

Appendix 1 illustrates a sample sustainability analysis conducted for the Danao Adventure Park in Bohol using the Sustainability Assessment Tracking Tool (SATT).

Figure 58. Interview with Mr. Al Linsangan of the Corong Galeri Lokals/Calamianes Expeditions and Ecotours during the conduct of SATT in Coron, Palawan (Reyes, 2012).

CHAPTER 3

Conservation Strategies in Community-based Ecotourism Enterprise Building

CONSERVATION STRATEGIES IN COMMUNITY-BASED ECOTOURISM ENTERPRISE BUILDING

The Philippines is a tropical country that offers beautiful and scenic places to visit. The Verde Island passage from Batangas to the Sulu Celebes Sea has been dubbed as the center of the center of marine fisheries in the world. The local terrestrial ecosystems, one of the world's richest in biodiversity, are also considered a hotspot as threats continue to plague its existence. Ecotourism entails travelling to such areas with relatively pristine environment. In order for an ecotourism enterprise to thrive, it is essential that the ecological integrity of the natural resources is maintained.

The purpose of conservation is threefold:

1. To maintain the very ecosystems that visitors come to see;
2. To lessen the impact of tourism on the natural resources; and
3. To adapt to the environment so that the safety and enjoyment of visitors are ensured.

TOURISM CARRYING CAPACITY (TCARCAP) ANALYSIS

What is Tourism Carrying Capacity?

*Tourism carrying capacity (**TCARCAP**) is the maximum number of visitors/tourists that can be accommodated in an ecotourism area without affecting the state of the environment, the level of satisfaction of the visitor, and the socio-cultural norms of the host community.*

Generally, tourism carrying capacity (TCARCAP) of a site depends on three main factors:

- Quantity of resources available in the site
- Size of the population or number of users
- Quantity of resources each individual is consuming or the amount of area or services the users require

Environmental Factors to Consider in Computing TCARCAP (UNEP & WTO, 1992)

1. **Size of area and usable space**. For instance, a national park in the Philippines may measure about 2,000 has but only a small portion is accessible and available to visitors.

2. **Fragility of environment**. Some areas may have very delicate soils or water bodies that are prone to human and animal utilization; and hence may limit their use.

3. **Wildlife resources**. Carrying capacity is likewise affected by the number, diversity, and distribution of wildlife.

4. **Topography and vegetative cover**. Steep slopes are normally not utilized for tourism activities as this may endanger the visitors, while areas with rich and endemic vegetation are used with extra care.

5. **Specific behavioral sensitivity** of certain animal species to human visitation also limits tourism activities, and thus affects carrying capacity.

Social Factors to Consider

1. **Viewing pattern**. Is it evenly distributed or concentrated in one / few areas?

2. **Tourists' viewing choices** If viewing largely consists of a few attractions, crowding is more likely to happen..

3. **Visitors' opinions**. How do visitors appraise the area?

4. **Availability of facilities**. The number of lodge beds or campsites for instance, is a controlling factor for determining the necessary facilities for the site.

Seek the help of .... The Ecosystems Research and Development Bureau (ERDB) of the DENR

ERDB has implemented several studies on Tourism Carrying Capacity. They are in a position to extend assistance in doing the same for the target CBEE site.

Steps in Computing TCARCAP Using Boullon's Mathematical Model (1985)

1. First, compute for the TCARCAP

$$\text{TCARCAP} = \frac{\text{Total area used by visitors}}{\text{Average visitors' standard}}$$

Example:

Total area used by visitors = 1,000 sq. m.
Average visitors' standard = 2 sq. m. per visitor per day
TCARCAP = Maximum of 500 visitors at any given time

2. Next, compute the Potential Carrying Capacity (PCC) or total number of daily visits

PCC = TCARCAP x rotation coefficient (RC)

where:

$$RC = \frac{\text{number of daily hours area is open for tourists}}{\text{average time of one visit}}$$

If an area is open for 12 hours per day and one visit requires four (4) hours; then, one visitor can spend a maximum of 3 visits per day (or equal to 3 visitors per day).

So,

RC = 3 visits

Then, PCC = 500 visits (or visitors) x 3 visits
= 1,500 visits (or visitors per day)

3. Third, compute the Real Carrying Capacity (RCC)

RCC is the maximum allowable number of visits to an area, once the corrective (i.e., reductive) factors (cf_1, cf_2, ... cf_n) derived from the particular characteristics of the site (or standards/needs of the visitors) have been applied.

- Corrective Factors (cf) are obtained by considering biophysical, environmental, ecological, social, management, etc. variables.

- Corrective Factors are determined by interviewing typical visitors in a given area or by research on the tolerance of a given environment to the impacts of visitors.

$$RCC = PCC \times \frac{100 - cf_1}{100} \times \frac{100 - cf_2}{100} \times \frac{100 - cf_n}{100}$$

$$cf = \frac{M_1}{M_t} \times 100$$

where cf = corrective factor
M_1 = limiting magnitude of the variable
M_t = total magnitude of the variable

For example:
cf_1 = sunshine

- 12 hours of sunshine each day (6 am to 6 pm)
- 10 am to 3 pm (5 hours) sunshine is intense, making visit very uncomfortable
- 3 months of rainy season, rain between 12 noon to 6 pm; thus, intense sunshine is reduced to 2 hours from 10 am to 12 noon

Hence, there are:

- 9 months w/o rain (dry season) = 270 sunny days per year
- 3 rainy months = 90 rainy days per year

To compute M_1 for cf_1 (sunshine):

- M_{1a} = 270 days per year x 5 excessive sunshine hours per day = 1,350 hours of excessive sunshine per year.
- M_{1b} = 90 days per year x 2 excessive sunshine hours per day = 180 hours of excessive sunshine per year
- M_1 = 1,530 total hours of excessive sunshine per year
- M_{ta} = 270 sunny days per year x 12 sunshine hours per day = 3,240 hours of sunshine per year
- M_{tb} = 90 sunny days per year x 6 sunshine hours per day = 540 hours of sunshine per year
- M_t = 3,780 total hours sunshine per year
- cf_1 (sunshine) = $\frac{1{,}530\ (M_1)\ \times 100}{3{,}780\ (M_t)}$
- cf_1 (sunshine) = excessive sunshine factor = 40

Next example:
cf_2 = rainfall

- There are 90 rainy days per year
- Rain falls between 12 noon to 6 pm, thus hindering normal visitation during these hours (6 hours).

Hence:

- M_1 = 90 rainy days per year x 6 hours of limiting rain per day = 540 hours of limiting rain per year
- M_t = total number of visiting hours per year = 360 days x 12 hours per day = 4,320 visiting hours per year
- cf_2 (rainfall) = $\frac{540\ (M_1)\ \times 100}{4{,}320\ (M_t)}$
- cf_2 (rainfall) = rainy weather corrective factors = 12.50

So to compute RCC:

$$RCC = PCC \times \frac{100 - cf_1}{100} \times \frac{100 - cf_2}{100} \times \frac{100 - cf_n}{100}$$

$$RCC = 1{,}500 \times \frac{100 - 40}{100} \times \frac{100 - 12.5}{100}$$

RCC = 1,500 x (0.59 x 0.875)

RCC = 774 visits or visitors per day (a visitor is limited to 3 hours per day and allotted 2 sq. m. at a given point in time)

Measuring TCARCAP Using the Limit to Acceptable Change (LAC) Method

As a case example, the LAC method is applied in measuring the TCARCAP of Puerto Princesa Subterranean River National Park (PPSRNP) in Palawan. The steps are as follows:

1. First, the optimum number of boats that can be allowed to cruise inside the underground river is determined, while considering the length (km) and distance (m) between each boat.

   This is computed using four (4) LAC levels:
   - LAC1 - from the views and perception/recommendation of key informants-visitors/users;
   - LAC2 - from the experiences, observations and recommendations of the PPSRNP management authority, particularly the two Protected Area Superintendents (PASU);
   - LAC3 - the computed distance, PASU preference minus visitors' preference (LAC2 – LAC1); and
   - LAC4 - a compromised distance by doubling the visitors' preference.

2. Second, the average number of passengers per boat is computed.

3. Third, the number of boats is multiplied with the number of visitors. Thus, this is the carrying capacity of the river in terms of number of tourists.

Management Procedures to Increase the Level of TCARCAP

The following procedures are helpful in optimizing the TCARCAP of a CBEE site:

- Design and construct viewing tracks, trails, etc. to maximize its use

- Zones with competing uses must be properly separated so as to reduce conflict (such as zone area for special campsites or hostels)

Figure 59. Visitors at the Sabang Port are getting ready to be transported to the Puerto Princesa Subterranean River (Calanog, 2010).

- Provide adequate information and interpretation services (such as signages and the like)
- Increase durability of heavily-used resources

- Provide facilities and design policies that encourage off-season use

Example of the results of the TCARCAP computation using the combination of LAC and Boullon's mathematical model is shown in **Appendix 2. Tourism Carrying Capacity of Puerto Princesa Subterranean River National Park (PPSRNP)**.

Determining the Ideal Tourism Carrying Capacity

The ideal tourism carrying capacity (TCARCAP) is best described in Figure 60. As the number of limiting factors increase, or factors that reduce the number of potential visitors in an area, the level of TCARCAP go down. On the other hand, more enhancing factors present, or factors that increase the number of potential visitors, also increases the level of TCARCAP in the area.

The interactions and interrelationships of the limiting and enhancing factors help determine the ideal number of visitors or users in a particular ecotourism site.

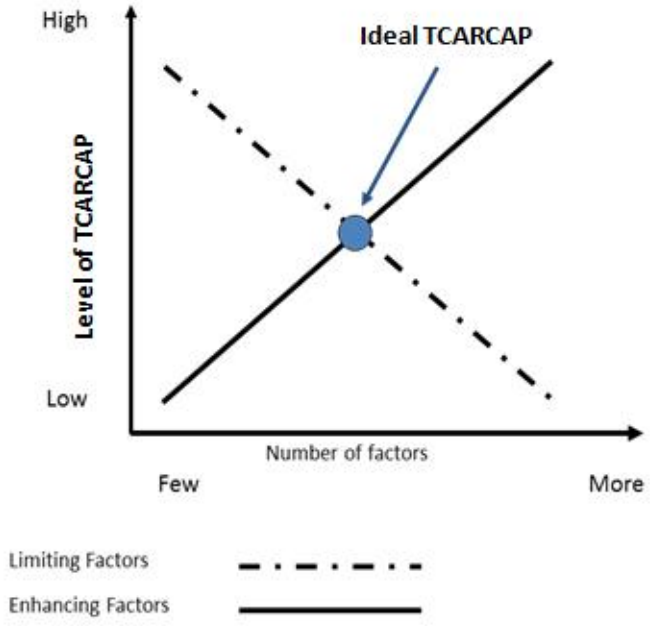


Figure 60. Interactions and Interrelationships of the Limiting and Enhancing Factors in Determining Ideal Tourism Carrying Capacity (TCARCAP).

ZONING

What is Zoning?

Zoning is the process of dividing the site into a variety of different sectors (or zones) and classify them according to their use (strict protection zone, recreational zone, economic zone, cultural area, etc.). Each zone has its own set of rules and regulations within its boundaries.

Purpose of Zoning

- To distribute different types of use or non-use (i.e., protection, recreation, economic activities, etc.) in an ecotourism site
- To maintain or achieve a particular natural setting; hence, each zone must have its own set of rules and regulations to follow

The number and types of zones depend on the objectives and priorities by which an ecotourism site is established, as well as the quality and variety of natural and cultural resources, and its degree of alteration (or what is expected to change).

Figure 61. Steps in establishing Ecotourism Zones and Zoning System (Drumm, et. al., 2004)

Steps in Establishing Ecotourism Zones

Step 1. If within a PA, refer first to the General Management Plan (GMP) for the prescribed zoning, special areas, and locations where tourism activities are allowed. If outside a PA, refer to the municipality's Comprehensive Land Use Plan (CLUP), tourism master plan, business district, transport bays, etc.

Step 2. Obtain a site base map. This is used for planning and placing specific attractions, facilities, and infrastructure.

Step 3. Locate sensitive or environmentally fragile sites.

Step 4. Identify the kinds of experiences or situations visitors wish to have while at the site.

Step 5. Compare the proposed location of tourist attractions and infrastructure with the location of environmentally sensitive sites and present zoning system.

Step 6. Determine the final location of visitor infrastructure and attractions through site visits verification and consultations with local communities and other stakeholders.

Step 7. Prepare a preliminary zoning system that incorporates recommendations for visitor use zones.

Step 8. Compare proposed zoning system with the pre-existing system. Determine if changes are necessary.

Step 9. Develop the final zoning system. Describe each zone (following the "zoning format").

Step 10. Define the rules and regulations that will be applied.

Figure 62. Locating sensitive or environmentally fragile sites on a 3-D map as part of zoning planning process (Calanog, 2010).

Zoning Format

A zoning format describes the site description and ground rules for a particular zone. The following are some of its usual content:

Name of the zone	•Desribes the type of activity permitted in the zone •Examples: intensive use, religious zone, wilderness
General objectives	•Expectations setting •General management objectives
Zone description	•Summary of site attributes (biophysical, social, administrative)
Zone boundaries	•Location •Boundaries
Management rules, regulations, and policies	•Rules and regulations that must be followed in the site •Examples: permits, camping, campfires, group size, etc.

Figure 63. General content of a Zone Format

Seek the help of .... the Protected Areas and Wildlife Bureau (PAWB) of the DENR

PAWB is the government agency tasked to formulate and implement policies on biodiversity and wildlife conservation and Protected Area management. They are familiar with the strategies and procedures in zoning.

DENR, through PAWB, has also issued DAO 2009-09 on prescribed standard designs and specifications for signs, structures, and facilities and other infrastructures that may be put up inside the PA.

FACILITIES AND INFRASTRUCTURE

Ecotourism infrastructures and facilities must be carefully planned and mapped out to alleviate, if not fully prevent, inevitable damaging impacts of ecotourism. Before establishing nature trails, camp sites, lodges, sewage system, and the like, the following must be taken into consideration:

Considerations in Putting up Infrastructures and Facilities

Table 8. General Considerations for Infrastructures and Facilities Establishment

Considerations	Description
a. **Carrying capacity**	Limit of a particular site for development and human activity
b. **Density**	Balance between dispersing and concentrating structures and facilities in a site
c. **Slope**	Avoid steep slopes to limit danger to visitors
d. **Vegetation**	Maintain existing and natural vegetation to secure the integrity of the site
e. **Wildlife**	Avoid the disruption of movement, nesting patterns, feeding and roosting sites of threatened, endangered and rare wildlife species
f. **Views**	Maximize views of natural features and minimize views of visitor and support facilities
g. **Natural Hazards**	Avoid constructing facilities near or within hazardous areas such as steep slopes, fault lines, dangerous animals and plants, and risky water areas
h. **Energy and Utilities**	Infrastructure should be placed to take advantage of natural ventilation possibilities while being consistent with aesthetic and other considerations
i. **Visitor circulation systems**	Infrastructure elements such as lodging and trails should be located to optimize visitor flow, contribute minimal disturbance to natural features, and provide easy access to visitors
j. **Conflicting uses**	Make sure different uses of site are geographically separated enough to avoid conflict
k. **Tenurial arrangements**	Avoid areas with potential tenurial conflicts

Designing Sustainable and Environment-Friendly Facilities

Figure 64. Checklist for Designing Ecotourism Facilities

Climate

- Consider comfortable natural conditioning features fit for human activities.
- Collect rainfall water for domestic purposes.
- Arrange for emergency storm shelters during typhoons, storms, etc..
- Avoid building construction on flood prone areas.

Temperature

- During hot climate: provide shaded and outdoor living areas (porches, viewing decks, etc.), separate heat generating function areas (kitchen, laundry, smoking area, etc.), ease in air ventilation from roofing, flooring, and wall plan, etc.
- During cold climate: properly insulate floor, wall, and roofing, secure all air passageways, etc.

Sunlight

- Consider the location of sunrise and sunset (solar angle) and temperature particularly during hottest time of the day (solar intensity).
- In hot areas, use light colored wall and roofing materials to reflect sunlight. In cold areas, dark colored materials are used to generate heat.

Wind

- Maximize natural ventilation whenever possible.
- In areas with limited wind, wind turbines, thermal chimneys, and wind scoops may be used.
- Air conditioners must be used judiciously so as to limit electricity use.

Moisture

- Install exhaust fans in kitchens, dining rooms, shower rooms, and other similar function areas.

Topography

- Construct buildings according to the site's natural topography (to reduce soil disturbance).

Water bodies

- Consider the impact of nearby water bodies to the site structures.
- Use building materials that are water-resistant/proof.
- Building orientation should be in harmony with nearby waterways.

Figure 64. Checklist for Designing Sustainable Facilities (continuation)

Pests
- Use indigenous or natural pest control methods.
- Use screen doors, windows, and other similar structures to minimize if not fully avoid mosquitoes, rodents, etc.

Cultural resources
- Nurture cultural resources through the use of locally-available/made construction materials, techniques, etc.
- Local culture, designs, art, and the like should be included in the design features of the building.

Visual
- Consider artistic (interior and exterior) designs in putting up facilities.
- Views and majestic sceneries (such as sunrise, sunset, mountain view, etc.) must be considered during building design.

Sound
- Service and maintenance function areas must be properly situated away from the building site.
- Proper spacing during design must be observed especially for lodging areas.

Smell
- Maximize the natural fragrances of the site.
- Kitchens, smoking areas, etc. must be situated away from public areas.

Indigenous architectural designs (Green Architecture)
- Consider the use of indigenous architectural designs during building construction so as to promote cultural resource.

Selection of Building Materials

a. Prioritize building materials by origin:
   - ✓ Primary materials are those found in nature such as stone, earth, plants wool, and wood.
   - ✓ Secondary materials are those made from recycled products.
   - ✓ Tertiary materials are those that are man-made (artificial, synthetic, non-renewable).

b. Avoid materials and products containing or produced with chlorofluorocarbons (CFCs) or hydrochlorofluorocarbons (HCFCs).

Figure 65. Ifugao houses in Lagud Village Learning Inn, Uhaj, Banaue, Ifugao (Calanog, 2012).

c. Minimize the use of resource materials that are destructive during extraction and consumes high-energy during refinement.

d. When possible, avoid use of concrete and steel.

Energy Management

✓ Take advantage of primary renewable energy resources, such as sun, wind, and water within the vicinity to minimize use of non-renewable resources.

Water Supply

✓ Structures and facilities should be located in areas where there is abundant water supply; it must be ensured that water is used properly.

Pollution and Waste Prevention and Management

✓ Manage waste by reducing, reusing, and recycling wastes. Prevent pollution by not using materials that become waste problems (i.e., non-biodegradables)

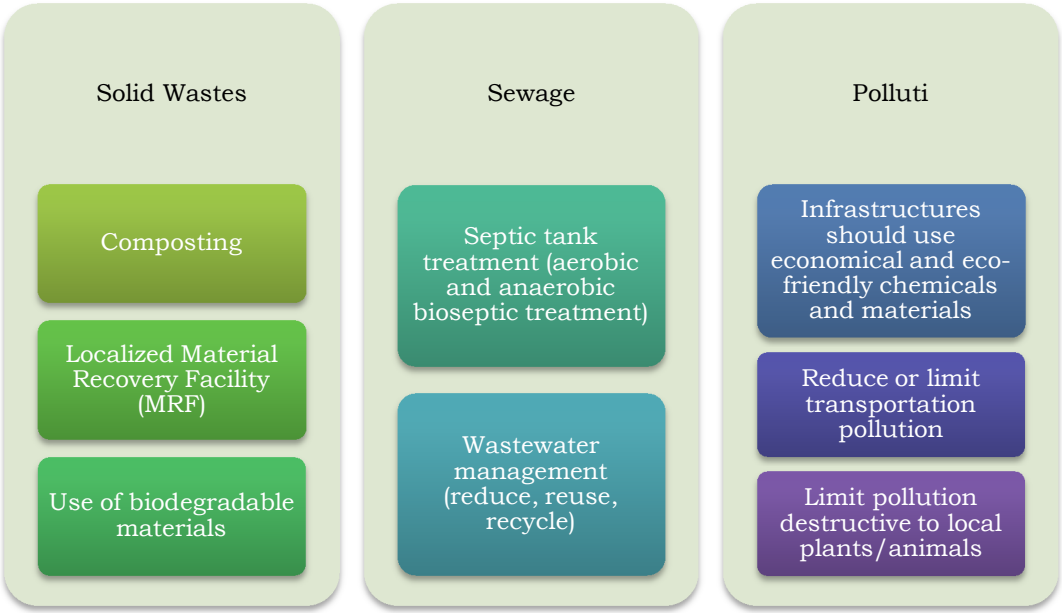


Figure 66. Ways to prevent, limit and manage wastes coming from solid wastes, sewage, and other pollutants

Visitor Circulation Systems

- ✓ **Location of facilities**. Infrastructure elements such as lodging and trails should be located to optimize visitor flow.
- ✓ **Trails**. Trails, foot tracks, and other pathways must contribute minimal disturbance to the natural features.
- ✓ **Accessibility**. The site must be accessible to visitors.
- ✓ **Disable-friendly facilities.** The Magna Carta for Disabled Persons (RA 7277) requires that public facilities should be friendly to the disabled.

SIGNAGE, INTERPRETIVE SIGNS, AND NATURE INTERPRETATION

At the ecotourism area, signage and interpretive signs/nature interpretation materials educate visitors on the site's general theme (which can be on cultural conservation, nature conservation, animal wildlife, etc.), rules and regulations, directions, general site management plan or map, as well as the survival mechanisms that must be followed to ensure safe visit throughout the duration of their stay. Significant features of the site also have signage to further emphasize its worth and importance.

Figure 67. Signage and interpretive signs

Prior to visit, local people could use the mass media (print or broadcast) and other informational materials in promoting local attractions in the area. This could also help educate potential visitors in the safety measures and equipments that must be observed. Furthermore, these materials could also act as campaign materials on local resource conservation.

To add meaning or means for emotional attachment, ecotourism or park management may provide means for visitors to contribute, financially or in kind, to the site's conservation efforts. Experiences, advocacy, and marketing campaigns can be launched in social networking internet sites, organizations, media, and other related activities.

Figure 68. Students doing interpretive tasks at the Makiling Botanic Gardens, UP College of Forestry and Natural Resources (CFNR), College, Laguna (Calanog, 2010).

Signage

What is a Signage?

Signage is any kind of visual graphics created to display information to a particular audience. This is typically displayed in places such as entrance, pathways or inside/outside of buildings.

Signages are primarily used to communicate basic site information to the local people, visitors, and other groups and individuals. It is classified according to function:

1. **Direction**. These are signs leading to facilities, services, function areas, and other key areas such as directional arrows, sign posts, etc.

2. **Information**. These are signs that give information on the site's services and facilities such as directories, maps, instructional signs, etc.

3. **Identification**. It labels the specific service or site facility. Examples of which are: toilet signs, number of floors, room names or numbers, name of the enterprise / establishment, among others.

Figure 69. Directional signages in Mt. Makiling Forest Reserve, College, Laguna

4. **Safety and Regulatory**. Certain signages give safety instructions or warning signs. These signs can be seen on traffic signs, exit signs, warming signs, site rules and regulations, etc.

Interpretive Signs and Nature Interpretation

What are Interpretive Signs?

Also known as heritage interpretation, interpretive signs communicate information or explain the nature, origin, and purpose of the ecotourism site in terms of its cultural resource, natural resource, history, phenomena, and other important information.

While signages provide basic information, the detail it conveys is limited to the orientation of the site's physical space and how people navigate from one place to another. On the other hand, interpretive signs have a wide spectrum of relaying information: from multimedia, to artworks, audio visual materials, labels, and even guided walks, talks, and drama, among others. Interpretive signs are also known as heritage interpretation primarily due to its focus on "heritage" or the inherent "theme" (or thematic approach) of the CBEE site. In terms of thematic approach, these signs concentrate more on nature interpretation.

Nature interpretation is defined as:

- ✓ "…any communication process designed to reveal meanings and relationships of cultural and natural heritage to the public, through first-hand involvement with an object, artifact, landscape or site" (Tilden, 1957).

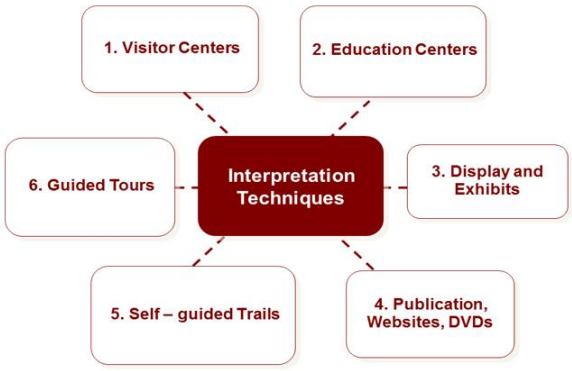


Figure 70. Nature Interpretation Techniques

- ✓ "…a special process of stimulating and encouraging an appreciation of the natural and cultural heritage of a region, as well as a means of communicating nature conservation ideals and practices" (Queensland National Park and Wildlife Center, 1984).

- ✓ "…is the process of communicating messages and stories about cultural and natural heritage, providing the audience with inspiration and a wider understanding of the environment. Or quite simply, interpretation is about telling stories" (Association of Heritage Interpretation, 2012).

- ✓ "…is the revelation of a larger truth that lies behind any statement of fact. It capitalizes its mere curiosity for the enrichment of the human mind and spirit" (Colquhoun, F. (ed.) Department of Conservation, 2005).

Why is there a need to interpret?

1. To enrich visitors' experience by explaining the how, what, and why of protecting the CBEE site for the present and future generations;

2. To raise consciousness, appreciation, and support for cultural and nature conservation;

3. To promote CBEE establishment and development, and to foster desired visitor behavior, such as the need to have minimal impact on the environment; and

4. To promote positive relations with the community, understanding about the CBEE project site, and facilitate volunteer involvement and engagement.

Six Guiding Principles of Interpretation (Tilden, 1957)

1. Any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile.

2. Information, as such, is not interpretation. Interpretation is revelation based upon information. These are entirely different things. All interpretation, however, contains information.

Figure 71. Nature Interpretation

3. Interpretation is an art, which combines many arts, whether the materials presented are scientific, historical, or architectural. Any art is in some degree teachable.

4. The chief aim of interpretation is not instruction, but provocation.

5. Interpretation should aim to present a whole rather than a part, and must address itself to the whole person rather than a part.

6. Interpretation addressed to children should not be a dilution of the presentation to adults, but should follow a fundamentally different approach.

Some Characteristics of Interpretation

1. Interpretation is thematic and conveys messages.

2. Interpretation is pleasurable, relevant, and organized.

3. Environmental interpretation plays a significant role in reducing the negative impacts of tourism.

4. An ecological approach could ensure the visitors' enjoyment and appreciation of their recreational activity as well as an understanding of the ecosystem.

5. Interpretive messages should include information on the attributes of the community or the ecosystem, and on the potential damage that visitors can cause them.

6. The facilitation of people's enjoyment must also take into account the maintenance of wildlife values.

7. The public must be channeled in such a way that no damage is done to the natural things they have come to see.

8. A key goal of interpretation is to promote the conservation of the resource and it is critical that the public become sensitized to the value of that resource.

9. Indigenous peoples and indigenous knowledge play a significant role in interpretation in protected areas where they live. In the Subic Rainforest in the Philippines, for example, the Aetas are the interpreters of a guided tour entitled "Jungle Survival". In this module, visitors visit a model Aeta village, experience drinking water from bamboo stems, climbing trees, building fire and learning about plants which can be used as food and medicine (PSDN, 1998).

Importance of Interpretation for Visitors

Why is there a need to spend time reading panels or go on a guided nature walk to see the tarsier? Visitors participate in interpretive activities for a number of reasons. First and foremost, learning more about a place and its features can be stimulating and interesting. It also:

- satisfies curiosity and thirst for knowledge
- adds depth to the ecotourism experience
- entertains the heart and the mind
- provides insight and add meaning
- heightens sensory awareness
- inspires visitors to support the local people's cause
- makes the unfamiliar familiar

- paves way in meeting and talking with experts
- helps meet other people who share common interests
- provides an activity on family holidays or school trips
- makes them want to return to the site again

Interpretation also provides the human desire for meaning and connections to communities and places, which is the underlying meaning of interpretation work. Identifying with unique places and culture helps people develop a personal and collective sense of being and value.

Environmental Education in Parks and Schools

Schools, colleges, and universities are significant key players in PAs since these are utilized for outdoor education, research, and extension. As schools eventually support the conservation efforts in the community, students learn about biodiversity, geology, culture, and history through educational field trips to PAs (Reyes, 1994). National and state educational curricula need to focus on the importance of heritage and the role of conservation, as well as the existence of and beauty of PAs. A concerted national effort can elevate the level of understanding and debate about environmental values, ethics and appropriate ways in which we can use or relate to natural environments.

In the Philippines, schools have utilized PAs as learning laboratories. The University of the Philippines has, for a long time, used Mt. Makiling Forest Reserve as a forest laboratory and is largely responsible for the conservation efforts at the site. Other colleges, such as the Southern Luzon Polytechnic University, which protects a portion of Mt Banahaw, have duplicated this caretaking model (Reyes, 1994). Likewise, the Isabela State University conducts research and extension at the Northern Sierra Madre National Park. These schools conduct field trips and studies in forestry and biodiversity conservation.

REHABILITATION AND RESTORATION

What is the difference between Rehabilitation and Restoration?

Rehabilitation is the recovery of productivity and some, but not necessarily all, of the plant and animal species originally present.

Restoration entails the re-establishment of the structure, productivity, and species diversity of the ecosystem originally present. In time, ecological processes and function will match those of the original habitat. It is also defined as the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed (Lamb and Gilmour, 2003).

In order for an ecosystem to withstand the impacts of ecotourism, rehabilitation and restoration efforts must constantly be implemented to ensure that local ecosystems can weather the onset of major calamities and unforeseen events. Rehabilitation and restoration efforts include:

a. In a **forest ecosystem**, rainforest techniques are used to rehabilitate the saplings from indigenous mother/nurse trees.

b. **Planting of indigenous trees/plants** in the natural ecosystems or in residential areas.

c. In **coastal resources**, mangrove reforestation should use local species following ecological community structure and not just mono-cropping of *Avicennia.*

Figure 72. Park rehabilitation is done by planting indigenous trees and plants species.

d. **Enhancing cultural and indigenous practices** that conserve nature and biodiversity like *muyong* in Banawe.

BIODIVERSITY CONSERVATION AND PROTECTION

To ensure that sustainable tourism is effectively implemented, there are two biodiversity conservation strategies that can be done for CBEE sites:

In-situ conservation strategies

a. **Closing or cordoning off of certain areas** (such as caves, mountains, forest, coral reefs, etc.) to visitors either permanently or at certain times of the year or for several years to allow the ecosystem to "breath" or revert to its natural state.

b. **Declaring areas or habitat as sanctuaries** through local ordinances or as PA if warranted.

c. **Engaging former users to be guides and service providers** in ecotourism. Fisherfolks can serve as bantay dagat. Kaingineros may also serve as guides. The same goes for Pamilacan fisherfolk as guides, boat owners, spotters, resort owners, etc.

d. **Participatory biodiversity monitoring system**. This allows the local people to work with government agencies, NGOs and educational institutions in monitoring and reporting usage of biodiversity.

e. **Social fencing**. Engaging the whole community as guards of the forest and natural resources through social strategies such as community organizing, capacity building, alternative livelihood through ecotourism, and agroforestry.

Figure 73. Ex-situ Conservation Activities are being done in the Center for Philippine Raptors, Makiling Botanic Garden (MBG), University of the Philippines Los Baños (UPLB), (left). Middle photo shows a bird being treated by the local veterinarian and aides. Right photos of some Philippine raptors held in captivity.

Ex-situ conservation strategies

a. **Establishment** of village-based wildlife zoo and rescue center.

b. **Linkaging** with government, academic, private institutions to assist in ex-situ conservation, especially in undertaking research, captive breeding, seed banking, etc.

c. **Reintroduction** to the wild of rescued wildlife.

DISASTER RISK REDUCTION AND MANAGEMENT

Occurrence of disasters is unavoidable in any ecotourism site. Hence, there is a need for both the local people and the visitors to prepare and be ready to reduce, if not totally stop, the impacts of natural calamities.

Some Approaches to DRRM

Figure 74. General Approaches in implementing DRRM

Preparing for DRRM (del Mundo, C. Z., 2012)

In the local community…

1. Organize a Disaster Risk Reduction and Management Organization (DRRMO) at the community level (see sample structure below). Also refer to the Philippine Disaster Risk Reduction And Management Act of 2010 (RA 10121).

2. Acquire the needed survival kit, emergency/rescue tools and equipments for firefighting, flashfloods, landslides, and other calamities.

3. Have the portable generators in the community ready anytime.

4. Identify evacuation centers, routes, and the means how to go there. Inform community members of this locations and routes.

5. Work with neighbors. Strengthen community bonding.

6. Identify community threats, hazards, and problems that may occur.

7. Ensure everyone has a survival kit. A survival kit may contain the following: waterproof matches, bandages, band aids, adhesive and gauze tapes, aspirin, salt, canned foods, water, etc. *Refer to the Contents of the 72-hour Survival Kit* (Figure 77).

8. Have an early warning system. Install and inform the community about this.

9. Prepare a list of persons who may need assistance (such as the children, elderly, persons with disabilities).

10. Provide training for community members on cardiopulmonary resuscitation (CPR), first aid, disaster preparedness, skills training, etc.

11. Make a checklist of community members and their skills.

12. Ensure that drainage canals are cleared from any obtrusive objects, clogging. Repair dikes and dredge rivers.

13. Inform local people on scheduled water releases, especially those living near lakes, dams, and waterways.

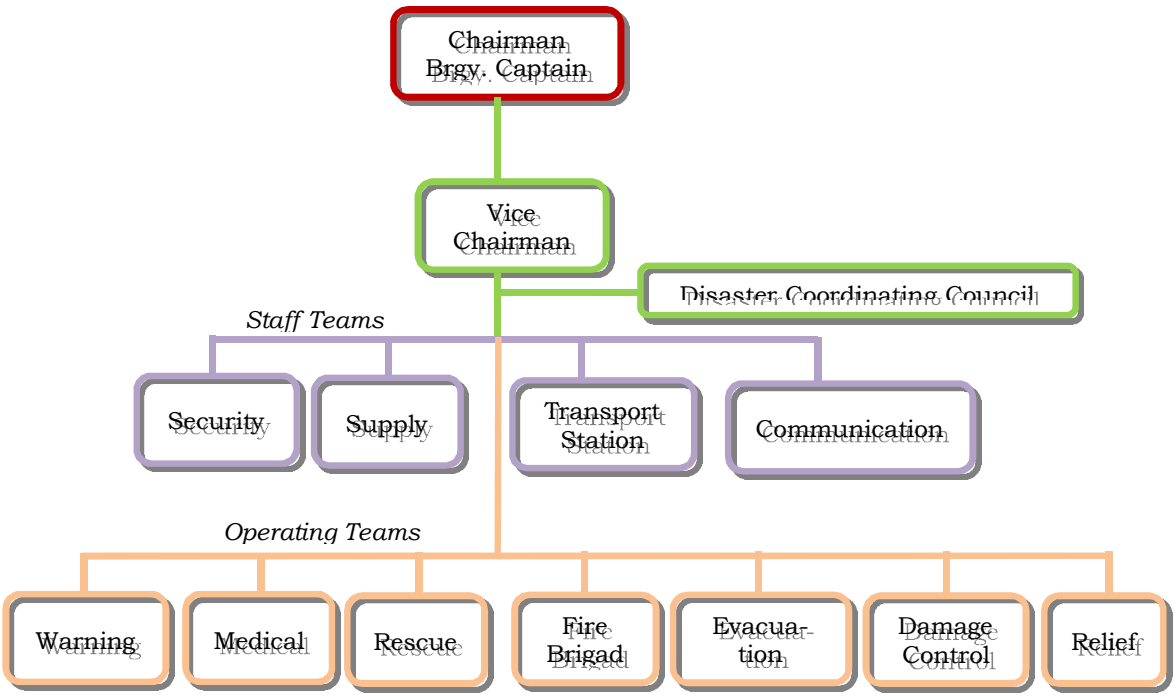


Figure 75. Sample Organizational Structure of a Local Disaster Risk Reduction and Management Office

In the ecotourism site/destination...

1. Ensure the stability of facilities in the site such as cottages, visitor center, lodges, etc. Make sure that the roofs can withstand 150kph winds.

2. Have the survival kits ready and accessible in strategic site locations.

3. Identify and coordinate with concerned local officials on specific evacuation sites, in cases of emergency.

4. Post the emergency phone numbers of authorities in strategic locations of the ecotourism site such as the Philippine National Police (PNP), Philippine Coast Guard (PCG), Philippine Red Cross, Local Disaster Risk Reduction and Management Officials (LDRRMO), and any LGU official.

5. Identify the “safe spots” in each room, cottages, and other visitors’ facilities.

6. Advise visitors of the danger spots in the site facilities such as hanging objects, mirrors, windows, etc.

7. If possible, conduct emergency practice drills (with the staff and visitors).

8. Install early warning devices. Sensitivity to unusual animal behavior must be observed.

9. Teach concerned staff how to turn off gas, water, and electricity in case lines are damaged.

10. Educate each member or staff about the risks that might occur (like falling rocks, debris, etc.) and how to survive in case of emergencies;

Figure 76. Observing animals' unusual behaviors as indicator in DRRM.

11. Conduct regular trainings through the assistance of the local: fire department, public safety office, Philippine Red Cross (for first aid), Barangay Health Unit (BHU) (for CPR and other health-related trainings), and the LDRRMO (for disaster preparedness).

Seek the help of …. Local Disaster Risk Reduction and Management Officer (LDRRMO)

As provided for in R.A. 10121, Philippine Disaster Risk Reduction and Management Act of 2010, each municipality shall have a LDRRMO who could provide advice and assistance in preparing for any relevant plan or action strategies to anticipate or mitigate any form of disaster or hazard that a particular CBEE may face.

A Survival Kit should be made ready and handy in barangays or community and in ecotourism sites that are located in hazard or disaster-prone areas. Basic contents of the survival kit are listed below:

72-hour Survival Kit

1. *Drinking water – at least one (1) gallon per person*
2. *Instant foods such as ready to open canned goods, cup noodles, high liquid content supplements, dried fruits, nuts, biscuits, cookies, and sweets*
3. *First aid kits – aside from the usual contents, provide for special maintenance medicines for diabetes, hypertension, etc.*
4. *Flashlights, emergency lights, candles, batteries (AAA and AA sizes)*
5. *Battery-powered transistor radios*
6. *One (1) set of clothing per person per day*
7. *Handkerchief or bandanna – this can be used as head covering, bandage, washcloth, potholder, dust mask, tourniquet, signal device, etc.*
8. *Emergency blanket to prevent hypothermia*
9. *Storage bags, bucket, or pail (for water collection)*
10. *Cell phones, chargers, plus its spare batteries*
11. *Important items (such as toys and games, Holy Bible) to keep one's sanity intact*
12. *Beddings and mosquito nets*
13. *Flotation devices*
14. *Heavy duty trash bags that can be used as ponchos*
15. *Whistles*
16. *Swiss army knife*
17. *Cooking and eating utensils*
18. *Duct tape*
19. *Strong cords, ropes*
20. *Inflatable life raft (if available)*
21. *Fire starter (lighter)*
22. *Toiletries especially for women and children (sanitary napkins and diapers), safety pins*
23. *Umbrella*
24. *Disaster and emergency preparedness guide*
25. *Firearms (if licensed)*
26. *Cash*
27. *Tent (if available)*
28. *Flash drives with all important files*

Figure 77. Important things that should be included in the 72-hour Survival Kit (del Mundo, C. Z., 2012)

HERITAGE CONSERVATION

What is Heritage Conservation?

Heritage conservation helps ensure that cultural significance of heritage place is retained and ecologically sustained for future generations to enjoy.

On the other hand, conservation means all the processes of looking after a place so as to retain its cultural significance (Burra Charter, 1999). This includes the maintenance and may, according to circumstances, include preservation, restoration, reconstruction and adaptation and will commonly be a combination of more than one of these.

The promotion of local culture is an essential element of ecotourism. In cases where natural parks are also the sites of significant historical events, these areas become important as heritage tourism destinations.

Practitioners differentiate heritage from history. Heritage is similar to interpretation or nature interpretation (refer to the topic on Signage, Interpretive Signs, and Nature Interpretation). It means, "…that which is inherited from the past". Its interpretation goes beyond the physical evidence of history, such as archaeological artifacts or the tangible remains that preoccupy scientists. Heritage is history processed through mythology, ideology, nationalism, local pride, romantic ideas or just plain marketing, into a commodity.

On the other hand, history, as the interpretation of the past, is subject to change and even to fashion. The way historians in the past looked at history tells us nowadays as much about them and their place in society as it tells us about history itself.

Therefore, heritage conservation is an informed process that allows and manages buildings and places to change to different circumstances, depending on the situation of its users and occupants. At the same time, it also maintains the cultural significance of the place.

Steps in Developing Heritage Conservation/Heritage Sites

1. Study the history and culture of your place based on local knowledge.
2. Engage in research with educational institutions such as the National Historical Commission to enrich local people's knowledge.
3. Interpret the local site. Well-interpreted sites teach visitors their importance, and by extension, the importance of preserving other such sites elsewhere.
4. Protect the heritage site.
5. Manage increasing stress to the heritage site and structure by managing the influx of visitors.

Maintaining the Site for Heritage Conservation

1. Regular inspection and maintenance must be carried out.

2. Physical structure and documentary evidence of the structure or site should be examined by looking at the building and doing historical research.

3. Together with the local people, work out a conservation and management policy based on the heritage significance of the place. What is the goal of the conservation effort and how it is going to be attained?

4. The building/structure's character and history must be respected. Ask advice only from professionals before making any change.

5. The original structure must be repaired, rather than replaced of parts or materials. Make sure that improvements and appropriate materials must be according to the original pattern or design.

Seek the help of .... the following agencies responsible for Heritage Conservation :

- *National Commission for Culture and the Arts (NCCA)*
- *Heritage Conservation Society (HCS)*
- *International Council of Monuments and Sites (ICOMOS)*
- *National Historical Institute (NHI)*
- *Colleges and Universities (such as the Center for Bulacan Studies)*
- *National Museum*
- *Regional/Provincial research centers*

6. Do not make precise imitation of architectural detail in the new design or structure so as to determine which ones is the addition to the original structure.

7. Find the cause of defect prior to making any improvements.

8. Disfigured alterations must be removed. Make sure such alterations can be reversed in the future.

9. Prior to repair, necessary building, planning, and legal consents must be obtained.

10. Keep track of the changes that have done. Such documentation will help in future decision-making.

CHAPTER 4

Socio-Economic-Cultural Strategies in Community-based Ecotourism Enterprise Building

SOCIAL SAFEGUARDS AND CONSIDERATIONS

What are Social Safeguards?

Social safeguards are mechanisms or strategies that minimize, if not totally prevent, adverse impacts of a project on the community and the lives of local people. It also helps strengthen the locality's own safeguard systems (if there is any) and develop its capacity to manage social risks.

In a community-based ecotourism site, the social safeguards and considerations that must be carefully delved upon are the following:

a. Visitors' security and management
b. Ethical standards in handling visitors
c. Sexual tourism and child abuse
d. Gender and women's role
e. Indigenous people and indigenous knowledge systems, and the
f. Unavoidable resettlement of affected local people.

Visitors' Security and Management

Visitors' Security. Safety and security of visitors are vital in providing quality ecotourism experience. The success or failure of an ecotourism destination depends on providing a safe and secure environment for visitors.

Some necessary steps in visitor security:

1. Visitors must have proper identification and documentations (such as company ID, visa, passport, etc.).

2. Visitors must be required to undergo an orientation about the site, products, and services prior to site visit and activities. Priority topics include those that are related to risks, security and emergency measures, location of survival kits, important information on the ecotourism sites, and the do's and dont's to observe.

3. Identification cards, badges, or name tags must be issued to visitors so as to easily track and monitor them.

Seek the help of .... the local Department of Tourism and/or Local Tourism Officer

In formulating and preparing specific visitor security and management plan for a particular CBEE, the Office of Tourism Development Planning, Research and Information Management of the DOT could help.

Refer to specific provisions of R.A. 9593, Tourism Act of 2009.

4. An appropriate number of accredited tour guides or assistants should be assigned to a prescribed number of visitors. The ratio of number of visitors per tour guide depends on the purpose and activities of the visitors.

5. Regular coordination with the Local Disaster Risk and Reduction Management Officers (LDRRMO) in the community must be in place, particularly to the local *barangay tanod*/police. Also, seek advice on proper security measures implementation and emergency assistance.

6. A Security Help Desk, or desks if the area is too large, that could be easily contacted by the visitors and tour guides must be designated especially in cases of emergency.

7. Visitors must be aware of the prohibited items inside the ecotourism site (such as: fire arms, illegal drugs, and alcoholic beverages, among others).

8. Visitors must be provided with brochures or reading materials to serve as reminder of the security measures that must be followed while in the site.

9. If possible, install security equipments, like closed circuit television (CCTV) cameras, in strategic locations of the site. However, this should still blend with active human security.

10. Require visitors to wear the proper attire and use the appropriate equipments, particularly when performing special activities: the use of harnesses when rappelling, wearing life vests when boating or kayaking, and other safety gears for water activities such as white water rafting, etc.

Figure 78. Wearing proper gear during white water rafting ensures safety of visitors

11. Police and other law enforcers must be visible at all times. This will somehow deter any possible crime incidence. Hire private security and/or life guards if possible.

Please refer to the section on DRRM of this manual for other security measures.

Visitor Management. To limit the visitor impacts on an ecotourism site and vice versa, the following strategies must be applied: (Please refer to Tourism Carrying Capacity in Chapter 3 for the computation of the maximum number of visitors in a particular site or activity as a visitor management measure).

Figure 79. Key Strategies in Visitor Management

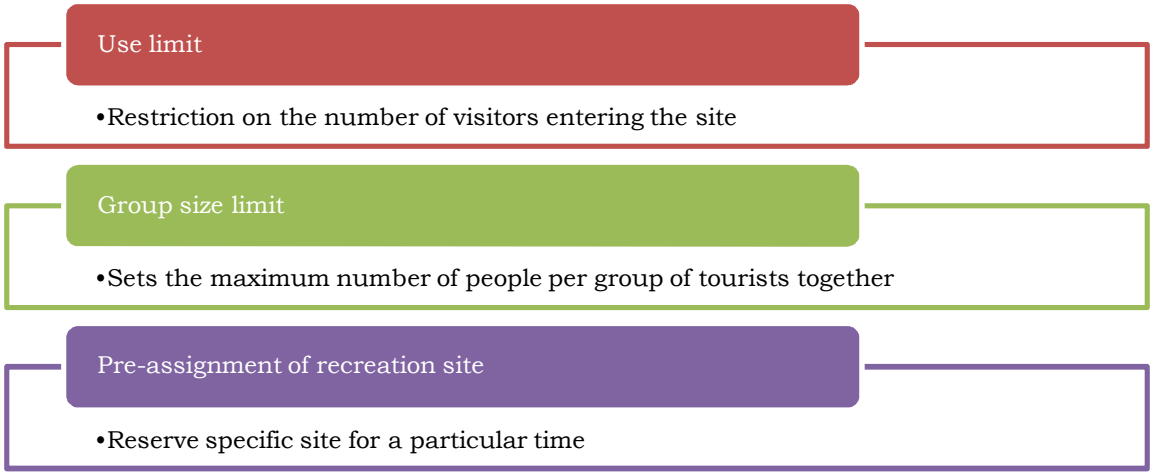


Figure 80. Visitors are grouped together during orientation on rules and regulations of the Makiling Botanic Gardens, UP College of Forestry and Natural Resources (CFNR), College, Laguna (Calanog, 2010).

Figure 81. Picking of flowers and other genetic resources as well as capturing wildlife (such as exotic birds) should be prohibited in ecotourism sites.

Figure 79. Strategies for Visitor Management (continuation)

1. **Use limit**. This sets restriction on the number of visitors entering the site. For instance, when a campsite is full, other campers are not allowed to enter. Another way is by reducing the size of car parks or by setting a limit in the number of vehicles to control the number of visitors entering.

2. **Group size limit**. Related to use limit, group size limit is setting a maximum number of people in one group of tourists traveling together. For instance, only 100 boy scouts from each province are allowed to camp in Mt. Makiling.

3. **Pre-assignment of recreation site**. This involves the allocation of individual sites to specific individuals or groups before entering a recreation area – much like a reserved seat in a theater or passenger bus. This approach is more appropriate for campsites, river access sites, historic sites, and trekking trails. When demand is high, pre-registration is necessary.

4. **Area closures**. Prohibits tourists from using all or some types of ecotourism areas. Area closures are common in historic sites, museums, habitat of wildlife species, and other high use locations such as near visitor centers and high-altitude locations.

5. **Restrictions on fire use.** Fire restriction aims to reduce the visible and biological effects of using fire. This is normally applied on fire danger season, especially during summer. This approach significantly reduces the potential occurrence of wildfires, limits fuel wood use, and minimizes ecological impacts attributed to wood gathering.

Figure 82. Restrictions on fire use

6. **Restrictions by group characteristics**. Groups with certain equipments, (such as guns, big bikes, etc.) and groups planning to do certain activities (such as war games or simulations) are not allowed entry.

7. **Length of stay limit**. This sets the amount of time an individual or group may stay in an ecotourism site. In Taal Volcano Island, visitors are not allowed to stay overnight.

8. **Technology requirements**. This strategy obliges tourists to carry specialized equipments for environmental or safety reasons. For example, visitors must use cooking gas stoves to avoid wood burning. Personal waste disposal gadgets such as portable toilets must be utilized for proper waste disposal. Safety equipments like harnesses, and flashlights, among others must be brought during terrain trekking.

9. **Trip scheduling**. The location and timing of a group's use of an area is scheduled. For instance, white water rafting is only allowed during mornings. Viewing of historic sites, interpretive films, and displays can be done only in the evening.

10. **Barriers**. Barriers are purposely built to serve as obstacles to visitor movement. Examples are: fences keep people out of the breeding grounds of rare species; ditches keep people from walking into sensitive wetlands; and low barriers keep vehicles off the grass.

11. **Park information**. Another way to manage visitors is by providing them with data, facts and advice about the site, biology and geology, locations of visitor facilities, maps, and rules and regulations. In return, visitors are expected to adopt such rules and behave appropriately within the site, thus reducing human impacts and providing them with a more satisfying visit. (Also refer to discussions on Signage in Chapter 3).

Figure 83. Visitors should be informed about the prescribed waste disposal and management in an ecotourism site. Appropriate signages should be posted in strategic areas of the site.

12. **Interpretation**. Interpretation involves providing information to visitors such that they will be encouraged to learn and gain more appreciation in the area. Thus, interpretation is more than presenting data and facts, but primarily concerns the interconnection and interweaving of site information so that visitors can understand and appreciate the values for which the ecotourism site is established. (Also refer to the discussions on Interpretive Signs and Nature Interpretation, as well as the topic on Heritage Conservation in Chapter 3).

13. **Differential pricing**. This involves establishing two or more prices for the same recreation opportunity such as: charging higher fees during peak holiday periods, differential fees according to location or view of accommodation, discounts for children and pensioners, and differential entrance fees, so that foreign tourists pay more than residents do.

14. **Visitor qualifications**. Visitors with required qualifications, necessary training, and equipment are allowed entry. For example, only scuba divers are allowed in specific dive sites.

Table 9.Some Strategies and Tactics in Managing High Level of Use in an Ecotourism Site (Marion and Farrell, 1998)

STRATEGIES	MANAGEMENT TACTICS AND TECHNIQUES
1. Reduce use of the entire area	a. Limit number of visitors in the entire area b. Limit length of stay c. Encourage use of other areas d. Require certain skills and/or equipment e. Charge the visitor fee f. Make access more difficult in wilderness sites
2. Reduce use of problem areas (e.g. steep slopes, crater rim, etc.)	a. Inform about problem areas and alternative areas b. Discourage or prohibit use of problem area c. Limit number of visitors in problem areas d. Encourage/require a stay limit in problem areas e. Make access to problem areas more difficult and/or improve access to alternative areas. f. Eliminate facilities/attractions in problem areas, improve facilities/attractions in alternative areas g. Encourage off-trail travel h. Establish different skill/equipment requirements i. Charge differential visitor fees
3. Modify the location of use within problem areas	a. Discourage/prohibit camping or use of horses in specific sites b. Encourage/permit camping in certain areas c. Establish facilities on safer sites d. Concentrate use of certain areas through facility design and/or information e. Discourage/prohibit off-trail travel f. Segregate different types of visitors
4. Modify the timing of use	a. Encourage use outside of peak use periods b. Discourage/ban use when impact potential is high c. Charge fees in periods of high use/high impact potential
5. Modify type of use and visitor behavior	a. Discourage/ban damaging practices/equipment b. Encourage/require helpful behavior, skills, equipments c. Teach correct ecotourism ethics d. Limit number of people/horses e. Require or encourage use of guide. f. Discourage/prohibit horses and pets g. Discourage/prohibit radios, players, and the like which makes too much noise h. Discourage/prohibit overnight use
6. Modify visitor	a. Inform visitors about appropriate wilderness uses

STRATEGIES	MANAGEMENT TACTICS AND TECHNIQUES
expectations	b. Inform about potential conditions in wilderness
7. Increase the resistance of the resource	a. Shield the site from impact through fences, natural barriers b. Strengthen the site by providing tent platforms, drainage pipes, paved trails, among other facilities.
8. Maintain/rehabilitate resource	a. Maintain/rehabilitate impacted locations

Ethical Standards in Handling Visitors

Ethical standards are principles that promote values such as good behavior, trust, fairness, kindness, and generosity. In conducting CBEE activities, visitors expect that host organizations, tour guides, and the local people will treat them with utmost respect and dignity, regardless of their race, religion, ethnicity, and language, among others. The following are some of the ethical standards that must be observed when handling visitors:

1. **Provision of highest standard of service**. Ecotourism managers/guides must strive to provide visitors with the highest standard of service. For instance, itinerary of tour guides must not be altered without consent.

2. **Compliance to professional ethics**. Tourist guides and operators must adhere to professional ethics. When receiving visitors they must:

   a. Be dutiful, sincere, courteous and attentive;
   b. Speak and act cautiously, discreetly, and be objective;
   c. Be accurate and knowledgeable about the site and the products and services being promoted;

Seek the help of …. Accredited tour guides, mountain guides, cave guides, and other service providers

To ensure that tourism service providers give out quality standard services and adhere to professional ethics, seek the services of duly accredited service providers that comply with the standard requirements of the DOT.

Refer to the Registrations, Permits, and Accreditation section in Chapter 5 for more information.

Consult the Municipal Tourism Officer for help.

Visit the following website, http://accreditationonline.tourism.gov.ph/standards.aspx

d. Be respectful of religious beliefs, customs, and habits of visitors;
e. Be punctual in performing duties;
f. Not smoke in front of visitors and drink alcoholic beverages during work;
g. Not gamble during work;
h. Not sell illegal items to visitors or recommend them to buy such items;
i. Not seize or attempt to seize visitors' travel documents unless such act is made on proper grounds; and
j. Be properly dressed to enhance professional image.

3. **Acceptance of gratuities**. They must neither collect gratuity by any means nor shall they exhibit dissatisfaction, provide sub-standard service or refuse to provide service because few or no gratuities are given.

4. **Principles governing self-pay activities**. Tourist guides must only accept self-pay activities and services from visitors approved by their travel agency. They cannot impose visitors to join self-pay activities (such as exerting group pressure or leaving visitors with no other choice). Visitors must be allowed to choose freely whether to join such activities or not.

Sex Tourism and Child Abuse

Any form of sex tourism must be resisted and prevented in any of the activities conducted in the CBEE. This can be done by:

1. Having coordination and networking with proper authorities handling prostitution;

2. Not hiring or employing children below 18 years old;

3. Requiring the staff, specifically those providing services, to be properly and decently dressed;

4. Applying strict regulations in allowing visitors with unknown or suspicious partners;

Figure 84. Strict regulations must be applied to visitors with unknown or suspicious partners.

5. Not allowing visitors with companion prostitutes or child partners;

6. Not offering services (such as bars, night clubs, etc.) that may invite or encourage sex tourism; and

7. Educating CBEE staff about sex tourism and child abuse.

Gender and Women's Role

What is Gender?

Gender is the social difference between men and women. These differences are learned, vary from place to place, and may change over time. Gender is a socio-economic variable used to analyze roles, responsibilities, constraints, opportunities, and needs of men and women (FAO & IIRR, 1995).

The Convention on Biological Diversity defines gender as the social roles that men and women play and the power relations between them, which usually have a profound effect on the use and management of natural resources (2012). Gender is not based on sex, or the biological differences between men and women. Gender is shaped by culture, social relations, and natural environments.

The gendering of local knowledge has four (4) key characteristics (CBD, 2012):

1. Women and men have knowledge about different things.
2. Men and women have different knowledge about the same things.
3. Women and men may organize their knowledge in different ways.
4. Men and women may receive and transmit their knowledge in different means.

Given these characteristics, it can be assumed that women can play an important role in the CBEE. It has been proven in many occasions that they are powerful agents of change. Their leadership is critical in effective community involvement, revitalization, and natural resource management. Furthermore, gender role is important due to the following reasons (Scheyvens, 2000):

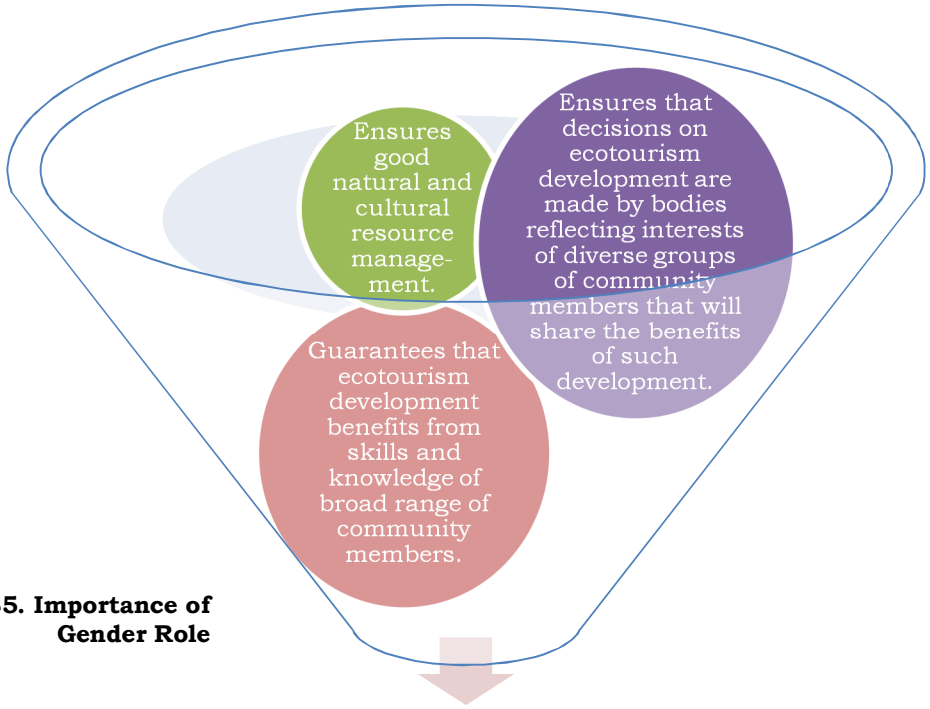


Figure 85. Importance of Gender Role

On equal footing with men, women can:

1. Take the role of service providers, masseuse, food handlers, cleaners, guides, etc.

2. Help in water conservation. They keep the water clean and at times harvest, saves, and use rain water for various activities and purposes.

3. Manage solid waste to prevent pollution and clogging of waterways by applying the principles of 3 Rs (Re-use, Reduce, and Recycle).

4. Engage in composting organic wastes and growing vegetable gardens to supply need of ecotourism establishments.

5. Help save trees and forests especially by joining tree planting activities (especially in botanical gardens).

6. Protect the air by reducing greenhouse gas emissions (such as in burning of wastes).

7. Protect land and soil especially in farming areas by applying solid and water conservation technologies.

8. Preserve Philippine biodiversity by being the caretaker of local zoo wildlife and rescue center.

As homemakers, women can engage in handicraft-making and sales on their free time. It is also important for women to be given a chance to participate in community activities and decision-making for CBEE as this helps boost their self-confidence and plan more active role as responsible members of the community.

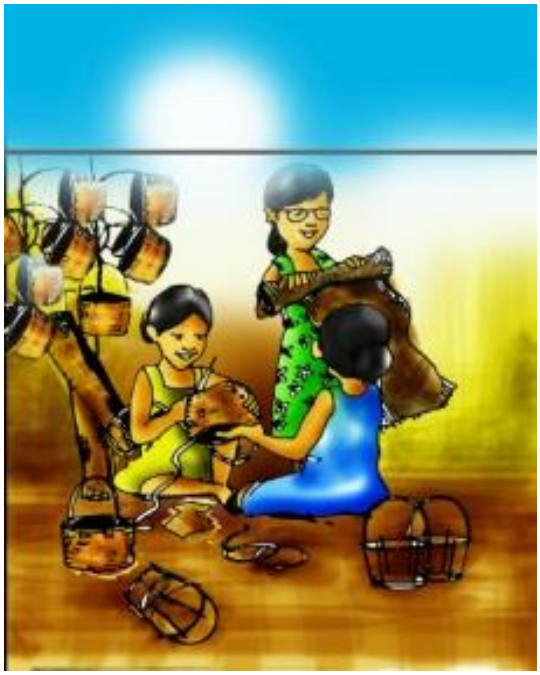


Figure 86. Women can engage in handicraft- making during their free time.

To protect women from the adverse impacts of the CBEE, the following social safeguards can be undertaken:

1. Hand in hand, public and private sectors can provide training and promote gender-related indigenous skills in all CBEE activities.

2. Give importance and take appropriate action on the gender perspectives, particularly in CBEE processes.

3. Support women-centered CBEE activities (particularly micro enterprises) such as home stays, tea shops, local lodges, handicraft and textile manufacturing and sales, etc.

4. The national and local government must work together in the creation of laws on women focusing on anti-discrimination, women empowerment, gender-based rural tourism, promotion of gender-related indigenous skills and products, and safeguard mechanisms on the sufficient control, access, and benefit sharing over local resources.

5. Recognize the role of women in natural and cultural resource management.

6. Provide proportional representation for women and cultural minorities in various public and private organizations.

Indigenous People (IP) and Indigenous Knowledge Systems (IKS)

Indigenous people, together with their knowledge systems, are cultural communities that need protection from the impacts of CBEE activities. The following are some of the social safeguards that can be done:

1. **Respecting the rights of the IPs**. In cases where IPs are residing in or within an ecotourism site, the design and implementation of the ecotourism project must promote full respect for IP's identity, dignity, human rights, livelihood systems, and cultural uniqueness. To do this, there should be:

Figure 87. Posing with a local Ifugao in native costume is one of the popular tourist attractions in Banga-an Village, Banaue, Ifugao (Calanog, 2012).

   a. A meaningful consultation with concerned IPs, and their respective leaders;

   b. Preparation and implementation of an IP plan in line with the implementation and operation of the CBEE;

   c. A wide community support from affected IP communities, especially those directly affected by the project;

   d. Proper safeguards that will ensure the protection of the IPs, while providing an avenue for active participation in all CBEE activities.

2. **Indigenous Knowledge and Community-based Ecotourism Enterprise (CBEE)**. Indigenous knowledge can be a valuable resource for the establishment of CBEE. It could:

   a. Serve as basis for CBEE self-sufficiency and self-determination;

   b. Strengthen people's participation and empowerment process;

   c. Ensure viability and sustainability;

   d. Promote use of appropriate technology;

   e. Ensure cost-effective approaches; and

   f. Provide opportunity in understanding and facilitating the design of appropriate development approaches.

It must be noted that IPs and local communities have acquired a wide spectrum of information, skills, and technology in agriculture, livestock rearing, food preparation and preservation, construction and building, soil and water conservation, natural resource management, community organizing, health care, and education that are essential in making CBEE successful and sustainable.

3. **Some warnings in the application of IKS**. Not all IKS are applicable and useful in every aspect of development. Some may be ineffective or inappropriate in the existing proposed CBEE site conditions. Therefore, IKS must be applied cautiously. Projects should document local knowledge and assess its validity before finalizing what to use.

Figure 88. On the way to Banga-an Village, Banaue, Ifugao a simple souvenir shop helps promote the culture of the local people while earning in the process (Calanog, 2012).

Unavoidable Resettlement of Affected Local People

The resettlement of local people may become inevitable during CBEE implementation. If such occurs, resettlement must not give rise to severe economic, social, and environmental risks while resulting in long-term hardships and impoverishment of affected people. Some mitigating measures are:

1. There must be a series of consultations with the affected community on how to best proceed with resettlement.

2. There must be preparation, implementation, and monitoring of time-bound resettlement plan.

3. The enhancement, or at least restoration, of the livelihoods of all displaced communities must be carefully implemented.

4. There is a need to exert efforts in the improvement of standard of living of displaced people and other vulnerable groups.

5. Also, appropriate compensation for property losses and social dislocation, as well as assistance to and benefit sharing with displaced local people must be provided.

FINANCIAL AND ECONOMIC ANALYSIS

What are Financial Analysis and Economic Analysis?

Financial Analysis examines the activities and resource flows of the target project beneficiaries and other stakeholders in a separate manner. On the other hand, economic analysis examines the impact of the project beneficiaries and other stakeholders in the local community or the economy of the project site.

Net Present Value (NPV)

A cost-benefit analysis, to an extent, depends on finding the net present values (NPVs) of costs and benefits. NPV is the present value of the cash flow stream. Initiators can decide whether or not to invest in a project by looking at the projected cash inflows and outflows.

NPV is computed by assigning values to cost and benefits and then subtracting the total discounted present value of the costs from that of the benefits.

$$\text{Benefits} - \text{Cost} = \text{NPV} \geq 0$$

Decision can be reached based on the following results:

- If the value of NPV is greater than 0, then the project is worth the go. It can be profitable and worth the risk.
- If the value of NPV is less than 0, then the project is not worth the risk and further examination should be conducted.

Benefit/Cost Ratio (BCR)

The benefit-cost ratio shows the comparison of the benefits that can be made by the project versus the costs that can be incurred during operations. Enterprises must look into the benefit-cost ratio to make sure that the business operation can be profitable. If the costs outweigh the benefits, then it is no longer profitable for an enterprise to run under the same set of circumstances.

Steps in calculating the BCR

a. Determine the total amount of money generated from selling a product or service over a certain period of time. For instance, if an enterprise can make PhP 100,000 in a year by producing souvenir t-shirts, then PhP 100,000 would be the benefit.

b. Compute the total costs incurred or can be incurred over the course of producing the item. For example, if the enterprise incurs expenses of PhP 20,000 to produce the souvenir t-shirts (expenses include rent, overhead, supplies, labor, shipping, and handling), then the cost would be PhP 20,000.

c. Divide the total benefit by the total cost. In this case, divide PhP 100,000 by PhP 20,000, and the result would be 5. The benefit-cost ratio for producing and selling these t-shirt would be 5-to-1, or 5:1. This means that for every cost, the enterprise will benefit five (5) times in producing and selling t-shirts.

For a CBEE project to be acceptable, the ratio must be greater than 1. The ratio shows the benefits derived for every unit cost invested.

Seek the help of .... Private Consulting Firms and NGOs

Some NGOs, advocacy groups and private consulting firms could help in preparing the necessary financial analysis, market research and doing value chain analysis for the planned or on-going CBEE.

Consult the Municipal Planning Development Officer and Municipal Tourism Officer for help.

Return on Investment (ROI)

Knowing the return on investment (ROI) can also help in making business decisions. This calculation will determine the amount of money an enterprise can generate from investing a certain amount of money or resources.

For example, PhP 100,000 is invested in a marketing campaign to promote a new attraction in an island. After doing so, about 150 inquiries are received from the campaign and 50 of them actually visited the place. The investment generated total sales of PhP 500,000. The equation to calculate ROI is:

ROI = [income - initial investment)/investment] x (100)

a. Determine the income or potential income. In this example, the income is PhP 500,000.

b. Determine the amount needed for the initial investment. In this case, PhP 100,000 is invested in the marketing campaign.

c. Calculate the ROI. ROI = (PhP 500,000 - PhP 100,000) divided by PhP 100,000 multiplied by 100. In this case, the answer is 400%. The enterprise will have a 400% return on investment.

Appendix 3 illustrates the Cost-Benefit Analysis in Operating a Community-based Ecotourism Enterprise in Dampalit Falls, Laguna.

FINANCIAL INDICATORS AS A DECISION-MAKING TOOL

When deciding to engage in a productive enterprise like the CBEE, local investors primarily consider the amount of income they can expect from it. If the operation can be expected to give enough net income, the investor is likely to undertake it.

Here are some calculations to help the local community decide whether a proposed operation (such as the CBEE) is more financially sound than their existing sole traditional enterprise (like farming, fishing, etc.). Information required can be collected in various ways, including individual or group interviews, participatory appraisal methods, and secondary data (such as market prices collected by local government services).

Gross Margin

Calculating the gross margin is useful for a new operation which will largely, if not completely, change the existing farm system. Gross margin is the difference between: (a) the total cash income and (b) the total cash cost of the operation.

Gross Margin = Total Cash Income – Total Cash Cost

Calculate the gross margins for the existing enterprise (such as farming) and the proposed alternative (the CBEE). Compare the two margins so as to decide whether to adopt the alternative enterprise.

Calculations:

1. Calculate the **income from each existing farm enterprise** (i.e., rice crop, mungbean crop, goat herd). Multiply the quantity of each commodity produced by the selling price of that commodity. This gives the total cash income from that enterprise.

Table 10. Sample calculation for Cash Income on each farm enterprise

Total Quantity Produced		Selling Price		Income
a. Total rice quantity produced in kg.	x	selling price per kg. of rice	=	Income from rice (I1)
b. Total mungbean quantity produced in kg.	x	selling price per kg. of mungbean	=	Income from mungbean (I2)
c. Total quantity produced from other farm enterprises in kg.	x	selling price per kg. of other farm enterprises	=	Income from other farm enterprises (In)

2. Sum the gross incomes from each enterprise. This gives the **total cash income**.

Table 11. Sample Calculation for Total Cash Income

Total Quantity Produced		Selling Price		Income
a. Total rice quantity produced in kg.	x	selling price per kg. of rice	=	Income from rice (I1)
b. Total mungbean quantity produced in kg.	x	selling price per kg. of mungbean	=	Income from mungbean (I2)
c. Total quantity produced from other farm enterprises in kg.	x	selling price per kg. of other farm enterprises	=	Income from other farm enterprises (In)
Total Cash Income (summation of income)			=	I1+ I2 + In

Income from rice (I1) + Income from mungbean (I2) + Income from other farm enterprises (In) = Total Cash Income (TCI)

3. Calculate the **cash cost of each input** (such as hired labor, seeds, fertilizers, etc.). Multiply the quantity of each input with the standard cost or price per unit of input.

Table 12. Sample calculation for Cash Cost on each farm input

Total Input		Cost or Price per Unit of Input		Total Cash Cost of Input
a. Total number of hired labor hours	x	cost of 1 hr. of hired labor	=	Total cost of labor (C1)
b. Total kg. of seeds	x	cost of 1 kg. of seeds	=	Total cost of seeds (C2)
c. Total kg. of fertilizer	x	cost of 1 kg. of fertilizer	=	Total cost of fertilizer (C3)
d. Total amount of other inputs	x	cost of 1 unit of input	=	Total cost of other inputs (Cn)

4. Sum the total cost of each input. This gives the **total cash cost**.

Table 13. Sample Calculation for Total Cash Cost

Total Input		Cost or Price per Unit of Input		Total Cash Cost of Input
a. Total number of hired labor hours	x	cost of 1 hr. of hired labor	=	Total cost of labor (C1)
b. Total kg. of seeds	x	cost of 1 kg. of seeds	=	Total cost of seeds (C2)
c. Total kg. of fertilizer	x	cost of 1 kg. of fertilizer	=	Total cost of fertilizer (C3)
d. Total amount of other inputs	x	cost of 1 unit of input	=	Total cost of other inputs (Cn)
Total Cash Cost (summation of cash cost)			=	C1 + C2 + C3 + Cn

Cost of labor (C1) + Cost of seeds (C2) + Cost of fertilizer (C3) + Cost of other inputs (Cn) = Total Cash Cost (TCC)

5. Compute for the **gross margin of the existing enterprise** by subtracting the total cash cost from the total cash income.

Total Cash Income (TCI) – Total Cash Cost (TCC) = Gross Margin (GM)

6. Repeat these steps for the alternative enterprise, such as the CBEE. This gives the **gross margin of the alternative enterprise**.

7. Compare the gross margin of the existing enterprise (farming) with the gross margin of the alternative enterprise (CBEE). Consider choosing the enterprise that produces higher gross margin if selection, of one of the two, is inevitable.

Partial Budget

Calculating a partial budget margin is useful when only a part of the existing enterprise will be affected by a proposed new enterprise. It is less time-consuming than computing the gross margin because unaffected components of the farm operation need not be accounted for.

The **partial budget** makes use of the difference between:

- **Additional** (or reduced) **costs**; and
- **Additional** (or reduced) **benefits** associated with the new enterprise.

An increase in income can result from either higher income or reduced costs, or a combination of these. In the same manner, an increase in number of per unit input (such as seeds, fertilizers, farm implements, etc.) may be attributed to reduced cost of inputs (cheaper price of inputs) and/or higher gross income brought about by the CBEE.

Calculations:

1. Calculate the **additional income due to the changed activity**. For instance,

   Number of additional expected visitors x Fee per expected visitor = Total Additional Income (TAI)

2. Calculate the **additional costs expected**. Considering the cost for hiring additional staff and goods:

   Number of additional staff hired x Salary of additional staff = Extra cost of tourism operations (EC1)

   Additional goods x Price of additional cost of goods bought = Extra cost of food (EC2)

3. Sum the additional (or reduced) costs. This gives the **total additional cost**.

   Extra cost of tourism operations (EC1) + Extra cost of food (EC2) = Total Additional Cost (TAC)

4. Subtract the total additional costs from the total additional income expected. This gives the **net additional (or reduced) income expected**.

   Total Additional Income (TAI) – Total Additional Costs (TAC) = Net Additional (or reduced) Income Expected (NIE)

Price Trend

Prices of commodities rise and fall from season to season and from year to year. An understanding of these changes can help local entrepreneurs select what particular activity or product in an enterprise will be pursued (or sold). A study tour on visiting similar industries in other places or through trade fairs wherein the local people could meet other industry players can provide good information on price trends. Industry magazines, newspapers, and the worldwide web are also good sources of relevant information. Comparing changes in the process of two or more commodities can help local community choose which to produce or engage in. This analysis can be done for each season or over several years.

Figure 89. Local food served in an ecotourism site in Taal Volcano Protected Landscape, Talisay, Batangas. Prices depend on food preparation, service, and the type of food itself (Eugenio, 2012).

VALUE CHAIN ANALYSIS

What is Value Chain Analysis (VCA)?

VCA is a useful tool for working out how to create the greatest possible value to a particular product for the satisfaction of the customers.

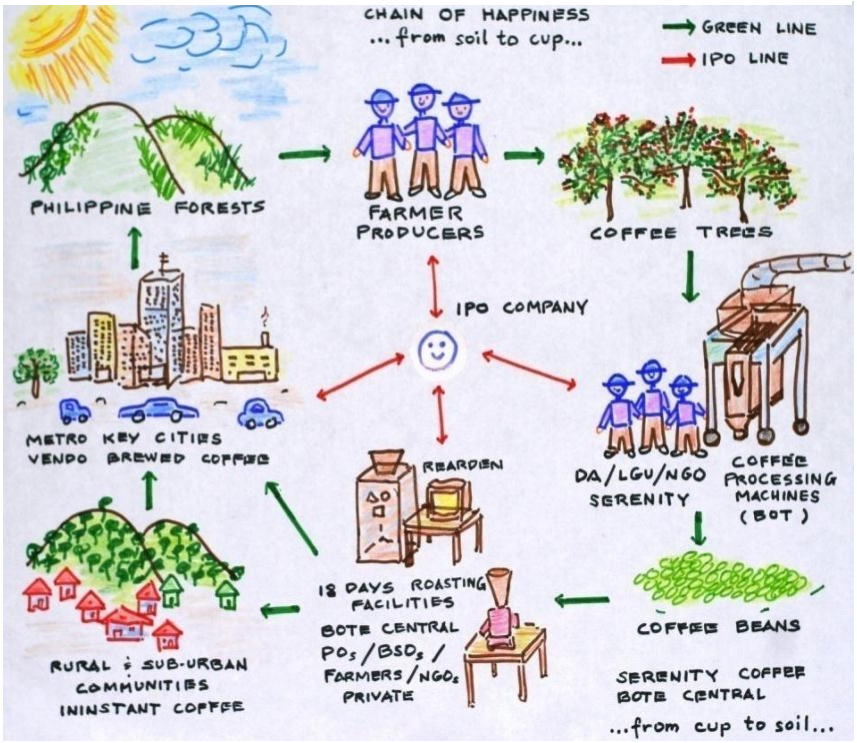
As the product moves from the production point to any point along the chain towards the consumers or end-users, there is **value addition**.

When various actors work together for value addition the resulting relationship among the actors is referred to as the **value chain**.

Value chain analysis identifies actors involved in creating a product or rendering a service.

In establishing the CBEE, looking into the existing chain allows the local community to see their position in relation to the other actors who also benefit from the chain.

Figure 90. Value chain of the coffee farmers in relation to the various actors involved in the coffee industry (Adapted from Bote Central, Inc., 2012).



Steps in Value Chain Analysis

Value chain analysis can be broken down into four sequential steps (Mindtools, 2012):

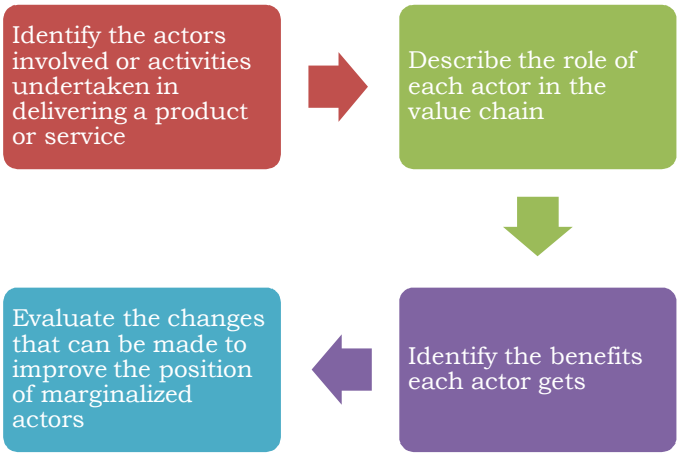


Figure 91. Steps in Value Chain Analysis

1. **Identify the actors involved or activities undertaken in delivering a product or service**. From suppliers to middlemen to end users, who are the people involved in this trade?

2. **Describe the role of each actor in the value chain.** Identify the value they have added in the process. What do they do and how do they contribute in the operations? Think through what can be done to add the greatest value for the customer in each activity. After brainstorming, it is expected that the project manager and staff would have a fairly good idea of the reasons why visitors are not satisfied. For instance, if the zip line is not attracting well, an innovation may be added to make it attractive to visitors. Also, if the food served is not appreciated, the option of hiring a new chef can be explored so to meet the taste of visitors.

Figure 92. Several actors contribute some value in preparation and towards the implementation of the zip line activity.

3. **Identify the benefits each actor gets.** Determine the income or describe other non-monetary benefits they get. How much do they earn? What do they get?

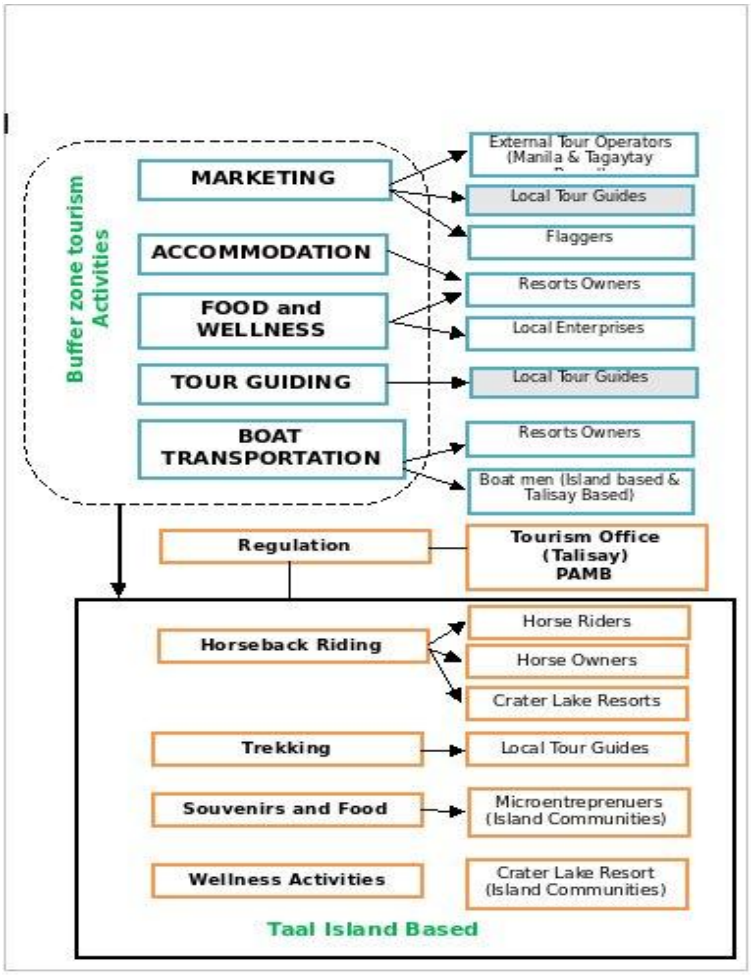
4. **Evaluate what changes can be made to improve the position of marginalized actors.** Evaluate whether it is worth making changes in a certain product or activity, and then plan for action. If a new chef is

needed, is it affordable to hire a new one? Or if the zip line needs to be improved, is the cost affordable? Answers to these questions will provide enough bases in deciding whether to push through innovating their products and services, and improve the position of marginalized actors.

Value Chain Analysis in Taal Volcano Island

In establishing ecotourism enterprises, looking into the existing value chain will allow one to see the position of each actor who benefits from the chain. The examination will also allow to see opportunities for CBEE development. It will put into surface new strategies, models, relationships, and networks that can be put into consideration in planning CBEEs.

Figure 93. Value Chain Analysis in Taal Volcano Island



The illustration (right) is an example of the value chain of the horseback riding attraction in Talisay, Batangas:

In the value chain, the tour guide plays a key role in the eco-tourism value chain. They act not just as the provider of information during orientation but as a master organizer of the tour. They link together various stakeholders, negotiate the price, and communicate the value of the tour to prospective guests.

They are responsible in marketing the tour. While the LGU and the DOT create awareness on the attraction and product (Taal Island), the tour guides operationalize and actualize these market opportunities by facilitating the actual first contact, bringing in tourists, offering them concrete information and presenting the actual tour packages. Most of them have links with other tour operators in Tagaytay and Manila. They make it a point to nurture these relationships with other operators and previous guests by sending information, constantly communicating, and persuasively inviting them to come back or send new batches of guests.

The ecotourism activities in the lake and the island (horseback riding, trekking, and boat rentals) provide the greatest benefits to the local community and opens opportunities for the community to be significantly involved in the management of the enterprises. However, regularity and equity in income, as well as the involvement of community members in the sustainable use of lake and island resources, ultimately depend on the organizational maturity of trade associations. With tour guides having control of the market (the arrival and activities of tourists), horse riders continuously give commissions to them and accord preferential treatment to their horses through the "joker" system.

Buffer zone enterprises, such as the resorts, wellness, and adventure ventures, support the agenda of maintaining the volume of tourists visiting the island. It also integrates the island tour to other mainstream tourism activities in the province of Batangas.

The Municipal Tourism Office collects fees and imposes regulations such as standard fees for the services. They play a part in developing the facility for tourists (waiting area for horses, tourism building, cottages, and plant boxes) and maintaining the cleanliness in the area.

Figure 94. The cottages in Taal Volcano Island is available for daytime occupancy only (Calanog, 2009).

MARKET RESEARCH

What is Market Research?

Simply, it is a process that gathers and analyzes information about the moving of goods or services from producer to consumer.

Others define it as a process of gathering, analyzing, and interpreting information about a market, product, or service to be offered for sale in that market, and the past, present, and potential customers for the product or service.

Market research is essential in CBEE establishment as it urges local people to gather enough information on what is going on in the local, as well as in the ecotourism areas.

This information is used in formulating specific goals, objectives, activities, and innovations that would give the CBEE its best chance of success.

Figure 95. The untapped falls in Sta. Maria, Laguna has strong potential for ecotourism development. Pursuing its development would depend, to some extent, on the results of market research (Calanog, 2011).

Importance of Market Research

The following are some of the reasons why there is a need to conduct a market research in CBEEs:

1. **It seeks to determine if the CBEE is viable or there is potential market demand for the CBEE project, activity, service, or product**. Before starting the CBEE, it would be better to immediately conduct market research to know the competitors, identify the niche market, and determine whether the product or service being provided can succeed when it comes to selling it.

2. **It is instrumental in creating better activity, service, or product offerings based on tourists and visitors' interests, preferences, and expenditure patterns**. Market research can help develop a new activity, service, or product that can make tourists and visitors spend their money on. It can also help fine tune current CBEE activity, service, or product into something much better than the ones being offered in the current market.

3. **It explains the necessary features of the activity, service, or product that is important to the tourists and visitors**. Being an expert on the key features of the CBEE activity, service, or product helps the local people in further improving and perfecting these attributes while providing quality ecotourism enterprise.

4. **It helps local people in creating effective activity, service, or product advertisements**. Advertisements, whether in print or mass media, can help boost the influx of tourists and visitors in the CBEE, no matter how economical or costly it entails. The ecotourism area's niche market, or what makes the ecotourism site unique from other areas, must be fully promoted to maximize advertising efficiency.

5. **It gives the local people an insight on the reasonable pricing scheme for its products and services offered**. Usually, pricing schemes are based on the supply and demand for a particular product or service being provided. Higher demand for a product or service means higher pricing scheme. On the other hand, higher supply for a product or service denotes lower price offering. With the aid of a market research, the local people will be able to decide for themselves which pricing scheme to consider.

Two types of market data are gathered:

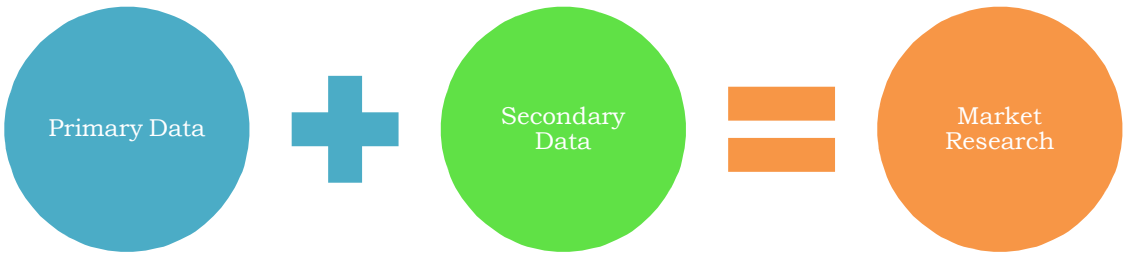


Figure 96. Two Types of Market Data

- **Primary Information.** These are data and information compiled by the proponent of the project or by someone else hired for that purpose.

- **Secondary Information.** These are data and information gathered, compiled and/or organized before for other purposes. Examples of these include reports and studies by government agencies, trade associations, or other businesses, etc.

Steps in Market Research (Malhotra, 2002; Glazer, 1991)

Step 1. Identify and define the problem. The first step in any marketing research project is to identify the problem and characterize the associated issues connected to the problem. In defining the problem, the local people and other concerned stakeholders must take into account the purpose of the study (i.e., determining the demand for a particular product or services of tourists), relevant background information (i.e., statistics about visitor arrival, tourists profile, etc.), what information is needed (visitor preferences, supply stability of products and services, etc.), other relevant secondary data from the national and local tourism offices, and how it will be used in decision-making.

Step 2. Objectives and approach setting. This includes the formulation of objective or theoretical framework to address the defined problem, analytical models, research questions, hypotheses, and identifying characteristics or factors that can influence the market research design. There are four considerations in formulating the market research approach: budget establishment, identification of the factors influencing the CBEE environment or economy, identification of sampling and survey methods, and the formulation of hypotheses (based on the objectives).

Step 3. Formulating the research design. A research design is a framework or blueprint for conducting the market research. It describes the data gathering procedures (through the use of survey methods, identification of respondents and the respondent sampling size, and secondary data collection among others), type of data analysis (statistical analysis design to be used), data interpretation, and full-blown report writing. Please refer to the Participatory Rural Appraisal (PRA) section for additional information on other data gathering procedures.

Step 4. Field work or data collection. Data collection involves a team trained and apprised about the purpose and mechanics of the market research study. Proper selection, training, supervision, and evaluation of the field interviewers help minimize data-collection errors.

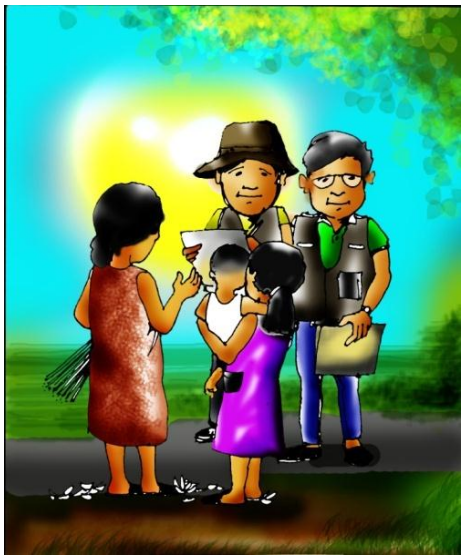


Figure 97. Field work with the local people

The data to be collected includes the identification and description of market segments through the: nature, interests, taste and preferences of tourists. Some of these data are also available at tourism offices but community entrepreneurs can also record their observation or conduct interviews. Examples of market segments are: (1) domestic – families, young professionals on vacation, students, pilgrims, etc.; and (2) international – balikbayans,

travellers on packaged-tour, independent travellers, and special interest groups. The Preliminary Assessment Tools in Chapter 2 can also help in data collection.

Step 5. Data preparation and analysis. Describe the common activities and interests of a particular tourist market segment. The expenditure pattern of each segment should also be identified. This would determine the ability and willingness of tourists to patronize a particular product or service. It will also highlight gaps in products and services.

Data preparation includes editing, coding, transcription, and verification of data. Each questionnaire or observation form is inspected, edited, and if necessary, corrected. Once these are done, the edited/corrected data are subjected to some form of statistical computation and analysis. Survey analysis tools are available in MS Excel. If deemed necessary, statistical softwares are available to facilitate data computation and analysis.

Step 6. Report preparation and presentation.

The entire project must be documented in a written report which addresses specific research questions identified, describes the approach, research design, data gathering and analysis procedures adopted, and presents results, major findings, and conclusions.

CHAPTER 5

Setting up Community-based Ecotourism Enterprise

SPOTTING CBEE OPPORTUNITIES

After learning that the site is suitable for CBEE, it is now time to put on an entrepreneurial lens and think about the business opportunities that the community can engage in.

Doing business while being able to develop and nurture the community and environment can go side by side. Communities can get their share of the economic benefits from ecotourism, widen their role in decision-making, and have significant participation in environmental conservation by having an entrepreneurial framework and mindset. The growth of CBEE can enhance the role and position of the local community in ecotourism and resource management. The shifts in the role of the community can be illustrated as:

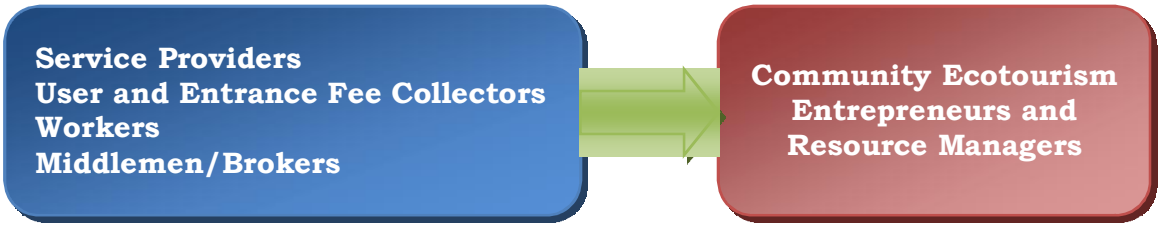


Figure 98. Shift in Community Role towards CBEE Establishment

To start spotting CBEE, people in the community, particularly those involved in ecotourism activities, can be invited to a dialogue so as to review the findings that have been generated earlier. Business opportunities can be easily identified by looking into market needs, community assets, social considerations, ecological safeguards, economic viability, and business relationships. These data is derived from planning and research activities that have been previously conducted (refer to Chapters 2 to 4):

Table 14. Required Data in Spotting CBEE and its Possible Sources

DATA SETS	OBTAIN IT FROM
Market	Market Research
Community Assets	Participatory Rural Appraisal Capacity Analysis (Asset Mapping)
Environmental Considerations	Zoning, Facility and Equipment Scanning, Restoration and Rehabilitation Strategies, Hazard Mapping
Social Considerations	Social Safeguard Checklist
Economic Viability	SWOT Analysis Cost-Benefit Analysis
Business Relationships	Value Chain Analysis

1. **Discuss, compare, and contrast data sets**. New products and services, innovative business models, new cooperation and complementation systems, and strategies to improve the community's position in the value chain will emerge by discussing, comparing, and contrasting the aforementioned datasets.

   For example, market research reveals that a segment of visiting tourists are young European backpackers who prefer affordable accommodation. These young foreigners also want to experience local community life, usually for 2 to 3 weeks, as compared to families on a vacation who usually stay for shorter periods of time. They like interacting with people and are very much interested in learning local culture and feel the island's ways of being close to nature.

2. **Community assets**. To maximize the community's resources, local people must develop means in finding alternative ways of providing ecotourism products, services, and facilities. For instance, unused cottages within the area can be converted into eco-lodges given that the family who own them does not have the maintenance capacity because of financial difficulties.

3. **Community dialogue**. During the course of community dialogue, it may be discovered that some community members have previous experience in operating inns and lodges. Some have worked as cooks in nearby food establishments. From the value chain analysis, it may also be revealed that most women are housewives of fisher folks who earn extra income by selling fish and coco-shell souvenirs sourced-out from downtown manufacturers.

4. **Scanning**. By scanning or surveying the ecological landscape of the site, it can be noticed that area is outside the danger zone only allows light structures and one-storey buildings. On the other hand, it is also seen that solid waste management is a problem as local government have difficulty in sending garbage trucks on its regular garbage collection.

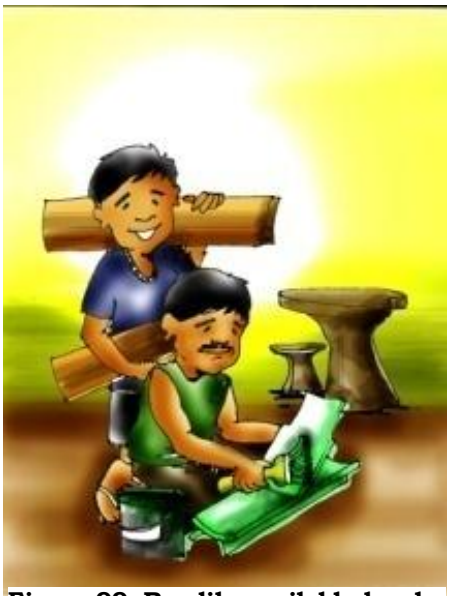


Figure 99. Readily available local raw materials are processed, sold as souvenir items, and eventually become a viable source of income for the local community.

Using these data, concerned community members can start discussing the business opportunities that can be ventured on. Some examples are:

- ✓ Community-managed ecolodge
- ✓ Coco-shell crafts production for women
- ✓ Foldable food stalls that sell grilled fish
- ✓ Recycling project that converts plastic bottles into products
- ✓ Minimart that sells consumer products to tourists

The identified potential business enterprises list is not limited from the above mentioned. But based from this short list, additional data and further brainstorming on how to add more value and innovation to the ideas can be carried out.

Emerging Investment Opportunities

From the value chain analysis, several other opportunities for investment may be uncovered, especially by adding value on the type of work or services that can be improved. The list below provides some of these opportunities:

- ✓ **Local Community Guides: From Service-Providers to Educators**. The local people's deep sense of local history best fits them as local community guides and educators of their very own ecotourism area while continuing their day-professions are service providers.

- ✓ **Wellness Workers**. With proper skills training, more and more local people go into the wellness profession. Demand for these types of professions continues to increase while profit is a sure guarantee.

- ✓ **Reviving the Cottage Industry: From Souvenirs to Fair Trade Tourism**. Home-based creation of local products and services does not only help local people in generating additional income for the family, it also helps the local community in advancing the country back in the tourism map. Proper skills training, year-round availability of native raw materials, and its entry in the tourism market are only a few of the issues that the local people must hurdle to succeed in such industry.

Figure 100. A makeshift souvenir shop in Banga-an Village, Banaue, Ifugao provides extra source of income to local residents (Calanog, 2012).

- ✓ **From simple food retailer to forming Culinary Tourism**. Culinary Tourism or gastronomic tourism refers to "trips made to destinations where the local food and beverages are the main motivating factors for travel" (Onecarribean.org, 2012). The inherent talent of local people in cooking native dishes is one tourism venture that is worth pursuing. With proper marketing, promotion scheme, and product packaging, tourists around the globe will soon discover that simple food retailers in the country possess the gastronomic demands they are looking for.

- ✓ **Simple residential houses to eco-lodges and homestays**. In areas where budget for establishing lodging facilities is scarce, converting their homes into eco-lodges and homestays is a simple tourism venture that local people could easily delve upon. No major changes in the houses are required. Instead, local people should only get proper training on how to become more hospitable to tourists of different race, religion, and sect so as to accommodate their certain limitations.

- ✓ **Platforms for Global Citizenship: Volunteer Tourism**. Volunteer tourism "makes use of holiday-makers who volunteer to fund and work on social conservation projects around the world and aims to provide sustainable alternative travel that can assist in community development, scientific research, or ecological restoration" (Thompson, 2004). Various non-government organizations (NGOs) invite groups, individuals, and even families to help their organization in their various activities around the globe. These vacationers pay for their own travel and cost of living expenses while enjoying their unique experiences in the most far flung areas. Examples of these NGOs include: Pacific Whale Foundation (www.volunw.teersonvacation.org), Generation for Change and Growth or GCG (www.gcg.org), and Earth Watch Institute (www.earthwatch.org) among others.

- ✓ **Adventure Tourism**. Adventure Tourism "is an outdoor leisure activity that generally takes place in an unusual, exotic, remote, or wilderness setting, sometimes involving some form of unconventional means of transportation and tending to be associated with low or high levels of physical activity" (Teagasc, 2006). There are various types of products and services that fall within the Adventure Tourism category. If the tourist wants to get wet, the following activities may be considered doing: kayaking, diving, water skiing, wakeboarding, kite surfing, caving, and white water rafting among others. On the other hand, those who want to get high can do the following activities: flying, gliding, rock climbing, high rope, and ballooning among others.

Figure 101. Wakeboarding

- ✓ **Trickle Effect: Services in the Periphery**. The establishment of ecotourism sites usually creates a "trickle effect" in adjacent areas. As more and more tourists flock into ecotourism sites, local people and entrepreneurs establish local businesses along side these sites such as food retailers, local souvenir shops, adventure tools, kits, and guides shop, and travel and tours among other service-oriented businesses. It is hoped that these products and

services in the periphery of ecotourism sites would be able to attract and develop the ecotourism enterprise in the area.

- ✓ **Cosmetic Tourism**. Also known as medical tourism, cosmetic tourism has been currently a growing trend not only in the country but as well as in Thailand, India, South Africa, and Brazil, to name a few. Some cosmetic and dental clinics offer a variety of packages to choose from, which also includes tourist destination packages. Such packages allow the patient to recuperate from cosmetic operation while enjoying their stay in the host country.

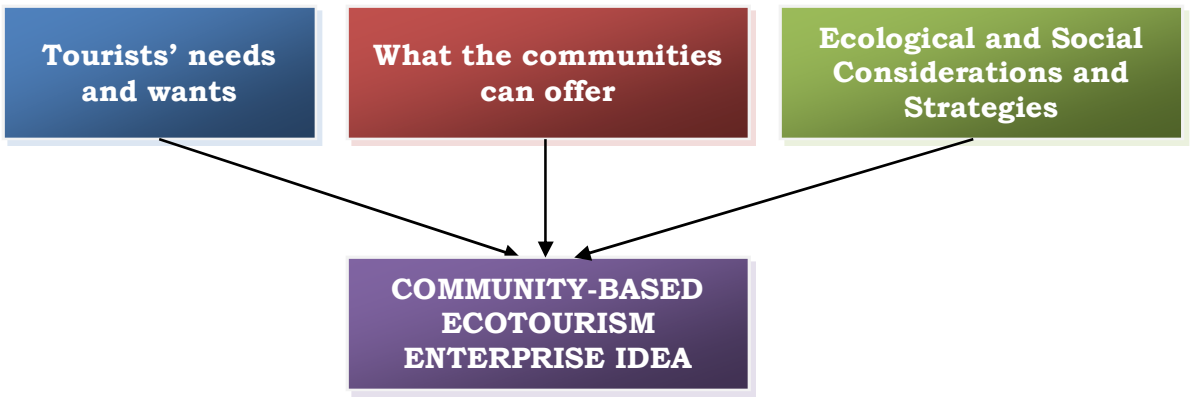
FINDING THE CBEE BUSINESS DEAL

After data analysis and studying emerging trends, a scenario of the available opportunities for CBEE development formed. At this time, a menu of business development ideas is available for careful thought.

In this section, the actual product line and business type must be decided upon. Since all business ideas cannot be pursued at the same time, there is a need to prioritize, weigh options, and decide where to focus at the moment. Also, decision has to be made also on who will be involved in the project. Will it be pursued by one person, a cooperative, or an association that involves the rest of the community members?

Figure 102 illustrates how to choose the best idea. Several questions can be asked: Do tourists really need it? Will they avail or buy these products or services? Do local people have the capacity to produce or give these products and services? Are resources available? Is it ecologically sound and socially responsible?

Figure 102. Finding the CBEE Business Deal



To answer these questions, there is a need to review the principles and framework of CBEE discussed in Chapter 1 which serves as a guide in making better enterprise decisions.

A simple rating exercise can also be done, with each idea rated based on its economic viability, social equity, and environmental sustainability using a scale of 1 to 5 (1 – lowest, 5 – highest). Below is an example:

Table15. Rating Exercise on the Environmental Sustainability of Ecotourism Enterprises

BUSINESS IDEA	ECONOMIC VIABILITY	ENVIRONMENTAL SUSTAINABILITY	SOCIAL EQUITY	TOTAL SCORE
Community-managed ecolodge	5	4	4	13
Coco-shell crafts production and shop	3	3	5	11
PET Recycling	2	5	4	11
Grilled-Fish Food Stall	4	4	3	11
Minimart and souvenir shop	4	2	3	9

In this example, it appears that setting up a community-managed ecolodge is the best CBEE option. While the rest of the ideas practice the principles and framework of ecotourism and sustainable development, the community-managed ecolodge exhibits greatest potential to be sustainable. This idea has a bigger chance to be patronized by tourists, earn profit, gather community participation, and provide fair income to community members. With sound eco-practices and a built-in environmental education program for guests, the negative impact on the environment can still be minimized.

While the ecolodge can be considered as a priority project, it does not imply that the rest of the CBEE ideas can no longer be pursued. Other ideas can still be implemented once the priority project has been set up. These ideas can also be shared to other initiators or members of the community while being able to simultaneously work on them.

Seek help of …. Local Department of Industry (DTI) office

For specific assistance in venturing into a CBEE, it is important to visit any local DTI office and seek their assistance and guidance on how to proceed with the planned enterprise.

Deciding on the Product Line and Business Type

CBEE Product Line

What is a Product Line?

It refers to a particular kind of product or service that is offered to customers. It is also referred to as a number of products that are related and developed by the same manufacturer. Products in a product line generally share the same basic theme.

After identifying the priority CBEE project or business idea, the product line and business type can now be defined and established. Product lines are broadly categorized as:

1. **Product-based**. This involves manufacturing or production of goods such as: raffia bags, handmade paper, etc.

2. **Service-based**. It focuses on providing services like: repair and maintenance of boats, massage and other wellness services, etc.

3. **Trading**. Trading deals with exchange of products and services which include: sari-sari stores, souvenir shops, etc.

In the aforementioned example (refer to Finding the Business Deal section), the banner product will be *the provision of low-cost accommodation services to guests***.** As the CBEE progresses, new product lines related to low-cost accommodation and additional secondary products (or product bundling of different kinds of products or services into one type of product or package)such as packaged community tours, affordable native meals, or a souvenir shop can be simultaneously developed.

Figure 103. Potential product lines include bird watching and mountain biking.

CBEE Business Type

What is a Business Type?

It mainly refers to the ownership form of a business or enterprise. Business types include: sole proprietorship, partnership, corporation, and cooperative.

After identifying the CBEE product line, there is a need to determine its business type: The business type will depend on the kind of ownership the CBEE will employ, number of people involved, and its organizational set-up. Below are the advantages and disadvantages of each business type:

Table 14. CBEE Business Type: Advantages and Disadvantages

Business Type	Advantages	Disadvantages
1. Single Proprietorship	• Can be easily established • Decision-making and all other enterprise activities are carried out by the owner	• Limited by the owner's financial means • Owners need to devote more time in all aspects of operations
2. Partnership	• System of check and balance are guaranteed with two owners • Relatively easier to set up compared to corporations	• Conflicts between the two parties can hamper operations • A decision made by one partner is binding
3. Corporation	• Risks are shared among partners • Partners can pool capital • Limited liability of shareholders • Management can be professionalized	• Complex setting-up process • Stockholders have limited influence on management • Processes can be bureaucratic
4. Cooperative	• More people are involved and can benefit from the profit generated • Limited liability of members • Management can be professionalized	• Decision-making usually requires longer time • Control of the business is shared among members. • Processes can be bureaucratic

CBEE MODELS

What are Business Models?

The business model describes how the organization creates, delivers, and captures value. Likewise in building a house, business model is the architecture of the business. Its design must show the offerings, relationships, structure, strategies, and processes to be used.

Despite similarities in business types, CBEEs can adopt different business models. The business type must complement the business model to be taken. It should not prevent or contradict the strategy of creating, delivering, and capturing value of the CBEE. Below are some of the examples of business models of existing CBEEs:

1. Cooperative

Figure 104. Cooperative Business Model

For example, the Coron Sustainable Tourism Cooperative gathered service-providers from various ecotourism services. Their members include marketing persons, tour guides, boatmen, cooks/food handlers, diving instructors, etc.

By being able to negotiate directly with tourists, they are able to offer affordable tour packages. Members are ensured to receive a standard fair price for their services. The cooperative also has a savings and insurance program that provides social protection to its members and tourists.

2. Organization

Figure 105. Organization Business Model

Uhaj Kabataan, a youth organization in Uhaj, Banawe, has established the Lagud Learning Inn using traditional Ifugao houses and huts. They provide alternative accommodation and eco-cultural education to tourists.

The inn serves as an income-generating project of the organization. Whenever there are visitors, members take turns in maintaining the cleanliness, managing the tree planting program, preparing meals, and performing cultural presentations.

The income goes to the organizational fund but members also get their share depending on the services that they provide.

3. Community

Figure 106. Community Business Model

After the breakdown of the community cooperative, small tourism enterprises and service providers in Pamilacan Island in Bohol continue their coordinated operations through personal links and networks. They informally negotiate with each other whenever they have guests. Everyone can market the attraction of the island. Whenever there are reservations, lodge owners contact possible providers of boat rides and snorkelling equipment. Meanwhile, boat owners refer guests to resort owners upon inquiry. Tourists directly pay the provider of the service.

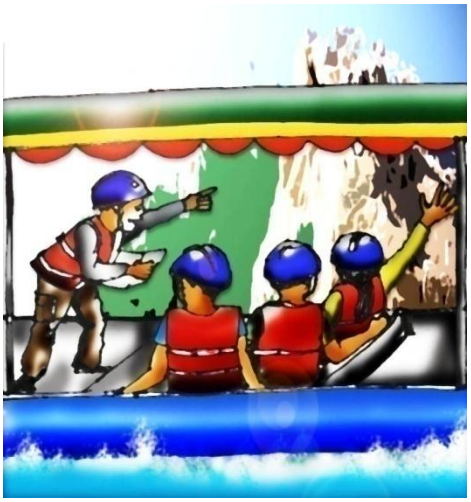


Figure 107. Boat rides are commonly operated by community-based operators in the ecotourism site.

4. Private Business

Figure 108. Private Business Model

The Crater Lake Resort in Taal Island is established by a private environmentalist investor who ensures that measures to protect the island ecosystem are in place. He offers package tours and works directly with local horsemen and trek guides in the island.

Figure 109. Potential Private Business Investor in CBEE

Other CBEE Business Models

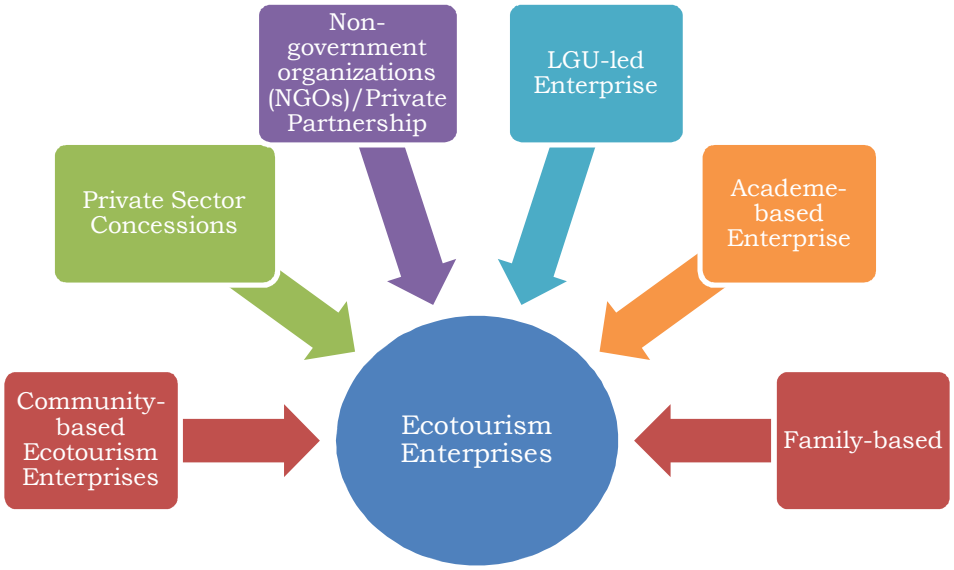


Figure 110. Other Types of Business Models that can be adapted in an ecotourism enterprise

1. **Community-based**. Structured like a cooperative, members of a community-based business have varying roles in: hotel and/or room accommodation, food, crafts, and transportation or guide services, among others. More importantly, the financial benefits of this business model are shared throughout the community. The *Corong Galeri Lokals* in Coron, Palawan is similar to this community-based enterprise.

2. **Private Sector Concessions**. Ecotourism is established as a concession wherein a private entity (such as a tour operator) has exclusive rights to make business (by means of developing and managing a facility) in the ecotourism area in exchange for annual payment.

3. **Non-government organization (NGO)-Private Sector Partnership**. In this partnership, the NGO focuses on nature conservation while the private sector is responsible for managing the ecotourism enterprise.

4. **LGU-led**. The Local Government Unit (LGU) manages the enterprise, with active participation of local people or organizations. The *Extreme/Eco/Educational Adventure Tour (EAT)* in Danao Adventure Park is an example of this model.

5. **Academe-based**. The school organizes and manages the ecotourism business, as exemplified by *Balay sa Humay* in Batuan, Bohol.

6. **Family-based Enterprise**. An informal enterprise, family-members manages the business by themselves. The *boat tour for whale-dolphin watching* in Pamilacan Island is one of the numerous family-run ecotourism enterprises in the country.

PREPARING THE CBEE BUSINESS PLAN

What is a Business Plan?

A business plan outlines the marketing, technical-organizational, and financial requirements in setting-up the CBEE.

After the CBEE has been explored, identified, and have a definite product line, business type, and business model, one can start writing the business plan.

Remember that a CBEE is a social and ecological enterprise and therefore, the CBEE business plan must also analyze the social and ecological impacts of the enterprise and set strategies that will promote community and environmental conservation.

The CBEE business plan gives a clear picture of the short- and long-term directions of the business. It is a powerful tool that can be used in setting-up a start-up capital, securing permits and accreditation, broadening the social network reach, and gathering technical support.

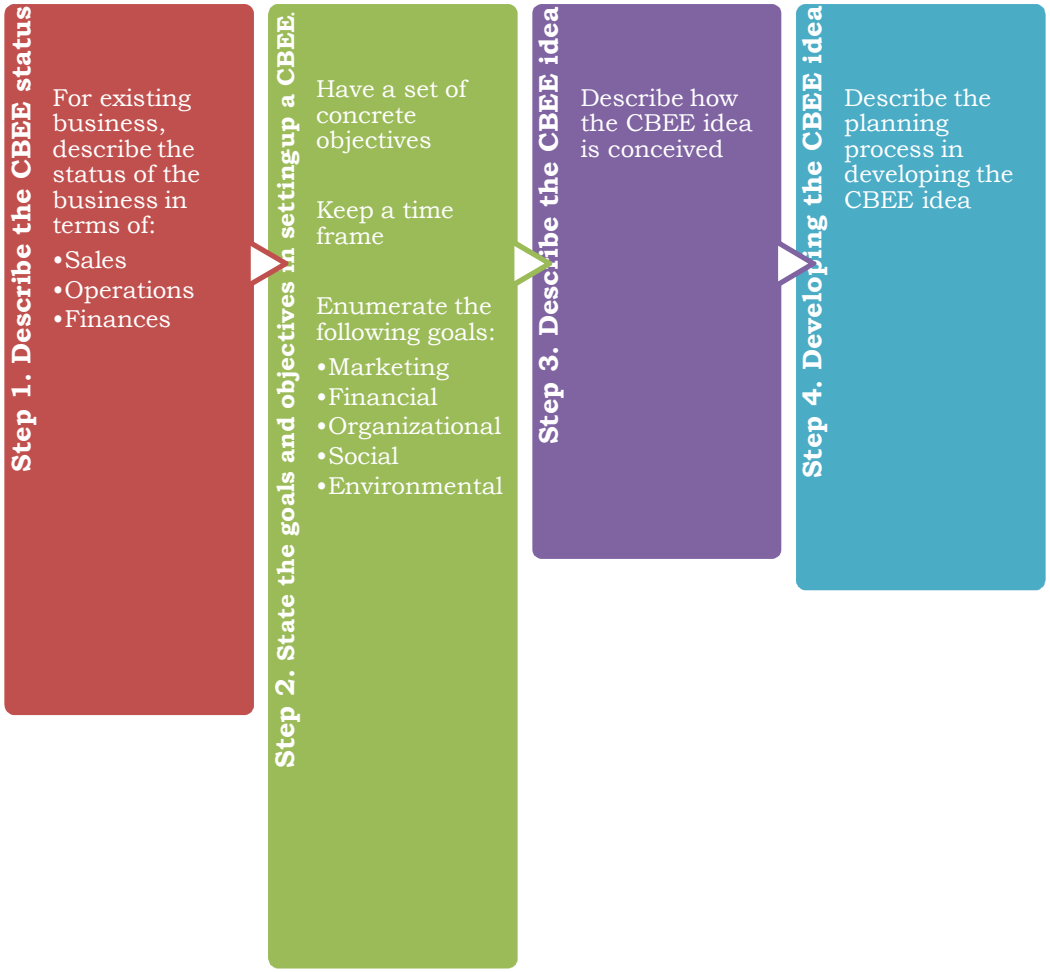
The diagram below shows the key elements of the CBEE business plan:

Figure 111. Key Elements of a CBEE Business Plan

Below is a set of guidelines that you can use in making your CBEE business plan:

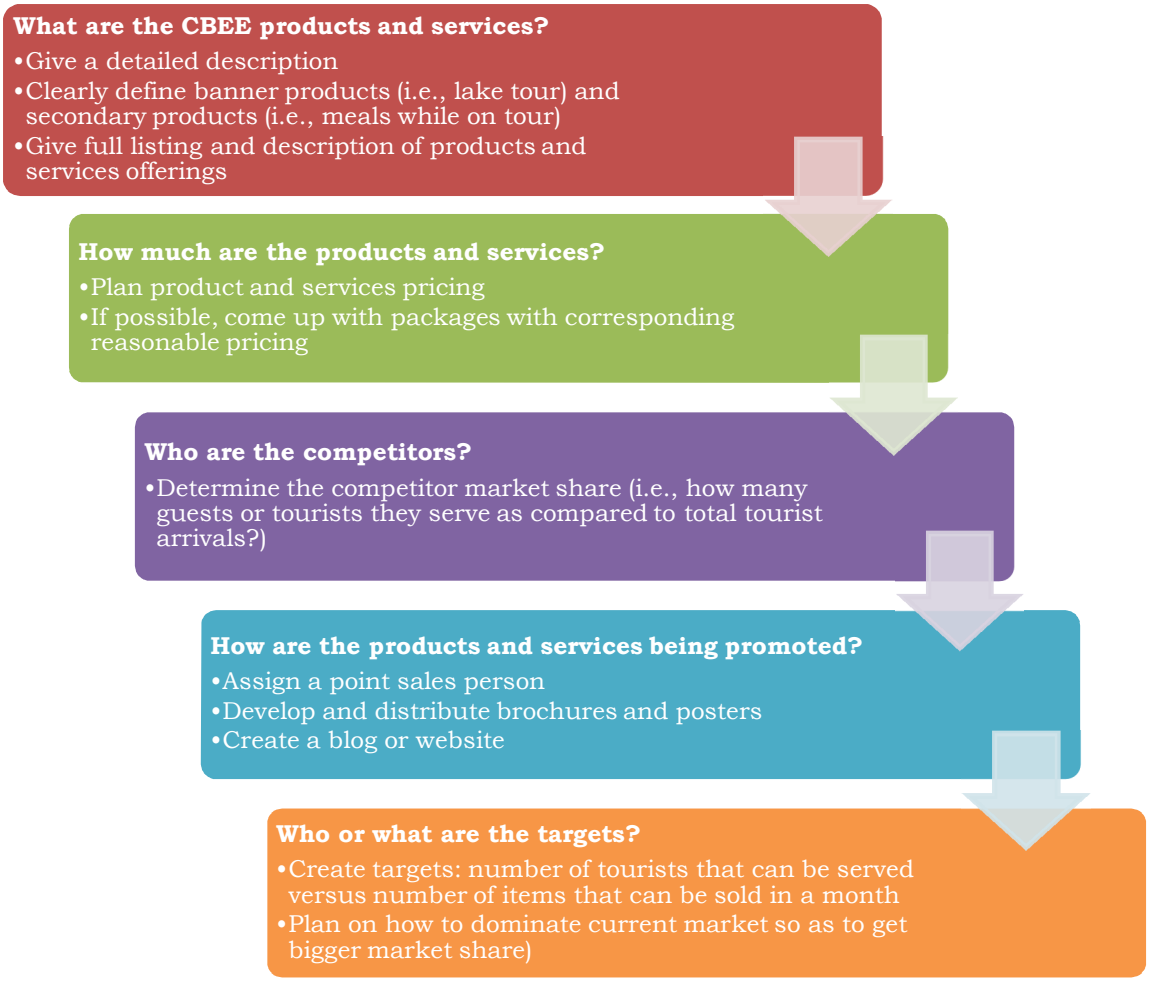
Executive Summary: This section gives the reader a general background of the CBEE. It presents the goals and objectives that will be pursued. For existing businesses, it describes how the business is doing and how it is expected to develop.

Figure 112. Guide in writing the Executive Summary



Marketing Plan: The section describes the products and services, the pricing strategy, the place of operations, and the promotional activities. It also identifies the competitors and the plans to attain or improve market share. The market research discussed in Chapter 4 of this manual, provides a good reference material in making the marketing plan.

Figure 113. Pointers to consider in developing the Marketing Plan



Technical-Organizational Plan: This section identifies the required materials, supply sources, processes and people involved, equipments needed, and the time it would take to produce a product or render a service.

Figure 114. Steps in writing the Technical-Organizational Plan

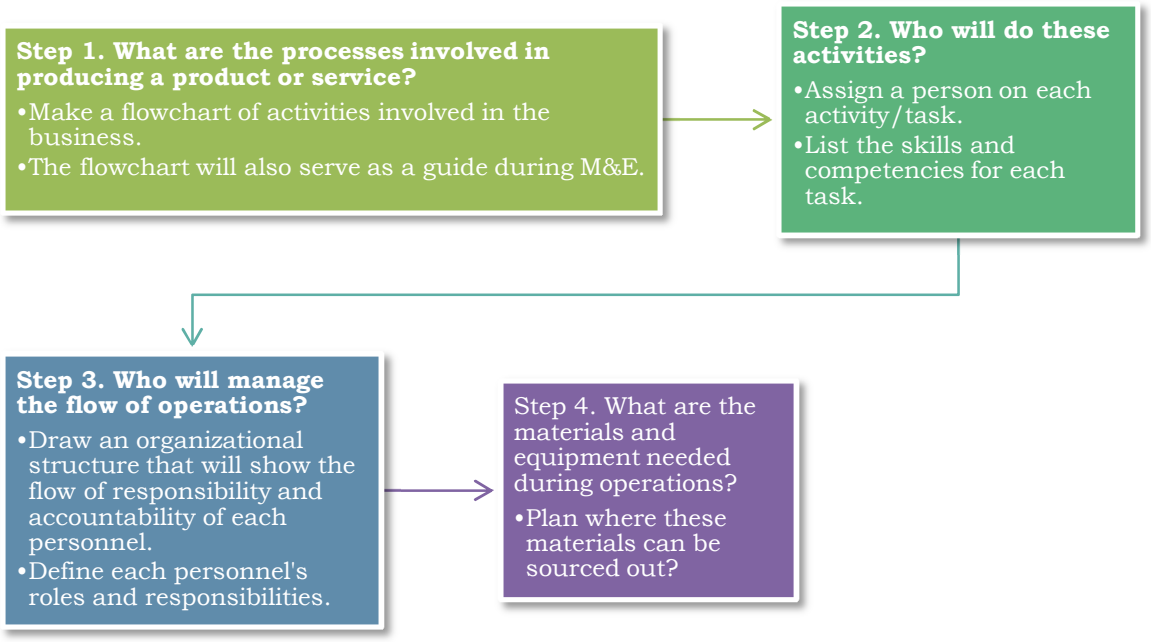
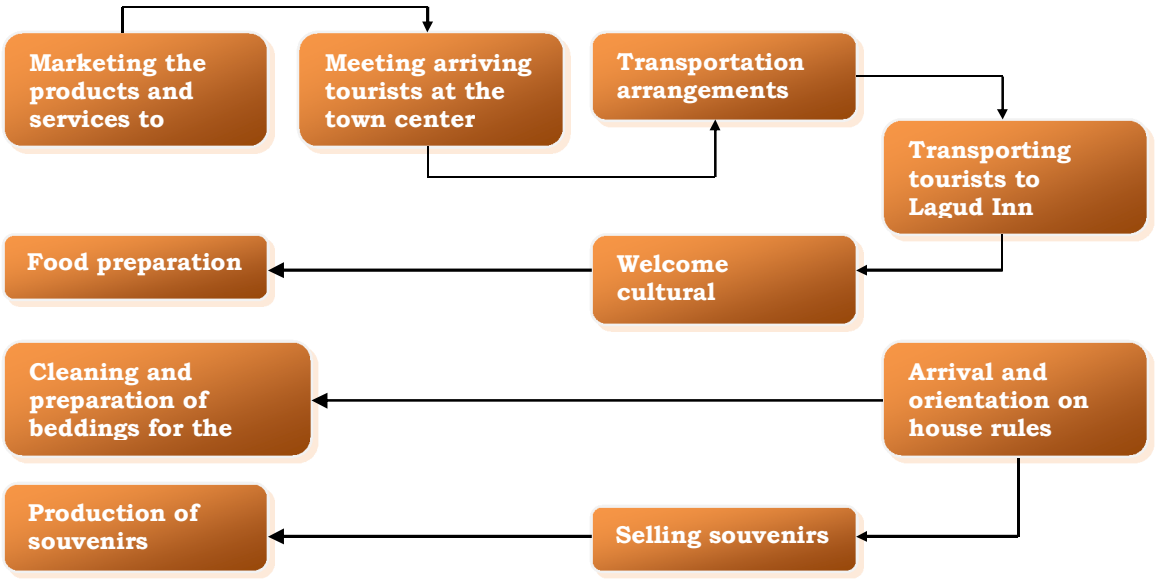


Figure 115. Operations Flow in Lagud Village Learning Inn, Brgy. Uhaj, Banaue, Ifugao



Financial Plan: This section presents the financial requirements needed to start the business and keep it running. It forecasts the fixed, pre-operating, and working capital requirements. It also determines possible sources of capital. In this section, the viability or profit potential of the venture can be determined by coming up with income and cash flow projections.

Figure 116. Guide in writing the Financial Plan

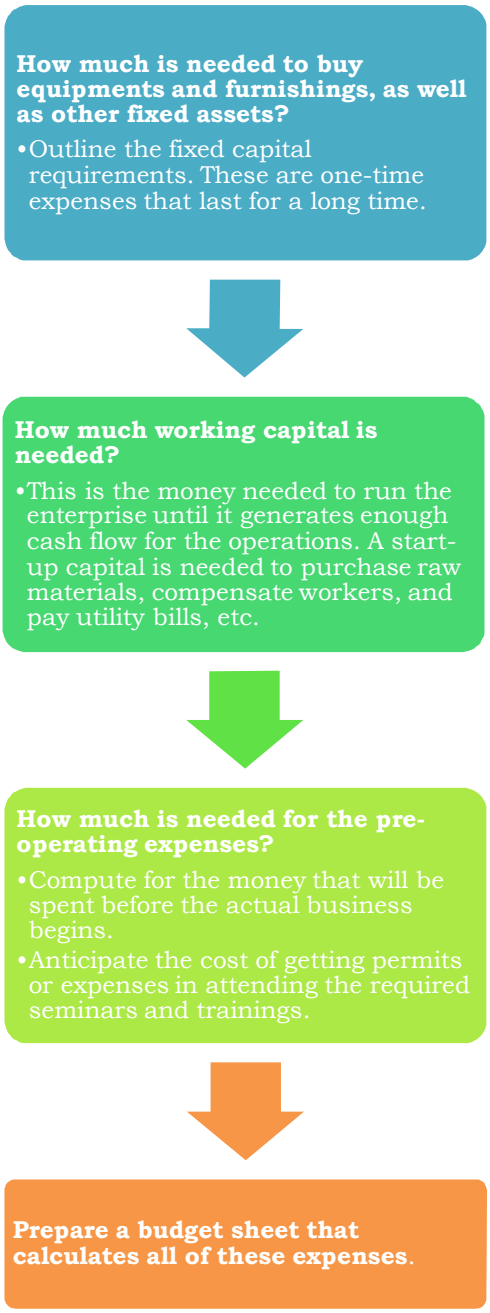


Table 15. Sample Budget Sheet

Particulars	Amount
Fixed Capital:	
1. Construction of Cottages	100,000
2. Furniture	20,000
3. Water Connection	5,000
4. Cooking Equipment	15,000
5. Refrigerator	10,000
6. Landscaping	10,000
7. Computer and Internet Connection	30,000
Sub total	*190,000*
Pre-Operating Expenses:	
1. Business Registration and Permits	5,000
2. DOT Accreditation	2,000
3. Trainings	7,000
Sub total	*14,000*
Working Capital:	
a. Brochures	2,000
b. Blogsite	1,000
c. Meetings	2,000
a. Salaries and Wages (6 months)	60,000
b. Water and Electricity	5,000
Sub total	*70,000*
Grand Total	**274,000**

Figure 116. Guide in writing the Financial Plan (continuation)

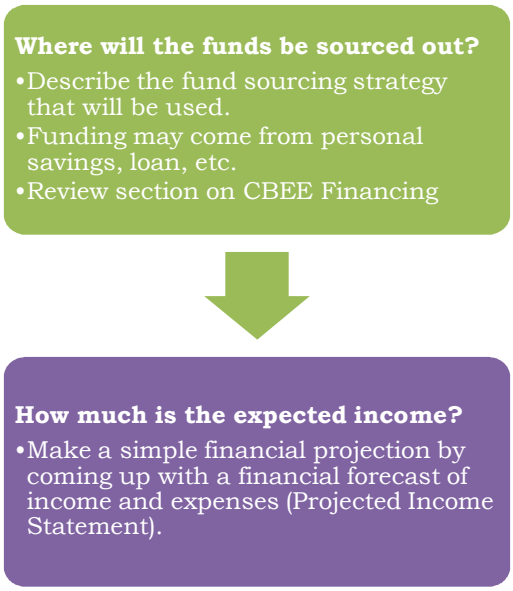


Table 16. Sample Projected Income Statement

Projected Income Statement (Year 1)		
Gross Sales:		
1. Cottage Rental	200,000	
2. Meals	150,000	
3. Drinks	24,000	
4. Souvenirs	15,000	
Sub total		*389,000*
Less Cost of Goods Sold:		
1. Meals	80,000	
2. Drinks	15,000	
3. Souvenirs	5,000	
Sub total		*100,000*
Less Overhead Expenses:		
1. Salaries and Wages	120,000	
2. Water and Electricity	10,000	
3. Depreciation	10,000	
4. Repair and Maintenance	15,000	
5. Taxes	5,000	
Sub total		160,000
Net Income		**129,000**

Figure 116. Guide in writing the Financial Plan (continuation)

If capital is borrowed from an external source, when can the loan be repaid?

Å A simple cash flow analysis is helpful in preparing the amortization schedule. Below is a sample of a cash flow projection

Table 17. Sample Cash Flow Projection

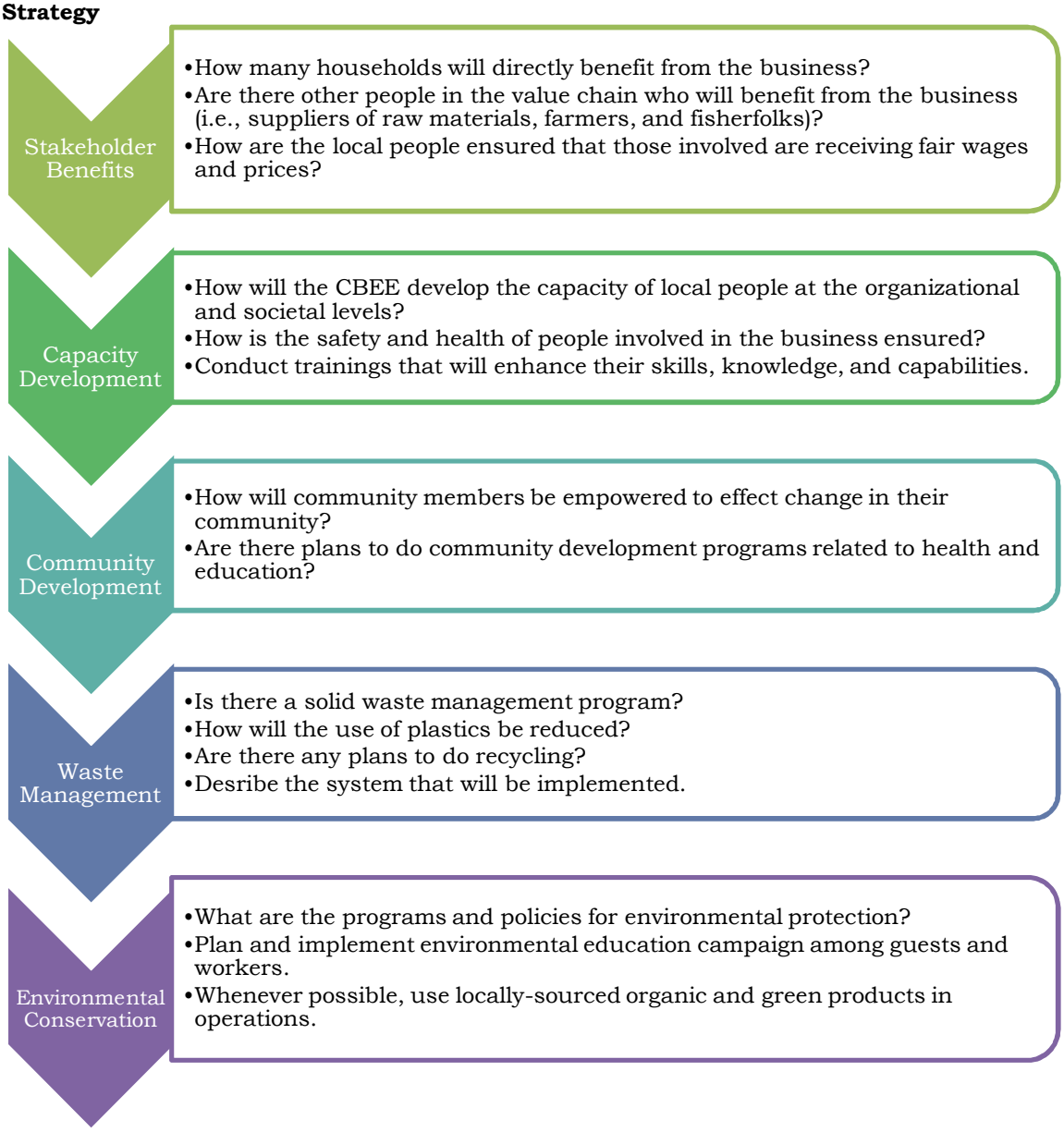
Fiberglass Rescue Boat Fabrication

Particulars	Cash Flow		
	Year 1	Year 2	Year 3
Starting Cash Balance		302,800	496,960
Cash Inflow			
Grant	1,200,000		
Cash Counterpart/Capital	45,000		
Sales	839,800	1,007,760	1,209,312
TOTAL CASH INFLOW	2,084,800	1,007,760	1,209,312
Cash Outflow			
Materials/Input	1,584,000	576,000	691,200
Salaries & wages	156,000	187,200	224,640
Utilities, rentals	12,000	14,400	17,280
Repairs & Maintenance	30,000	36,000	43,200
TOTAL CASH OUTFLOW	1,782,000	813,600	976,320
NET CASH FLOW	**302,800**	**496,960**	**729,952**

SOCIAL AND ENVIRONMENTAL STRATEGIES

A CBEE would only be deemed effective if social and environmental strategies are properly put in place. The following are some of the social and environmental strategies (in the areas of environmental conservation, waste management, community development, capacity development, and stakeholder benefits) that can be considered to successfully implement CBEE.

Figure 117. Set of questions to consider in writing CBEE Social and Environmental Strategy



Discussions in Chapters 3 and 4 of this manual provide details for the social and environmental strategies.

ENCOURAGING CBEE ENTREPRENEURSHIP

One strategy for CBEE development is to help local people become more effective entrepreneurs. This does not mean, for instance, that they should be encouraged to abandon their farms. Rather, farmers should be able to mobilize resources to develop their productivity and increase their bargaining power.

Extension workers play an important role in linking these people with emerging markets and production opportunities. They also provide linkages with other entrepreneurs, thus allowing local people to become economically competitive. Extension personnel must also learn how to think like entrepreneurs to be able to share these skills with local people.

The following is a list of possible steps that are helpful for local people and extension personnel working together to start a small enterprise:

Figure 118. Boat-making in Barangay Lajala, Coron, Palawan is an emerging enterprise that supports the booming ecotourism development in the municipality (Calanog, 2012).

1. Meet with local people and discuss existing on-farm or off-farm enterprises that could be expanded into an ecotourism enterprise. These may include products or services which are in-demand in the community or in neighboring areas.

2. Determine if others are already providing the same product or service.

3. Determine how the market infrastructure works. If there is an existing marketing chain, devise ways on how to maximize its potentials for the benefit of the CBEE.

4. Identify technical and resource constraints.

5. Identify who will be able to provide new skills needed to develop the enterprise.

6. Identify required support services and problems in gaining access to them, in the areas of: credit, transport, and extension.

7. Evaluate risks associated with the enterprise: the possible pitfalls, importance of the risks involved, and the mechanisms that are helpful in anticipating and managing these risks.

8. Based on all these information, and with the guidance of an extension worker or community organizer, local people can decide whether or not to develop a CBEE.

CBEE FINANCING

Capital requirements for developing and operating CBEEs can be raised in various ways. Individual entrepreneurs and groups can generate their own funds or look for external sources in the form of investments, loans, and grants.

Community-generated Funds

a. **Savings.** Personal savings or income from other sources of livelihood can be tapped to finance a CBEE venture. Peoples Organization (PO) members can set up a savings group, open a bank account, and gradually raise funds for the CBEE project. For example, an association of fisherfolks can save a portion of their income during peak fishing season in a savings group or a cooperative. Eventually, the money can be used to set up a seaside grill that offers fresh fish and seafood to visitors. Boats can also be built transport tourists and guests during lean months.

b. **Organizational Fund Raising.** Peoples' Organizations (POs) can collect membership dues or conduct simple fund raising projects like a raffle draws, community sale, and events among others.

c. **Liquidating Old Investments and Properties.** Community entrepreneurs may sell or liquidate old investments that are no longer earning. Properties can also be sold or leased to raise the needed capital.

External Sources of Funds

If the money raised is not enough to finance the CBEE requirements, external sources of funds can also be delved upon in the form of loans, grants, or equities. Money can be borrowed from a range of financial institutions such as: banks, microfinance institutions, and credit cooperatives. Local and national government agencies and non-government and donor organizations have programs that provide grants to community enterprises with strong social and environmental agenda. Money could also be put up in partnership with private investors and by offering equities.

a. Credit Sources

Table 18. Credit Sources for CBEE

Credit Sources	Description
• Credit Cooperatives and Microfinance Institutions (MFIs)	• With the goal of providing financial access for micro entrepreneurs, these institutions offer a range of credit, savings, and insurance products. • Cooperatives usually lend an amount that is double the size of the savings.

Credit Sources	Description
	• On the other hand, MFIs offer business loans from PhP 5,000 to 50,000 and give preferential treatment to women entrepreneurs. • With short-term and small loans, cooperatives and MFIs do not ask for collateral. Interest rates range from 3% to 5% per month.
• Commercial and Rural Banks	• Banks such as the Development Bank of the Philippines (DBP), Land Bank of the Philippines (LBP), Metropolitan Bank and Trust Company (Metrobank), and Bank of the Philippine Islands (BPI), have a facility that provides business loans to micro and small entrepreneurs. • Banks require applicants to submit a copy of the business registration, audited financial statements, and a business plan. • They also require borrowers to submit collateral. • Loans are appraised based on track record and financial capacity of the borrower. Hence it is mandatory for them to conduct a comprehensive credit investigation.
• Government Institutions	• Small Business Guarantee and Finance Corporation (SBGFC) have a loan guarantee program and small business lending facility. • The Department of Science and Technology and Technology (DOST) Resource Center has a credit facility that supports technology-based financial needs of enterprises. • The Department of Trade and Industry (DTI) assists in linking enterprises to credit providers.

b. Grant Sources

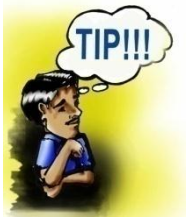
Table 19. Grant Sources for CBEE

Grant Sources	Details
a. International and Local Donors	• Civil Society Organizations (CSOs), foundations, and Non-Government Organizations (NGOs) fund social enterprises that support ecological and cultural conservation and create opportunities for local communities. • International and local corporate foundations are also doing their part in social enterprise development by extending philanthropic investments. • Donors usually require multi-stakeholder partnerships in project implementation. • The management of these resources are done in partnership with LGUs and NGOs. • They require a business plan or project proposal that highlights the project's socio-economic and ecological goals. • Call for proposals or business plans are usually posted on their websites.
b. Local Government Units (LGUs) and National Government Agencies (NGAs)	• Some LGUs allocate funds for the development of local enterprises or they partner with donor agencies. At times, they partner with MFIs in funding these projects. The Department of Labor and Employment (DOLE), DOST, and Department of Agriculture (DA) extend livelihood assistance to communities.

Figure 119. JICA office provides financial assistance for livelihood cum enterprise projects like ecotourism.

Partnering with Investors

CBEEs can partner with investors to finance their initiatives. Prospective investors require a sound CBEE business plan and financial reports before investing and becoming a partner. Partnerships and corporations must be registered at the Securities and Exchange Commission (SEC).



Seek the help of .... Tourism Promotions Board (TPB) of the Department of Tourism

TPB could provide assistance in eyeing for potential funder for the CBEE project. Go to the local DOT office for help.

Also, exploring the web (i.e., through "Google" search) will do a lot of help.

Refer to specific provisions of R.A. 9593, Tourism Act of 2009.

However, Philippine laws restrict the foreign operation and ownership of certain kind of businesses. The Foreign Investments Act of 1991 (RA 7042), as well as various laws, prescribes the nature, scope, and limits of foreign equity in corporations and partnerships in the Philippines. If possible, a business lawyer must be consulted if there is a need to do business with a foreign national.

Partnering with Overseas Filipino Workers (OFWs) or with Filipino communities abroad can also be explored. Some NGOs, like the *Unlad Kabayan Migrant Services Foundation*, facilitate links between OFWs and community-based enterprises through their alternative investment programs. OFWs get to invest their savings to community enterprises that harness local resources and contribute to community development.

Figure 120. Signing of a Memorandum of Agreement (MOA) for the establishment of the Philippine Independence Park cum Ecotourism Destination in Kawit, Cavite. In photo are key officials, representatives of the local government unit, religious group, NGO, and stakeholders involved in this significant endeavor (Calanog, 2008).

REGISTRATIONS, PERMITS, AND ACCREDITATION

Necessary registrations and permits from concerned agencies must be secured before operating a CBEE.

A wide range of social and ecological considerations must be checked and monitored by local and national agencies as CBEEs cater directly to the needs of the community, tourists, and the environment. Registrations and permits guarantee stakeholders that the business is legal, while accreditation establishes credibility and integrity of the venture, as well as the quality of products and services.

With these, guests, partners, and supporters are ensured that the nature and scope of ecotourism operations are within the bounds of the country's business, environmental, cultural, and tourism laws. It is also an avenue in availing incentives and programs that can support the enterprise.

The complexity of registration, permitting, and accreditation requirements depend on the business type, location, and nature of products or services to be offered.

Registration Requirements

1. **The basic registration requirements are as follows:**

   Table 20. Basic Registration Requirements for CBEE

If the CBEE business type is a...	**Register at...**
Sole Proprietorship	Department of Trade and Industry (DTI)
Partnership or Corporation	Securities and Exchange Commission (SEC)
Cooperative	Cooperative Development Authority (CDA)
Secure....	**From....**
Business Permit Barangay Micro-Business Certificate of Authority	Local Government Unit Municipal or City Hall
Barangay Clearance	Local Government Unit Barangay Hall
Business TIN, Employees TIN	Bureau of Internal Revenue (BIR)
Social Security Number for the business, employer and employees	Social Security System (SSS)

Secure....	From....
For businesses with 5 workers or more	Bureau of Local Employment (BLE) of the Department of Labor and Employment (DOLE)
Health Insurance for the employer and workers	Philippine Health Insurance Corporation (Philhealth)

2. **Registration Requirements for Peoples' Organization (POs)**. In some sites, ecotourism community stakeholders organize themselves into a People's Organization (PO). The organization must be registered at the Securities and Exchange Commission (SEC) as a non-stock, non-profit, civic organization. With an SEC certificate, the group will have a legal personality and is eligible to open a bank account, enter into contracts, and raise or accept funds. PO registration requires the following:

   a. Name verification slip
   b. Articles of Incorporation and By-laws
   c. Affidavit of an Incorporator or Director undertaking to change corporate name
   d. List of Members, Certified by the Corporate Secretary
   e. List of Contributors and amount contributed certified by the Treasurer

   Note: Items c, d, and e need not be submitted if already stated in the Articles of Incorporation.

3. **Registration Requirements for Foundations**. Aside from the aforementioned requirements for POs, Foundations have additional requirements such as: a Notarized Certificate of Bank Deposit of the contribution of not less than P1,000,000.00 and Statement of Willingness to allow the SEC to conduct an audit.

   The DOLE also accredits informal sector workers organizations and issues a Certificate of Accreditation to informal sector groups. The accredited groups can avail of DOLE's livelihood assistance program for informal sector workers. DOLE provides funding, trainings, and linkages to support these groups.

4. **Registration Requirements for Cooperatives**. If the CBEE is set up as a cooperative, it must be registered at CDA. The steps in registering a cooperative are as follows:

   a. Prepare the Articles of Cooperation and By Laws
   b. Submit 4 copies of the Articles of Cooperation and By Laws to CDA
   c. Submit Bond Accountable Officers (Fidelity, Cash or Surety) to CDA

   Note: Initial capital should not be lower than PhP2,000. Minimum of 15 members are required.

Securing Permits

Before CBEE become fully operationalized, specific permits must be secured from specific government agencies depending on the site of the enterprise and the products, services, and activities that are provided.

Table 21. Documents and Permits to be secured prior to CBEE establishment

ACTIVITY/DOCUMENTS TO BE SECURED	PERMIT FROM CONCERNED AGENCY
Projects within a protected area	Protected Area Management Board (PAMB)
Environmental Impact Assessment (EIA)/Environmental Compliance Certificate (ECC)/Initial Environmental Examination (IEE)	Department of Environment and Natural Resources (DENR)
Projects within Ancestral Domains Free, Prior and Informed Consent	Council of Elders (Indigenous People Community) National Commission on Indigenous Peoples (NCIP)
Accreditation	Department of Tourism (DOT)
Building Permit	Municipal government
Solid waste management permit	Local Government Unit (LGU)
Fire Safety Inspection Certificate	LGU
Sanitary Permit to Operate	LGU
Certificate of Annual Inspection for Business Establishments	Certification signed and sealed from the following: • Licensed Architect • Licensed Civil Engineer • Professional Electrical • Engineer/Electronics Engineer • Licensed Mechanical Engineer • Licensed Plumber/Sanitary Engineer

Once operation has been fully established, the CBEE venture may eventually diversify its products and services. If operations include manufacturing and trading of eco-products or running a non-formal training center, there is a need to secure permits from the following government agencies:

Table 22. Business activities requiring permits from the following government agencies

Business Activity	Government Agency
For those engaged in the export of fish and fish products and other aquatic products	Bureau of Fisheries and Aquatic Resources (BFAR) Department of Agriculture (DA)
For exporters of animals and animal by-product	Bureau of Animal Industry (BAI)
For those engaged in the export of plant and plant products	Bureau of Plant Industry (BPI)-DA
For exporters of forest products	Bureau of Forest Development (BFD)-DENR
For exporters of coconut products	Philippine Coconut Authority
For firms who want to register their patents and trademarks	DTI-Intellectual Property Office (IPO)
For those engaged in the production of food, drugs and cosmetic products	Food and Drug Administration (FDA)
For technical and vocational education	Technical Education Skills Development Authority (TESDA)

Accreditation

Tourism enterprises have to be accredited by the DOT. It has specific guidelines and standards in giving a Certificate of Accreditation to:

1. Accommodation establishments (hotels, inns, apartelles, pension houses, as well as homestay sites)
2. Travel and tours services
3. Tourism-related establishments
4. Spa establishments
5. Agri-tourism and farm sites
6. Tour, mountain, cave guides, and other similar occupations

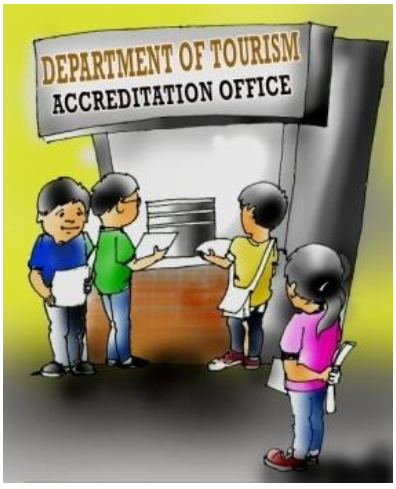


Figure 121. The DOT is the main accrediting government agency for tourism-related enterprises.

The application process and accreditation procedure (including the forms) are available at http://accreditationonline.tourism.gov.ph/standards.aspx.

INCENTIVES FOR CBEE DEVELOPMENT

The following are some of the incentives given to Tourism Enterprise Zone (TEZ) operators, Registered Tourism Enterprises, and tourism enterprises outside TEZs.

1. **Incentives for TEZ Operators and Registered Tourism Enterprises**

    a. Income Tax Holiday
    b. Gross Income Taxation
    c. Capital Investment and Equipment
    d. Transportation and Spare Parts
    e. Goods and Services
    f. Social Responsibility Incentive

2. **Non-fiscal Incentives Available to TEZ Operators and Registered Tourism Enterprises**

    a. Employment of Foreign Nationals
    b. Special Investor's Resident Visa
    c. Foreign Currency Transactions
    d. Requisition of Investment
    e. Lease and Ownership of Land

3. **Tourism Enterprises Outside TEZs**

    1. Subject to rules and regulations implemented by the DOT and TIEZA
    2. Income tax holiday up to six (6) years for any significant expansion, renovation, or upgrade in its facilities in relation to the amount of the original investment
    3. Tax free and duties from importing capital equipments used for expansion, renovation, or upgrade
    4. Entitled to avail of any economic incentives found under existing laws

CHAPTER 6

Operating and Managing Community-based Ecotourism Enterprise

MANAGEMENT AND ORGANIZATION

Local officials, community leaders, volunteers, local communities, and other stakeholders are important assets in the successful operation of a CBEE project. Their roles in the organization must be properly recognized as they are the frontliners in the delivery and performance of ecotourism activities, products, and services. Incentives, motivational factors, proper training, and technical and management capabilities must all be defined to ensure en effective ecotourism organization.

Protected Area (PA) Staff, Community, and Other Stakeholders Involvement

1. **Protected Area Superintendent (PASU) and other concerned staff**. If the ecotourism project is inside a PA, the PASU and its staff must take an active role in the management and supervision of the CBEE. They can help provide the training needs of the local community and skills building in running an ecotourism project, especially when the attractions involved the sensitive biodiversity species and their habitats.

Figure 122. A resort manager provides general direction in managing and operating a CBEE enterprise.

2. **PA Staff, LGU, and other tourism officers**. The PA staff, in collaboration with the LGU and tourism officers, can help establish rules and regulations for the use of the PA for ecotourism purposes particularly in their expertise of the different policies and laws concerning PA management.

3. **Concerned community members**. The active involvement of concerned members of the community is also important. They are instrumental in the enforcement of laws and regulations within the site. They can also maintain trails, interpretive signs and signage, and help in reforestation and other conservation efforts while also managing tourism concessionaires in the area, collect fees, act as tour guides, and guardians of the resources within the site.

4. **Other stakeholders such as government agencies, NGOs, academe, and other concerned sectors**. Other stakeholders can also be tapped in capacity building of local communities. They can provide technical assistance, offer support as a mediator, act as an advocate for the community, and help ensure that the community's power is exercised in behalf of the majority.

Job Analysis, Recruitment, and Selection

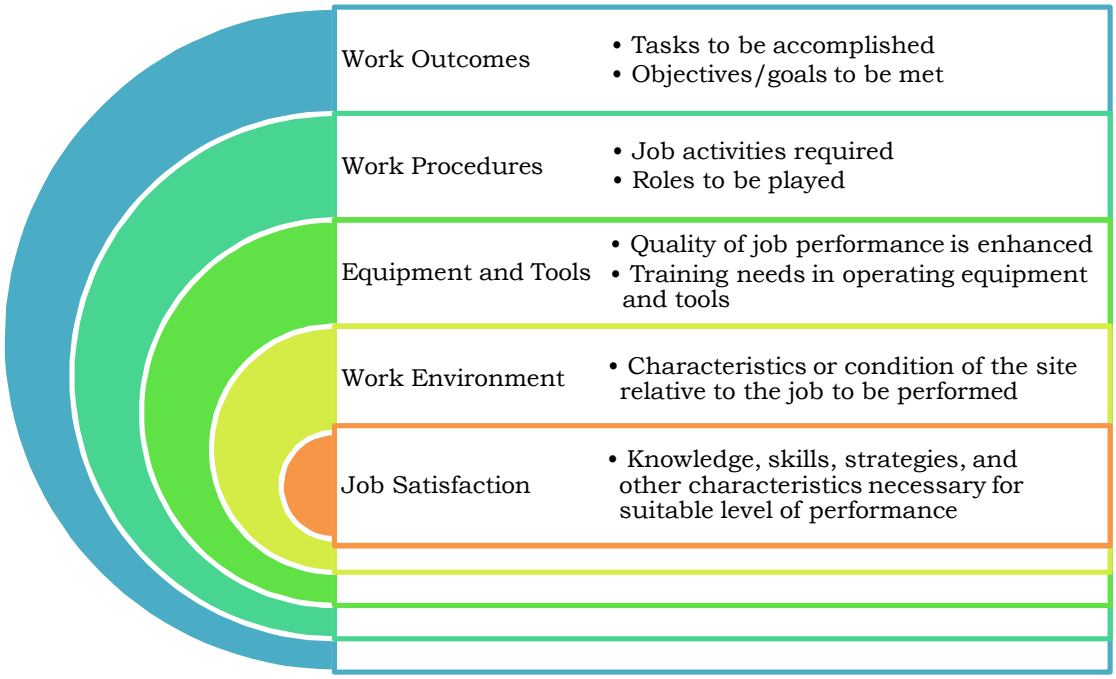
1. Job Analysis

What Job Analysis?

Job analysis is a detailed process in identifying and determining the job duties and requirements and the relative importance of these duties for a given job (HR Guide, 1999).

To have a better idea what kind of tasks or jobs that must be performed within the CBEE, five factors should be looked at:

Figure 123. Five Factors to consider in Job Analysis



Aside from the aforementioned factors to consider, job analysis can also be used as a tool in assessing the needs of the CBEE particularly in the aspects of: employment procedures establishment, performance appraisal, and most importantly in preparation of training modules for capacity building and skills development within the CBEE. It also helps determine the following:

a. **Skills Level**. Prior to hiring, it is necessary to identify the skills level, or the degree of the skill that can be performed, of every job applicant. This helps in determining what job an individual best fits in.

b. **Work background**. It must be acknowledged that there are equivalent hazards in every job. This is also helpful in determining the necessary

compensation an individual will get, as well as the safety procedures that will be devised. Mountain climbers and guides, dive instructors, and tour guides are only a few of the ecotourism-related jobs that have security risks.

c. **Educational attainment**. The level of educational attainment is helpful, if not always the main factor to consider, in establishing the degree of responsibilities, type of job (i.e., supervisory, skills-oriented, etc.) salary level, and the level of expectation for the desired job.

d. **Duties and responsibilities**. Job analysis helps in analyzing, which may later serve as basis, on performance-related data such as: frequency, duration, degree of effort, required skills, complexity of tasks, equipments and tools required, and level of standard or expectations, among others.

e. **Knowledge, Skills, and Abilities (KSA)**. Aside from the skill level, job analysis is instrumental in determining the KSA required to be performed on each job. During job hiring advertisement, only the minimum KSA requirements are stated.

2. Recruitment and Selection

What is Recruitment and Selection?

Recruitment is the process of attracting qualified candidates to apply for possible positions in an ecotourism project. On the other hand, selection is the last stage of recruitment process where prospective job applicants are finalized of hiring.

In CBEE establishment, conventional recruitment process apply, but it must be emphasized that local people should be prioritized in during recruitment and selection of potential staff. Some considerations in recruitment and selection are as follows:

a. **Purpose for which the ecotourism project is established**. Staff recruitment and selection must align with the primary purpose of the CBEE. Finance officers and accountants are hired not because it is a standard operating procedure for any organization to hire such professionals but mainly because CBEEs, as an enterprise, need to focus its financial resources into the right track. On the other hand, external auditors or consultants are not commonly recruited in the CBEE as funding agencies or supporting groups can take this role while being able to save its financial resources. Instead of hiring professional tour guides, mountain guides, and the like, local people can be trained and apply as professional guides duly licensed by the DOT. As a community-based project with a primary purpose of enriching the local resource, enriching the community's local labor pool helps establishing sustainable tourism.

b. **Cultural practices and way of life of the society**. Recruitment and selection must align with the knowledge, skills, and abilities (KSA) of local people. In example, Ifugaos can be recruited as mountain guides, tour guides, and indigenous rice practices expert while tourists enjoy their stay in the Banaue Rice Terraces. However, they cannot be recruited as divers, lifeguards, or boat riders as these jobs are not in line with their way of life and cultural practices.

c. **Size and geographical location of the project**. The number of staff to be recruited and selected depends of the size and scope of the CBEE project. CBEEs with wider scope and uses require more staff especially during the peak visiting season.

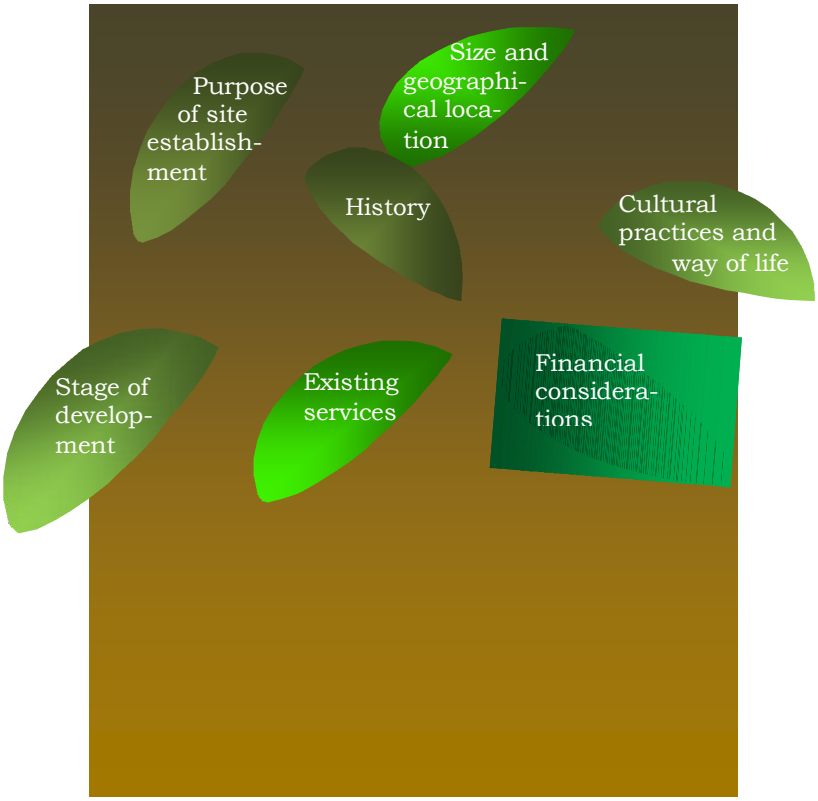


Figure 124. Some considerations in Recruitment and Selection

d. **History of the site**. History is essential in emphasizing the cultural significance of the CBEE. Hence, local tourist guides and other related jobs that will be recruited and selected must be knowledgeable in its cultural history.

e. **Stage of development**. Job recruitment and selection vary on the stage of the CBEE development. During the establishment stage, CBEE requires the recruitment of technically-skilled workers such as contractors, carpenters, electricians, and painters among others. When the establishment stage phases out, the services of these workers also end, not unless if the need arises. At the implementation stage, CBEE focuses on recruiting and selecting people for its key activities and services.

f. **Existing services**. Key activities and services must be clearly defined prior to job recruitment and selection. Such as the case of Balay sa Humay wherein the academe tapped the services of local people in

producing rice-based native delicacies. This is a cost-efficient way of maximizing the capabilities of local people, rather than hiring chefs or any other professional cooks for such task.

g. **Financial considerations**. Although there is a need to recruit a particular staff position, financial considerations must first be dealt with so as to ensure the sustainability of the job position at hand. For example instead of recruiting two personnel for the Administrative Officer and Bookkeeper positions respectively, the local organization can reduce labor costs by merging these positions to one personnel. Aside from saving costs, the CBEE also maximizes staff efficiency.

Staff Development

Staff development must be instituted to ensure that job performance and services are satisfactory. Staff development can be delivered in three ways that go hand-in-hand in improving overall CBEE staffing performance:

Figure 125. Three Ways in Improving Staff Development

1. **Training and Development**. Training and development is a process of enhancing the employee's fundamental competencies to perform jobs to the highest standards. For an ecotourism project, training on the following fields is necessary:

   a. **Visitor and Community Relations**. Learning how to deal with tourists of various nationality, ethnicity, and sect among others is an integral part of CBEE. At the same time, it is also important to continue building and enhancing community relations to motivate local people participation in various CBEE activities.

   b. **Financial Planning and Business Skills**. As an enterprise, local people must learn how to properly manage its financial resources to ensure project activities can run in a long-term basis, and eventually without the aid of external funding source.

   c. **Environmental Education**. According to the Environmental and Management Bureau of the DENR (2012), "environmental education is a

process by which people develop awareness, concern and knowledge of the environment… and learn to use this understanding to preserve, conserve and utilize the environment in a sustainable manner for the benefit of present and future generations." Since the framework of CBEEs is towards sustainable tourism, students, out-of-school youth, community leaders, policy makers and the general public must improve their awareness, knowledge, attitudes, skills, and participation in various nature-based ecotourism activities.

d. **Conflict Resolution**. Conflict inevitably arises in any organizational set-up. This is usually resolved by an unbiased third party who has unquestioned intentions and ideals. Conflict resolution is a training need that is often taken for granted but must also be given utmost regard. Training local people as conflict troubleshooters also help ease tension among organizational members because they often speak the same "language."

e. **Ecological Research and Monitoring**. Ecological research is instrumental in understanding various ecological processes. This could help identify the negative effects of CBEE activities at the early stage of project implementation, adapt the necessary plan of action, and provide ecological monitoring procedures towards environmental conservation.

f. **Patrolling and Law Enforcement**. Patrolling and law enforcement have been common problems in various projects being implemented at the local level. To avoid this scenario during CBEE implementation, local people should be trained and developed in the implementation of local and national laws. They should also be properly oriented in the procedures for patrolling the ecotourism area.

g. **Product Development**. Creating locally-produced products and enhancing local ecotourism sites are not enough in pushing CBEE activities into the tourism map. Local people must also learn how to bring these products and sites into its niche market. Product development training allows local people to find various ways and means to institutionalize and commercialize its ecotourism enterprise without sacrificing the quality of its natural resource base.

h. **Services Enhancement**. The effective delivery of local CBEE services into its target market is critical in making a lasting impression among tourists and visitors. With high quality service providers side by side with the panoramic view of the ecotourism site, tourists will most likely enjoy their stay. And this will be instrumental in making them keep on coming back to the ecotourism sites and activities. Hence, training and development in various critical CBEE services must be given importance.

i. **Product and Services Value Adding**. Local people must learn how to combine various products and services into "one unique product" (also called product bundling) to be able to set the CBEE different from other

ecotourism areas. Training and development is a platform tool in adding value to CBEE products and services.

2. **Team Building**. Team building refers to the process of enabling a flexible, cooperative, and harmonious group of people on working together in pursuit of a common goal. CBEE activities require the collective performance of the local people whose primary aim is to develop and improve the ecotourism enterprise at the same time as conserving the natural resource base. Experience is not enough in creating the necessary team dynamics for the local people. Training on team building addresses individual inhibitions and gives utmost importance on boosting knowledge, skills, and abilities (KSA) that are helpful in attaining the CBEE goals and objectives.

3. **Career Development**. Career development focuses on the employees' growth and development in preparation for their future positions in the organization. This approach motivates local people to be more passionate and feeling more satisfied in their work. Career development can be implemented through certification programs, study tours, educational degrees, diploma, apprenticeships, and other forms of training.

Performance Evaluation

Performance evaluation is a very important aspect CBEE operations and management. It assesses how each staff performance and productivity copes with the CBEE goals and objectives. Performance evaluation provides ecotourism managers with vital information in management decision-making processes, particularly in planning strategic actions in motivating the staff to improve their work performance or justifying the termination of a particular service or position.

Different templates and forms are available for various evaluation mechanisms from government institutions, NGOs, LGUs, and local organizations among others. However, it is best to consult human resource development (HRD) experts on this matter.

VISITOR PROFILE

It is a requirement for every ecotourism site to have a visitor record due to the following reasons:

- Help establish a general profile of the visitors: address, age structure, gender, profession/occupation, educational attainment, nationality, ethnic orientation, reasons for coming to the site, number of days of stay, companion, etc.
- Facilitates ease in tracking visitors and notify the concerned person or office/organization in cases of emergency.
- Serve as future reference or respondents in case of doing future investigation or research study on ecotourism performance, M & E, market analysis, etc.
- Provide relevant data and information in projecting products and services preferences, and for other planning purposes.

Establishing the visitor profile can be done during visitor arrival and while orientation is being held. Visitors are asked to accomplish a simple, one-page questionnaire. A sample visitor profile form is shown below. This can be revised and improved depending on the use and purpose intended.

Another survey form may be prepared and accomplished to determine the level of satisfaction of the visitors during their stay in the area. Templates and forms can be easily accessed in various internet sites.

Figure 126. Sample Visitor Information Sheet

(Name of Ecotourism Site)

Visitor Information Sheet

Name: _____ Age: _____

Address: _____

Sex: _____ Educational Attainment: _____

Profession/Occupation: _____

Nationality and Ethnic Orientation: _____

Who and No. of companion: _____

Reason for coming to the site: _____

Duration of Stay (in number of days): _____

Activities, attractions, places, destinations preferred: _____

_____

Thank you very much.

MARKETING AND PROMOTION (MAP)

Marketing and promotion (MAP) helps increase the number of visitors while gaining more tourism business and profits. As tourism marketplace is becoming highly competitive, and likewise increasing as other tourism centers strive to capture market share, it is crucial that an effective marketing and promotional strategy be put in place.

MAP helps…

- Increase off-season visitors
- Provide consumers with value for money accommodation
- Promote a site as a great holiday destination
- Deliver superior customer service
- Understand marketing areas
- Establish a comprehensive client database

Seek help of …. Tourism Promotion Board (TPB) of the Department of Tourism

TPB's main responsibility is to domestically and internationally market and promote the Philippines as a major global tourism destination, highlighting the uniqueness and assisting the development of its tourism products and services, with the end in view of increasing tourist arrivals and tourism investment.

Refer to specific provisions of R.A. 9593, Tourism Act of 2009.

MAP Strategies

1. **Identify and define target market**. The target market is dependent on the attraction, activities, products and services being offered in a particular ecotourism site. For an adventure park, potential market will most likely come from the adventurous youth and early adult groups. These groups represent the "hard" tourists sector.

2. **Develop a marketing theme**. Promotional and marketing campaign must be anchored on the main products and services offered in an ecotourism site. Examples of marketing schemes include: the history of the site, presence of an icon biodiversity species, wakeboarding, dolphin watching, and mountain climbing among others.

3. **Establish network and collaboration**. Priority and collaborative relationship should be given to the project management and local and national tourism businesses. These businesses must work together to support common tourism message on the ecotourism site. Marketing campaigns must have the support of partner businesses to be successful.

4. **Promote the name of the site**. There is a need to promote the name of the site in order to differentiate it from other tourist establishments while in the process, it becomes established as a tourism destination in its own right.

5. **Develop a brand**. The most effective way to promote the name of an ecotourism site and its attractions is through development of a "brand." Such brand can also act as a vehicle to encourage and facilitate greater local collaboration and should act as an ecolabel for the area to raise awareness of the quality and importance of the natural environment. Good example of a brand is our recent tourism slogan, which is "It's more fund in the Philippines."

6. **Managing a brand**. It is strongly recommended that the brand should be backed by clear technical and corporate guidelines to ensure that it is consistently presented at all times. The brand must be available to individual businesses and organizations for use. However, all users are required to meet the defined criteria before it can be used. Such criteria must not be viewed as a quality assurance standard but as a tool in requiring users to follow good environmental practices, competent and trained staff, provide good standard of customer service, etc.

7. **Print promotional materials**. Promotional leaflets, brochures, and other similar materials should be produced for extensive local and national distribution. These print promotional materials must be in full color, and includes:

    a. Brand of the site
    b. Map showing key routes, attractions and tourist facilities
    c. Description on ease of travel to the area.

8. **Create a website and other social networking sites**. The internet is now the most common source of information. Hence, it would be more practical for CBEEs to have its own website or fan page that aims to provide:

    a. Generic information about the whole area, including day trip touring itineraries
    b. Search Engine Optimization (SEO) of title tags, meta tags, and headings so that it could be easily found, and appear more frequently, under key word searches such as "short breaks," "wildlife," "seafood," and other commonly used terms related to ecotourism or ecotourism enterprise
    c. Develop fan pages from online social media such as Facebook, Twitter, and other popular websites that can easily reach out to potential visitors while promoting the ecotourism site free of charge.

9. **Have advertising campaigns**. These campaigns should take the form of full and half page composite spreads in newspapers with ads from individual businesses highlighting special offers. Such spreads provide opportunities to promote the ecotourism "brand" and create economies of scale (or cost advantages that the CBEE obtains due to its expansion) that enables local

businesses to advertise in national media at a lower cost than if they were to buy such ad space on their own.

10. **Develop public relation**. PR campaigns must highlight local tourism operations to generate editorial coverage of the area in key travel supplements and publications.

11. **Hold events**. Special events such as concerts, shows, festivals, and the like , create opportunities to visit the site and provide temporary new facilities that attract additional visitors at much lower cost than permanent infrastructure.

REVENUE GENERATION AND FEE SYSTEMS

Revenue Generation and Fee Systems must be implemented, and instituted in the future to ensure the CBEE is financially viable and sustainable. Examples of revenue collectibles are:

- Entrance fees
- Parking fees
- Concession fees
- Resource use fees
- Accommodation and use of other facilities and equipment
- Food and its associated services
- Sale of souvenir items
- Service-oriented fees

Funding may also be solicited through donations and subsidies from concerned individuals, institutions and organizations. These institutions and organizations can be contacted through their websites.

Figure 127. How to make revenue in the CBEE project?

Fee Computation

This manual does not recommend any formula in computing rates or fees for the use of facilities, products sold, and services provided in a certain ecotourism sites in the absence of any hard and fast rule to follow. Instead, it is suggested that a survey of existing rates and fee systems applied in nearby or neighboring ecotourism sites and facilities is carried out. This survey serves as a basis in arriving at fees to be charged to visitors.

Nonetheless, relevant provisions of the Tourism Act of 2009 (R. A. 9593) may be considered in computing for fees and related charges.

SIMPLE ACCOUNTING

What is Simple Accounting?

Simple accounting is the systematic processing of financial information of a business or enterprise.

Simple accounting starts with setting up a chart of accounts then ends in closing the book for that accounts at the end of the accounting period. It can be done using the following steps:

1. **Prepare the Chart of Accounts.** One should create a chart of accounts. This is where all the financial information and transactions will be recorded. In creating the chart of accounts, it is important to consider the categories that will be needed in five (5) or ten (10) years from the start of the enterprise. For example: the additional cost for the employees, furniture or equipment. The chart of accounts must have a numbering system; this is usually a four-digit number. A number/code is assigned to each category.

2. **Record Transactions in a Journal**. The transactions are recorded in the journal which is also called as the "Book of Original Entry". Recording can be done progressively, but one can also do it in batches at the end of the day, especially if entries are sorted and collected in a cash register tape.

3. **Post Summaries in a General Ledger**. This is where all the financial transactions in the journal are re-posted. All transactions that fall on the same account are collected and summarized. For example: all the accounts that are categorized as "Sales" will be consolidated. Recording to general ledger is not as frequent like recording in the journal of transaction this can be done at the end of the week or month.

4. **Preparation of Financial Statements**. Financial statements are prepared using the financial information or transactions recorded in the general ledger. This summarizes all the assets and liabilities for the year.

5. **Closing of the Accounts**. The revenues and expenses of the enterprise are clustered and reported by each period. It is important to close the account so it will not mix with the upcoming revenues and expenses of another period. The net balances that represent the income or loss for the period are transferred to the owner's equity. The only accounts that have balances are the asset, liability, and owners' equity accounts this can be carried forward to the next period.

MONITORING AND EVALUATION (M&E) SYSTEM

What is Monitoring?

Monitoring is the systematic collection, analysis and use of information from projects and programs to: learn from the experiences; account internally and externally for the resources used and the results obtained; and make decisions on future courses of actions to take.

What is Evaluation?

Evaluation is assessing as systematically and objectively as possible an ongoing or completed project, program or any development activities. The objective is to be able to make statements about their relevance, effectiveness, efficiency, impact and sustainability.

Purpose of M&E for CBEE

Why is there a need to do M&E? There are various reasons why there is a need to do M&E in CBEE project. Generally, it is used to review the progress of the project. Secondly, it is instrumental in identifying the problems during planning and implementation stages. And third, it seeks to make adjustments on the CBEE goals and objectives, plan of action, and expected results. The following are some of the detailed reasons for conducting M&E:

- It examines the extent to which the CBEE project is meeting its objectives.
- It seeks to clarify the expected impacts of the CBEE for the local communities and how this is achieved.
- M&E is the key tool in deciding how progress and impact is assessed.
- It is used to gather and analyse the necessary information for tracking development and impacts of CBEE.
- It explains the reasons for the CBEE success or failure, while agreeing on how to use this understanding to improve future actions.
- Its end results are used in planning and remediation on CBEE's weaknesses, problems, systems adjustment, and improvement.

'Monitoring and evaluation (M&E) of development activities provide government officials, development managers, and civil society with better means for learning from past experience, improving service delivery, planning and allocating resources, and demonstrating results as part of accountability to key stakeholders. Within the development community there is a strong focus on results - this helps explain the growing interest in M&E.' (World Bank, 2004)

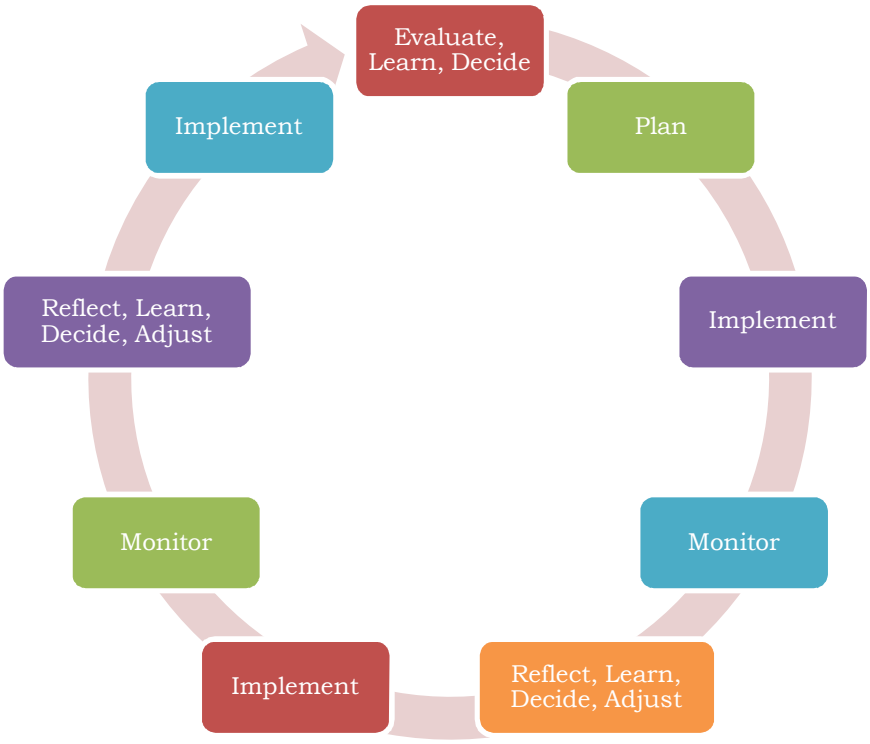


Figure 128. Monitoring and Evaluation Process (Shapiro, 2007)

Criteria to Consider in M&E

The following are some of the criteria to consider when conducting M&E:

1. **Measurable**. The M&E indicators must be quantifiable so as to determine if the desired goals and objectives are attained.

2. **Precise**. The desired CBEE outputs and impacts must be repeatable and reproducible over a period of time. Otherwise, the CBEE inputs and activities must be reflected and adjusted to fit the needs of the community.

3. **Consistent**. The M&E indicators must not contradict the goals and objectives of the CBEE project.

4. **Sensitive**. During monitoring, all stakeholders must carefully consider if the CBEE inputs and activities are culturally and socially sensitive to the needs and wants of the indigenous peoples (IPs) and women (gender sensitivity). Project outputs and impacts must positively affect these groups.

5. **Degree of relationship of actual tourism activity**. In monitoring tourism activities, consider if the desired results or outcomes have direct or indirect effect on the CBEE project.

6. **Accurate**. The M&E indicators must be free from error or defect. It must also be consistent with standard rules in making framework approaches such as the Logical Framework and the Result-Based Management Framework.

7. **Utility**. Each indicator must be evaluated for its degree of relativity or usefulness of its impacts to the CBEE project.

8. **Availability and cost to collect and analyze the data**. Like in any project activities, the duration and degree of M&E must be based upon the availability of the project respondents and other concerned stakeholders, and most importantly the cost it would take to collect and analyze data.

M&E Indicators

The performance indicators to be used in M&E are the inputs, activities, outputs, outcomes, and impacts of project activities defined in the Logical Framework or in the Result-Based Management Framework, whichever is available.

The seven (7) factors defined in the Sustainability Tracking Tool (SATT) also provide a menu of indicators to be examined during the M & E.

Please refer to the relevant sections in Chapter 2 for details of the M&E indicators that may be used.

Who should do the M&E?

1. CBEE Project Managers
2. CBEE M&E staff
3. People providing external assistance on project design, M&E and information management
4. Representatives from funding institutions
5. LGU Officials
6. Representatives of specialized ecotourism associations, visitor's groups
7. Other concerned stakeholders

Consequences of Inadequate M&E (IFAD, 2012)

- **Limited knowledge.** Project implementers, particularly the uninformed local people, have limited knowledge about the project's progress, opportunities and problems. In effect, operations and strategies that are needed to be re-aligned and adjusted are not immediately mitigated. As a result, CBEE activities lack the impact to effectively affect change in the local community and its natural resource base.

- **Unclear impact performance**. Project activities with unclear impacts and outcomes reflect limited accountability of project implementers to funding agencies and primary stakeholders. As one project consultant put it, "If there is no method for tracking activities or problems or the impact of activities, how can projects justify their existence?"

GLOSSARY OF TERMS

Acculturation	*Acculturation* is defined as a process in which members of one cultural group adopt the beliefs and behaviors of another group.
Accurate	A criteria to consider when conducting monitoring and evaluation (M&E), *accuracy* implies that M&E indicators must be free from error or defect.
Adventure Tourism	*Adventure tourism* is an outdoor leisure activity that generally takes place in an unusual, exotic, remote, or wilderness setting, sometimes involving some form of unconventional means of transportation and tending to be associated with low or high levels of physical activity.
Advocacy	In DRRM, *advocacy* involves encouraging and influencing local communities to respond to the socio-political, economic, and environmental impacts of impact hazards.
Area Closures	In visitor management, *area closures* refer to the prohibition from visitors' use of certain ecotourism areas because of some reasons, e.g., sections in a museum where important artifacts are kept, habitat of a wildlife species due to mating, etc.
Assumptions	*Assumptions* are external factors that have the potential to influence, or even determine, the success of a project. It does not have direct control over the project but can indirectly influence and affect project implementation and impose impact on the project environment.
Attitudes and Values	Somehow related to the community's culture. Also refer to community culture.
Barriers	In visitor management, *barriers* refer to physical or biological structures purposely built to limit visitor movements.
Buffer Zone	Usually situated outside or surrounding the PA, this zone serves as a social fence to prevent human intervention and other threats into the PA.

Business Model	A *business model* describes how the organization creates, delivers, and captures value. Likewise in building a house, business model is the architecture of the business. Its design must show the offerings, relationships, structure, strategies, and processes to be used.
Business Plan	A *business plan* outlines the marketing, technical-organizational, and financial requirements in setting-up the CBEE.
Business Type	A *business type* refers to the form of ownership of a business or enterprise. Business types include sole proprietorship, partnership, corporation, and cooperative.
Community Culture	It refers to the spoken and unspoken rules and traditions of a particular community.
Community Demography	This refers to the community's age structure, gender, race and ethnicity, marital status, education, population, sources of income, etc.
Community History	These are traditions that define the community (through its weaknesses and achievements) and those which they prefer to talk or not to talk about.
Community Mobilization	These are the activities carried out in order to stimulate a group of people living or working together to address a specific problem or achieve a specific objective. Also refer to self-mobilization.
Community-based Ecotourism Enterprise (CBEE)	CBEE is an enterprise controlled and managed by concerned local people and stakeholders in a community whose main product is to "sell" ecotourism services.
Community-based Enterprise (CBE)	*Community-based enterprises* are an example of the so-called *social enterprises*. A social enterprise is defined as "businesses with primarily social objectives whose surpluses are principally reinvested for that purpose in the business or in the community, rather than being driven by the need to maximize profit for shareholders and owners" (UK Department of Trade and Industry, 2011).

Component Objectives	It describes the project intervention strategy. It is also known as Intermediate Results in a Logical Framework.
Conservation	In heritage conservation, *conservation* means all the processes of looking after a place so as to retain its cultural significance (Burra Charter, 1999). This includes the maintenance and may, according to circumstances, include preservation, restoration, reconstruction and adaptation and will commonly be a combination of more than one of these.
Consistent	A criteria to consider when conducting monitoring and evaluation (M&E), *consistency* implies that M&E indicators must be in line with the goals and objectives of the CBEE project.
Cooperative	A *cooperative* is a business type that is owned and jointly managed by its members who share its profits or benefits.
Corporation	A *corporation* is a business type that has more than two owners. It is recognized as a legal entity that is separate and distinct from its owners, enjoys most of the rights and responsibilities that an individual possesses, and has a right to enter into contracts, employee hiring, own assets, loan and borrow money, and as well as pay taxes. It reserves the right to participate in earning profits through dividends or stocks but is not held personally liable for the company's debts.
Cultural Zone	Zones with significant cultural, religious, spiritual, and anthropological values where traditional rites exist and cultural ceremonies and practices take place.
Density	A general consideration for infrastructures and facilities establishment, *density* refers to the balance between dispersing and concentrating structures and facilities in a site.
Differential Pricing	In visitor management, *differential pricing* refers to the establishment of two or more pricing scheme for the same recreation

	opportunity. For instance, higher fees may be charged during peak holiday season.
Directional Signage	A type of signage, these are signs leading to location of facilities, services, function areas, and other key areas.
Disaster Risk Reduction Management (DRRM)	DRRM measures are designed to protect livelihoods and assets of communities and individuals from impact hazards. DRRM is commonly done through the following techniques: mitigation, preparedness, and advocacy.
Economic Analysis	*Economic analysis* examines the impact of the project beneficiaries and other stakeholders in the local community or the economy of the project site.
Economies of Scale	*Economies of scale* refer to cost advantages that the CBEE obtains due to its expansion.
Ecotourism	As defined by DENR and DOT, it is a low impact, environmentally sound and community-participatory tourism activity in a given natural environment that enhances the conservation of bio-physical and cultural diversity, promotes environmental understanding and education and yields socio-economic benefits to the concerned community.
Effects Method	*Effects method* estimates the effects of the project on economic growth, government budget, income distribution, etc.
Enhancing Factors	These are factors that increase the number of potential visitors present, thus also increasing the level of tourism carrying capacity of the site.
Environmental Education	*Environmental education* is a process by which people develop awareness, concern and knowledge of the environment… and learn to use this understanding to preserve, conserve and utilize the environment in a sustainable manner for the benefit of present and future generations.
Evaluation	*Evaluation* is the systematic and objective

	assessment of an ongoing or completed project, program or any development activities. The objective is to be able to make statements about their relevance, effectiveness, efficiency, impact and sustainability.
Ex-situ Conservation	*Ex-situ conservation* refers to the off-site conservation of local biodiversity. The endangered plant or animal is removed from its natural population (or threatened habitat) and transferred to a new habitat that is within the care of human intervention.
Financial Analysis	*Financial analysis* examines the activities and resource flows of the target project beneficiaries and other stakeholders in a separate manner.
Financial Plan	A part of the business plan, the *financial plan* identifies the financial requirements needed to start a business and keep it running. It forecasts the fixed, pre-operating, and working capital requirements. It also determines possible sources of capital.
Fire Use Restriction	In visitor management, *fire restriction* refers to the restriction on the visible and biological effects of using fire.
Full Feasibility Study	A *feasibility study* is a tool or procedure that seeks to assess the economic viability of a project (especially the CBEE), its strengths, weaknesses, opportunities, and threats as presented by the environment. Positive outcome of an FS indicates that the local community can proceed with the CBEE project.
Functional Participation	With the help of external professionals, local people form themselves into organized groups due to a common cause or as a means to achieve project goals. This is also done to reduce project costs and become involved in shared decision-making.
Gender	The Convention on Biological Diversity defines *gender* as the social roles that men and women play and the power relations between them, which usually have a profound effect on

	the use and management of natural resources (2012). Gender is not based on sex, or the biological differences between men and women. Gender is shaped by culture, social relations, and natural environments.
Gross Margin	*Gross margin* is the difference between: (a) the total cash income and (b) the total cash cost of the operation.
Group Characteristics Restriction	In visitor management, *restrictions by group characteristics* refer to setting ecotourism area limit use on certain groups with specific equipments (guns, big bikes, etc.), activities (war games, simulations, and other nature-destructive related activities), and other characteristics that are deemed disadvantageous to the site.
Group Size Limit	In visitor management, *group size limit* refers to setting the maximum number of people in one group of tourists travelling together.
Habitat Management Zone	These zones contain natural habitats, particularly rare, threatened, and endangered species that require periodic maintenance and management practices.
Heritage Conservation	*Heritage conservation* helps ensure that cultural significance of heritage place is retained and ecologically sustained for future generations to enjoy.
Heritage Interpretation	Also refer to Interpretive Signs and Nature Interpretation.
Identification Signage	A type of signage, these are signs used to label specific service or site facility such as toilet signs, number of floors, room names, etc.
Impact Indicators	This relates to the overall project goal. It helps monitor the achievement and the impact of the project.
Indigenous Knowledge	*Indigenous Knowledge* is broadly defined as the knowledge that an indigenous (local) community accumulates over generations of living in a particular environment. It

	encompasses all forms of knowledge – technologies, know-how skills, practices and beliefs – that enable the community to achieve stable livelihoods in their environment.
Indigenous Knowledge System	Also refer to Indigenous Knowledge (IK).
Indigenous Technical Knowledge	Also refer to Indigenous Knowledge (IK).
Information Signage	A type of signage, these are signs that give information on the site's services and facilities such as directories, maps, instructional signs, etc.
Inputs and Activities	These refer to the additional information needed to carry out the desired project outputs.
In-situ Conservation	*In-situ conservation* refers to the on-site conservation of local biodiversity. Generally, this is done by protecting the local plant and animal habitat from predators, other intrusions, and from the very habitat that these plant and animal species live in.
Interactive Participation	The local people are involved in project analysis, development and formation of action plans, as well as organizational strengthening. Unlike functional participation, interactive participation encourages groups to make active decisions, control, and use over local resources and not just a means to achieve project goals.
Intermediate Results	Also refer to Component Objectives.
Internal Rate of Return	The *internal rate of return* is the discount rate that makes the NPV equal to zero. It helps determine whether the project creates greater income return than the interest rate that must be paid (if the capital is borrowed).
Interpretive Signs	*Interpretive signs* communicate information or explain the nature, origin, and purpose of the ecotourism site in terms of its cultural resource, natural resource, history, phenomena, and other important information.

Sometimes it is also referred to as Heritage Interpretation and Nature Interpretation.

Job Analysis

Job analysis is a detailed process in identifying and determining the job duties and requirements and the relative importance of these duties for a given job.

Length of Stay Limit

In visitor management, *length of stay limit* refers to setting the allowable amount of time that certain individuals or groups may stay in an ecotourism area.

Limiting Factors

Also refer to Corrective Factors.

Limiting Factors

These are factors that reduce the number of potential visitors in an area, thus also reducing the level of tourism carrying capacity of the site.

Local Knowledge

Also refer to Indigenous Knowledge (IK).

Logical Framework

A *logical framework*, or logframe, is an analytical, presentational, and management tool used to:

- Å analyze existing situation of a planned CBEE during activity preparation;
- Å establish a logical hierarchy of means by which CBEE objectives will be reached;
- Å identify potential risks to achieving the objectives, and to sustainable outcomes;
- Å establish how outputs and outcomes might best be monitored and evaluated;
- Å present a summary of the activity in a standard format; and
- Å monitor and review activities during implementation.

Management Zones

Management zones are subdivisions of a Protected Area (PA), with each zone distinct from the other. A PA is zoned according to how it will be utilized. However, zones can change depending on the level of applicability and appropriateness.

Manipulative Participation

Local people have representation in official boards but do not have power over decision-making processes.

Market Research

Market research is a process that gathers and

	analyzes information about the moving of goods or services from producer to consumer. It is also defined as a process of gathering, analyzing, and interpreting information about a market, product, or service to be offered for sale in that market, and the past, present, and potential customers for the product or service.
Marketing Plan	A part of the business plan, the *marketing plan* describes the products and services, pricing strategy, place of operations, and promotional activities of the CBEE project. It also identifies the CBEE competitors and its plans on attaining or improving market share.
Means of Verification (MOV)	The MOV helps determine whether the OVI can be realistically measured at the expense of a reasonable amount of time, money, and effort. The MOV specifies how, who, and when the information will be gathered.
Measurable	A criteria to consider when conducting monitoring and evaluation (M&E), *measurability* implies that M&E indicators must be quantifiable so as to determine if the desired goals and objectives are attained.
Mitigation	In DRRM, *mitigation* involves the reduction of frequency, scale, intensity, and impact of hazards.
Monitoring	*Monitoring* is the systematic collection, analysis and use of information from projects and programs to: learn from the experiences; account internally and externally for the resources used and the results obtained; and make decisions on future courses of actions to take.
Multiple Use Zone	Zones that allow different human activities, but within the prescribed management plan such as: human settlement, traditional and sustainable land use, agriculture, agroforestry, extraction activities, and other income generating or livelihood activities.
Natural Biotic Area	Category VI of Protected Areas in the Philippines, these are areas that allow

societies to live in harmony with the environment to adapt to modern technology at their own pace.

Natural Monument

Category II of Protected Areas in the Philippines, these are a relatively small areas focused on protecting small features to preserve nationally significant natural features on account of their unique characteristics.

Natural Park

Category IB of Protected Areas in the Philippines, these are areas that refer to forest reservations that are essentially of natural wilderness character which has been withdrawn from settlement, occupancy, or any form of exploitation except in conformity with approved management plan exclusively to preserve the scenery, the natural and historic objects, wild animals and plants within and to provide enjoyment of these features in such areas.

Nature Interpretation

Nature interpretation refers to any communication process designed to reveal meanings and relationships of cultural and natural heritage to the public, through first-hand involvement with an object, artifact, landscape or site" (Tilden, 1957);

Also refer to Heritage Interpretation and Interpretive Signs.

Net Present Value (NPV)

The *net present value* is the present value of the cash flow stream. It is computed by subtracting the total discounted present of the costs from that of the benefits.

Objectively Verifiable Indicators (OVI)

Objectively verifiable indicators (OVI) of achievement measure the project progress in terms of quantity, quality, and time. There are two kinds of OVI: Impact Indicators and Process (outcome) Indicators.

Opportunities and Threats

Opportunities and threats are external interventions, or interventions outside the project in terms of scope and location, that can be beneficial (opportunity) or harmful (threats) to project activities. Also refer to

	SWOT Analysis for further details.
Opportunity Cost	*Opportunity cost* is the value of the next-highest-valued alternative use of that resource.
Outcome Indicators	Also refer to Process Indicators.
Park Information	Also refer to signage, interpretive signs, and nature interpretation.
Partial Budget	*Partial budget* is used to calculate the effect on profits of a proposed change in a portion of the operation. It includes only the costs and returns that change as a result of the proposed change in the operation. Because only a portion of the costs and returns are included, the partial budget only provides an estimate of the profitability of an alternative relative to current operations. It does not provide an estimate of the absolute profitability.
Participation by Consultation	There is consultation among local people. External professionals such as NGOs, community organizers, LGUs, among others help define the problems and information gathering process. They act as consultants but have no share in making decisions.
Participation for Material Incentives	Local people actively participate by contributing resources (such as the food for work program, or work in return for other material incentives). However, they usually do not continue to work or prolong the use of such technologies when materials incentives end.
Participatory Planning Process (PPP)	*Participatory planning process* involves the active, informed, and equitable participation of all stakeholders in the various CBEE processes.
Participatory Rural Assessment (PRA)	PRA is an approach that incorporates the profile, local knowledge and opinions of rural people in the planning and management of development projects and programs.
Partnership	A *partnership* is a business type that has two owners.

Passive Participation	The information, may it be decisions or minutes of the meeting, is just relayed to the local people. Unilateral announcements are made, without consulting their opinion or responses while information is shared. The views and opinions of external professionals are more favored.
Performance Evaluation	*Performance evaluation* assesses how each staff performance and productivity cope with the CBEE goals and objectives.
Physical Resources	This may refer to the community size, buildings and structures, topography, rivers, roads, and other features.
Potential Carrying Capacity	PCC refers to the total number of daily visits.
Precise	A criteria to consider when conducting monitoring and evaluation (M&E), *precision* implies that M&E indicators must be repeatable and reproducible over a period of time.
Pre-feasibility Study	Unlike the Full Feasibility Study, this type of investigation focuses only on simple and brief assessment of the viability of a certain proposed undertaking. Also refer to Scoping Study.
Preparedness	In DRRM, *preparedness* involves capacity building and strengthening of local people in order to withstand, respond, and recover from the impact of hazards.
Price Trend	*Price trend* refers to the movement of price (upward, downward, or sideways) in a particular direction over time.
Process Indicators	This relates to the project purpose and results. It measures the extent to which the stated objectives have been achieved. Also known as Outcome Indicators.
Product Line	A *product line* refers to a particular kind of product or service that is offered to customers. It is also referred to as a number of products that are related and developed by the same manufacturer.

Product-based Product Line	*Product-based product line* involves manufacturing or production of goods such as raffia bags, handmade paper, etc.
Project Goal	This is the overall objective of a project. It is an essential component of the Logical Framework and RBMF.
Project Impact	Also refer to Project Goal.
Project Outcome	It describes what the project wants to achieve. Also refer to Project Purpose.
Project Purpose	The outcome that the project desires to achieve. It is an essential component of the Logical Framework and RBMF.
Protected Landscapes and Seascapes	Category IV of Protected Areas in the Philippines, these are areas of national significance characterized by the harmonious interaction of man and land while providing opportunities for public enjoyment through recreation and tourism within the normal lifestyle and economic activity of these areas.
RA 10121	*Republic Act 10121 - Philippine Disaster Risk Reduction and Management Act of 2010*. An act strengthening the Philippine Disaster Risk Reduction And Management System, providing for the National Disaster Risk Reduction and Management Framework and institutionalizing the National Disaster Risk Reduction and Management Plan.
RA 7042	*Republic Act 7042 – Foreign Investments Act of 1991*. An act to promote Foreign Investments, prescribe the procedures for registering enterprises doing business in the Philippines and for other purposes.
RA 7277	*Republic Act 7277 – Magna Carta for Disabled Persons*. An act providing for the rehabilitation, self-development and self-reliance of Disabled Person and their integration into the mainstream of society and for other purposes.
RA 7586	*Republic Act 7586 – National Integrated Protected Areas System (NIPAS) Act of 1992*.

	An act providing for the establishment and management of National Integrated Protected Areas System, defining its scope and coverage, and for other purposes.
RA 8371	*Republic Act 8371 – Indigenous Peoples Rights Act of 1997*. An act to recognize, protect and promote the rights of Indigenous Cultural Communities/Indigenous People, creating a National Commission of Indigenous People, establishing implementing mechanisms, appropriating funds therefore, and for other purposes.
RA 9593	*Republic Act 9593 – Tourism Act of 2009*. An act declaring a national policy for tourism as an engine of investment, employment, growth and national development, and strengthening the Department of Tourism and its attached agencies to effectively and efficiently implement that policy, and appropriating funds therefore.
Real Carrying Capacity	This refers to the maximum allowable number of visits or visitors to an area, once the corrective (i.e., reductive) factors (cf_1, cf_2,…cf_n) derived from the particular characteristics of the site (or standards/needs of the visitors) have been applied.
Recreational Zone	Zones that promote recreational, tourism, educational, and environmental awareness values.
Recruitment	*Recruitment* is the process of attracting qualified candidates to apply for possible positions in an ecotourism project.
Rehabilitation	*Rehabilitation* is the recovery of productivity and some, but not necessarily all, of the plant and animal species originally present in a particular environment.
Resource Reserve	Category V of Protected Areas in the Philippines, these areas have an extensive, rather isolated, uninhabited, and normally inaccessible area selected to protect natural resources of the area for future use and prevent or contain development activities that could affect the resource pending the

	formation of objectives based upon appropriate knowledge and planning.
Restoration	*Restoration* entails the re-establishment of the structure, productivity, and species diversity of the ecosystem originally present. In time, ecological processes ad function will match those of the original habitat.
Restoration Zone	These are environmentally degraded zones that need to revive its natural habitat and biodiversity.
Results-based Management Framework (RBMF)	The RBMF is an approach to management that integrates strategy, people, resources, processes, and measurements to improve decision making, transparency, and accountability through the following: Å define realistic expected results based on appropriate analysis; Å identify beneficiaries and designing projects to meet their needs; Å monitor progress of the results and resources consumed with the use of appropriate indicators; Å identify and managing risks while considering expected results and necessary resources; Å increase knowledge by learning lessons and integrating them into decisions; and Å reports on the results achieved and resources involved.
Return on Investment	The *return on investment* determines the amount of money an enterprise can generate from investing a certain amount of money or resources.
Safety and Regulatory Signage	A type of signage used to convey certain safety instructions or warning. Examples are: traffic signs, exit signs, warning signs, etc.
Scoping Study	A *scoping study* is another method of preliminary analysis involving series of consultations and analysis to come up with a definitive project plan of action. This is also referred to as Pre-Feasibility Study.
Selection	*Selection* is the last stage of recruitment

process where prospective job applicants are finalized of hiring.

Self-mobilization — A type of participation that is encouraged in developing CBEE projects, *self-mobilization* allows local people to take initiative in developing contacts with external professionals/institutions for technical advices and resources needs.

Sensitive — A criteria to consider when conducting monitoring and evaluation (M&E), *sensitivity* implies that M&E indicators must consider the cultural and social needs and wants of the marginalized stakeholders.

Service-based Product Line — *Service-based product line* focuses on providing services like boat repair and maintenance, massage, guides, other wellness services, etc.

Shadow Pricing — *Shadow pricing* compares the competitiveness of the project with the international price of goods and services, using the equivalent international price of the local good or service.

Signage — *Signage* is any kind of visual graphics created to display information to a particular audience.

Simple Accounting — *Simple accounting* is the systematic processing of financial information of a business or enterprise.

Single Proprietorship — *Single proprietorship* is a business type that has one owner.

Site Pre-assignment — In visitor management, *pre-assignment of recreation site* refers to the allocation of individual sites to specific individuals or groups before entering a recreation area.

Social Safeguards — *Social safeguards* are mechanisms or strategies that minimize, if not totally prevent, adverse impacts of a project on the community and the lives of local people. It also helps strengthen the locality's own safeguard systems (if there is any) and develop its capacity to manage social risks.

Special Use Zone	These zones are set aside for special uses (such as telecommunication facilities, irrigation canals, or electric power lines) and are retained upon mutual agreement among the concerned parties provided such use do not violate any of the prohibitions inside the protected area.
Strengths	*Strengths* are attributes of the project that are helpful in achieving the objectives.
Strict Nature Reserve	Category IA of Protected Areas in the Philippines, these are areas that have an exceptional ecosystem, features, and/or species of flora and fauna of national scientific importance maintained to protect nature and maintain processes in an undisturbed state to have ecologically representative examples of the natural environment available for scientific study, environmental monitoring, education, and maintenance of genetic resources in a dynamic and evolutionary state.
Strict Protection Zone	Zone established in areas with high biodiversity value. Except for scientific studies and religious use by indigenous communities, all human activities are prohibited in this zone.
Sustainability Assessment Tracking Tool	It is a system used to track the implementation progress of CBEE, to be prepared and accomplished during the project conceptualization and implementation period, mid-term implementation, and final/completion phase.
Sustainable Development Principle	A development project is considered sustainable if it involves the three components of sustainable development: social, economic, and environmental.
Sustainable Use Zone	These are natural areas where its habitat and biodiversity is conserved in line with a PA General Management Plan.
SWOT Analysis	SWOT is a strategic planning method used to evaluate the Strengths, Weaknesses, Opportunities, and Threats involved in a

project.

Team Building

Team building refers to the process of enabling a flexible, cooperative, and harmonious group of people on working together in pursuit of a common goal.

Technical-Organizational Plan

A part of the business plan, the *technical-organizational plan* identifies the required materials, supply sources, processes and people involved, equipments needed, and the time it would take to produce a product or render a service.

Technology Requirements

In visitor management, *technology requirements* refer to specialized equipments that tourists are allowed to use within the ecotourism area.

Tourism Carrying Capacity (TCARCAP)

Tourism carrying capacity (TCARCAP) is the maximum number of visitors/tourists that can be accommodated in an area without affecting the state of the environment, the level of satisfaction of the visitor, and the socio-cultural norms of the host community.

Trading Product Line

Trading product line deals with the exchange of products and services such as sari-sari stores, souvenir shops, etc.

Traditional Knowledge

Also refer to Indigenous Knowledge.

Training and Development

Training and development is a process of enhancing the employee's fundamental competencies to perform jobs to the highest standards.

Trip Scheduling

In visitor management, *trip scheduling* refers to the designation of specific time or date that tourists are allowed to use a certain ecotourism site.

Use Limit

In visitor management, *use limit* refers to setting restrictions on the number of visitors entering the site.

Utility

A criteria to consider when conducting monitoring and evaluation (M&E), *utility* implies that M&E indicators must be evaluated for its degree of relativity or

usefulness to the CBEE project.

Value Chain

A *value chain* describes the full range of activities which are required to bring a product or service from conception, through the different phases of production, delivery to consumers, and final disposal after use. It also refers to the resulting relationship when various actors work together for value addition of the ecotourism enterprise.

Value Chain Analysis

Value chain analysis is a useful tool for working out how to create the greatest possible value to a particular product for the satisfaction of the customers.

Visitor Management

Visitor management entails setting certain limitations on an ecotourism site and visitor activities brought about by the influx of tourists and visitors coming in and out of the area.

Visitor Qualifications

In visitor management, *visitor qualifications* refer to entry of visitors with proper qualifications in special zoned areas such as the entry of licensed scuba divers on specific diving sites, professional mountaineers are allowed to climb the mountain peak, only visitors accompanied by a licensed cave guide are allowed to enter cave sites, and other qualifications that are deemed necessary for implementing necessary safeguards in the ecotourism site.

Volunteer Tourism

Volunteer tourism makes use of holiday-makers who volunteer to fund and work on social conservation projects around the world and aims to provide sustainable alternative travel that can assist in community development, scientific research, or ecological restoration.

Weaknesses

Weaknesses are attributes of the project that are harmful in achieving the objectives.

Wildlife Sanctuary

Category III of Protected Areas in the Philippines, these are areas that assure the natural conditions necessary to protect nationally significant species, group of species, biotic communities, or physical

features of the environment where these may require specific human manipulation to maintain them.

Zoning

Zoning is the process of dividing the site into a variety of different sectors (or zones) and classify them according to their use (protected area, recreational zone, economic zone, cultural area, etc.). Each zone has its own set of rules and regulations within its boundaries.

Zoning Format

Zoning format describes the site description and ground rules for a particular zone. The expected zoning format for ecotourism zones include: name of the zone, general objectives, zone description, zone boundaries, and management rules, regulations, and policies.

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APPENDICES

APPENDIX 1 . SUSTAINABILITY ASSESSMENT TRACKING TOOL FOR THE DANAO ADVENTURE PARK (DAP), DANAO, BOHOL.

EVALUATION / ASSESSMENT FORM
FOR THE SUSTAINABILITY OF COMMUNITY-BASED ECOTOURISM PROJECTS

Ecotourism Project : Danao Adventure Park
Address : Danao, Bohol
Name of Respondent: Jerome Ladra, Municipal Tourism Officer

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
A. POLICIES / INSTITUTIONAL REQUIREMENTS		Potential Score	Actual Score	
1. Project Location Is the project located within the key ecotourism site`(based on EO 111, establishing the guidelines for the development of ecotourism in the Philippines)?	Not within an emerging, potential and key ecotourism site, and not even in a protected area	0		Bohol is one of the 32 key ecotourism sites
	Not within an emerging, potential and key ecotourism site, but inside a protected area (landscape/seascape)	1		
	Within an emerging and potential ecotourism site.	2		
	Within a key ecotourism site	3	3	
2. Accreditation /Authorization	Not Accredited/Authorized	0		The project is owned and operated by an LGU so government accreditation
	In the process of accreditation/authorization	1	1	
	Accredited already	2		

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
Is the project and its operations accredited by the DOT (or authorized by PAMB) by virtue of the rules and regulations pursuant to the provisions of RA 7160, EO 120 and EO 111? (and RA 7586, NIPAS Law)	Accredited/authorized and in active practice	3		was not prioritized since it was not viewed as a potential constraint to being able to operate. The project currently is mobilizing for TEZ accreditation.
Has the project's accreditation been cancelled / revoked	Accreditation has been cancelled/revoked	0		Not Applicable
	Had been served with "cease and desist order" (CDO)	1		
	Had been served with notice of violation (NOV)	2		
	Never; has been complying religiously with the requirements of the accreditation	3		
3. National / Local Permits/Licenses Are national / local permits and licenses (e.g., DTI registration, Mayor's permit, health sanitation certificate, etc.?) issued to legalize operations?	Not holder of any national/local permits	0		Danao Adventure Park has Environmental compliance certification (ECC)
	Holder only of local permit and licenses	1		
	With national and local permits , licenses, and accreditation, except DOT/DENR	2		
	With all the required permits , licenses, and accreditation by appropriate government agencies	3	3	

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
B. OPERATIONS AND MANAGEMENT STRATEGIES				
1. Goal, objectives, vision and mission Are the management goals, objectives, vision and mission aligned with the principles of ecotourism?	No management goal, objectives, vision, and mission. If there's any, not aligned and no mention of ecotourism principles	0		Environmental conservation is priority in management goals.
	Ecotourism principles slightly mentioned in the statements	1		
	Some statements made considerable reference to the principles of ecotourism	2		
	Statements fully aligned with the principles of ecotourism	3	3	
2. Operational Plan Is management / operational plan available to guide site operations	No management /operational plan	0		
	With management /operational plan, but no mention of ecotourism principles, products and services	1		
	With management /operational plan , and with slight mention of ecotourism principles, products and services	2		
	Management /operational plan is fully supportive of the principles of ecotourism	3	3	
3. Protection systems Are systems in place to control access /use of natural resource in the project site?	Protection systems (patrols, guards, etc) do not exist or are not effective in controlling access/ use of natural resources	0		Resources raised through ecotourism instrumental in the initiation and establishment of Danao Environmental Management Office
	Protection systems are only partially effective in controlling access/ use of natural resources	1		
	Protection systems are moderately effective in controlling access/ use of natural resource	2		
	Protection systems are largely or wholly effective in controlling access/ use of natural resource	3	3	
4. Resource	No resource management is being practiced	0		Logistical resources limit

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
management Is resource management being practiced?	Very few of the requirements for management of critical habitats, species, ecological processes and cultural values are being implemented	1		thorough resource management implementation
	Many of the requirements for management of critical habitats, species, ecological processes and, cultural values are being implemented but some key issues are not being addressed	2	2	
	Requirements for management of critical habitats, species, ecological processes and, cultural values are substantially and/or fully implemented	3		
5. Employees / Staff Are there enough people employed to manage and protect the environment of the area?	No employees/staff are engaged in environmental management / protection activities	0		
	Employees/Staff numbers are inadequate to undertake environmental management / protection activities	1		
	Employees/Staff numbers are below optimum level for environmental management / protection activities	2	2	
	Employees/Staff numbers are adequate for environmental management / protection needs of the area	3		
6. Staff training Are employees/staff adequately trained to fulfill apply ecotourism activities?	Employees/Staff were not trained on ecotourism	0		
	Employees/Staff have limited training on ecotourism	1		
	Employees/Staff are adequately trained, but could still be improved to fully achieve and apply the principles of ecotourism	2	2	
	Employees/Staff are sufficiently trained on ecotourism	3		
7. Budget for environment and ecotourism activities	No specific budget is allocated for environmental management and ecotourism activities	0		
	The available budget is inadequate for basic environmental management and ecotourism activities	1		

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
Is there specific budget dedicated for environmental management and ecotourism application?	The available budget is acceptable but needs addition to fully achieve effective environmental management and ecotourism activities	2	2	
	The available budget is sufficient for full environmental management requirements and ecotourism activities	3		
8. Supplies, Materials and Equipment Are supplies, materials and equipment sufficient for application of ecotourism activities?	There are no specific supplies and materials and equipment for ecotourism activities	0		
	There are limited supplies and materials and equipment for ecotourism activities	1		
	Available supplies and materials and equipment are not enough to fully apply ecotourism activities	2		
	There are adequate supplies and materials and equipment for full application of ecotourism activities	3	3	
9. Fees If fees (i.e. entry fees or fines) are collected, do they help in environmental management / ecotourism activities?	Although fees are theoretically applied, they are not collected	0		
	Fees are collected, but make no contribution to environmental management / ecotourism activities	1		
	Fees are collected, but have limited contribution to environmental management / ecotourism activities	2		
	Fees are collected and provide substantial contribution to environmental management / ecotourism activities	3	3	
10. Monitoring and evaluation	No monitoring and evaluation system is applied on operations and adherence to ecotourism principles.	0		

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
Are operations and activities monitored and evaluated against performance?	There are some *ad hoc* monitoring and evaluation systems/processes, but no regular collection of results is undertaken	1		
	There are monitoring and evaluation systems/processes applied, but results are not fed back to management and operations	2		
	A monitoring and evaluation system exists and fully applied on operations and adherence to ecotourism principles	3	3	
C. ECOTOURISM PRODUCTS AND SERVICES				
1. Tourism products and services Are tourism products and services nature or culture-based?	Tourism products and services are not nature or culture-based	0		
	Small part of tourism products and services are nature or culture -based	1		
	Majority of tourism products and services are nature or culture-based	2	2	
	Tourism products and services are purely nature or culture -based	3		
	NOTE: Sample nature/culture based products and services are: *Bird /animal /marine mammal watching; Caving**;** Nature walk / Nature viewing; Rappelling; Village tour; Kayaking**;** Mountain trekking**;** Diving / snorkeling**;** Water rafting**;** Local massage / hilot / wellness and related health services**;** Local food and delicacies**;** Local festivals and cultural shows*			
2. Accreditation and performance of ecoguides	Not accredited	0		Not Applicable: Danao Adventure Park
	In the process of accreditation	1		
	Accredited already; but expired	2		

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
Are ecoguides accredited per provisions of RA 7160, EO 120 and EO 111?	Accredited and in active application	3		has its internal capacity building and monitoring mechanisms since we are operating unique attractions which have no known accredited regulatory bodies to date.
3. Accreditation and performance of ecotour operators Are ecotour operators accredited per provisions of RA 7160, EO 120 and EO 111?	Not accredited	0		Not Applicable Some are accredited, some are not
	In the process of accreditation	1		
	Accredited already; but expired	2		
	Accredited and in active application	3	3	
D. PHYSICAL CONSIDERATION / AVAILABILITY OF ECOTOURISM FACILITIES				
1. Visitor facilities Are visitor facilities adequate?	There are no visitor facilities and services in the site	0		Inadequate overnight accommodation facilities
	Visitor facilities and services are inadequate for current levels of visitation	1	1	
	Visitor facilities and services are adequate for current levels of visitation but need improvement	2		
	Visitor facilities and services are excellent for current levels of visitation	3		
2. Overall design	No, not in harmony with the environment and culture of the community	0		

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
Is the design of the site and its structures / facilities in harmony with environmental and cultural considerations?	Environment and cultural considerations are partly incorporated in the design	1		
	A considerable portion of the site's design incorporate environmental and cultural considerations	2	2	
	The design and structures/facilities of the site are very much in harmony with nature and culture of the community	3		
	NOTE: Well-designed structures and facilities should consider the following:			
	Tourism carrying capacity is considered in the design		1	
	Density of the structures in comparison to total area (not too crowded)			
	Steep slopes and other natural hazards are avoided; topography considered		1	
	Natural and important vegetation are spared from cutting		1	
	Have good view of the site ; located in a vantage point with better visual view of the environment (e.g., the sea or coast or landscape)		1	
	Took advantage of natural lights and vegetation			
	Well-planned visitors' movement			
	Avoided conflicting uses / appropriate zoning of the area		1	
	Climatic pattern are considered in the design to address temperature, sun, wind, etc.			
	Intrusion of wild animals and pest incorporated in the design			
	Allowed natural fragrance of the environment to be enjoyed			
	Unnecessary sound eliminated			
3. Selection of building materials and labor	All sourced from the outside	0		
	Only a small portion of the materials and labor are sourced locally	1		

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
Are the materials used in the structures and facilities locally sourced, including labor?	Almost an equal portion of materials and labor are sourced locally and brought from the outside	2	2	
	All the materials and labor are sourced locally	3		
Additional score	***Add one (1) point for each of the following if they are considered***			
	Primary building material like stone, earth, plants, wood that are available locally are prioritized	*+1*	1	
	Use of recyclable products and materials are also prioritized	*+1*	1	
	Tertiary materials that are man-made (i.e., artificial, synthetic, non-renewable)that cause varying environmental impact are minimized, if not totally avoided	*+1*	1	
	Toxic and hazardous materials are avoided	*+1*	1	
4. Energy management Is energy management incorporated in the design of structure and facilities?	Structures and facilities are heavily dependent on non-renewable energy (gasoline, energy, electricity, etc.)	0		
	Only a small percentage of renewable energy sources are utilized	1	1	
	Almost an equal combination of renewable and non-renewable sources of energy are used	2		
	Most of the energy need are sourced from renewable sources like sun, wind and water	3		
5. Water supply Are sources of water sustainable?	Water are sourced entirely from local water utilities	0	0	
	Only a small proportion of water are sourced from natural sources; still most of water needs are supplied by local water utilities	1		

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
	Water are sourced both from local water utilities and natural sources of almost equal proportion	2		
	Water are sourced entirely from natural sources; thus making it sustainable	3		
6. Waste management Is the site practicing proper waste management?	No waste management system is applied	0		
	Still in the process incorporating proper waste management system	1		
	Key waste management systems and principles are applied	2	2	
	Required waste management systems are religiously applied and adopted	3		
	NOTE: Proper waste management systems should consider any of the following: *For solid waste, there is already an MRF* *Wastewater treatment facilities are installed and operational* *Leakages of oil, gasoline, diesel are avoided* *No hazardous and toxic substances are used; and if they are used wastes are brought out from the site for proper disposal*			
7. Accreditation of ecolodges and ecofaciltieis Are ecolodges accredited by DOT per provisions of RA 7160, EO 120 and EO 111?	Not accredited	0	0	Danao Adventure Park currently has very limited accommodation facilities; hence, accreditation is not a current priority
	In the process of accreditation	1		
	Accredited already	2		
	Accredit and in active application	3		
Are ecofacilities	Not accredited	0	0	To some degree,

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
accredited by DOT per provisions of RA 7160, EO 120 and EO 111?	In the process of accreditation	1		accredited facilities do not have much weight on the travel decisions of Danao Adventure Park's target segments, hence, accreditation is not a current priority.
	Accredited already	2		
	Accredit and in active practice	3		
E. ENVIRONMENTAL CONSIDERATIONS				
1. Location Sensitivity Is the site located near or within the vicinity of habitat of critical biodiversity species?	Site is near and within the vicinity of habitat of critical biodiversity species	0		Not Applicable No available or conclusive data whether or not, critical species are in the vicinity. Botanical and zoological surveys will be a useful future project
	Site is 5 km away from the vicinity of habitat of critical biodiversity species	1		
	Site is 10 km away from the vicinity of habitat of critical biodiversity species	2		
	Site is outside the vicinity of habitat of critical biodiversity species	3		
Additional score	Add scores if there are no reports or cases of consumptive use of "wild" biological resources in the sites, including both deliberate and unintentional harvesting; also persecution or control of specific species. NOTE: this includes hunting and killing of animals, specifically:			Wild species are still being hunted and eaten to some degree. No reliable data on actual prevalence.
	No hunting, killing and collecting terrestrial animals (including killing of animals as a result of human/wildlife conflict)	*+1*	1	
	No gathering of terrestrial plants or plant products (non-timber)	*+1*	1	
	No logging and wood harvesting	*+1*		
	No fishing, killing and harvesting aquatic resources	*+1*	1	

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
	Others	*+1*		
Minus score	Subtract scores if the following geological events and extractive operations are present in the site that may pose danger to visitors and critical biodiversity species?			
	Volcanic eruption	*-1*		
	Earthquakes/Tsunamis	*-1*		
	Avalanches/ Landslides	*-1*		
	Erosion and siltation/ deposition (e.g. shoreline or riverbed changes)	*-1*		
	Droughts	*-1*		
	Temperature extremes	*-1*		
	Storms and flooding	*-1*		
	Oil and gas drilling	*-1*		
	Mining and quarrying	*-1*		
	Energy generation, including from hydropower dams	*-1*		
	Others	*-1*		
2. Environment and Biodiversity Resource Information Are environment and biodiversity information enough and available in the site to effectively manage the area?	Little or no information are available on the critical habitats, species and cultural values of the site	0	0	
	Information on the critical habitats, species, ecological processes and cultural values of the site are not sufficient to support planning, decision making and operations	1		
	Information on the critical habitats, species, ecological processes and cultural values of the site are available for most key areas of planning, decision making and operations	2		
	Information on the critical habitats, species, ecological processes and cultural values of the site are sufficient to support all areas of planning, decision making and operations	3		

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
3. Use of non-native (exotic) species of plants in landscaping Are there terrestrial plants used in landscaping the area?	Majority of the plants used in landscaping are introduced species	0		
	An almost equal combination of "non-native" (exotic) and native species was used in landscaping the site	1		
	Only few "non-native" (exotic) plants are used in landscaping and believed not harmful	2	2	
	Used 100% native/local plants in landscaping the site	3		
3. Condition of biodiversity values What is the condition of the important values of the site as compared to when it was first developed as tourist area?	Many important biodiversity, ecological or cultural values are being severely degraded	0		No reliable data.
	Some biodiversity, ecological or cultural values are being severely degraded	1		
	Some biodiversity, ecological and cultural values are being partially degraded but the most important values have not been significantly impacted	2		
	Biodiversity, ecological and cultural values are predominantly intact	3		
F. SOCIO-CULTURAL CONSIDERATIONS				
1. Local People/Community Are local people engaged /employed in the operations of the site/resort?	All employees and management staff are from the outside of the community	0		
	Few local people are hired to work as employees and service providers; no managerial positions are held by local people	1		
	50% of the employees and staff are from the local community	2		

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
	Aside from considerable number of local people hired as employees/service providers, some managerial positions are also held by local people	3	3	
Do local communities resident or near the area have input to management decisions?	Local communities have no input into decisions relating to the management of the area	0		
	Local communities have some input into discussions relating to management but no direct role in management	1		
	Local communities directly contribute to some relevant decisions relating to management but their involvement could be improved	2	2	
	Local communities directly participate in all relevant decisions relating to management, e.g. co-management of the area	3		
2. Indigenous people Do indigenous and traditional peoples resident or regularly using the area have input to management decisions?	Indigenous and traditional peoples have no input into decisions relating to the management of the site	0		Not Applicable. No IPs in Danao
	Indigenous and traditional peoples have some inputs into discussions relating to management but no direct role in management	1		
	Indigenous and traditional peoples directly contribute to some relevant decisions relating to management but their involvement could be improved	2		
	Indigenous and traditional peoples directly participate in all relevant decisions relating to management, e.g. co-management	3		
3. Visitors' satisfaction Are visitors satisfied in their visits and activities	Lots of complaints and discontentment were received from visitors	0		
	Only few visitors were satisfied with their visits and services/activities in the site	1		
	Half of the visitors were satisfied and the other half expressed discontentment	2		

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
undertaken in the site?	Majority, if not all, the visitors were satisfied with the services and activities and enjoyed their stay in the site	3	3	
G. ECONOMIC, FINANCIAL, ENTERPRISE CONSIDERATIONS				
1. Economic benefit Is the site providing economic benefits to local communities, e.g. income, employment, payment for environmental services?	The site does not deliver any economic benefits to local communities	0		
	Potential economic benefits are recognized and plans to realize these are being developed	1		
	There is some flow of economic benefits to local communities	2		
	There is a major flow of economic benefits to local communities from activities associated with the ecotourism project	3	3	
2. Revenue sharing Is the system of revenue sharing in place?	No revenue sharing in place	0		Instead of revenue sharing, resources are allocated to fund generic social services available to all constituents – rural scholarships, free ambulance service, subsidized hospitalization, peace and order support, and microfinance.
	Revenue sharing under development	1		
	Revenue sharing in place but needs improvement	2		
	Revenue sharing in place and effectively working	3	3	
3. Source of financing	No financing came from local sources; all funds came from outside	0		Danao Adventure Park is now self-sustaining, operating solely out of
	Only small amount of financing came from local sources	1		

KEY PARAMETERS	SUSTAINABILITY INDICATORS/CRITERIA	SCORE: TICK ONLY ONE BOX PER QUESTION		COMMENTS / EXPLANATION
Are financing sourced locally?	Half of finances are from local sources; other half from outside	2		revenue generated from tourists
	All, if not significant amount, of financing came from local sources	3	3	
4. Fee collection system Is fee collection system in place and approved by authorities?	None	0		
	Partially in place	1		
	Completely in place but not yet operational and approved by authorities	2		
	Completely in place and fully operational	3	3	
5. Concessions operating in the site Who are the concessionaires operating in the site?	All concessionaires are outsiders	0		
	Only few local concessionaires are operating in the site	1		
	There is equal distribution of local and outside concessionaires operating in the sites	2		
	Majority, if not all, concessionaires are from local communities	3	3	
TOTAL SCORE		**99**	**83**	
PERCENTAGE SCORE: **83 / 99 x 100 = 83.84%**	**ADJECTIVAL RATING = Highly Sustainable Project**			

Specific suggestions and recommendations:

The major constraint to park operation is the massive red tape inherent in Philippine Procurement Law, COA, etc. and severely limits competitiveness of the park in terms of management and the ability to react quickly to market situations.

Policy must be enacted to enable LGUs to effectively initiate, establish, and manage ecotourism-based enterprise. Policy must address the severe bottlenecks in procurement, hiring, and marketing aspects of LGU-run tourism.

Understandably, policy focus has been on strengthening private players. But the success exemplars in Danao brings to the fore, the benefits from successful LGU-owned and operated ecotourism initiatives, given enlightened local leadership intent on sticking to the "*matuwid na daan*" espoused by the current national leadership.

The essential tradeoff is this: LGU run ecotourism, while inefficient at best, can choose to allocate revenues for the public good i.e. social services, among others, such as the case of Danao, Bohol, making LGU-run ecotourism a more useful and sensible venture for poorer municipalities. Private business, while efficient, are essentially profit-driven, hence, apart from generating local business taxes and CSR at best, can never compete with the local development potential of direct income from ecotourism to the LGU.

Moreover, poorer municipalities (Class 3 and lower) are practically not in the cross-hairs of potential private investors, all the more justifying the need to enable these LGUs to initiate an institutional income-generating enterprise, such as ecotourism.

Enabling local LGUs to initiate and implement ecotourism ventures is therefore an important strategy for rapid countryside development.

APPENDIX 2. TOURISM CARRYING CAPACITY OF PUERTO PRINCESA SUBTERRANEAN RIVER NATIONAL PARK (PPSRNP) WAS COMPUTED USING THE "GIVENS" BELOW (Calderon A. et. al., 2010)

- Length of river used for cruise/tour: 1,200 meters
- Available boats for the river cruise: 10 boats with an average capacity of 8 passengers
- Average length of boat use in river cruise: 6.5 meters
- Only 8 boatmen are available per day
- Preferred distances of boats from one another: (a) 15 meters; (b) 100 meters; (c) 42.5 meters; (d) 30 meters
- Number of hours the river is open for cruise: 8 hours
- Maximum capacity of picnic ranger station: 80 people at a given point in time
- Maximum capacity of holding area: 100 people at a given point in time
- Number of days river is closed for visitors: 10 days for maintenance purposes and 5 days for inclement weather, or a total of 15 days in a year
- Each river cruise takes about 45 minutes to one hour

Steps are:

1. Limit to Acceptable Change (LAC) or the optimum number of boats per cruise that may be allowed was computed at four levels:

   - LAC1 = 1,200m / 6.5m + 15m
     = 1,200m / 21.5m
     = 55.81 or **56 boats**

   - LAC2 = 1,200m / 6.5m + 100m
     = 1,200m / 106.5m
     = 11.26 or **11 boats**

   - LAC3 = 1,200m / 6.5m + 42.5m
     = 1,200 / 49m
     = 24.48 or **24 boats**

   - LAC4 = 1,200m / 6.5m + 30m
     = 1,200m / 36.5m
     = 32.88 or **33 boats**

2. For LAC1

   - *First Level: Carrying Capacity (CC)*

   CC = LAC x average number of passengers per boat
   CC = 56 boats x 8 passengers per boat
   CC = 448 passengers or visitors per cruise

   - *Second Level: Potential Carrying Capacity (PCC)*

PCC = CC x rotation coefficient (RC)

Where:

$$RC = \frac{\text{Number of hours the river is open for cruise}}{\text{Maximum number of hour of one cruise}}$$

$$RC = \frac{8 \text{ hours}}{1 \text{ hour}}$$

RC = 8

So:

PCC = 448 visitors x 8

PCC = 3,584 visitors per day

- *Third Level: Real Carrying Capacity (RCC)*

$$RCC = PCC \times \frac{100 - Lf_1}{100} \times \frac{100 - Lf_2}{100} \times \frac{100 - Lf_3}{100} \times \frac{100 - Lf_n}{100}$$

where:

$$Lf_{(1,2,3\ldots.n)} \text{ (Limiting Factors)} = \frac{M_{(a,b,c,\ldots n)}}{M_T} \times 100$$

$M_{(a,b,c,\ldots n)}$ = limiting magnitude of the factor/variable
M_T = total magnitude of the factor/variable

Four (4) limiting factors were identified:

Lf1: capacity of anchorage area (number of boats)

$$Lf1 = \frac{10 \text{ boats}}{56 \text{ boats}} \times 100$$

Lf1 = 17.85

Lf2: number of available boatmen

$$\frac{8 \text{ boatmen}}{}$$

$$Lf2 = \frac{\text{56 boatmen}}{\text{56 boatmen}} \times 100$$

Lf2 = 14.28

Lf3: capacity of picnic and holding area

$$Lf3 = \frac{\text{180 visitors}}{\text{448 visitors}} \times 100$$

Lf3 = 40.18

Lf4: days river is closed

$$Lf4 = \frac{\text{15 days}}{\text{365 days}} \times 100$$

Lf4 = 4.11

Substituting these figures into the RCC formula:

$$RCC = 3{,}584 \times \frac{100 - 17.85}{100} \times \frac{100 - 14.28}{100} \times \frac{100 - 40.18}{100} \times \frac{100 - 4.11}{100}$$

RCC = 3,584 [(0.82x 0.85 x 0.59 x 0.95)]

RCC = 3,584 x 0.3906

RCC = 1,400 visitors per day

3. For LAC2

- Fist Level: Carrying Capacity (CC)

CC = LAC x average number of passengers per boat
CC = 11 boats x 8 passengers per boat
CC = 88 passengers or visitors per cruise

- Second Level: Potential Carrying Capacity (PCC)

PCC = CC x rotation coefficient (RC)

Where:

$$RC = \frac{\text{Number of hours the river is open for cruise}}{\text{}}$$

Maximum number of hour of one cruise

$$RC = \frac{8 \text{ hours}}{1 \text{ hour}}$$

RC = 8

So:

PCC = 88 visitors x 8

PCC = 704 visitors per day

- Third Level: Real Carrying Capacity (RCC)

$$RCC = PCC \times \frac{100 - Lf_1}{100} \times \frac{100 - Lf_2}{100} \times \frac{100 - Lf_3}{100} \times \frac{100 - Lf_n}{100}$$

where:

$$Lf_{(1,2,3\ldots n)} \text{ (Limiting Factors)} = \frac{M_{(a,b,c,\ldots n)}}{M_T} \times 100$$

$M_{(a,b,c,\ldots n)}$ = limiting magnitude of the factor/variable
M_T = total magnitude of the factor/variable

Four (4) limiting factors were identified:

Lf1: capacity of anchorage area (number of boats)

$$Lf1 = \frac{10 \text{ boats}}{11 \text{ boats}} \times 100$$

Lf1 = 90.91

Lf2: number of available boatmen

$$Lf2 = \frac{8 \text{ boatmen}}{11 \text{ boatmen}} \times 100$$

Lf2 = 72.73

Lf3: capacity of picnic and holding area

$$Lf3 = \frac{180 \text{ visitors}}{88 \text{ visitors}} \times 100$$

Lf3 = 204.55

Lf4: days river is closed

$$Lf4 = \frac{15 \text{ days}}{365 \text{ days}} \times 100$$

Lf4 = 4.11

Substituting these figures into the RCC formula:

$$RCC = 704 \times \frac{100 - 90.91}{100} \times \frac{100 - 72.73}{100} \times \frac{100 - 204.55}{100} \times \frac{100 - 4.11}{100}$$

RCC = 704 [(0.091x 0.28 x 1.05 x 0.95)]

RCC = 704 x 0.0254

RCC = 17.89 or 18 visitors per day

4. For LAC3

- Fist Level: Carrying Capacity (CC)

CC = LAC x average number of passengers per boat
CC = 24 boats x 8 passengers per boat
CC = 192 passengers or visitors per cruise

- Second Level: Potential Carrying Capacity (PCC)

PCC = CC x rotation coefficient (RC)

Where:

$$RC = \frac{\text{Number of hours the river is open for cruise}}{\text{Maximum number of hour of one cruise}}$$

$$RC = \frac{8 \text{ hours}}{1 \text{ hour}}$$

RC = 8

So:

PCC = 192 visitors x 8

PCC = 1,536 visitors per day

- Third Level: Real Carrying Capacity (RCC)

$$RCC = PCC \times \frac{100 - Lf_1}{100} \times \frac{100 - Lf_2}{100} \times \frac{100 - Lf_3}{100} \times \frac{100 - Lf_n}{100}$$

where:

$$Lf_{(1,2,3\ldots.n)}\ (\text{Limiting Factors}) = \frac{M_{(a,b,c,\ldots n)}}{M_T} \times 100$$

$M_{(a,b,c,\ldots n)}$ = limiting magnitude of the factor/variable
M_T = total magnitude of the factor/variable

Four (4) limiting factors were identified:

Lf1: capacity of anchorage area (number of boats)

$$Lf1 = \frac{10 \text{ boats}}{24 \text{ boats}} \times 100$$

Lf1 = 41.66

Lf2: number of available boatmen

$$Lf2 = \frac{8 \text{ boatmen}}{24 \text{ boatmen}} \times 100$$

Lf2 = 33.33

Lf3: capacity of picnic and holding area

$$Lf3 = \frac{180 \text{ visitors}}{192 \text{ visitors}} \times 100$$

Lf3 = 93.75

Lf4: days river is closed

$$Lf4 = \frac{15 \text{ days}}{365 \text{ days}} \times 100$$

Lf4 = 4.11

Substituting these figures into the RCC formula:

$$RCC = 1{,}536 \times \frac{100 - 41.66}{100} \times \frac{100 - 33.33}{100} \times \frac{100 - 93.75}{100} \times \frac{100 - 4.11}{100}$$

RCC = 1,536 [(0.58 x 0.67 x 0.06 x 0.95)]

RCC = 1,536 x 0.022

RCC = 33.79 or 34 visitors per day

5. For LAC4

- Fist Level: Carrying Capacity (CC)

  CC = LAC x average number of passengers per boat
  CC = 33 boats x 8 passengers per boat
  CC = 264 passengers or visitors per cruise

- Second Level: Potential Carrying Capacity (PCC)

  PCC = CC x rotation coefficient (RC)

  Where:

$$RC = \frac{\text{Number of hours the river is open for cruise}}{\text{Maximum number of hour of one cruise}}$$

$$RC = \frac{8 \text{ hours}}{1 \text{ hour}}$$

  RC = 8

  So:

  PCC = 264 visitors x 8

  PCC = 2,112 visitors per day

- Third Level: Real Carrying Capacity (RCC)

$$RCC = PCC \times \frac{100 - Lf_1}{100} \times \frac{100 - Lf_2}{100} \times \frac{100 - Lf_3}{100} \times \frac{100 - Lf_n}{100}$$

  where:

$$Lf_{(1,2,3\ldots.n)} \text{ (Limiting Factors)} = \frac{M_{(a,b,c,\ldots n)}}{M_T} \times 100$$

  $M_{(a,b,c,\ldots n)}$ = limiting magnitude of the factor/variable
  M_T = total magnitude of the factor/variable

  Four (4) limiting factors were identified:

  Lf1: capacity of anchorage area (number of boats)

  10 boats

$$Lf1 = \frac{\text{33 boats}}{\text{33 boats}} \times 100$$

Lf1 = 30.30

Lf2: number of available boatmen

$$Lf2 = \frac{\text{8 boatmen}}{\text{33 boatmen}} \times 100$$

Lf2 = 24.24

Lf3: capacity of picnic and holding area

$$Lf3 = \frac{\text{180 visitors}}{\text{264 visitors}} \times 100$$

Lf3 = 68.19

Lf4: days river is closed

$$Lf4 = \frac{\text{15 days}}{\text{365 days}} \times 100$$

Lf4 = 4.11

Substituting these figures into the RCC formula:

$$RCC = 2{,}112 \times \frac{100 - 30.30}{100} \times \frac{100 - 24.24}{100} \times \frac{100 - 68.19}{100} \times \frac{100 - 4.11}{100}$$

RCC = 2,112 [(0.70 x 0.76 x 0.32 x 0.95)]

RCC = 2,112 x 0.1617

APPENDIX 3. COST-BENEFIT ANALYSIS IN OPERATING DAMPALIT FALLS AS A RECREATIONAL SPOT

Under a well-managed condition, ecotourism provides significant contributions. It does not require a large capital because ecotourism as a resource-based tourism needs only minimal improvement. A family which operates the Dampalit Falls in Los Baños, Laguna as a recreational spot earns a net income of P57,000 in one year. The area was developed using capital raised from entrance fee collection.

Items	**Value (in pesos)**	**Total Value (in pesos)**
Annual Revenue		**165,000**
Average income (per day)		
Peak months (summer months)		
Holy Week 7 days x 4,000	28,000	
Regular Days 83 days x 1,000	83,000	
Lean months (rainy months)		
270 days x P200	54,000	
Annual development costs		**42,500**
Procurement of garbage cans (5)	500	
Preparation of signages	1,000	
Maintenance personnel	41,000	
Fixed investment		**65,000**
Construction of toilets (2)	15,000	
Construction of open cottages	50,000	
Net income		**122,500**
Annual revenue	165,000	
Less: Annual production cost	42,500	
Return of fixed investment		**1.88 (188%)**
Net income	122,500	
Fixed investment	65,000	
Return on total investment		**1.14 (114%)**
Net income	122,500	
Fixed investment + Production cost	107,500	

CASE STUDIES

Corong Galeri Lokals

A micro-enterprise based in Coron, Palawan, *Corong Galeri Lokals* specializes in the promotion of community-based projects, from marketing locally-produced and environment-friendly products to various ecotourism operations within Coron. It is owned by the husband and wife team of Mr. and Mrs. Al and Mae Linsangan.

Initially, it is a local souvenir shop that paved way for marketing traditional products, arts, and handicrafts of the indigenous people (IP) of Calamianes Group of Islands, as well as other tribal communities in nearby areas. Since then, it has diversified into other micro-enterprises that cater to the needs of visiting tourists: (1) a terrain equipments shop that sells and offers rental services for basic equipments (like snorkeling sets, professional life vests, tents, underwater camera, mountain bikes, kayaks, hammocks, and sleeping bags); (2) an internet café shop where interested visitors can unwind, connect to friends and family members, make online booking and select preferred tour package (www.coronggaleri.com.ph); and (3) a business venture on graphic design, large format printing, and digital and photography services thus allowing tourists to immediately print their Coron experience.

Aside from IP artists of Calamianes Group of Islands, Corong Galeri Lokals has linkages and partnerships with the Calamianes Conservation and Cultural Networks (an NGO that offers technical assistance on promoting local heritage, project proposal packaging, skills training, product development, etc.) and Calamianes Expeditions & EcoTour (a licensed tour operator with 10 years experience in providing tourism-related services in Coron). In cooperation with the LGU and other civic-oriented NGOs like the Tribu Calamianen Cultural Group and Tagbanwas of Banwa Atwayan, it has also been active in organizing various ecotourism activities like the *Pabilogan sa Banwa Atwayan* or the "Fullmoon Festival." Likewise, it has been pivotal conducting the "Coron Initiatives Environmental Forum" and formation of Calamianes Association of Tourism Establishment, Inc. (CATE) – a group that serves as venue for updating the status of ecotourism in the municipality and how the accompanying environmental problems are addressed. Other local activities they also participate into are: the training on basic mountaineering courses, promotion of tribal immersion projects, coastal cleanup drives, rehabilitation of mangrove areas, and many other environmental protection projects.

In 2010, the Corong Galeri Lokals has been instrumental in the formation of the Coron Sustainable Tourism Cooperative (CSTC), a cooperative comprised of 40-family members from Lajala, a fishing village in the locality, with a guiding principle of strengthening the foundations of ecotourism practices and sustainable tourism in Calamianes. The contributions of its members are invested in a cooperative store. By the end of the year, members receive their annual dividend share.

Utilizing ecotourism as the focal point of promoting the skills and talents of IPs, marketing of locally-produced products, and networking and linkaging with various groups, the Corong Galeri Lokals has truly made an indelible mark in advancing sustainable tourism in the country.

Danao Adventure Park (DAP)

The Danao Adventure Park (DAP) is an LGU-initiated and managed facility that promotes Extreme/Eco/Educational Adventure Tour (EAT) concept of ecotourism. It is co-managed by different Peoples' Organizations (POs) who also act as service providers to its various operations. With its main objective of preserving and enriching the historic and cultural assets of the locality while providing opportunities for the people, the DAP is able to establish through funding from the Community-based Resource Management Program-SFF of the World Bank, Department of Finance (DOF) and DOT.

As of to date, it has been financially self-sustaining and continues to generate revenue for the LGU. From 2009, the PhP 12M to 15M annual income has doubled to PhP 32M in 2011. Some of the park's earnings are allocated to fund generic social services such as scholarships, free ambulance services, subsidized hospitalization, peace and order, as well as micro-financing for small-scale business enterprises.

Located in Brgy. Magtangtang, Danao, the DAP is a 72-km or 2-hr ride from Tagbilaran City, Bohol. It currently offers a whole day's worth of activities such as: (1) The Sky Ride (like a cable ride); (2) The Plunge (canyon swing adventure; (3) Sui Slide (a pulley suspended on a cable mounted on an inclined cliff); (4) River Trekking in the Wahig River; (5) Wall climbing; (6) Village Tour; (7) Organic Farm Visitation; (8) Camping; (9) Zip let; (10) Cliff Rappelling; (11) Root Climbing; and (12) Caving or Spelunking. Efforts are underway to put up new facilities that would extend tourists' visit for days.

The DAP has also been instrumental in employing some 140 local residents. Averaging 225 tourists per day, local residents also contribute to the local ecotourism industry through increase in agricultural produce/livelihood, while restaurants emphasize the production of organic food in their locality. Wastes generated in the park are safely transferred to a barangay-based Materials Recovery Facility (MRF). The DAP has also acquired environmental clearance from the DENR through the issuance of the Environmental Compliance Certification (ECC), thus its activities and facilities do not harm the environment and mitigation measures are in place for any untoward incidents. It is also currently engaged in an Assisted Natural Regeneration project aimed at improving the condition of nearby forests.

Instrumental in the success of the DAP is the unwitting initiative and strong political commitment of Danao municipal mayor, Hon. Tom Gonzaga. Combined with solid cultural, historical, and active participation of all local stakeholders, the DAP has been able successfully empower grassroots and local government while transforming ecotourism into a sustainable enterprise.

Balay sa Humay

The *Balay sa Humay* (House of Rice or Rice Museum) is an agri-tourism enterprise situated in Batuan, Bohol – some 51km away from the Tagbilaran City. Its management and operation is led by the Batuan Colleges, an academic institution which provides the facilities, technical staff, and personnel for its daily operations. Funding support is made possible by the Philippines-Australia Community Assistance Program (PACAP). To facilitate proper project implementation, a technical staff is equipped with ecotourism training in Japan (through JICA).

Based from the name itself, *Balay sa Humay* showcases the traditional rice processing techniques such as: pounding unhulled rice with mortar and pestle, use of winnowing baskets to remove chaff and rice hull, as well as the use of stone and wooden grinder to process the grain into rice flour. Its rice field is readily available for tour and actual experience of rice planting. Tour guides, at a minimal fee, are accessible in providing learning exercises, particularly on rice ecosystems, biodiversity, ecological balance, environmental protection, and health consciousness. Other key feature facilities include three small cottages (good for three persons each), a big dormitory, function rooms, native massage/spa cubicles, wifi internet, souvenir shop and pasalubong center, and the rice museum.

What sets *Balay sa Humay* unique from other museums is that it is also used as a "laboratory" for students practicing cooking and restaurant management. Upon advance arrangement, cultural presentations on local culture, history, and importance of organic rice farming can also be readily provided. The local community benefits through its operations by participating in its various agri-tourism activities and services, especially on the rice production, processing, quality assurance, and packaging, organic fertilizer production, and farmers' training. Women take an active role in their entrepreneurial skills through food production and promotion. Visitors are treated with a snack of hot chocolate and *biko* (a rice delicacy) after the entire viewing experience.

Through this invaluable agri-tourism enterprise, the *Balay sa Humay* has set the trend on developing an integrated and holistic approach to rice farming in the country. This academe-led, community-supported joint venture must be emulated by various agricultural institutions towards promoting sustainable organic rice farming.

Banga-an Village Community Ecotourism

Situated in Banaue, Ifugao, the *Banga-an* is a local farming village 13 hours away from its main town proper. It is home to the century old world famous Banaue rice terraces, the Ifugao culture, unique houses, livelihood, and traditional method of rice farming.

Tourists started flocking the area during the 70's. Much of the walk to and from the village and the laddered rice field takes around 1½ hours. Most of its traditional houses, around 25 to 30 of them, still remain standing and in good shape. Request for cultural shows is available (through donation) featuring the Ifugao indigenous practices. Visitors could also experience wearing their traditional G-string (for men), wrap-around skirt (for women), and local accessories (head gear, spear, shield, etc.) while dancing with the locals. During special occasions, some local folks offer *tapuy* drinking, a local wine. Peak tourist season ranges from November to March, averaging about 100 people per day.

After all these years, the Ifugaos apparently still has no formal organization that manages its ecotourism operations. Likewise, no formal rules and regulations have also been set, except for not allowing visitors during harvesting season. Village leaders have not entered into partnership with local and foreign investors in improving its local facilities and ecotourism activities. The villagers have become the tour guide themselves in orienting visitors on their culture, though no formal training has been conducted.

Aside from rice farming, local livelihood is focused on the home-based souvenir shops in the locality. They sell wood carvings, woven cloth, brass trinkets, and other native products. The Banga-an Family Inn and Restaurant is the only available guest house in the vicinity. Only two Ifugao houses, with a capacity of ten (10) visitors, cater for overnight stay. Payment is made by donation.

Banawe is also famously known for its wood carvings – images of the rice God, lizards and other ethnic symbols of the Ifugaos. The wood comes primarily from a community-managed forest, the *muyong*. It is located above and often interspersed with the rice terraces, forming a micro-watershed that provides water for the fields and the community. The increased demand for wood carvings has led to its reduction from 264 to 200.

Despite lack of formal organization, the Banga-an village community is able to provide and benefit from all products and services offered. Its self-sustaining efforts have famously reaped Banaue, its culture, and local products (especially the wood carvings and fabric) into one of the world's greatest wonders. In the future, it is hoped that this infamous small village community, and its sustainable tourism, will help the Philippines back into the ecotourism world map.