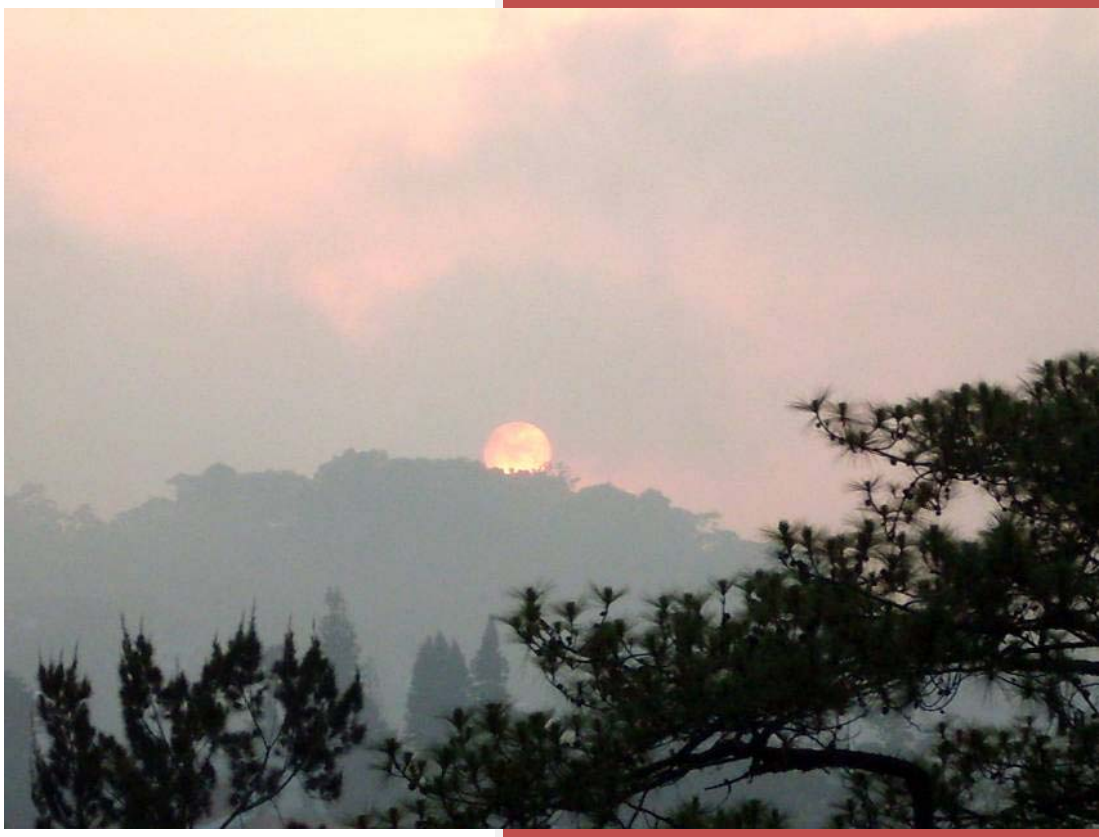


Philippine Country Survey Report On Mainstreaming Environment in Development



ICLEI Local Governments for Sustainability

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Acronyms

ADMP	Ancestral Domain Management Plan
BLDF	Bohol Local Development Foundation
BMT	Bohol Marine Triangle
CBMS	Community-Based Monitoring System
CBRM	Community-Based Resource Management
CCAD	Center for Culture and Arts Development
CDM	Clean Development Mechanism
CSO	Civil Society Organizations
DENR	Department of Environment and Natural Resources
Dep. Ed.	Department of Education
ECAN	Environmentally-Critical Area Network
ECC	Environmental Compliance Certificate
EIA	Environmental Impact Assessment
EMES	Environmental Monitoring and Evaluation System
ESD	Environment and Sustainable Development
FGD	Focused Group Discussions
FPIC	Free and Prior Informed Consent
GHG	Greenhouse Gases
GIS	Geographic Information System
ICLEI	International Council for Local Environmental Initiatives
ICRAF	International Center for Research in Agro Forestry
IEC	Information, Education, and Communication
IIED	International Institute for Environment and Development
IP	Indigenous Peoples
IPRA Law	Indigenous Peoples Rights Act (R.A. 8371)
ISO 14000	ISO-MS for Environmental Management
ISO 9000	ISO-MS for Quality Management
ISO MS	International Organization for Standardization – Management Standards
LGPDMS	Local Government Poverty Database Monitoring System
LGPMS	Local Government Monitoring System
LGU	Local Government Units
LLDA	Laguna Lake Development Authority
M&E	Monitoring and Evaluation
NEDA	National Economic and Development Authority
NGO	Non-Government Organization
NIPAS	National Integrated Protected Areas System
PA 21	Philippine Agenda 21
PalawanCSD	Palawan Council for Sustainable Development
PCRA	Participatory Coastal Resource Assessment
PCSD	Philippine Council for Sustainable Development
PDMS	Poverty Database Monitoring System
POPDEV	Population and Development
PPDO	Provincial Planning and Development Office
R.A.	Republic Act
SD	Sustainable Development
SEP Act	Strategic Environmental Plan Act for Palawan
SIA	Social Impact Assessment
Team	Surveying Team
UNCED	United Nations Conference in Environment and Development
UNCSD	United Nations Commission on Sustainable Development
UNESCO	United Nations Education, Scientific, and Cultural Organization

Executive Summary

Project Background and Objectives

This report presents the results of a country survey jointly undertaken by Earth Council Asia-Pacific and International Council for Local Environmental Initiatives Southeast Asia (ICLEI SEA) in the Philippines for the International Institute for Environment and Development (IIED) of the United Kingdom. The results of the survey will be utilized as inputs for the User Guide on tools for environmental integration or mainstreaming which IIED is in the process of developing.

The aims of the survey were to (a) find tools currently being used to mainstream environment in the Philippine development agenda and processes; (b) produce relevant information such as key users and their needs, preferences, and dislikes, resistance, diversity, and usefulness and effectiveness of existing tools; and (c) generate data and information on informal or community-based or indigenous practices and tools.

Survey Methodology and Process

The survey methodology used in the country survey was composed: (a) questionnaire adaptation, format and terms simplification, and question clarification; (b) conduct of focus group discussions (FGDs) in five sites in three provinces to improve understanding of the subject matter and the quality and quantity of responses; (c) distribution of questionnaires via fax or electronic mail, together with a request letter, to more than a hundred carefully selected individuals; and (d) conduct of structured or semi-structured face-to-face or telephone interviews.

Survey Results

Profile of Respondents and Key Informants

More than half of the respondents are from government with representation from the national, provincial, municipal and city levels. A fourth of the respondents come from civil society organization (CSO), mainly NGOs and academe. The rest consist of representatives from business and international development institutions. Respondents from the provinces outnumber those from Metro Manila due to the deliberate effort to reach out to the grassroots people. Heads of organizations, planners, environment specialists that are engaged in environmental matters dominate the mix of respondents. Critical sectors such as education/academe/research, agriculture, social welfare, and those that are not usually considered in sustainable development discourses (e.g. justice, public safety, tourism) are also represented.

Drivers to Mainstreaming Environment

Responses show that there is already a good level of understanding and appreciation of the environmental mainstreaming concepts and benefits. They claim that they deliberately try to integrate environment in development both at their personal and official capacities.

Major environmental events emerged as the strongest driving force to environmental mainstreaming followed in turn (but not closely) by *legislation and regulatory requirements* (mainly of government), *organization's own values*, and *stakeholder/ public demands*. *Culture and tradition* was also named as a significant driver despite few indigenous people (IP) respondents. The weakest driver is donor conditions.

Obstacles to Environmental Mainstreaming

Lack of working approaches and tools is considered the primary obstacle to addressing environment and sustainable development (ESD) issues. On the other hand, the dearth of timely and accurate data led to the selection of *"lack of data and information"* as the second main obstacle. Also figuring prominently in the list of obstacles is the *lack of understanding of tools*.

Lack of funding, particularly within government, comes first according to all three groups as the primary obstacle to the use of mainstreaming tools with yet again *lack of understanding* figuring prominently in the list.

Integration Tools in Use

- *Participatory tool* in all forms topped the list. Government extensively uses this approach for generating information, deliberation, planning and M&E. CSOs use the approach in implementing projects and activities.

- *Impact assessment tools* are the next most popular tools among the respondents. Both government and business use EIA extensively. Government uses it more for information and assessment than for deliberation, planning and M&E.

- *Participatory resource assessment* tools are also in extensive use as inputs to planning, management and monitoring of its abundant natural resources. Resource assessment is primarily the role of government but CSOs undertake this now for their advocacies.

- *Monitoring and evaluation tools*, particularly those that employ people participation have also been commonly-used. Examples include the Community-Based Monitoring System (CBMS) and Environmental Monitoring and Evaluation System (EMES), a variation of CBMS developed in Palawan province.

- *Strategic planning, community-based resource management (CBRM),* and *institutional or multi-stakeholder structures* were also cited by a significant number of respondents as tools they use. They have proven to be potent tools for eliciting ownership and cooperation in crafting, implementing and monitoring a development path or blueprint and in managing resources.

- A few more tools worth noting are *IEC*, which did not get many points perhaps because it is inherent in most approaches; *capacity building tool*, which suffers the same fate as IEC; and *life-cycle analysis* and *eco-labeling*, which are widely used in business but barely used by government and CSOs because of their specialized nature.

Local or Indigenous Tools

A long list of local and indigenous tools emerged. Many of them are of foreign origin that have been adapted locally or improved. Those of local or indigenous origins include the *decision-making by the Council of Elders*, *folklore story-telling*, *"Bayanihan"* or *volunteerism*, and *fish visual census* by fisher folks.

Useful Tools

The list of useful tools is a good mix of both foreign and locally-influenced or adapted tools but it does not include many of the tools currently being used by the respondents.

Least Useful Tools

Only few tools are considered not very useful by the respondents. A closer look at the reasons cited by the respondents reveals that the weaknesses they found are in the application of the tools, not on the tools themselves.

Aspects of Work Needing Tools

Practically all areas of work pertaining to environmental mainstreaming and management were cited as needing tools. One key gap is the lack of skills or expertise, particularly in the application of more sophisticated or technical tools (e.g. technology and risk assessments).

The User Guide

- Respondents see a User Guide on tools for integrating environment in development as helpful and necessary. Others even see it as urgent. They listed 50 tools for possible inclusion in the User Guide.

- In the selection of tools for inclusion in the User Guide, three criteria are strongly indicated: ease of use, simplicity of process, and understandability of outputs to decision-makers.

Conclusions and Recommendations

- The integrated approach to living and development is inherent in Philippine culture but this was blurred by historical events. ***The User Guide can help resurface and intensify this culture.***

- Today, the concept of environmental integration or sustainable development is not well understood in the country even if it is inherent in local culture. One reason is that it is being introduced as a new concept from abroad and not well translated locally. ***The User Guide would be better understood and appreciated if tools are presented or explained through stories or good practices or case studies.***

- Frequent environment-related catastrophic events and loss of sources of sustenance and livelihood drive the people to collectively care for the environment and improve the situation of ecosystems. ***The User Guide could help provide the appropriate tools to intensify these undertakings by being sensitive to the contexts and objectives of users.***

- Participation is the most effective and widely-used approach in the country. ***The User Guide can benefit from the good practices and stories of integration in the Philippines***.

- Participation is a universal tool and must underpin all approaches or tools. ***The User Guide must highlight participatory practice and multi-stakeholder institutional mechanism as key ingredients to the successful use of the tools.***

- The country employs a long list of integration tools and approaches but has not maximized their use due to lack of skills and capability. This may be true in many countries. ***The User Guide must highlight capacity building in the use of tools.***

- There are very close connections, even similarities, among many tools and approaches**.** Matching them correctly to the contexts of users and choosing the right tool mix are enormous challenges due to lack of capability and resources. ***The development of the User Guide may provide a mechanism for easier selection of tools through***:

  a. a tools classification method based on needs of major groups, e.g. life cycle analysis/eco-labeling/EIA for production of goods, and CBRM/CBMS/IEC for ecosystem development; and
  b. a demonstration of a step-by-step or menu approach in the use of a kit of mixed tools.

- The most frequently-used tools are also the most voted tools for inclusion in the User Guide. This may indicate need for improvement, which other countries may provide. On the other hand, the successful application of some tools already adapted to local conditions and influenced by indigenous practice may be useful in the improvement of the tools in other countries. ***The User Guide must include these tools.***

- The tools used and preferred by the three major groups widely differ. ***The mix of tools in the User Guide must be sensitive to the preferences of the major groups.***

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1. Introduction

Specifically, the country survey aims to (a) find tools currently being used to mainstream environment in the Philippine development agenda and processes; (b) produce relevant information such as key users and their needs, preferences, dislikes, resistance, diversity, usefulness and effectiveness of existing tools; and (c) generate data and information on informal or community-based or indigenous practices and tools.

It is believed that the nature of tools and approaches developed or adapted and used in the Philippines has been influenced by a number of factors foremost of which are its natural resource endowment, rich indigenous or local culture, persistent poverty and long history of foreign dominance, particularly by Spain and America. In other words, integration has been happening in the country as people address various problems related to poverty alleviation and natural resource management within the context of its history, culture and tradition.

Before this study, however, most respondents did not know that the approaches they employ are actually tools that integrate environment in development. The Team had to provide detailed explanation and examples to supplement the introduction of tools provided in the questionnaire. Such explanation was very useful especially in eliciting the right responses. This experience highlights the fact that very few in the country actually know that it has a rich experience in integration and has a full tool box to share with others.

On the survey itself, there were expressed difficulty in understanding the subject matter and filling up the questionnaire. The questionnaire was found to be too technical and long and the terms used were unfamiliar to the respondents. This led to about 40% response rate, which is deemed low considering the level of effort the Team spent on follow-ups. Many questionnaires are largely incomplete despite the face-to-face encounters and discussions. Notwithstanding these limitations, this report shall attempt to show the country's experiences in integration and connect these to the tools being used and the influencing factors cited above.

The report has three main parts: process description, results presentation and analysis, and conclusion and recommendation. The first shall describe the survey method and implementation process that were undertaken by the country survey team (Team) including the criteria for selection of the survey sites and respondents. The second shall discuss the processed results of the survey mainly in the form of tables that indicate the frequency of responses to certain questions and tools, and to the extent possible, ranking of tools based on frequency levels. These results shall then be analyzed and conclusions therefore shall be provided. To the extent possible, specific recommendations shall be made.

The Philippine Context

A better understanding of the Philippine context is deemed imperative at this point in order to appreciate the results of the survey.

The Philippines is the second-largest archipelago on the planet, with over 7,107 islands counted within its borders. It has a total land area of 300,000 square kilometers bounded by the Philippine Sea to the east, Celebes Sea to the south, and South China Sea to the north and the west. It is separated by three main islands called Luzon, Visayas and Mindanao. Manila, which is located in the heart of Luzon, is the national capital. The Philippines is positioned along the ring of fire, which exposes it to frequent natural and geologic disasters.

Almost half of the Philippines' total land area is classified as timberland. Being an archipelago, it has a coastal ecosystem stretching almost 20,000 kilometers, one of the longest in the world. It is rich in flora and fauna with an estimated two million species of plants and animals, most of which are unique to the islands. It is endowed with mineral resources thus has a vibrant metallic and non-metallic mining industry. However, the high incidence of poverty and the lack of regard for environment and ancestral rights and domains in the pursuit of socio-economic development led to the unsustainable exploitation of these natural resources and the remarkable destruction of ecosystems that made the country one of the hottest biodiversity hot spots.

Today, only 4 to 5 percent of coral reefs are in excellent condition; more than 70 percent of the mangrove forests have been converted to aquaculture, logged, or reclaimed for other uses; and half of all sea-grass beds have either been lost or are severely degraded. Beaches and seashores have come under pressure from rapid population growth and uncontrolled development. One consequence of coastal degradation is the decline in fish catch per unit effort, which has led to lower income for the fisher folks. Meanwhile, the remaining forest cover has been very low and estimated at only about 20%. The remaining primary forest is even more pathetic at 3% cover.

The Philippines has very rich and diverse culture owing to the variety of its earliest settlers (Aetas, Indonesians, Malays) and colonizers, particularly Spain and America. Indigenous peoples (IP) constitute a significant segment of Philippine society totalling 110 ethno-linguistic groups that are found all over the archipelago. They have their unique way of caring for and using the natural resources for their own livelihood that has influenced approaches to integrating environment concerns in policies, programs and initiatives.

Indigenous practices provide the basis for local-level decision making in agriculture, health care, food preparation, education, natural-resource management, and a host of other activities in rural communities. A case in point is the Muyong or woodlot, which is living proof of the Ifugao's knowledge of silviculture, agroforestry, horticulture and soil and water conservation. The Ifugaos attribute value to the forest on the basis of their cultural ways and practices. In recognition of this, forestry development nowadays integrates indigenous systems of forest management.

The Philippines has a long history of occupation, the longest of which is by Spain, which lasted for about three centuries. The Americans stayed for a shorter period but had very strong influence in the country's development because it established the critical systems of education and governance, and kept its clutches on the government even after they gave its independence. They tolerated a dictatorial government up to mid 80's. In 1986, People Power Revolution that toppled about 20 years of dictatorial rule restored democracy in the Philippines. Its success highlighted the importance and potency of the power of the people thus this was enshrined in the

1987 Philippine Constitution. Succeeding Administrations and leaders, particularly Presidents Corazon Aquino and Fidel Ramos, gave meaning to the Constitutional provision by making civil society[1] active partners in national development processes and public governance. All these led to the phenomenal growth[2] of civil society in the Philippines, which by registration records of the Securities and Exchange Commission reached almost 96,000[3] in October 1996. The post-dictatorship regime saw patterns indicating the transformation of many civil society organizations (CSO) into environmental activists groups.

The new democratic space unveiled the extent of environmental destruction and natural resource degradation, which jeopardized food security and quality of life of poor communities. As these conditions worsened, civil society activism, particularly the environmental movement, became very strong. This parallel development led to heightened recognition that socio-economic development is inextricably linked to environmental sustainability, thus both must proceed in an integrated manner.

A major initial act of the environmental movement was to push government to formulate the Philippine Strategy for Sustainable Development in 1987, the first of its kind and the precursor of Philippine Agenda 21 (PA 21). In a clear demonstration of solidarity and partnership, the environment groups were with government and prominently led CSOs from other countries during the UN Conference in Environment and Development (UNCED). Soon after, the movement push for the creation of the Philippine Council for Sustainable Development (PCSD) in 1992, also the first of its kind in the world after UNCED. PCSD has since then represented the country in succeeding environment and sustainable development (ESD) forums and in UN Commission on Sustainable Development (UNCSD) sessions.

PA 21 and the PCSD are the country's major contributions to demonstrating how environment may be mainstreamed in planning, policy-making, budgeting and investment programming. The county's experiences in these two initiatives have been promoted and replicated at both the local and international levels. The results of the country survey revealed their strong influences at the local level.

2. Survey Methodology and Process

The Philippine country survey was undertaken following a process that consisted of two major activities: (1) questionnaire adaptation, assimilation and administration; and (2) conduct of interviews and focused group discussions (FGD) in three provinces.

[1] Broadly used in this report to include all non-state organizations such as non-governmental organizations, people's organizations, cooperatives, etc.

[2] Organized or formal civil society organizations already existed even during the Spanish colonial era, 1521-1898 (Cariño, 2001). It continued to exist even during the dictatorship era although most of the organizations were working against the dictator, hence underground.

[3] The figure excludes thousands of cooperatives that are registered with the Cooperatives Development Authority but could have also included some inactive ones.

2.1 Questionnaire Adaptation and Administration

Adaptation was a primary concern of the Team since the template questionnaire prepared by IIED was obviously not suitable to local conditions. Initially, the Team reviewed the questionnaire and gave it to a few persons for pre-testing, which turned out generally negative. Common issues raised include the length (i.e. completion took more than 30 minutes), tricky questions (i.e. difficult to answer, requires some level of sophistication), and non-familiarity with terms (i.e. too technical to understand). Consequently, significant sections were left unanswered. On this basis, the Team worked on the questionnaire in three ways: simplification, clarification and shortening as seen in Annex 1.

Simplification involved minimizing need for long written responses by providing tick boxes as a response option, and using less technical-sounding terms. Considering the desire to cover different disciplines including local and indigenous groups, simplification of technical details was needed to produce a set of questions that would be understood by a wide assortment of respondents from relevant sectors and major groups. *Clarification* included restating questions and adding introductory, easy questions to more complicated ones. It also meant classifying the responses to some questions according to: (a) personal and organizational perspectives of respondents; and (b) major groups i.e. government, business or private sector, and civil society. *Shortening* the questionnaire without losing its inherent ability to get the required data (and considering the addition of prefatory questions) was a real challenge. This was accomplished by reformatting the whole questionnaire, cutting the introductory section to a minimum and placing the rest of the details at the end of the questionnaire to make it less intimidating.

Notwithstanding above modifications, there were still expressed difficulties in responding to the questionnaires.

Administration was undertaken directly and indirectly. Direct administration was through the conduct of FGDs in three provinces and this will be discussed in detail in the next section. Indirect administration involved sending the questionnaires with a request letter that explains the objectives of the study, by fax or electronic mail. These mails were then followed up by structured telephone interviews, depending on the availability of respondents.

A careful selection process involving web- and desk-based literature review was undertaken to develop the shortlist of respondents. The process aided the project team in identifying users of integration or mainstreaming tools thus making certain that the respondents' list shall have all relevant sectors and organizations represented. Further, it helped confirm the survey sites for the FGD and key informant interviews. As a result, more than a hundred respondents were included in the shortlist representing national government agencies (NGAs), their regional offices and local instrumentalities (e.g. bureaus, centers and institutes); provincial, city and municipal government units (LGUs); business organizations; academic and research institutions; and civil society organizations (CSOs) including indigenous people organizations.

Palawan

Repository & Laboratory of Integration Approaches

The province of Palawan, which consists of 1700 islands, is a UNESCO Man and the Biosphere Reserve. It hosts six Protected Areas, two of which are UNESCO World Heritage sites, the Tubbataha Reefs and the Subterranean River National Park. It is highly bio-diverse contributing 38% to the country's total wildlife biodiversity. Of the country's stocks, Palawan represents some 82% or 379 species of corals and 40% (31 species) of mangrove forest. Most of the country's remaining forests exist in Palawan which has roughly 1.2 million hectares of rainforest, of which almost 40% is primary forest. It has been dubbed as the last ecological frontier as it still has maintained a much better ecological integrity compared to that of the whole country. Palawan has very rich cultural heritage with 53 ethno-linguistic groups, about half of the Philippine total of 110, among its 1.5 million population. Its main sources of income are agriculture, fisheries and ecotourism.

Palawan is unique in many ways. In the area of governance, it is covered by pioneering landmark legislation (R.A.7611), the **Strategic Environmental Plan Act for Palawan** (SEP Act) that serves as the framework for managing the unique ecological system of the Province. SEP Act also created the multi-disciplinary and multi-sectoral **Palawan Council for Sustainable Development** (PalawanCSD), a high-level body that is directly under the Office of the President of the Philippines, also a first of its kind. It is tasked with the governance, implementation and policy direction of the SEP.

According to the SEP Act, Palawan's development shall adopt an integrated approach and carry the following features: (1) e*cological viability* or keeping intact the physical and biological cycles that maintain productivity of natural ecosystems; (2) *social acceptability* wherein the people themselves participate and benefit from sustainable development activities that foster equity in access to resources; and (3) *integrated approach* that allows for holistic and cooperative resolution of environmental and resource problems by fostering political will to implement and sustain SEP activities. To undertake an integrated development, the province adopted the **Environmentally-Critical Area Network (ECAN)** approach, which is a graded system of protection, development and utilization of natural resources while protecting IPs and preserving their culture.

Palawan's Capital City, Puerto Princesa, is the center of trade and commerce. As a chartered city, it has a high level of autonomy that it has used well to its advantage particularly in instituting pioneering integrated ESD policies and programs that earned the city numerous awards (e.g. Hall of Fame in Cleanest and Greenest City). It is now the country's top destination for ecotourism and major supplier of fish, a testimony of how it has cared for and managed its environment and natural resources to improve to improve the quality of life in the city.

Puerto Princesa has integrated environment in development and used integration approaches wisely. It is driven by its desire to be a sustainable city and develop socially and economically through the proper use of its natural endowment. This inevitably made ecotourism its prime service activity. For this reason, the city has continued to undertake sustainable programs and used available tools to maintain its course. A case worth mentioning is the **Free and Prior Informed Consent** (FPIC) provided for under both the Indigenous Peoples' Rights Act and Philippine Mining Act. FPIC requires the consensus and endorsement of all members of affected indigenous communities before a project or major development on their ancestral domains could ensue.

Just like the province, the city is inundated by numerous applications to mine its rich mineral resources. Unlike the province, however, Puerto Princesa has blocked mining operations through the FPIC. Through **information, education and communication (IEC)** and **consultative and participatory processes**, the City's stakeholders reached a consensus that mining must not be allowed since it will not be good for the environmental integrity of the City despite its huge ability to create economic wealth for the people. In line with this, the IP's did not consent to the implementation of the proposed mining operations and this virtually banned mining in Puerto Princesa. This was considered a pioneering and bold move because this skirted the national government's policy of promoting mining in a creative way. Under the Mining Law, the government has the power to allow mining in all alienable and disposable lands in the country. Many local people are against mining in their areas so the FPIC has become their refuge.

The people of Palawan and Puerto Princesa have demonstrated the powers of integration tools and approaches (strategic plan, IEC, participation, FPIC, ECAN, etc.) in maintaining environmental integrity and economic sustainability. These have empowered them and strengthened their resolve to do what they think is right and appropriate for their long-term viability and sustainability.

2.2 Interviews and FGDs

In line with the country survey design, the Team conducted FGDs in five sites in three provinces: Puerto Princesa in Palawan, Tagbilaran and Dauis in Bohol and Baguio City and Padcal in Benguet. These sites were chosen mainly for three reasons: (1) they are endowed with natural resources; (2) they host ancestral domains and indigenous peoples (IP); (3) they are facing hot and controversial environmental issue (e.g. mining); and (4) they have been known to have achieved successes in harmonizing economic development, social equity and environmental sustainability. The specific sites of the FGDs happened to be where the offices of the contact persons, usually the planning officers, of the Team.

The FGDs were undertaken to allow face-to-face discussion of the objectives and content of the survey and help draw out from the participants the various mainstreaming tools and approaches that they use. The conduct of FGDs was a critical part of the survey process because it improved understanding of the subject matter and the quality and quantity of responses.

In terms of structure, the FGD consisted of three brief presentations on (1) the project; (2) context and importance of integration of environment in the pursuit of sustainable development to situate the use of tools; and (3) local development framework and programs. The Team did the first two presentations and the third by the local planning group. These presentations kicked off and enriched the discussions. To make it easier for the participants to focus on the tools and be able to express themselves, the Team fielded questions during the discussion and encouraged the participants to share experiences or stories that integrated environment in their development activities. This strategy worked since the FGDs were very lively and substantive. They became the venue for exchange of information and experiences, which the participants appreciated a lot. The Team gathered so much information, especially local approaches and tools used by the different participating organizations.

The Team also visited some projects where it was able to interview and discuss with the local community and other stakeholders on site. In the Municipality of Dauis, the Team met with some members of the Management Board and Executive Director of the Bohol Marine Triangle (BMT). They briefed the Team about the project, which largely employs participatory and monitoring tools. They then brought the Team to the fish sanctuaries where it had the opportunity to talk with the fisher folks.

In the case of Padcal in Benguet, the Team deliberately arranged a visit and FGD with the management, employees and members of the Council of the Elders. Philex Mining Corporation, one of the biggest mines in the Philippines. Philex Mines is located in an ancestral land and employs IPs but after operating for more than 50 years, the deposit has been depleted and it is now preparing to close down in 4-6 years. Philex is also the first mine to renew mining rights under the new Mining Act. All these make it an interesting case for study.

Bohol Province
Showcase of Eco-Cultural Integration

Bohol is a prime eco-cultural tourist destination in the country because of its rich natural resources and culture that it has successfully developed in tandem for the economic prosperity of its population. It is home to the world famous 1,268 perfectly coned "Chocolate Hills" and the reclusive Philippine tarsier, the world's smallest primate, and teeming coral reefs that breed and shelter a variety of picturesque marine life. Its flora and fauna are highly diversified in different ecosystems. It has very old churches, landmarks of historical events and world-renown musicians. Bohol has successfully packaged its environmental, cultural and historical endowments to produce economic wealth and benefits for the people through eco-cultural tourism.

However, Bohol's highly bio-diverse ecosystems have been stressed and under constant threat due to population pressure, poverty, overexploitation, illegal trade, poaching and other unsustainable activities. To address these problems, the Province deliberately undertook innovative and integrated development approaches as embodied in its Medium-Term Development Plan. The Plan focused on eco-tourism and agro-industrial development as its twin program for poverty reduction and environmental sustainability. One major strategy is the integration of biodiversity conservation in eco-tourism development. Initiatives and management tools borne out of this strategy include the creation of the **Bohol Biodiversity Conservation Framework**, the founding of the **Biodiversity Research Centre**, the implementation of the **Biodiversity Monitoring System** and the implementation of the **Coastal Resource Management (CRM) Certification System.** In view of the positive results of its plan and strategies, the Bohol Provincial Government earned the honor of being the first provincial LGU in Southeast Asia to earn an **Environmental Management System Certification**. It remains as the only ISO 14001-certified province

The province continues to implement working strategies with the use of some tools such as the **Local Governance Poverty Data Base Monitoring System (LGPDMS),** which was developed by the provincial government in partnership with Bohol Local Development Foundation, an NGO. LGPDMS has 18 indicators that cover social, economic and environment sectors but is currently being expanded further to include more environment related indicators. The database can identify and rank levels of deprivation at the municipal, village and household levels. It can track the impacts of specific interventions that are useful inputs to policy-making. It is a vital tool to bring about convergence of efforts of all development partners in addressing basic problems affecting socially, economically and environmentally disadvantaged households and communities.

Bohol is the first LGU in Asia to the use **ecoBudgeting System,** which is an environment management system specifically designed by ICLEI for local governments. It involves the physical and quantitative description and reporting of the use and consumption of natural resources within the local government to the public on a regular basis. It is expected that over time, the LGU would show tangible improvements in their internal sustainability as role model for others.

Another major integration approach that is being employed in Bohol is "**The Bohol Marine Triangle**" (BMT). The Triangle covers the three islands of Panglao, Pamilacan and Balicasag in three municipalities of Baclayon, Dauis, and Panglao. Interventions by the multi-stakeholder team composed of the three LGUs, CSOs, people's organizations, academe and other stakeholders include **conservation, resource assessment, economic valuation, and M&E.** The BMT Program utilizes economic valuation as basis for understanding and developing appropriate economic instruments for sustaining the use of the resources in the Triangle. Putting monetary value is a knowledge enhancing tool for stakeholders to recognize the importance of coastal and marine resources to economic development on a sustainable and ecologically sound basis. The BMT is significant because of its high biodiversity. It is the habitat of 22 species of marine mammals, three of the world's eight species of sea turtles, rare and endangered species of pelagic fishes, seahorses and giant clams and several migratory birds. The coastal ecosystems of the BMT are productive and provide economic opportunities to coastal communities in the three municipalities.

Bohol was once among the 20 poorest provinces in the Philippines. It was able to get out of this Club through its integrated approach to development.

Discussions on environmental integration in the operations of the company were done with the group. The team was able to draw out that FPIC has been used by the indigenous people in negotiating for royalty payment and other socio-economic benefits for the members of the community.

The provincial trips allowed the Team to interview officials of government (e.g., Provincial Administrators, in lieu of the Governors, of Palawan, Puerto Princesa and Bohol), people on the ground (e.g., fisher folks) and other sectors. The interviews were not structured but relied on a list of issues based on the conversation allowing a free flow of ideas and information (see Annex 2 for list of key informants).

Benguet Province

Showcase of Integration Tools Applied to Mining

The Cordillera Region is known for its rich mineral deposits, such as gold and copper, which are found in the mineral belt traversing the entire mountain region. It is also known for its forest endowment of hard wood and other varieties of trees. Forests used to occupy approximately 68.57% of the Cordillera's land area, but it was down to 46.28% in 1997.

The culture and ways of life of the Cordillera indigenous peoples have common and diverse characteristics. The common features are found in their concept of ancestral land ownership and collective management of the land. The symbiotic relationship between the people and the land and environment is highly developed in the region, such that land is equated with life itself. There are also indigenous practices for the management of communally owned land and resources such as forests and river bodies.

Patented mining claims were given to mining companies as Benguet Mining Corporation ion 1902. Twelve other mining companies operated in the province since then using underground mining method. Since underground mining also heavily use timber, logging also accompanied mining operations and this has resulted in the further depletion of forest resources in the region. While these mining companies raked in billions of dollars in profit, the province of Benguet remained poor, even listed as one of the 20 poorest Provinces in the country. Due to depletion of reserves in some mines and the slump in prices of gold and copper in 1990s, many companies closed down. At present only two big mining companies, Lepanto Consolidated Mining Incorporated (LMCI) and Philex Mining Company, continue to operate in Benguet. Mining permits in the Philippines are given for 50 years renewable for another 50 years. Philex started commercial operation in the 1955 so it had to renew its mining permit in 2005.

The **Mining Act of 1995** and The **Indigenous People's Right Act** provide that any mining operation must secure the **Free and Prior Informed Consent (FPIC)** of concerned IPs if the area of operation is within an ancestral domain or the affected communities. In addition, the IPs can impose a royalty equivalent to no less than 1% of gross output from the mining company for the use of their land. Based on these two provisions, the Kalanguya Tribe refused the issuance of permit to Philex Mines until it fulfilled its obligations. As a result, it was able to demand its rights and negotiate for compensation and royalty equivalent to 1.25% of gross output. It has now been receiving the equivalent amount of P60million since 2007, and this is expected to increase due to the favorable metal prices. The living conditions of the Kalanguyas have substantially improved through the royalty. They now have enough resources to rehabilitate their lands, protect and conserve their natural resources and fend for their future.

Moreover, the Implementing Rules and Regulations of the Mining Act reserves 1% of mining and milling costs for investment in the community. Ninety percent of the amount must go to livelihood projects and the other 10% to IEC. Through a **participatory decision-making process**, the community solely determines the usage of the amount. But it implements the agreed upon activities, in cooperation with the company. So far, the money has been invested in livelihood activities for the families in the community and improvement of the environment such as tree planting.

One other tool that is put to good use in Benguet is **payment for environmental services**. Philex Mines, which merely drew water from water tables before, now pays an IP community for their water supply.

Above tools are just examples of good cases of a combination of legal, indigenous and cooperation tools coming together to provide for the people and the environment. The laws, which underwent long processes of consultation, the empowered people, and the enlightened and cooperative private sector made the use of these tools possible. In the end, everything hinges on the people who run the tools, not the tools themselves.

3. Survey Results

3.1 Profile of Respondents

3.1.1 Questionnaire respondents

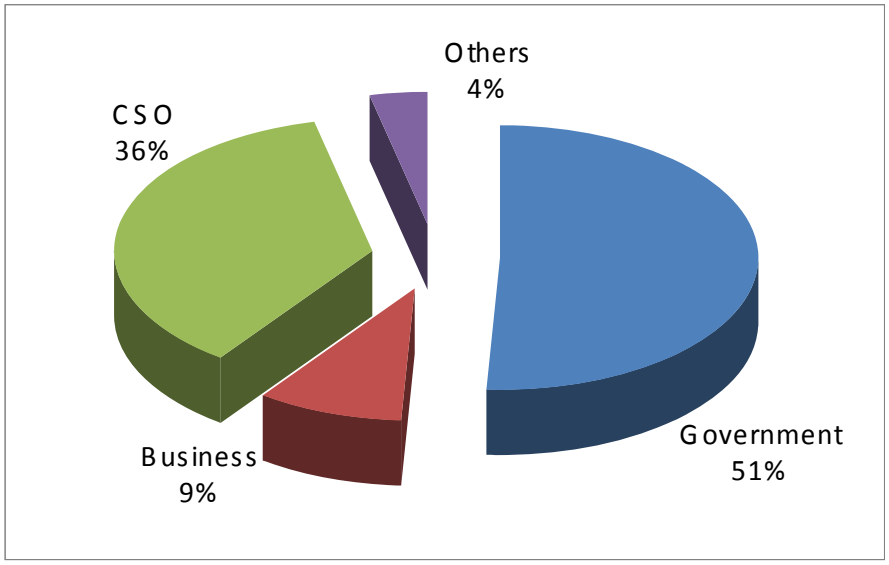
The questionnaire was sent or personally given to and discussed with more than a hundred officials and practitioners of government (both national and local), business, and civil society (most major groups) but only 55 were accomplished (though many are incomplete) and submitted for processing (See Annex 3 for List of Respondents). Nonetheless, these 55 respondents adequately represent a big group of people and sectors of society as shown below:

- More than half (50.9%) of the respondents come from the government (Figure 1). Of these, 11 represent the national government but only five of them are based in Metro Manila. The offices from national agencies include the Bureaus of the Department of Environment and Natural Resources, National Economic and Development Authority, Department of Education and the Laguna Lake Development Authority.

- LGUs are more than adequately represented with 17 respondents from municipal, city and provincial levels. The rest of the province-based government respondents are from the local offices of national agencies.

- There are more local (61.8%) than central or Metro Manila-based respondents due to the deliberate effort to reach out to local people through visits to three provinces and three cities. There was difficulty getting responses from both Manila-based and local-based business persons.

Figure 1
Profile of Respondents by Organization Type

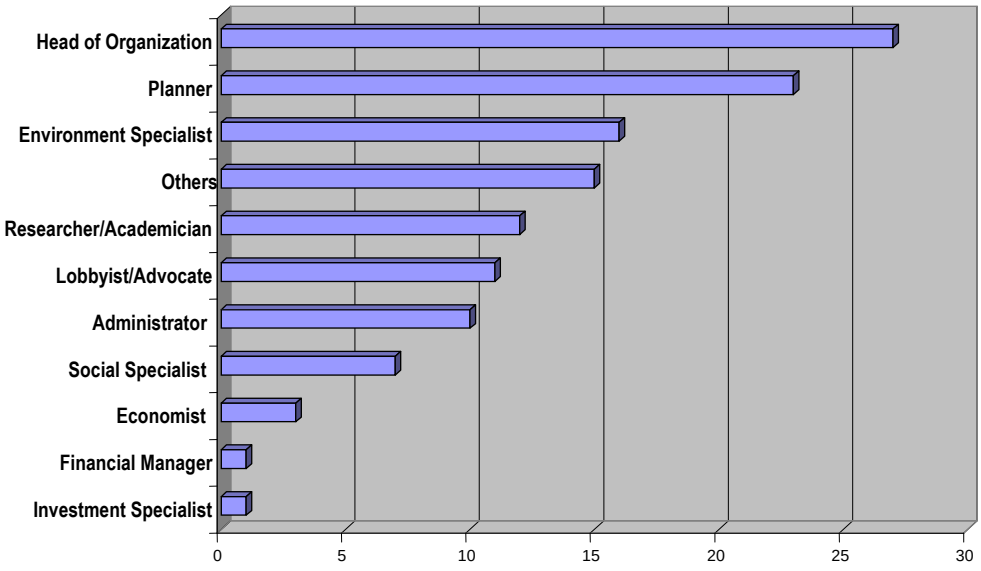


- There was significant participation from civil society in the FGDs but only some of them filled up the questionnaire. Of the 20 CSOs in the list, 13 are NGOs and seven are from the academe or research institutions.

- The Philippine offices of the World Bank and the World Agro-forestry Center or ICRAF are the only international development institutions that participated in the survey.

- The respondents are of high caliber with 27 heads of organizations, 10 Administrators and some chiefs of divisions (Figure 2). A big number are planners (23) and almost all (at least 50) are sector specialists. The big population of planners is not part of the design but was inevitable since planning units usually serve as the coordinating and integrating mechanisms in organizations. Many heads of surveyed organizations referred the Team's request to accomplish questionnaire to their Planning Officers. Similarly, the Governors designated their planning units as the Team's focal points and coordinators in the conduct of the FGDs.

Figure 2
Roles of Respondents



- There are likewise many environment specialists among the respondents. This is expected because (a) the local focal points invited representatives of environment units in government and other organizations to the FGD; and (b) environment specialists are the likely persons who would be most interested in participating in such an environment-oriented survey. Nonetheless, a reasonable number of social specialists, lobbyists or advocates and experts in other disciplines diversified the mix of the participants, which in turn, enriched the survey results.

- The respondents represent a wide area and almost all sectors and dimensions of development (Table 1). Their most common area, as expected, is environment (81.8%).

A significant number cover critical sectors such as education/academe/research, agriculture and social welfare. Interestingly, sectors that are not usually considered in sustainable development discourses (e.g., justice, public safety, tourism) are also well-represented. It was clear from the FGDs and interviews that these sectors are very much concerned with the environment and have activities pertaining to it, e.g., integration of environment in school curriculum, keeping environment healthy for tourism purposes, and promoting environmental and social justice.

Table 1
Sectors Covered by the Respondents

Sector	Number	Sector	Number
Agriculture	18	Labor & Welfare	4
Communication	4	Land Reform	5
Culture & Tradition	1	Land-use Planning	1
Disaster Management	1	Legislation	1
Economy	4	Local Governance	4
Education	17	Natural Resources	3
Energy	7	Public Safety/Security	5
Environment	45	Sanitation	1
Fisheries & aquatic science	1	Science and Technology	11
Forestry	2	Social Welfare/Development	12
Governance	1	Tourism	15
Health	12	Trade and Industry/Commerce	9
Housing	4	Transport and Travel	2
Infrastructure	5	Tribal communities	3
Inter-sectoral	1	Urban Development	1
Investment	1	Water and Sanitation	1
Justice	6		

3.1.2 FGD Participants

The FGDs in three cities and Philex mining community gathered 45 people (Annex 5). Taken together, the CSOs dominated the groups with 24 representatives compared to the government's 16. The CSO consisted of NGO (7), labor (2) and IP (7) and academe/research (9). The business sector was also well represented with 6. The FGD in Philex was unique as it had 2 representatives from a labor union: one representing senior officers and the other, the rank and file employees.

Many FGD participants did not accomplish the questionnaire even if this was discussed with them. They probably believe that their interventions and stories in the FGD were enough contributions. This report shall inject these views and contributions as necessary or whenever useful.

3.2 Tools for Environmental Mainstreaming

The Team was interested in checking how the respondents see and feel about mainstreaming the environment in development so a question to elicit this was posed[4]. Surprisingly, all respondents, including the FGD participants, consider mainstreaming essential, critical and important (Table 2). This seems to indicate that there is already a significant level of understanding and appreciation of what environmental mainstreaming means and benefits it could provide. A few even said that environmental mainstreaming is urgent, vital and inevitable. All these responses convey the message that there is dire need to facilitate and boost the environmental mainstreaming process and that inputs to this process (e.g. User Guide on Tools) must be made available soonest.

Table 2
Views on Mainstreaming of Environment in Development

View	Number
Positive	
Critical	34
Essential	35
Important	20
Negative	
Impractical	0
Not Urgent	0
Unnecessary	0
Others	
Urgent	4
Vital	1
Inevitable	1

In the next set of survey data, the Team deliberately classified the responses in two ways: according to personal and company views, and by major groups (i.e. government, business and civil society). The first classification hopes to see if there is difference (or harmony) between the personal and organizational views of a respondent and, if there is, whether such difference impedes the mainstreaming of environment in the organization's activities. Such classification was also meant to make the questionnaire friendly to respondents who are responding at their personal capacities.

The second form of classification is the Team's way of deepening the analysis of the results and providing better guidance to the International Panel in selecting the tools to be included in the User Guide. There are wide differences in activities, priorities and preferences of these three major groups, hence it is likely that there would be variations in the tools that they use and need. This information could suggest the proper mix of tools to be included in the User Guide.

[4] This question does not exist in the template questionnaire.

3.2.1 Mainstreaming Drivers

Prior to checking what drive respondents to mainstream environment, the Team asked a prior question[5] of whether they or their organizations undertake it deliberately in order to set the stage for asking the approaches and tools that they use. All respondents claim that they deliberately try to integrate environment in development both at their personal and official capacities as indicated by the zero entries in the column "No Effort" in Table 3, and that they are mainly driven by the following:

- Major environmental events emerged as the strongest driving force to environmental mainstreaming in the Philippines. This is not surprisingly the top choice because the country has been experiencing a string of unprecedented and catastrophic disasters that are mostly attributable to environmental degradation. The Philippines is a disaster-prone area being right on the sea and in the ring of fire. However, the frequency and intensity of recent disasters have been at catastrophic levels that Filipinos became more worried and watchful. Huge floods, landslides and mudslides, usually caused by deforestation due to illegal logging and land conversion, have buried wide areas, wiped out towns and villages and cost tens of thousands of lives. Overfishing and destruction of coral reefs have reduced fish catch and worsened poverty especially in fishing villages. Extreme pollution of waters has caused red tide and fish kill phenomena. All these led to, among others, extreme poverty, adverse psychological and psychosocial impacts, and high cost of rehabilitation that impinge on national budget for economic and social development.

Table 3
Drivers to Mainstreaming Environment in Development

	Deliberate Effort											No Effort
	A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	
Personal	**6**	**21**	**12**	**8**	**19**	**3**	**8**	**22**	**11**	**35**	**6**	0
Government	4	14	4	6	10	1	5	10	4	22	3	0
Private Sector	0	4	3	1	3	0	0	6	2	5	1	0
Civil Society	2	3	5	1	6	2	3	6	5	8	2	0
Organization	**16**	**28**	**23**	**7**	**23**	**4**	**7**	**22**	**9**	**33**	**3**	**0**
Government	10	21	8	5	11	1	4	9	3	19	1	0
Private Sector	0	4	5	0	6	0	0	6	0	4	0	0
Civil Society	6	3	10	2	6	3	3	7	6	10	2	0
Total	**22**	**49**	**35**	**15**	**42**	**7**	**15**	**44**	**20**	**68**	**9**	**0**

Legend

A – International commitment
B – Legislation/Regulation/Requirement
C – Company/Business Plan/Objectives
D – Company/Business Regulations/Requirements
E – Stakeholder/Public Demands
F – Donor/Lender Conditions
G – Risk Management
H – Organization's own values
I – Traditional/Cultural reasons

J – Major Environmental Events/Issues
Personal
- Coastal Ecosystem Degradation
- Flooding/Disasters
- Global Warming
- Biodiversity Loss
- Realization of the GAIA hypothesis

Organization
- Biodiversity Loss
- Flooding/Disasters
- Climate change
- Overfishing

K – Others
Personal
- Personal commitment
- Personal values
- Uphold human dignity
- IPRA Law (R.A. 8371)
- Health impacts

Organization
- Quality of living conditions
- Agency Mandate
- IPRA Law (R.A. 8371)
- Pollution

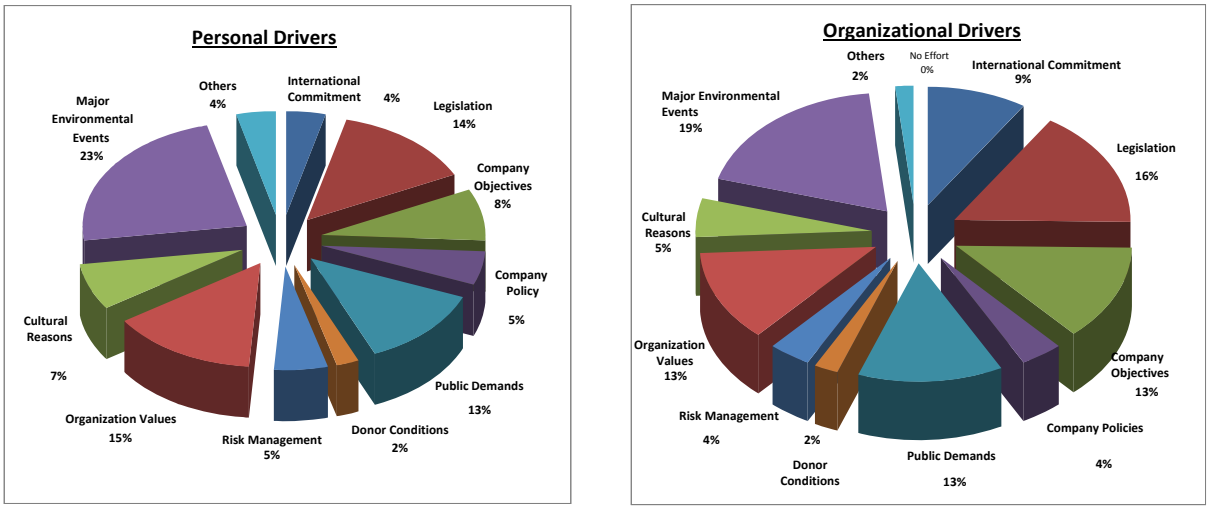
[5] This prior question is also not in the template questionnaire.

Perhaps a blessing in disguise, the fear for these disasters and concern for personal safety (see dominance of personal view on this in Figure 3) and national security are making Filipinos do more to resuscitate the environment and teach or prosecute those who destroy it. They try to learn more about what cause these disasters and initiate actions accordingly. For instance, there is already a good level of awareness that the mega-typhoons and El Niño drought that oftentimes simultaneously hit the country and result in the destruction of crops and other produce are largely due to climate change and global warming. As these events hit, consideration and integration of environment in decision-making heightens and becomes a priority agenda of government and the people.

- Legislation and regulatory requirements were identified as the next top driver but mainly of government, understandably so because the government is the one primarily responsible for the implementation and enforcement of laws and regulations. At their personal level, however, respondents from government do not render this driver as much importance. The private sector gives this some importance as well since their businesses must abide by laws and regulations to ensure their smooth operation and continuing existence. Civil society does not seem to consider much this driver.

- Organization's own values are key drivers to all three groups at both their personal and organizational capacities. This seems to indicate that the respondents and their organizations are all responsible and provide a premium to environmental and sustainable development. In the past, ESD did not quite figure in the values and agenda of organizations of all major groups. However, the first driver (environmental events) has induced them to take ESD seriously and enshrine them in their work ethics and processes.

Figure 3
Comparative Presentation of Drivers



- Stakeholder/Public demands strongly drive the respondents because, after all, the key role of their organizations is to provide goods and services in various forms to the public.

They provide public service as a matter of course in performing their jobs although others also see this as part of their personal commitment (see "Others" in Legend of Table 3). Most of them conduct genuine consultations to determine actual public demands, which become their inputs to more effectively meet these demands. These inputs normally cover wide and numerous areas hence would require integration and prioritization, for which tools become very useful.

Despite the few respondents from the IP group, culture was cited as a key driver. This stems from the realization that to ensure environmental sustainability, there is need to respect and consider indigenous and local culture and traditions because they and the environment they live in are closely attached.

Interestingly, donor conditions came as the weakest driver. This is because the country's dependence on external assistance has gone down substantially compared to a couple of decades ago. The heightened environmental consciousness has also made consideration of environment in externally-funded projects a non-negotiating point.

3.2.2 Obstacles to Environmental Mainstreaming

Lack of working approaches and tools is considered the primary obstacle to addressing ESD issues in development processes (Table 4). While this may have been influenced by the explicit introduction of the purpose of the survey, this (a) categorically supports the earlier finding that the respondents are deliberately mainstreaming environment in their development activities, and (b) is consistent with the results of many studies that lack of tools impede the pursuit of integration towards sustainable development. Overall, this survey result supports the thesis of this study that many would appreciate and benefit from a User Guide on Tools for Mainstreaming.

Table 4
Obstacles to Environmental Mainstreaming:
Environmental and Sustainable Development Issues

	Lack of Data/Info	Lack of Skills	Lack of Knowledge	Lack of Human Resources	Lack of Working Approaches & Tools	Lack of awareness & understanding of environmental issues
Personal	**28**	**16**	**4**	**21**	**33**	**24**
Government	16	11	2	14	21	15
Private Sector	4	1	1	2	6	4
Civil Society	8	4	1	5	6	5
Organization	**29**	**15**	**10**	**33**	**31**	**26**
Government	19	9	4	22	21	17
Private Sector	2	3	2	5	5	4
Civil Society	8	3	4	6	5	5
Total	**57**	**31**	**12**	**54**	**64**	**50**

The dearth of timely and accurate data in the country led to the selection of "lack of data and information" as the second main obstacle. To a certain extent, this obstacle may be attributed to the lack of human resources that is felt strongest by government respondents. The primary institution responsible for generating ESD data and information is government but its human power is so inadequate for it to play this role effectively. As cited earlier, there has been heightened awareness and understanding of environmental issues among Filipinos hence this obstacle is not quite high in the list of the respondents. However, there remains a big part of the population that needs information and training to gain knowledge and skills to analyze and address ESD issues.

Table 5
Obstacles to Environmental Mainstreaming: Integration Approaches/Methods/Mechanisms/Tools

	Dissatisfaction with Tools	Lack of Funding	Lack of Political Will	Lack of Understanding of Tools	Corruption	Others
Personal	**10**	**25**	**21**	**26**	**9**	**8**
Government	3	17	11	15	5	3
Private Sector	3	2	4	5	0	2
Civil Society	4	6	6	6	4	3
Organization	**12**	**31**	**28**	**28**	**8**	**7**
Government	5	20	13	16	5	3
Private Sector	3	4	7	6	0	2
Civil Society	4	7	8	6	3	2
Total	**22**	**56**	**49**	**54**	**17**	**15**

Legend

A – Dissatisfaction with approaches/methods/mechanisms/tools

- Community-based Management System: Lack of participants from other sectors
- Integrated Conservation and Development Projects: Lack of in-house expertise and core competence; fuzzy logic
- Valuation of Environmental Resources: current methods justify destruction of the environment
- Applied Research: Lack of funding
- Extended cost-benefit analysis (environmental impact): limits of environmental valuation methods; lack of consensus on the appropriateness and acceptability of environmental values; low manageability of data and information requirements.
- Environmental Monitoring: Lack of cooperation of some departments and contractors
- EIA: Poor implementation on ECC issuances and control mechanism.
- Information Campaign: Limited information, personnel and reading materials
- Monitoring and Evaluation tools: not prioritized by some local government units
- Regulatory approaches: Lack of state resources, personnel, and political will
- Life Cycle analysis: requires more sophisticated technical know-how which are lacking in many developing countries.
- Environmental taxes and subsidies; deposit refund systems; eco-labeling: political resistance; conflict between revenue generation and environmental objectives; limited studies showcasing how environment will improve bottomlines
- Environmental Monitoring: Lack of monitoring equipment
- EIA: often fails to consult stakeholders at grassroots level; subject/prone to "corruption".
- Apprehension method: apprehending team is not readily deputized the filing of cases is either delayed or put off

B – Lack of funding

C – Lack of political will

D – lack of awareness and understand of available approaches/methods/tools

E – Corruption

F – Others:

- Lack of management appreciation of importance [of mainstreaming]
- Lack of awareness and understanding of environmental issues
- Environmental issues not prioritized as URGENT
- Inadequate/Lack of coordination
- Inadequate communication
- Focus on financial resource mobilization

There is agreement on the primary obstacles to the use of mainstreaming tools and approaches among the three groups (Table 5). The lack of funding, particularly within government, comes first according to the respondents. Funding has been a perennial problem even as it underpins a host of other obstacles as those cited above. The solution has been very elusive largely because of the lack of political will among stakeholders as most government respondents believe.

Again, lack of understanding of tools figured prominently in this list of obstacles and this is quite consistent with earlier results. Perhaps this explains, to a large extent, the long list of tools that do not satisfy the respondents (see Legend of Table 5). Note, however, that these same tools have also been listed as useful and recommended for inclusion in the User Guide.

3.2.3 Integration Tools in Use

The respondents and FGD participants provided a very long list of approaches, mechanisms and tools for mainstreaming environment (Table 6). The Team tried to shorten the list by collapsing a few related tools into one. This was not an easy task because most tools are closely related but combining them could lose the essence of integration in the tool. Nonetheless, some of the mentioned tools had been modified and adapted to local conditions, which oftentimes meant combining some tools. Following are those that stand out or mentioned as most commonly-used:

1. Participatory tools in all forms topped the list. The huge democratic space and the empowered citizenry in the Philippines made this inevitable. Participation has become a standard norm in Philippine development processes, particularly in planning, policy-making and monitoring and evaluation (M&E). Should a key process holder fail to employ this approach, the empowered stakeholders usually make the initiative to have their views known or to input into the process. Filipinos have become creative in doing this particularly if the process holder is resistant to stakeholder participation and inputs.

   Being the usual manager or initiator of development processes, the government extensively employs this approach for generating information, deliberation, planning and M&E. In contrast, the business sector uses the approach sparingly, perhaps only when it has projects that would affect the people. CSO use the approach extensively as well in their projects and activities and they actively participate in all participatory processes of government.

2. Impact assessment tools, particularly EIA and SIA, are the next most popular tools among the respondents. The EIA is a regulatory requirement for project approvals, hence is in the tool kits of many organizations, particularly government, which administers it. The project proponent, be it a government agency, a corporation or a CSO, needs to submit an Environment Impact Statement for assessment and issuance of environmental clearance. EIA is good for scanning/identifying possible impacts and, therefore, serves as a very effective guide to planning and decision making. It may be observed from Table 6, however, that the government sees or uses it more for information and assessment than for deliberation, planning and M&E. This may be

supported by many claims that during the actual project planning and execution, many parameters in the project change thus rendering EIA results less useful.

3. Participatory resource assessment tools are in extensive use in the country as inputs to planning, management and monitoring of its abundant natural resources. Participation of people in the community where the resources can be found has been found very useful as, among others, this promotes awareness, improves knowledge, and is cost efficient. There was a time when community people unsustainably exploited and wasted their natural resources for profit. They thought that the resources are limitless and nature shall provide for their needs forever. Then they learned their lessons when they lost all their sources of profit and food due to destroyed environment and depleted resources. Now, community members in many places in the country appreciate the sustainable use of resources. With the help of government, CSO and sometimes, donors, they themselves regularly take stock of what they have and how the resources become sources of their food and income as the environment improves. They gather information, count species and report or record sightings or new growths for better planning and management. There are communities that make use of the results of their assessments in generating financial and economic benefits through payments of services or carbon credits. Resource assessment is primarily a role of government as discernible from Table 8 but CSOs, which include the NGOs and people's organizations in the communities, undertake this now for their advocacies and survival.

Table 6
Integration Tools in Use

No.	Name or description of tool	Number of Respondents Using Tool for											
		Information/ Assessment			Deliberation and Engagement			Planning and Organizing			Management and Monitoring		
		GO	PS	CS	GO	PS	CS	GO	PS	CS	GO	PS	CS
	➢ **Economic Tools**												
1	Cost-Benefit Analysis	2	2	1	2	1	0	3	1	1	2	1	1
2	Full Cost Accounting	0	1	1	0	1	0	0	1	1	0	1	1
3	Green House Gas Accounting	0	1	1	0	0	1	0	1	1	0	1	1
4	Green Procurement	0	1	1	0	1	1	0	0	0	0	0	0
5	Economic Valuation & Assessment	1	1	1	0	0	0	1	0	1	0	0	1
6	Poverty Database Monitoring System (PDMS)	1	0	0	1	0	0	1	0	0	1	0	1
	➢ **Impact Assessment & Strategic Analysis**												
7	Environmental IA / Environmental Compliance Certificate (ECC) / Social IA / Inter-Ecosystem Impact Assessment (45)	**10**	**5**	**3**	**8**	**2**	**1**	**5**	**2**	**0**	**6**	**2**	**1**
8	Research Forums; Case Study; Technology Seminars	2	0	1	4	0	0	0	0	1	1	0	1
9	Survey and Registration of Protected Area Occupants; Visitor Survey	2	0	0	0	0	0	2	0	0	1	0	0
10	Research of environment friendly systems; Compendium of Best Practices	1	2	0	0	0	0	0	1	0	0	0	0
11	Indigenous knowledge	0	0	1	0	0	1	0	0	1	0	0	0
12	IP Cultural program assessment	0	1	0	0	1	0	0	1	0	0	1	0
	➢ **Spatial Assessment**												
13	Geographic Information System (GIS)	1	0	0	0	0	0	2	0	0	1	0	0
14	Zoning; Land-use analysis	1	0	1	1	0	0	1	0	1	1	0	1
15	Protected area planning	0	1	0	0	1	0	0	1	0	0	1	0
	➢ **Resource Assessment**												
16	Community/Participatory Resource Assessment; Surveys; Protected areas suitability assessment (32)	**5**	**0**	**5**	**1**	**0**	**4**	**2**	**0**	**5**	**4**	**0**	**6**
	➢ **Monitoring and Evaluation**												
17	Multi-partite/stakeholder monitoring; Biodiversity M&E;	**4**	**1**	**1**	**3**	**1**	**0**	**6**	**1**	**1**	**9**	**1**	**1**

	Observation and Monitoring posts; Patrolling (29)												
18	Indicators; Benchmarks	1	1	0	1	0	0	1	1	0	2	1	2
	➢ **Participation**												
19	Public/Community/Stakeholder/Citizen's Consultation/Hearing/Dialogue/Assembly/; Focus Group Discussions; Environmental Summit, etc (74)	**16**	**1**	**4**	**18**	**1**	**6**	**12**	**1**	**3**	**8**	**1**	**3**
20	Stakeholder participation and citizen action	2	0	0	1	0	0	2	0	0	1	0	0
21	Stakeholder mapping	1	0	0	0	0	0	1	0	0	0	0	0
	➢ **Political Analysis and Action**												
22	Memo of Agreement/Understanding; Public-private partnership on environmental protection and enhancement	1	0	0	3	0	0	3	0	0	1	0	0
23	Public interest litigation; Arbitration	1	0	0	1	0	1	1	0	1	1	0	0
24	IEC; Knowledge Management; Lobbying/Advocacy (13)	3	1	0	2	0	1	1	1	1	2	0	1
25	Legal Tools; Clinics on environmental laws and policies; Volunteer Community Paralegals	0	0	0	2	0	0	2	0	0	2	0	0
26	Incentive/Motivation (e.g. Search for cleanest and greenest barangay[6]); Coastal clean-up	1	0	1	0	0	1	0	0	0	1	0	1
	➢ **Barrier Breaking**												
27	Social acceptability review of projects; Social Marketing;	0	0	0	1	0	0	1	0	0	1	0	0
28	Community outreach	0	1	0	0	0	0	0	1	0	0	0	0
29	Investment Forum	1	0	0	1	0	0	0	0	0	1	0	0
30	Capacity Building	2	0	0	3	0	1	2	0	0	2	0	0
	➢ **Policy Analysis**												
31	Organizational evaluation; Institutional governance mapping & analysis	1	0	3	0	0	1	0	0	2	0	0	2
32	Laws and Policies	0	0	0	0	0	1	0	0	1	0	0	1
	➢ **Comprehensive/Sector Strategies**												
33	Strategic planning; Local Agenda 21s; Land use plan (30)	**5**	**1**	**0**	**7**	**0**	**0**	**10**	**1**	**1**	**5**	**0**	**0**
34	Biodiversity conservation strategy; Agriculture development	0	2	0	0	2	0	0	2	0	0	2	0
34	Land Use Zoning (Environmentally Critical Areas Network)	1	0	0	1	0	0	1	0	0	1	0	0
	➢ **Decision Support Tools**												
36	Hazards, risks, and vulnerability assessments	0	0	1	0	0	0	3	0	0	1	0	0
37	Log-frame	0	0	1	0	0	1	1	0	0	0	0	0
38	Policy Action-Impact Matrix	0	0	1	0	0	1	0	0	1	0	0	1
	➢ **Financial Assessment and Fiscal Regime**												
39	User fees; Payment for environmental services	0	1	0	0	0	0	0	0	1	0	0	1
	➢ **Management Planning and Control**												
40	Environmental Management systems (i.e. ISO MS – ISO 9000 & ISO 14000); Systems Certification and Audits	1	2	0	0	3	0	1	3	1	1	1	0
41	Environmental Planning and Control/Audit	1	1	1	1	0	1	1	1	1	1	1	1
42	Life cycle analysis; Process and Product Design Selection; Eco-labeling;	0	3	2	0	3	2	0	3	2	0	1	1
43	Community-based Resource Management Systems (protected area, park, marine, forest, etc) (20)	**2**	**2**	**0**	**0**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
44	Ancestral domain management plan	0	0	0	1	0	0	0	0	0	1	0	0
45	Annual Investment Plan; Project Year-End Assessment	2	0	1	2	0	1	2	0	1	2	0	1
46	Enforcement of laws and regulations	0	0	0	1	0	0	1	0	1	0	0	1
	➢ **Conceptual Frameworks**												
47	Community resource management framework; Barangay Development Program	0	0	0	1	0	2	0	0	2	1	0	2
	➢ **Others (e.g. Budgeting; Resource Mobilization; Institutional/Organizational Development)**												
48	Eco-budgeting	0	1	1	0	1	1	0	1	1	0	1	1
49	Clean Development Mechanism (CDM) Methodology	0	0	0	0	0	0	1	0	0	1	0	0
50	Cross-cultural valuation	0	1	0	0	1	0	0	1	0	0	1	
51	Multi-stakeholder structures, i.e. local councils for SD; coordination of environmental mandates; community organizing and collaboration; Networking (18)	**1**	**1**	**2**	**1**	**1**	**2**	**1**	**1**	**3**	**1**	**1**	**3**
52	Tool critique and development	1	0	0	0	0	0	1	0	0	1	0	0

4. Monitoring and Evaluation tools, particularly those that employ people participation, commonly-used in the country. An example is the Community-Based Monitoring

[6] Smallest administrative unit in the Philippines.

System (CBMS), which aims to provide up-to-date local information for assessing progress and impact of policies and programs, diagnosing problems, formulating plans and strategies, etc. It is an approach that found effective use because of the community-centeredness of Filipinos. Another variation is the Environmental Monitoring and Evaluation System (EMES) that was developed in Palawan to ensure a systematic and reliable means of monitoring and evaluating the implementation of its Strategic Environment Plan. EMES measures changes in the environmental status, identifies adverse environmental trends and crisis areas, and recommends measures to make SEP more responsive and flexible to changing needs. Many approaches have been in use for M&E purposes that could easily be done by village people such as observation and monitoring posts, patrolling, bird watching and identification (for both domestic and migratory), fish visual surveys, etc.

5. Strategic planning was also cited by a significant number of respondents as a tool they use a lot. The planning process has been serving as venue to gather views and contributions from key stakeholders, and in the process, considers and integrates all development dimensions in the strategies and programs. It has proven to be a potent tool for eliciting ownership and cooperation in crafting and implementing a development path or blueprint. A plan that would affect a group of people or a community will never get through or be implemented effectively if said people were not made to take part in the plan formulation process. All these made participatory planning a standard operating procedure in the country. PA 21, which was formulated in 1994, is considered the "mother plan" for sustainable development. It was the most consulted and participative plan ever produced in the Philippines. It was recently updated by yet another long process of consultation. Local Agenda 21 or similar strategic and long-term plans were developed in many places and sectors soon after PA 21 was completed.

6. Community-Based Resource Management (CBRM) is an approach to achieve people-oriented development where the locus of decision–making on the sustainable use of resources lies with the community members. It focuses on the improvement of the well-being of community members as they take care and manage their resources. CBRM is a commonly-used approach for the management of forests, marine areas and other ecosystems. It is akin to resource assessment and monitoring tools (e.g. CBMS), hence their delineation of tasks is indistinct. Ecosystems usually cross boundaries hence their management is almost always complicated. It requires holistic approach that employs a number of complementary tools as it tackles the management of several territories or ecosystems (e.g., marine and terrestrial) resources. It needs partnerships and cooperation among host communities, local governments and community-based organizations. This requires bigger, sometimes more complex organizational structure, such as that of the Bohol Marine Triangle.

7. Closely linked to participatory tools are the institutional mechanisms or multi-stakeholder structures that allow participation. This set of tools may include national and local councils, inter-agency coordination committees within government, network of CSOs and people's organizations, etc. The Philippines has been pioneering and experienced in developing and using institutional tools. It has the first multi-stakeholder

National (Philippine) Council for Sustainable Development (PCSD) established after UNCED and emulated by other countries particularly in Asia. PCSD is the integrating mechanism for SD and coordinator of the formulation, implementation and monitoring of PA 21. It represents the country in international forums and deliberations such as in the sessions of the UN Commission for Sustainable Development.

The PCSD has been replicated at the local (region, province, city, and municipality) and sector (forestry, marine, etc.) levels. Interestingly, the Palawan CSD was created in June 1992 by the SEP Act, ahead of PCSD, which was established in September 1992 by a Presidential Order. Local mechanisms generally replicate PCSD's roles but assume more (e.g. resolve issues among constituents). These local mechanisms have been instrumental in ensuring coordination and integration of all sector concerns, especially environment, because they are on the ground and directly deal with people.

There are a few more tools worth noting. One is IEC, which did not get many points perhaps because it is inherent in most, if not all, approaches and tools that it was taken for granted and not mentioned much. However, the FGDs emphasized the importance and critical role of IEC in mainstreaming environment. Second is the capacity building tool, which suffers the same fate as IEC but likewise highlighted in FGDs as institutional weaknesses were identified. Finally, the life-cycle analysis and eco-labeling that are widely used in business but, by their very nature, are barely used by government and CSOs.

3.2.4 Local or Indigenous Tools

A big number of the tools listed in Table 6 are of foreign origin as these were introduced through foreign-assisted projects by both donors and private sector and civil society partners. Many of these have been adapted to local conditions or improved by local users or practitioners. In certain cases, the adaptation integrates or considers indigenous culture to make the tools applicable or acceptable to village people. Two examples of adapted tools are World Bank's Poverty Mapping and Action-Impact Matrix, which were expanded to include additional indicators or dimensions that concern environment, culture, governance, etc., and improved or developed into software. Sometimes new names are given such as the Poverty Database Monitoring System[7] and Policy Action-Impact Matrix[8]. It is, therefore, not surprising that Table 7 lists a number of tools similar to the ones given in Table 6. In fact, there are few more tools in Table 6 that were missed in Table 7.

Still, a substantial number of tools in Table 7 are fundamentally traditional or indigenous. Examples of these are the consultative decision-making by the Council of Elders; folklore story-telling to convey adverse impacts of destroying the environment; "Bayanihan" or volunteerism, which has been underpinning many community-based programs; and fish visual census by fisher folks, an approach towards building capacities, assessing resources, generating data and raising awareness.

[7] Developed by Bohol Planning Development Office in cooperation with Bohol Local Development Foundation
[8] Developed by Earth Council

Table 7
Tools with Local, Cultural, Traditional, or Indigenous Influences

No.	Name or description of tool	Description/Purpose
1	Participatory planning	Promotes ownership; provides guidance especially at local levels
2	Land Use Zoning (Environmentally Critical Areas Network)	Regulation of projects and development initiatives; Long term development planning for the local government units
3	Indigenous Peoples' Rights Act	Ensures holistic approach to the rights of indigenous peoples to development, cultural preservation and ancestral domain
4	Tribal Council of Elders	Decision-making by consensus; considers culture and tradition that are usually sustainable
5	Customary/Cultural laws and practices	Used in development efforts and implementation of policies and projects
6	Indigenous Knowledge System (IKS)	Used to balance educational learning; cultural preservation, livelihood purposes, community organization, delivery of services, inventory of resources
7	Participation of IPs and local people in planning of programs/projects	Ensures that IP/local culture and development concerns are considered; promotes ownership of plans, programs and projects
8	Ancestral Domain Management Plan	Serves as framework for the management and development of the ancestral lands of the indigenous people.
9	Sacred graves or spiritual and burial sites in forests	Delineation of 'no-take' zones and preservation of natural resources therein
10	Establishment and strengthening of the Center for Culture and Arts Development (CCAD) under the office of the Governor of the province of Bohol	Recognizing and promoting Boholano cultural heritage practices and linking these to environmental protection, preservation and eco-tourism. These, in turn, generate jobs and livelihood activities for the local people.
11	Folklore story-telling	Use to warn people about their mischief with the environment and its corresponding negative impacts/implications
12	Use of traditional knowledge of terrain; hunting and gathering; controlled burning	Handy in enforcement of regulations, monitoring patrols, watershed rehabilitation, etc. 13Regulate the slash and burn method used in the traditional pre-cultivation of lands
13	"Bayanihan" or volunteerism in activities or projects of the community or its members	Huge impact at least cost due to community participation in various activities such as building of sustainable housing and installation of water and sanitation infrastructures
14	Community meeting/consultations; Barangay Consultation; "Citizen Forum"	For planning and problem-solving; resource surveys/assessments; community-based resource management; community project approval; information dissemination
15	Deliberative Approaches, e.g. community-based reforestation, Barangay development planning.	Empowerment and participation of community stakeholders in the environmental protection and management reinforce sense of belongingness of stakeholders
16	Integration of Environmental Education to all subjects	Awareness of students from primary to tertiary level
17	Enforcement	For strict implementation of laws
18	IEC; Knowledge Management	Provide the public with the necessary information through different media and modalities such as lectures, symposia, exhibits, etc.
19	Capacity Building	Facilitates integration of environmental concerns to undertakings of partner organizations.
20	Conflict Resolution	Land and Natural Resource Exploitation
21	Indigenous resource management	Community reforestation
22	Implementing of environmental programs and projects	Conserve, protect, and manage our environment and natural resources; sustainable development
23	Quality Management and Monitoring (e.g. Household surveys) Observation	Useful in policy formulation/development, assessment and evaluation, development of new programs/program formulation, profiling
24	Participatory Coastal Resource Assessment (PCRA)	Baseline for marine protected area establishment
25	Rapid appraisal/assessment (hydrological; agro-biodiversity; carbon stock; livelihood and poverty; threat reduction)	Baseline for farther organizational advocacy; Negotiations for payments for water services, biodiversity protection, carbon sequestration/stock; Baseline information on poverty status
26	Fish visual census	Baseline for analysis of catch per unit effort of fisherfolk
27	Garbage Disposal System	For home, office, and community
28	Compliance to environmental laws	No smoking, No smoke-belching
29	Quality Management System	Follow environmental health safety
30	Integration of Population to Development (POPDEV) to Environmental Planning	Tool for local government units that aims to improve developmental planning and investment programs more effectively, efficiently, and equitably by explicit consideration of population, gender, and sustainable interrelationship in planning process.
31	Links of EcoBudget and Poverty Database Monitoring System (PDMS). EcoBudgeting is an environmental management tool developed by ICLEI especially for LGUs	PDMS was developed by the Provincial Planning and Development Office of Bohol and the BDLF. It is an environmental budgeting tool that guides political decision-making in sustainable local development particularly in the long-term management of natural resources and urban environment. PDMS is a software for ranking the levels of deprivation in the 47 municipalities and one city of Bohol province. IT covers 18 indicators e.g. sanitation, crime, electricity, garbage disposal, unemployment, water, etc.
32	ISO 14001 – Environmental Management System	Used by the Provincial government of Bohol to identify and reduce environmental impacts from activities and processes to produce products and deliver services. It was installed to proactively consider environment in all the activities and services in Bohol as part of its

		effort to attain global conformance in environmental protection.
33	Aggressive information dissemination (IEC)	Better awareness and understanding of environmental issues
34	Research Fora, seminars/training	Publication of output; disseminate information; develop arguments and environment friendly economic systems for advocacy for environment protection
35	Memoranda	Binding mutual agreement and understanding on environmental protection
36	Cause-and-Effect Diagram/Fishbone Analysis	Problem solving and decision-making tool that analyzes causes and effects of idea/problem using colored cards.
37	CDM Approved Methodology	For prediction and projection of reduced greenhouse gases (GHG) emission in the environment through carbon sequestration, avoiding and revitalization of methane in the atmosphere. Carbon Marketing between developed and developing countries.
38	Biodiversity monitoring survey	Used by tenured migrants in protected areas to monitor wildlife population and environmental issues
39	Integrated Ethnoecology: driven by "Images of the Future"	Promote engagement in sustainability
40	Ethnoecological analysis of life support systems	Facilitate awareness of humans as part of the ecosystem
41	Ecosystemics' approach to conservation feedback loops	Ensure local expectations are attainable
42	International approach to traditional ecological knowledge	Value development/enhancement and interjurisdictional awareness development
43	Livelihood analysis	Facilitate awareness of humans as part of the ecosystem when there is limited focus on the environment

3.2.5 Useful Tools

Table 8 lists a good mix of both foreign and locally-influenced or adapted tools. Strangely, it does not include many of tools in use as reflected in Table 6. On the other hand, there are tools (e.g. ecosystemics, ethnoecology, milestone approach) in this list that were not cited as being in use in Table 6. This could mean that while some respondents see these tools as useful in Philippine setting or for specific objectives, these are not commonly-used locally.

Table 8
Tools Viewed as Most Useful

Tool	Reason
EIA	Enables user to identify and control the various aspects available in the environment that could disrupt environmental sustainability.
Participatory Coastal Resource Assessment (PCRA)	Can generate data needed for the formulation of management plan, yet involving/capacitating the local communities
Participatory mapping	Normally used for situation analysis and planning
Land Use Zoning (Environmentally Critical Areas Network)	Allow for integration of environment in development initiative in the medium to long term
Stakeholder Consultation/Dialogues with key players in the community like elders	Acquire the entire community's consent and involvement; show that the target beneficiary's views are respected; promote ownership adaptation / acceptance
Participatory planning	Developing local plans
IEC	Promotes awareness, builds capacity and elicits commitments
CDM Approved Methodology; GHG Accounting	These methodologies are focused on the long term impact of the anthropogenic activities in relation to environmental conditions with strict compliance to approved rules.
Risk Assessment	Commonly used in management planning
Leadership Capacity Training	Traditional approach to organize stakeholders
Participation and citizen action	Participatory, easy to use, and responsive to local needs
Monitoring and Evaluation	It measures successes of the project based on logframe
Spatial Planning	It direct implementers to focus on areas where poverty incidence is so high
Conflict management	Highly in demand due to competition in resource use among stakeholders
Management planning and control	Very systematic and comprehensive
Individual and organizational strategies	They can be applied to any situation
Forum theatre	Makes people laugh – then they learn much more and consider change much easier
Ethnoecology	Connects people to their environments

Ecosystemics'	Creates positive feedback loops
Full cost accounting	Helps especially LGUs decide on competing uses for a local resource
Milestone Approach	Facilitates strategic planning
Ecolabelling/ Green Procurement	Labeling/ Procurement of environment friendly products and technologies

3.2.6 Least Useful Tools

The tools that are considered least useful by the respondents are not very many as shown in Table 9. Strangely, some of them are cited as still being used (Table 6) and useful (Table 8) sometimes by the same respondents. This was partly traced in the FGD as being due to differences in opinions of the respondents. But what factors led to the differences in opinion needs examination.

A closer look at the reasons cited by the respondents reveals that they found weaknesses in the systems where the tools are applied, not in the tools themselves. They cited, among others, the lack of reliable data; limited skills; difficult to understand government guidelines; and weak implementation of recommendations by agencies of government as weaknesses, which actually are those of government or the institutions that apply the tools. These weaknesses obviously affect all other tools the same way, including those seen as useful. Usually, the design of some tools takes these weaknesses into account but they could still not be applicable in all situations. There is thus a possibility that the impression of the lack of usefulness of some tools also lies in their mismatch with the contexts they were applied in that eventually led to unsatisfactory results.

The cited weaknesses require entirely different sets of interventions, which may improve the impact of the application of the tools but not necessarily the tools themselves. The second weakness, however, could be one of the areas that the User Guide may address.

A more challenging problem, which may not be unique to the Philippines, is summed up by the following quote from a respondent:

> *"All of them are useful BUT…IF political maneuvering comes into the picture, they become useless."*

Table 9
Tools Viewed as Least Useful

Tool	Reason
Legal Tools	Presence of traditional institutions; time consuming; cumbersome processes
EIA	Results are not being strictly followed. New regulations, higher standards and corruption are diminishing its usefulness.
Barangay Development planning	Formulated and adopted every five years hence does not jibe with the 3-yr tenure of local officials
Observation & monitoring posts	Breeds familiarity that often leads to connivance
Extended cost-benefit analysis	Lack of reliable data; limitation on application and coverage, usually applied only to public sector
Environmental Accounting	Not very useful if applied on a national scale; much like the limitation of GNP/GDP as a measure of development
Internal Environmental Audit	Recommendations are not well implemented by other departments because internal auditors have equal or lesser authority than the departments being audited

Information and education	Too soft to achieve results; cannot work in isolation from other tools
Social Marketing	Relatively new technology and limited skills
Strategic planning	Approach is highly technical
Certification and audits	Government guidelines are difficult to understand
CDM Approved Methodology	These methodologies are focused on the long term impact of the anthropogenic activities in relation to environmental conditions with strict compliance to approved rules.

3.2.7 Aspects of Work Needing Tools

Notwithstanding the long list of available and used tools, practically all the areas of work pertaining to environmental mainstreaming and management were cited as needing tools (Table 10). Preceding discussions on weaknesses of systems, inconsistency in opinions and mismatch among tools and contexts partly explain this. But the underpinning reason that strongly came out from the responses and FGDs is the lack of skills or expertise to use certain tools, particularly the more sophisticated or technical ones (e.g. technology and risk assessments). This also explains the earlier findings that most respondents see the following as major obstacles to environmental mainstreaming: (a) lack of working approaches and tools (Table 4) despite the long list of tools they claim to use (Table 6); and (b) lack of understanding of tools (Table 5). In developing the User Guide, therefore, capacity building and responses to the identified weaknesses must be taken into account in contextualizing the tools.

Table 10
Aspects of Work Needing Tools

Context	Gap or Need
Development planning	Design of environment-friendly livelihood systems
Monitoring	Results (feedbacks) are not immediately attended to; Capacity building of "monitoring team" and installing a sound feedback mechanism for policy-makers
Management processes	Lack of equipped personnel; inadequate funds and resources; lack of collaboration
Multi-partite monitoring	Lack of integration program
Assessment (ie.EIA)	Lack of coordination; international consensus on the acceptable valuation methods; more case studies on valuation
Intervention Monitoring	Monitoring indicators need to be identified (the indicators should adequately capture the state of biodiversity in the area, the effectiveness of the conservation interventions)
Environmental auditing/management reporting	Legal and policy instruments; rewards and incentive mechanisms effective integration in education curriculum
Environmental Technology Assessment	Limited Local Expertise
Environmental Risk Analysis/Assessment	Limited Local Expertise
CDM Project Development/ CDM Approved Methodology	Limited Local Expertise Lack of manpower and interest
Tasks Delegation	Getting and keeping commitments from identified key groups/persons
Planning	Vision-led planning vs. problem tree based planning; risk analysis on resiliency of community-based management institutions
Implementation	Sustainable financing; technical skills
Evaluation	Designing evaluation tools with accountability in mind
Quantified Monitoring and Evaluation	Quantifiable data/Indicators available
Gender integration in environmental programs	Lack of tangible indicators

3.3 The User Guide

The first question under this section is about the criteria for selection of tools to be included in the User Guide. However, the Team did not want to assume that all the respondents would be interested in or approve of a User Guide. They might merely leave out questions under this section if they do not see the usefulness of a User Guide and the Team would not have a way of knowing why. As such, a question on how they view the development of a User Guide was posed.

Except for one, all 54 respondents see the User Guide as helpful and necessary, particularly at the organization level (Table 11). The only person who views it otherwise at the organizational level explained that his response is "not negative but a call for directional action". He explained that:

> *"…the lack of tools on mainstreaming the environment, is not a primary limiting factor. What I believe we are most lacking is critical factor analysis for paradigm shifts and related (communication, coordination and participation) strategies. I am suggesting that environmental work more generally suffers from a lack of holistic connection to the 'environment' of each individual challenge. Thus limiting the successful facilitation of change, particularly in terms of the responsibilities and declared mandates of organizations….If we can give a person all of the tools to build a home, can we then expect a quality building at a specific location? Can we expect that house to change the setting of the community of common interests? Can we expect that house to contribute to a strengthening of community social infrastructure? More employment? Better health care? Perhaps not, yet the tools to build a house are connected to all of these community factors, which are primarily a function of a collection of homes. Are we producing the critical organizational and situational change by developing tool kits to send to many? Perhaps not..."*

This discourse may be food for thought in developing the User Guide, particularly in selecting the tools for inclusion. An important point to ponder about is the need to build a "holistic connection to the 'environment' of each individual challenge."

Table 11
Respondents' View on Usefulness of a User Guide

	Yes	No
Personal	42	0
Organization	46	1

3.3.1 Criteria for Selection of Tools

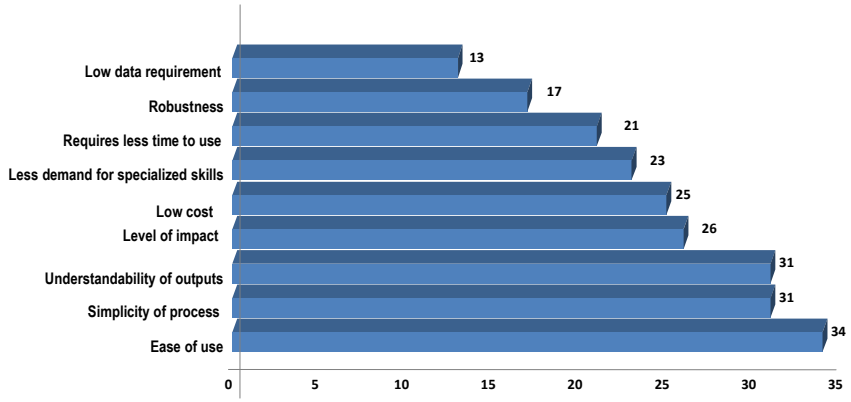
In the selection of tools for inclusion in a User Guide, all the criteria listed in Figure 4 are proposed to be considered. Three of them came very strongly: ease of use, simplicity of process and understandability of outputs to decision-makers. Impact and cost are also proposed to be in the selection criteria. In addition, the following criteria, which refines some of previously-mentioned criteria, are proposed to be included:

- Applicability to local conditions

- Considerable degree of peer review/acceptance
- Universality of application and utilization
- Concise and complete operational requirements
- Allows stakeholder analysis and management
- Use/Run by computer program tools
- Individual approaches to identifying case specific challenges

The message of the respondents' priority criteria is simple: in order for the User Guide to be truly useful, it must be composed of integration tools that may be applied or used by anyone who need them, and that would provide results that would be understandable to everyone, especially the decision-makers.

Figure 4
Criteria to Select Tools for Inclusion in User Guide



3.3.2 Tools for Inclusion in User Guide

The proposed tools for inclusion in the User Guide number about 50[9] (Table 12). Based on frequency of responses, impact assessment tools are the most preferred, especially by government. As earlier mentioned, EIA is an official requirement in the approval of a project. Naturally, the government would like to equip itself better on EIA and make it easier for project proponents to meet the EIA requirements through the User Guide. Monitoring and evaluation tools, with emphasis on participative processes, were the next choice of respondents. As revealed in the FGDs, practitioners feel that monitoring and evaluation are still weak in many ways, particularly in the means to best conduct it in the contexts of their governance areas. There is need to address attendant problems that include the lack of enforcement, inability to get the cooperation of some people, and tedious and costly legal processes in cases of apprehensions of wrong-doers. Likely for the same reasons, legal and community-based enforcement tools came fourth in the ranking.

[9] Similar or related tools were put together to shorten the list.

One of those ranking third in terms of frequency is cost-benefit analysis, which is deemed useful but highly technical and difficult to apply particularly because of lack of data and ability to value natural resources and environmental degradation. The high (fourth) ranking of economic and natural resource valuation tools bears this out. Community-based and participatory tools, which also rank third, reflect the earlier mentioned difficulties in getting full cooperation from the people. This may look strange from the standpoint of this report's allegation that Filipinos are inherently community-oriented, but it may not be quite so if one considers that most people in the villages are poor and rely solely on natural resources for their subsistence. These set of tools also tie in neatly with the other fourth-ranking tools, the multi-partite institutional mechanisms. Again, this looks strange given that the country already has high expertise in this area. A number of factors may explain this such as lack of funds and resources to sustain the mechanisms; weak leadership; and highly-politicized situations especially in areas that straddle several communities or towns and where politicians belong to different political affiliations.

Note that all the tools that ranked fifth - consultations/dialogue, conflict management and motivation and funds augmentation – complement and support the tools that ranked higher than them. This indicates the close connections among the tools and reflects the contexts of the country that the User Guide may consider. Meanwhile, there are other desirable tools, such as those marked by faces in Table 12, that did not garner many votes but which highly figured in the discussions. They are considered useful and important but need data and capacity building.

Table 12
Tools Preferred for Inclusion in User Guide

	Tool	GO	PS	CS	Total	Rank
Information Tools						
1	EIA/SIA	8	1	1	9	1
2	Monitoring and Evaluation (self; community; participative)	8	0	1	7	2
3	Cost-Benefit analysis	3	0	3	6	3
4	Resource Valuation/Economic valuation/Natural Resource Valuation	2	0	3	5	4
5	Life Cycle Assessment/Analysis	1	1	1	3	
6	SWOT Analysis	1	0	0	1	
7	Ecological footprint analysis	1	0	0	1	
8	Modeling or simulations	1	0	0	1	
9	Environmental Technology Assessment	0	1	1	2	
10	Economic and Financial Assessment; Financial Assessment Guide	2	0	1	3	
11	Resiliency Assessment and impact; Land use suitability assessment	1	0	1	2	
12	Full Cost Accounting; Environmental expenses assessment	0	2	1	3	
13	Ecological Risk Assessment	2	0	0	2	
14	EcoBudget and Poverty Database Monitoring approach	1	0	0	1	☺
15	Participatory mapping	1	0	0	1	
16	Geographic Information System	1	0	0	1	
17	Risk Assessment	1	0	0	1	
18	Stakeholder mapping	1	0	0	1	
19	Communication strategies	0	1	0	1	
20	Threshold analysis	1	0	0	1	
21	Legal tools; Community-based enforcement	3	0	2	5	4
Deliberative Tools for Engaging						
22	Dialogues/Community Consultations/FGD	4	0	1	4	5
23	Community participation and empowerment; community network; Participation and citizen action; Community decision support;	6	1	1	6	3
24	Conflict management/resolution	3	0	1	4	5
25	Social preparation and acceptability process of development projects	1	0	0	1	
26	IEC/Social Marketing Strategies	3	0	0	3	
27	Coordination, cooperation, collaboration strategies	0	3	0	3	

28	Institutional Development; Governance Mechanisms; multi-partite monitoring team	3	2	0	5	4
29	Political approaches (i.e. Political analysis and action)	3	0	1	4	
30	Reward system; Motivation; Funds augmentation	4	0	0	4	5
Planning and Organizing Tools						
31	Business planning for protected areas; Barangay Development planning; Participatory planning & organizing approaches; Integration of Gender-responsive POPDEV planning	3	0	2	5	4
National/Local/Corporate Management Tools						
32	Environment Resource/Ecosystem management planning & control tools/approaches	2	1	1	3	
33	Environmental Compliance Audits; external environmental auditors (10)	2	2	1	5	4
34	Payments for Environmental Services/ User Fees	0	1	2	3	☺
35	Green Procurement	0	1	1	2	☺
36	Energy inflow and outflow tool for LGUs	0	0	1	1	
37	Development of Environment-friendly systems	1	0	0	1	
38	Feedback mechanism	1	0	0	1	
39	Best Practices	0	1	0	1	
40	Green taxes	0	1	0	1	
41	Environmental Management System	0	1	0	1	☺
42	Use of indigenous/cultural practice to integrate environment	1	0	0	1	
43	Disaster Management	1	0	0	0	
44	Value formation	1	0	0	0	
45	Governance & poverty mapping	1	0	0	0	
46	Responsible Mining Practices	1	0	0	0	
47	CDM Approved Methodologies	1	0	0	0	
48	Reforestation project system tools and approaches	1	0	0	0	
49	Agro-silvo-pastural approaches/tools	1	0	0	0	
50	Land Use Inventory Mapping using Remote Sensing Method	1	0	0	0	

4. Conclusions and Recommendations

- *Integrated approach to living and development is inherent in Philippine culture.* Local and indigenous people have symbiotic relationship with nature and ecological systems. Enhancing and nurturing natural systems is a way of life as they provide for the common good and their socio-cultural well-being. The introduction of western ways (e.g. sector approach to planning and institutional development) and education blurred the traditional integrated approach. Two decades of dictatorship obliterated inter-sectoral coordination and integrated actions. ***The User Guide can help resurface and intensify this culture.***

- *Today, the concept of environmental integration or sustainable development is not well understood in the country even if it is inherent in local culture.* One reason is that it is being introduced as a new concept from abroad and not well translated locally. However, it can be seen happening naturally all over the country. It is easily understood once stories of local practices and experiences are told. ***Integration of the environment, which is the goal of the User Guide, would be better understood and appreciated if tools are presented or explained through stories or good practices or case studies.***

- *Frequent environment-related catastrophic events and loss of sources of sustenance and livelihood drive the people to collectively care for the environment and improve the situation of ecosystems.* Better information and knowledge made people aware that many of these catastrophic events are due to the destruction of the environment by a few people who are largely driven by greed, corruption and parochial governance. This awareness has been driving many others to undertake countless initiatives to rehabilitate

and improve the environment and ecosystems and guard against unscrupulous acts and prosecute corrupt people. The User Guide could help provide the appropriate tools that could intensify such undertakings. ***This means that, in general, the User Guide must be cognizant of the objectives of developing countries and sensitive to their contexts.***

- *The country employs a long list of integration tools and approaches but needs capacity building to maximize the benefits from said use.* More than 50 tools are being used, 43 are indigenous or locally-adapted, and 50 are proposed for inclusion in the User Guide. A few are found least useful but only because the systems within which they are applied have weaknesses. The underlying problem has been the lack of skills and capability to use the tools effectively. ***The User Guide must be clear on the capacity building requirements of the tools.***

- *Tools employing participatory processes are the most effective and widely-used in the country*. Two decades ago, people power restored democracy and brought back participatory and integrated processes. Participation is highly used and applicable in the country because this merely exercises a cultural tradition and a key practice in a democratic setting. ***The User Guide can benefit from the good practices and stories of participation and integration in the Philippines***.

- *Participation is a universal tool and must underpin all approaches or tools*. The application of tools in all parts of the development process must be undertaken in a participatory manner. Many studies have already proven that a key factor to best practices or successful initiatives here is participation. ***The User Guide must highlight participatory practice and multi-stakeholder institutional mechanism as key ingredients to the successful use of the tools.***

- *There are very close connections, even similarities, among many tools and approaches.* The selection of the best and most appropriate tool for a specific context or activity would be instructive. For the same reason, some tools may be used in tandem or in sequence. However, both matching and selection of the right tool mix are enormous challenges because, as already established, capacities and resources are sorely lacking especially among LGUs of third to fifth-class municipalities and village-level CSOs. They would have difficulty choosing and applying the appropriate mix of tools for their integrated development process. In this regard, ***the User Guide must provide a mechanism for easier selection of tools through***:

    a. a tool classification method according to needs of major groups, e.g. life cycle analysis/eco-labeling/EIA for production of goods, CBRM/CBMS/IEC for ecosystem development; and
    b. a demonstration of a step-by-step or menu approach in the use of a kit of mixed tools.

- *The most frequently-used tools are also the most voted tools for inclusion in the User Guide.* This may indicate needs for improvement, which may be provided by the experiences in other countries participating in this study. Many of these tools have been

- *The tools used by the three major groups widely differ.* The government has bigger tool box than the business sector and CSOs and it contains a mix of complex and simple tools. The private sector largely prefers few but specialized and required tools. Both complex and simple approaches are used by CSOs, depending on each organization's sophistication level or external assistance received. ***The mix of tools in the User Guide must be sensitive to the preferences and capacities of the major user groups.***

5. Case Studies

The final set of questions of the survey requests information on positive or negative case studies about the development/ use/ adaptation of environmental mainstreaming approaches/ mechanisms/ methods/ tools. In this regard, Annex 5 lists those referred to by respondents and FGD participants. It further provides documents or persons to contact for details on the cases.

List of References

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Republic Act 7611, (June 19, 1992), An Act Adopting The Strategic Environment Plan For Palawan, Creating The Administrative Machinery To Its Implementation, Converting The Palawan Integrated Area Development Project Office To Its Support Staff, Providing Funds Therefor, And For Other Purposes. Chan Robles Virtual Law Library, http://www.chanrobles.com/republicactno7611.htm

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Process – Bohol, Bohol Marine Triangle Project http://processbohol.org/?page_id=23

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Joan Carling, Chairperson, Cordillera Peoples Alliance-Philippines Indigenous Peoples, the Environment and Human Rights in the Philippines: the Cordillera Experience**,** October 2001

Moises Butic and Robert Ngidlo, Muyong forest of Ifugao: Assisted natural regeneration in traditional forest management – FAO Corporate Document Reporistory

Cordillera Studies Center, University of the Philippines College Baguio, Ancestral Domain and Natural Resources Management in Sagada, Mountain Province, Northern Philippines, 2001

List of Key Informants

(Personal Interviews and Informal Meetings)

	NAME	ORGANIZATION	POSITION	SECTOR
Puerto Princesa City, Palawan Province				
1	Atty. Romeo M. Leratubias	Provincial Government of Palawan	Provincial Administrator	Government
2	Ms. Josephine Macasaet	PPC CPDO – Research Unit	Head	Government
3	Atty. Agustin M. Rocamora	Puerto Princesa City Government	City Administrator	Government
Tagbilaran City, Bohol Province				
4	Atty. Tomas Abapo, Jr.	Provincial Government of Bohol	Provincial Administrator	Government
5	Ms. Ellen Grace Z. Gallares	Padayon Bohol Marine Triangle Management Council, Inc.	Executive Director	Government
6	Mr. Victor Rondej	Bil-isan Municipality Marine Sanctuary	Leader	Fisherfolk NGO
Padcal, Tuba, Benguet Province				
7	Eulalio Austin, Jr.	Philex Mining Corporation	Vice President and Resident Manager	Business

ANNEX 3

Directory of Respondents

No.	Name of Respondent	Position/Title	Organization	Contact Details	
				Telephone	Web/Email Ad
National Government					
1	Conrado A. Bravante, Jr.	OIC Chief – Bilateral & Innovative Financing Division	Department of Environment and National Resources (DENR)	+632 9262693/ +63918 9022056	cbravante@den http://www.denr
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6	Juan C. dela Cruz	Provincial Environment and Natural Resources Officer	DENR, Puerto Princesa	-	-
7	Joseph C. Barrete	Head Teacher II	Department of Education/Bohol	+6338 4113297/ +6338 2356239/ +63926 3075134	-
8	Norma D. Cayatoc	Forester	DENR-City Environment and Natural Resources Office, Puerto Princesa	+6348 4336614	cenroptoprincesa_pa om.ph
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Local Government Unit					
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15	Ronilita Bunado	Project Development Officer	Provincial Planning and Development Office (PPDO), Bohol	+6338 4112088/ +6338 4114406(fax) +63917 3022880	ronibunado@ya http://ppdo.gov.
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No.	Name of Respondent	Position/Title	Organization	Contact Details	
				Telephone	Web/Email Ad
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Research and Academe					
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No.	Name of Respondent	Position/Title	Organization	Contact Details	
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38	Gerardo Z. Austria	Member	City Tribal Foundation of Puerto Princesa, Inc./Palawan	+63928 2512684	-
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International Development Institution					
54	Jonas Bautista*	Environment Specialist	World Bank - Philippines		
55	Grace B. Villamor	Assistant Scientist	World Agroforestry Centre (ICRAF)	+63 495362701 loc. 2675	www.worldagrofores

No.	Name of Respondent	Position/Title	Organization	Contact Details	
				Telephone	Web/Email Ad
					h

NG = 11; LGU = 17; Research/Academe = 7; NGO = 13; Private Sector = 5; International Institution = 2

ANNEX 4

List of FGD Participants

	NAME	ORGANIZATION	POSITION	SECTOR
Puerto Princesa City, Palawan Province (February 28, 2008)				
1	Lorna C. Galito	Palawan State University	Dean, College of Science	Academe
2	Besminda C. Baaco	Palawan State University	Faculty	Academe
3	Jose D. Matillano	Western Philippines University	Instructor	Academe
4	Edgardo A. Palanca	Palawan Bankers' Association	President	Business
5	John Francisco A. Pontillas	PCSCS	Chief, Policy Research Division	Government
6	Felomino O. Racoya	PCSDS	PDO IV	Government
7	George G. Vasquez	OCPDC	ACPDC	Government
8	Analyn M. Tabora	City ENRO	EMS II	Government
9	Leonora E. Rodriguez	City Tourism Office/ Palawan Ecology Travel	Sec-CTC	Government
10	Ma. Rhodora C. Millare	ELAC	Community Organizer	NGO
11	Primo S. Loreno	City Tribal Foundation	President	IP
12	Juan O. Garing	City Tribal Foundation	Adviser	IP
13	Gerardo Z. Austria	City Tribal Foundation	Member	IP
Tagbilaran City, Bohol Province (March 10, 2008)				
14	Josephine T. Cemine	Holy Name University-CRLG	Research Associate	Academe
15	Joseph C. Barrete	Tagbilaran City, DepEd	HT-II	Academe
16	Ronilita M. Bunado	PPDO	Head-EMS	Government
17	Ednardo A. Avenido	LGU-Talibon	MPDC	Government
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21	John Titus J. Vistal	PPDO	PPDC	Government
22	Rene C. Villaber	BEMO	Head	Government
23	Vicente Loquellano	BISAD	President	NGO
24	Atty. Raul P. Barbarona	ELAC	Executive Director	NGO
25	Mario L. Limocon	PROCESS-Bohol	Director for Operations	NGO
Baguio City, Benguet Province (March 27, 2008)				
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27	Arturo Boquiren	UP Baguio	Assistant Professor	Academe
28	Aurora Marie M. Sandoval	Benguet State University	Dean, College of Arts and Sciences	Academe

29	Alicia G. Follosco	Cordillera Studies Center, University of the Phil. Baguio	University Researcher	Academe
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32	Manuel Pogeyed	DENR-CAUL, PENRO Bangued	OIC, PENRO	Government
33	Bienvenido Q. Baquirin, Jr.	CMO, Baguio City	Executive Assistant IV	Government
34	Eufronia P. Muyano	DENR and Baguio Regreening Movement	Forester III and Project Leader	Government/ NGO
35	Rhoda Buenavista	JVOFI	Program Manager	NGO
Philex Mines, Tuba, Benguet Province (March 28, 2008)				
36	Diana S. Alegria	Philex	Employee	Business/ IP
37	Sergio M. Navarro	Philex		Business
38	Leonard P. Wagcis	APSSOL	Member	IP
39	Miguel Juan	APSSOL	Council of Elders	IP
40	Raymund Tindaan	APSSOL	Council of Elders	IP
41	Rey Landizabal	Philex – PMSEU	Company Supervisor/ Union Member	Labor
42	Jun Diso	Philex-COMREL	Manager	Business
43	Glenn S. Tumagcao	Local 101 NAMAWU	Rank and File / Union Member	Labor
44	Jovita O. Aliten	Philex Integrated Sewers Association	Member	NGO
45	Rodolfo B. Saguid	Philex Environment Dept.		Business

Government - 16; Academe – 9; CSO – 7; IP – 7; Labor – 2; Business - 6

ANNEX 5

Leads to Case Studies on Environment Integration

Title/Author	Description/Source	Contact/Contact Information
Indigenous Forest Management in the Cordilleras	Indigenous practices in forest development	Manuel Pogeyed/ +6314 422 7445
	Studies on Open-Pit Mining	Arturo Boquiren/ +63927 5368431 arturoboquiren@yahoo.com
	Studies on Use of Green Houses in Agriculture	Arturo Boquiren/ +63927 5368431 arturoboquiren@yahoo.com
B/C Analysis of Mining/ Arturo Boquiren	A tool that the author is trying to develop/ http://www.geocities.com/arturoboquiren	Arturo Boquiren/ +63927 5368431 arturoboquiren@yahoo.com
PES in Penablanca Protected Landscape in Cagayan		Dr. Artemio T. Antolin/ aantolin@conservation.org
"Pista Y ang Kagueban" (Feast of the Forest)	An annual tree planting activity in the City's major watersheds, the Irawan and Magarwak watersheds. The tree planting activity draws, annually, more than 25,000 participants including guests from different sectors all over the country. Since 1993, a total of more than 1.8M forest trees of various species have survived with an average survival rate of 74.31%	Antonio F. Reyes/ +63920 6721006
Love Affair with Nature	It is the massive planting of mangrove seedlings and propagules. Launched in 2000., it has already covered a total of 34.5 hectares of foreshore areas apart from 1344 hectares of mangrove areas rehabilitated	Antonio F. Reyes/ +63920 6721006
Bantay Puerto Programs	Banking firmly on programs' key management thrusts: Protect what is there, rehabilitate what has been destroyed, and plan for the intelligent utilization of the city's terrestrial and marine resources. The program has two main components, namely: Bantay Gubat and Bantay Dagat	Antonio F. Reyes/ +63920 6721006
Oplan Linis Program (Clean and Green campaign)	The programs aim to sustain cleanliness, beautification, and sanitation of Puerto Princesa. It has not only kept the city clean and green but also instilled among the people the value of discipline and cooperation with the other city projects. It has earned the city the coveted label of Hall of Fame for being the Cleanest and Greenest City in the Philippines.	Antonio F. Reyes/ +63920 6721006
Coastal Renewal Program	The Coastal Renewal Program covers an area of 317,984 sq. m of coastal shore of Puerto Princesa Bay. It consists of land reclamation to accommodate medium-rise residential buildings for informal settlers, the boardwalk facing the open sea with spaces for social amenities and commercial development for financial viability.	Antonio F. Reyes/ +63920 6721006
Comprehensive Housing Program	Understanding the magnitude of the problem of homelessness, the city embarked on the housing projects with the following key thrusts: Locate, Identify, and Register. After having instituted measures to arrest further squatting, it is necessary to find suitable relocation sites, source funding for land acquisition, site development and housing construction.	Antonio F. Reyes/ +63920 6721006
Tenement Housing Projects	This project is a component of the Coastal Renewal Program which aims to provide decent	Antonio F. Reyes/ +63920 6721006

	housing for fisherfolks affected by the development.	
Comprehensive Solid Waste Management System	It is the first engineered sanitary landfill operated by a local government unit in the country. Since its initial operation in 2005, the project is complemented by the community-based segregation program. In 2007, more than 48%of the daily waste collection has been diverted.	Antonio F. Reyes/ +63920 6721006
Tricycle Volume Reduction and Conversion Program	The City Government of Puerto Princesa passed an ordinance aimed primarily to reduce the number of tricycle plying the city streets into half to minimize traffic congestion and air and noise pollution as well as increase the income potentials of drivers through less competition for passenger occupancy and demand.	Antonio F. Reyes/ +63920 6721006
Barangay Development Planning in the Municipality of El Nido	Governance project	Inocencio Magallanes/ +63920 9028341
Negotiating Stakeholder Agreements for Conservation: The Case of Tubbataha Reefs, Philippines/		Edgardo E. Tongson/ +632 9207926+ etongson@wwf.org.ph
Payments for Environmental Services: Status and Opportunities for the Philippines/		Edgardo E. Tongson/ +632 9207926+ etongson@wwf.org.ph
Equity in Conservation: The Case of Tubbataha Reefs Natural Marine Park	Paper presented at the 8th National Symposium Marine Science, Puerto Princesa, Palawan Oct 20-22, 2005.	Edgardo E. Tongson/ +632 9207926+ etongson@wwf.org.ph
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Natural Resources Forum	Case studies on mainstreaming environment and sustainable development	Hiroko Morita Lou (Division for Sustainable Development, UN)/ nrforum@un.org
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Greenhouse Gas Accounting		Antonia Loyzaga (Manila Observatory)/ +632 4265921 loc 23 +632 4266141
	Outputs of National Resource Management Programs (NRMP)1 and 2	Cordillera Studies Center/ +6374 4425794 csc@upb.edu.ph; cordillerastudies@gmail.com
Community Response to Interventions in Forest Management and Upland Agriculture: Focus on Bakun and Bucloc	Looked at the experiences of Bakun, Benguet and Bucloc, Abra on forest interventions over the years	Alicia Follosco/ +6374 4425794 agfollosco@upb.edu.ph
Rapid Hydrological Assessment in Bakun, Benguet		Grace B. Villamayor (ICRAF Philippines)/ +6349 5362701 loc 2675; +63919 2330384 g.villamor@cgiar.org; grace.villamor@gmail.com
Rapid Carbon Stock Assessment in Kalahan, Nueva Vizcaya	It is innovative! And gives options for the local stakeholders and decision makers	Grace B. Villamayor (ICRAF Philippines)/ +6349 5362701 loc 2675; +63919 2330384 g.villamor@cgiar.org; grace.villamor@gmail.com
Reflections on a Demand-driven Biodiversity Research Programme for Development in		Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA)/

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Enlisting Organizational Support for PHE: Perspectives from a Microfinance Organization	Describes how environmental concerns adopted into the microfinance process. Strategies for Sustainable Dev't: Case Studies of Community-based PHE projects	Ellen Grace Gallares/ +63917 4308558 eggzos@yahoo.com; See http://www.prb.org
Integrated Population, Coastal Resource Management Project (IPOPCORM)	See http://www.pfpi.org	Joan Regina Castro/ +632 8175049; +632 8935360 info@pfpi.org
Environmentally Critical Areas Network (ECAN)	land use planning and development regulatory tool for SD	Lualhati E Tabugon: ltabugon@yahoo.com; Romeo B Dorado: rb_dorado@yahoo.com, and oed@pcsd.ph;
Palawan Council for Sustainable Development as a decision making body for SD	Institutional Partnerships (ie Public-Public, Public-NGO, Public-NGO-Community; Community-based initiatives; EIA; Participatory decision making)	Lualhati E Tabugon: ltabugon@yahoo.com; Romeo B Dorado: rb_dorado@yahoo.com, and oed@pcsd.ph;