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BUILDING THE CAPACITIES AND LEADERSHIP OF LOCAL UNIVERSITIES IN SOCIO-ECONOMIC MONITORING, ASSESSMENT AND SUSTAINABLE FINANCING IN CORAL TRIANGLE SITES IN THE PHILIPPINES

FIRST PROGRESS REPORT AND DOCUMENTATION OF THE TRAINING COURSE ON COASTAL RESOURCE SOCIO-ECONOMIC MONITORING, ASSESSMENT AND SUSTAINABLE FINANCING

VOLUME 1: MAIN REPORT

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CORAL TRIANGLE INITIATIVE ON CORAL REEFS, FISHERIES AND FOOD SECURITY PHILIPPINES

CTSP Coral Triangle Support Partnership

WWF The Nature Conservancy CONSERVATION INTERNATIONAL

REECS

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VOLUME 1: MAIN REPORT

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LIST OF ABBREVIATIONS

BSU	Batangas State University
CBA	Cost Benefit Analysis
CHED	Commission on Higher Education
CI-P	Conservation International – Philippines
CRM	Coastal Resource Management
CTI	Coral Triangle Initiative
CTSP	Coral Triangle Support Partnership
EEPSEA	Economic and Environment Program for Southeast Asia
FPE	Foundation for Philippine Environment
HEIs	Higher Education Institutions
NPOA	National Plan of Action
IEC	Information, Education and Communication
KBAs	Key Biodiversity Areas
LGUs	Local Government Units
MinSCAT	Mindoro State College of Agriculture and Technology
MPAs	Marine Protected Areas
MSU-TCTO	Mindanao State University – Tawi-tawi College of Technology and Oceanography
PangSU	Pangasinan State University
PSU	Palawan State University
PTFCF	Philippine Tropical Forest Conservation Foundation
REECS	Resources, Environment and Economics Center for Studies, Inc.
SLA	Sustainable Livelihood Approach
TEV	Total Economic Value
TWP	Total Willingness-to-pay
UMP	University Mentoring Program
USAID	United States Agency for International Development
VIP	Verde Island Passage
WPU	Western Philippines University
WTA	Willingness-to-accept
WTP	Willingness-to-pay

INTRODUCTION

The consultation with the local government units and local universities in the CTI priority geographies – Verde Island Passage, Palawan and Tawi-Tawi in 2009 elevated the need for science-based information to substantiate sound decisions and policies on coastal resources management at the local level. This highlights the role and mandate of the higher education institutions to contribute to the national development through research and innovation.

The University Mentoring Program of the Coral Triangle Support Partnership project is funded by USAID. It aims to provide decision support to the local government units to effectively carry out their mandate to sustainably manage their coastal resources by reducing the threats and improving status of the biologically diverse and economically important resources. In so doing, the research and development partnership forged between the LGUs and the academic institutions may contribute to the achievement of the National Plan of Action of the Philippines as its commitment to the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF).

Historically, the CTSP began to report significant results on the University Mentoring Program in Partnership with the Marine Science Institute of the University of the Philippines (UPMSI). Two batches of mentees from the partner universities in Palawan, Batangas and Tawi-tawi completed their Science in CRM training. The first batch of mentees conducted researches in their respective geographies as a result of their training with appropriate guidance from their mentors, the leading marine scientist in the country.

Thus, the emerging and inevitable need to tandem natural science with social science in coastal resource management was recognized by the project through its expanded mentoring program. Resource economics methods, theories and principles are important decision-support tools to improve strategies for coastal resource management. This trans-disciplinary field of academic research brings to the fore the interactions and interlink/interdependence between natural resource and human economy which provides concrete basis for sound decisions for the local government executives.

The University Mentoring Program for 2012-13, or Expanded University Mentoring Program is currently being implemented by the Resources, Environment and Economics Center for Studies (REECS). It is anchored on addressing the goals of the Coral Triangle Initiatives in assessing the socio-economic impact of climate change, assessing the financial stability of seascape and landscape management among others. In conducting the program, it aims to benefit the local communities in a sustainable manner.

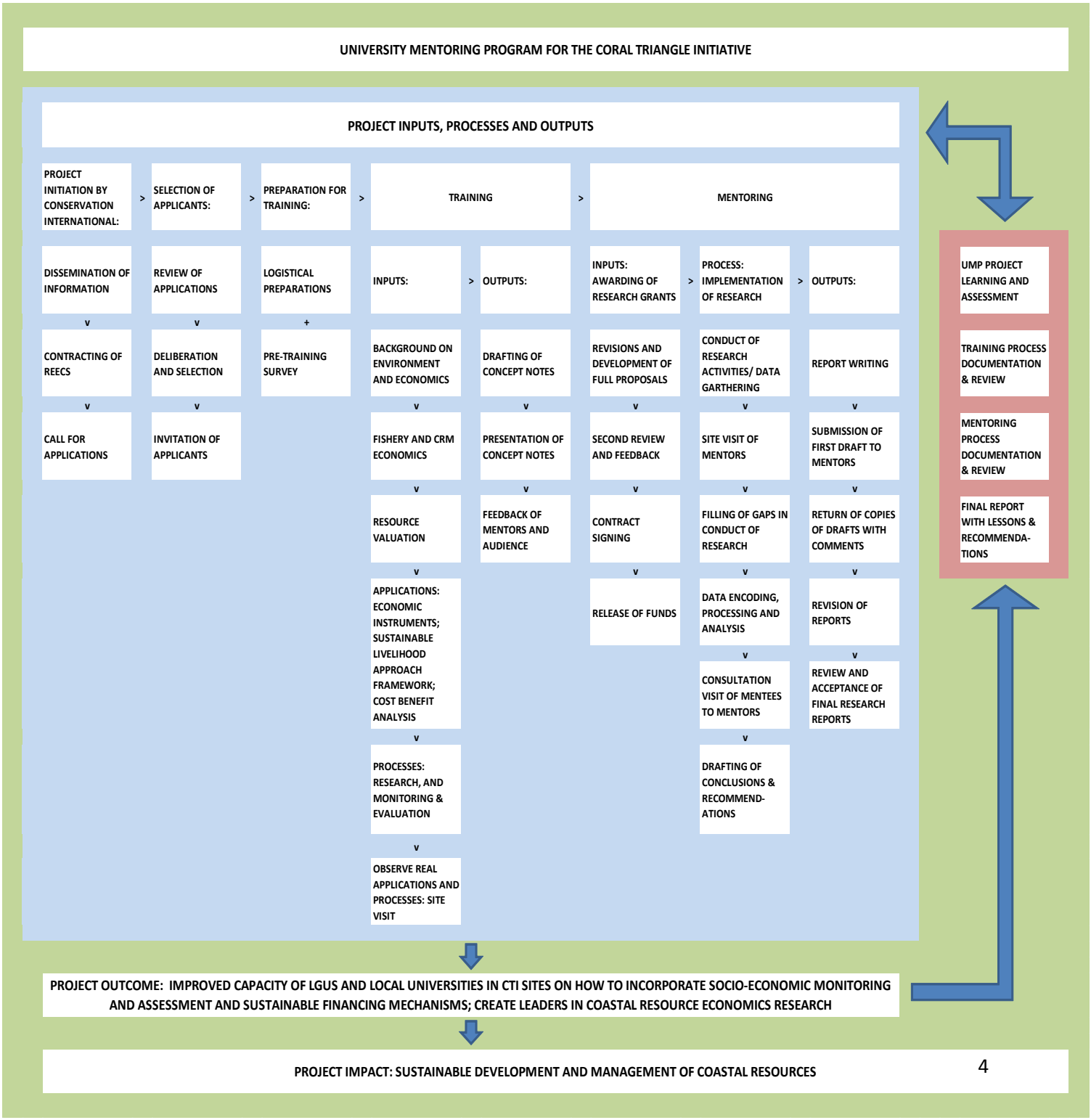
Targeted conservation outcomes are indicated by increased local support and reduction of human-induced threats to biologically diverse and economically important resources. The program's short-term objective is to improve the capacity of partner LGUs and local universities within the CTI program on how to incorporate the socio-economic monitoring and assessment and sustainable financing mechanisms. Indicators for this objective can be determined by the level of capacity of local LGUs and University partners on how well-trained and knowledgeable they are in incorporating the topics in the mentoring program and how it is sustained through the regular programs / curricula of target universities.

This First Progress Report documents the processes and activities that transpired in the first quarter of implementation of the University Mentoring Program for 2012-13, from September to November, 2012, which include: Project Initiation, Selection of Participants/ Mentees from the universities and local government units; and the preparation and conduct of the *Training on Socio-economic Monitoring and Assessment and Sustainable Financing Mechanisms*.

As the processes and activities are documented, important lessons are being captured. These will guide the partners and stakeholders in moving forward with the University Mentoring Program with the intent of sustaining and scaling-up the initiative, and institutionalizing this as an important component in realizing the National Plan of Action of the Philippines.

FRAMEWORK FOR THE UMP

The following framework (Figure 1) illustrates the various components and processes of the Expanded University Mentoring Program (UMP) leading to its envisioned outcomes and impact.



Three colors used in the diagram were chosen in order to easily remember what they represent.

As the mentoring program is being implemented, the *sea* of various inputs, outputs and processes as seen in the area shaded in *blue* are being documented. The succeeding sections of this report will be referring back to these components to explain the how these had transpired, providing insights and learning gained each step of the way.

These will then generate recommendations to serve as inputs to further developing, improving and scaling up of the UMP, leading to its integration within the higher education system of the Philippines. This is the main value or *heart* of this framework which is found in the area shaded in *coral pink*.

With the implementation of this program, the desired outcome is to improve the capacity of the local government units and universities within the proximity of the CTI sites in working with each other and conducting coastal resource economics research that will lead to better management and sustainable development of their coastal resources. The outcome and impact are within the *green* area representing how the program affects its surrounding societal and physical *environment*.

PRE-TRAINING ACTIVITIES

Three sets of activities were conducted prior to the training. The first was initiation of the project by Conservation international; the second was selection of applicants; and the third was the preparation for the training proper.

PROJECT INITIATION

Conservation International conducted a road show for the different universities in order to inform and orient them about the Expanded UMP. REECS was able to attend one of the road shows held at the University of Batangas in Batangas City, Batangas on September 20, 2012. During the orientation, CI shared the background and recent developments of the Coral Triangle Support Partnership and the University Mentoring Program. The results of some of the research projects in the 2 earlier batches of the UMP focusing on marine sciences were presented.

Parallel to the road shows, a call for applications to participate in the mentoring program was disseminated by CI to LGUs and local universities within their priority sites. This generated 45 applications, broken down as follows:

Table 1. Breakdown of Applicants for the UMP According to Participating Institutions

PARTICIPATING INSTITUTIONS	NUMBER OF APPLICANTS
University	
University of Batangas	2
Batangas State University	12
De La Salle University	2
Palawan State University	10
Western Philippines University	2
Mindoro State College of Agriculture and Technology	4
Pangasinan State University	2
Mindanao State University – Tawi-Tawi College of Technology and Oceanography	2
Local Government Units	
Provincial Government of Oriental Mindoro	1
Provincial Government of Palawan	4
Provincial Government of Tawi-Tawi	2
Provincial Government of Batangas	1
Provincial Government of Pangasinan	1
Total	45

SELECTION OF PARTICIPANTS

Guided by consultations with CI, REECS then proceeded to developing criteria for selecting the applicants who will participate in the mentoring program. The mentors were tapped in developing the criteria.

To start the process of establishing the criteria for selection of participants, the following questions were asked to the mentors:

1. How much experience do we want our trainees/ researchers to have?
2. Where should our trainees/ researchers be positioned – their duties and responsibilities and tenure/ employment status/ level of influence in their university/ LGU that makes them the right target for the research grant?
3. What should be their academic background?
4. What sort of documents do we need to help us evaluate and validate their qualifications?
    a. Do we need a CV/ list of publications?
    b. Do we need recommendations?
    c. Are there any other documents that we feel should be included?
5. What sort of attitude or personal alignment with the UMP are we looking for from the grantees? How do we measure or evaluate this?
6. Are there more things you think we should consider in developing the criteria?
7. How do we assign weights or scores to each of the selection criteria that we feel should be included?

The following were their recommendations in response to the above questions, and eventually became the criteria used:

1. Consider a relatively junior to mid-level faculty/ researcher for potentially longer-term involvement. One with an extensive list of research projects and publications may no longer need any research training; moreover, s/he may have other professional concerns.

2. The selection must be contextualized within the context of the University Mentoring Program and the MPA work within the Coral Triangle Initiative:
    a. Demonstration of the strategic advantage of the universities in CTI or MPA work
    b. Demonstration of strategic role of applicant in CTI, MPA, or related work.

    Strategic advantage or role (i.e. location, institutional capacities, etc) means the qualities that are needed to implement the UMP within the CTI. That is, the university is proximate to the prospective research area (or communities with an existing or required MPA). It has potential, if not existing capacities for ecosystem research, management and monitoring, and can collaborate or has been collaborating with the LGU.

3. Background in social sciences or natural science with field research and indication of experience in interacting with communities.

4. The application form used by CI and the CVs attached are sufficient documents for the assessment. Recommendations from their supervisors can be requested later in order to establish and ensure institutional support throughout the mentoring program.

5. Assessment of applicant's personality, sense of values, priorities and commitment through the essay and/or phone or face-to-face conversation.

   Specifically, it is to the program's advantage if the applicant shows the following qualities: enjoys doing field research; respects and cares for people; sees the importance of community interaction in community-ecosystem research, and the relevance of community empowerment, co-management of the MPA with the LGU and community, and livelihood development with poverty alleviation.

6. Consider representation from each of the 5 provinces or CTI areas to fill the slots.
   a. At least two from the Universities of each province
   b. If more than one university in a province is applying, consider including at least one representative from each University to expand partnerships
   c. At least one from the LGU of each province

7. A scoring system is difficult to apply due to the limited number of applications received, vis-a-vis the above criteria. Deliberations among the mentors and qualitative comparison of the applications would be the more appropriate way to select in this situation.

Deliberations were held online and at REECS. There was also coordination with CI throughout the period of selection to meet the target number of 20 participants from the pool; i.e. 15 from the Universities and 1 from each of the 5 participating LGUs.

After the final deliberation, the first 20 selected participants were informed of their successful application. Whenever a participant backed out, the next qualified one was selected. A total of 19 participants from the priority geographies of CI confirmed to attend the training, with the Pangasinan LGU having no available representation. One participant from the LGU of Palawan was then added to meet the target of 20 participants. The profile of participants is presented in Table 2.

PRE-TRAINING ACTIVITIES

The selected participants were given a registration form (Annex III) and a training information kit (Annex V) through e-mail. The kit included the background about the program, schedule of activities, what to bring and map of the training venue. The participants were also requested to send a letter of endorsement from their supervisors stating that the school is aware of, and supports the activity.

A Pre-Training Questionnaire (Annex IV) was also provided to the participants for them to answer. The Pre-Training Questionnaire aimed to know the level of knowledge of the participants on the topics to be discussed on the training program. The results of the survey (Table 3) were forwarded to the mentors for them to make adjustments to their lessons.

Other pre-training preparations included the selection of venue, food and logistical arrangements, preparation of training kits and materials, addressing the participants' inquiries, and provision of support to the mentors and lecturers. One of the activities of the training was a field visit to Calatagan which was coordinated by CI.

Table 2. Profile of UMP Participants for 2012-13

TITLE	NAME OF APPLICANT	PRESENT POSITION	NAME OF INSTITUTION	CONTACT DETAILS
Ms.	Baraan, Heidi B.	Instructor I, Batangas State University	Batangas State University	dehaydz@gmail.com; 0917 9532677
Mr.	Caringal, Anacleto M.	Associate Professor, Batangas State Univeristy; Director for Research Projects and Assistant Director for Agricultural Research	Batangas State University	prince_tectona@yahoo.com; ebquinay@yahoo.com 0926 7152607
Ms.	Macalalad, Angelica A.	Head Science and Environment Research Center	Batangas State University	angelica_macalalad@yahoo.com 09334422065
Mr.	Lunar, Bernardo C.	Assitant Professor/ Junior Research Faculty	De La Salle Lipa	colonelc4b@yahoo.com 0918 9456566
Mr.	Afable, Franie M.	Instructor I	Mindoro State Collge of Agriculture and Technology	franie_afable@yahoo.com 0918 508 4104
Mr.	Masagca, Macario B., Jr.	Science Research Assistant, MINSCAT	Mindoro State College of Agriculture and Technology	dem_shem@yahoo.com 0917 3833041
Mr.	Izon, Regal R.	Assistant Professor II MINSCAT	Mindoro State College of Agriculture and Technology	finalla_marie@hotmail.com regalizon@yahoo.com.ph 0920 6325308
Prof.	Parreno, Shella C.	Associate Professor, RD&E Unit HeadPangasinan State University	Pangasinan State University	shengparreno@ymail.com 0948 4101087
Dr.	Abalos, Rosie S.	Associate Professor IV, Pangasinan State University	Pangasinan State University	rosie_abalos@yahoo.com 0927 8513032
Mr.	Tahiluddin, Albaris B.	Instructor I, MSU-TCTO	Mindanao State University – TCTO	albarist20@gmail.com 0909 4260941

TITLE	NAME OF APPLICANT	PRESENT POSITION	NAME OF INSTITUTION	CONTACT DETAILS
Ms.	Castro, Lyca Sandrea G.	Instructor I, Western Philippines University	Western Philippines University	lycasandrea_castro@yahoo.com 0927 4606800
Ms.	Ponce De Leon, Eva Marie Connie D.C.	Faculty Member, Palawan State Univeristy; Research Associate, Palawan State University	Palawan State University	emcponcedeleon@yahoo.com 0917 5626200
Ms.	Ocampo, Marsha Lita P.	Education Program Specialist, Palawan State University	Palawan State University	marshalitaocampo@gmail.com 0917 78490898
Ms.	Elorde, Maricel V.	Education Program Specialist II	Palawan State University	maricelorde1088@gmail.com 0927 7371241
Mr.	Pujanes, Octavio M.	Instructor/ Researcher	Batangas State University	pj_wako@yahoo.com 0916 9063706
Ms.	Alcanices, Marilyn	Senior Agriculturist, Provincial Agriculture Office	Provincial Government of Oriental Mindoro	marlynjim@yahoo.com 0915 6804621
Ms.	Jalover, Cherry Lyn S.	Researcher, Palawan Council for Sustainable Development Staff	Provincial Government of Palawan	ehcnyl_0310@yahoo.com 0915 7543197
Mr.	Dela Cruz, Mark Ace	Assistant Researcher, Palawan Council for Sustainable Development Staff	Provincial Government of Palawan	macky_dela_cruz@yahoo.com.ph 0916 3358295
Ms.	Mercado, Divinia	Environment Management Specialist II, Provincial Environment and Natural Resources	Provincial Government of Batangas	diviniamercado@yahoo.com 0920 4740009
Mr.	Delasas, Nestor	Provincial Planning and Development Officer Province of Tawi-Tawi	Provincial Government of Tawi-Tawi	ndelasas@yahoo.com 0912 2542165

Table 3. Participants' Baseline Knowledge on the Topics Covered in the Training

TOPIC	1 I am not or only a little familiar with this topic	2 I am very familiar with this topic	3 This topic is included in the lessons I have taught	4 I have applied this topic in field work or research	5 I have published materials that included this topic	PARTICIPANTS COMMENTS ON THEIR EXPECTATIONS OR WHAT THEY WOULD LIKE TO FURTHER LEARN ABOUT THE TOPIC
Basic environmental/ ecological economics concepts						Updates, refresher, instruments/ methodologies
Four functions of the natural environment						Updates, refresher, advanced concepts, vulnerability issues, mitigation, adaptation
Application of ecological economics concepts to fisheries/ coastal resource management						This may be too theoretical for non-economic discipline (for those with biological science orientation)
Stock and yield function, carrying capacity, sustainable yield and harvest, steady state, and rent						Practical models, , latest trends, issues, applications, methodologies, techniques, newer concepts
Causes of resource depletion, habitat degradation and poverty						Latest mitigation and adaptation trends, newer concepts, ideas, issues and strategies
Resource and habitat management tools						Other tools, climate change-related tools, updates, latest trends, innovations,

Legend:

	More than 12 participants		7-9 participants		1-3 participants
	10-12 participants		4-6 participants		0 participants

TOPIC	1 I am not or only a little familiar with this topic	2 I am very familiar with this topic	3 This topic is included in the lessons I have taught	4 I have applied this topic in field work or research	5 I have published materials that included this topic	PARTICIPANTS COMMENTS ON THEIR EXPECTATIONS OR WHAT THEY WOULD LIKE TO FURTHER LEARN ABOUT THE TOPIC
Types of values in natural/ coastal resource management: Use value, option value, non-use value, total willingness to pay						Success stories and projects on valuation in the global settings, This may be too theoretical for non-economic discipline (for those with biological science orientation)
Resource valuation methods: stated preference, revealed preference, travel cost, hedonic property value and hedonic wage, averting expenditure						This may be too theoretical for non-economic discipline (for those with biological science orientation)
Types of economic instruments and their role in natural/ coastal resource management						Updates and more
Sustainable livelihood approach framework						Integrated framework i.e. sectoral/ holistic, practical application, advanced concepts, success stories and case studies from different regions/ settings
Economic analysis for determining feasibility of alternative livelihoods						This may be too theoretical for non-economic discipline (for those with biological science orientation), case studies from different regions/ settings
Cost benefit analysis						case studies from different regions/ settings

TOPIC	1 I am not or only a little familiar with this topic	2 I am very familiar with this topic	3 This topic is included in the lessons I have taught	4 I have applied this topic in field work or research	5 I have published materials that included this topic	PARTICIPANTS COMMENTS ON THEIR EXPECTATIONS OR WHAT THEY WOULD LIKE TO FURTHER LEARN ABOUT THE TOPIC
Extended cost benefit analysis (including environmental costs and benefits)						This may be too theoretical for non-economic discipline (for those with biological science orientation), case studies from different regions/ settings
Research process: scientific research						Techniques, updates, new methodologies, approaches, practical designs
Research process: socio-economic research						Techniques, updates, new methodologies, approaches, practical designs, case studies from different regions/ settings
Concept note/ Research proposal preparation						Updates on latest research proposal design, research design related to this training, techniques for better preparation, strategy to attract foreign grants
The coastal resource management process (Philippine context)						Review
Results monitoring and evaluation/ logical framework approach						Prepare a general M&E Framework
Participatory monitoring and evaluation						Latest trends and practical guides/ designs

IMPLEMENTATION OF THE TRAINING

Focusing on the socio-economic component in coastal resource management, the Training Program was designed for 8 days that started from October 18 – 25, 2012. The 8-day program was held at Southeast Asia Interdisciplinary Development Institute, Taktak Drive, Antipolo City, Rizal.

OBJECTIVES OF THE TRAINING – MENTORING PROGRAM

The Conservation International through the Resources, Environment and Economics Center for Studies, Inc. (REECS) conducted the Expanded University Mentoring Program in order to:

1. enhance capacities of Philippine universities, especially State Universities and Colleges (SUCs), in ecosystem research, management and monitoring in support of local policy and program development;
2. enhance access of local governments to science-based information
3. sustain university involvement in supporting the Philippines commitments to the Coral Triangle Initiative (CTI); and
4. foster convergence of local and national actions supporting the implementation of the Philippine CTI National Plan of Action (NPOA)

The expected outputs of the Mentoring Program are:

5. Pool of well-trained and knowledgeable participants on the topics of resource valuation, socio-economic monitoring, assessment and sustainable financing mechanism
6. draft concept incorporating the tools and concepts they have gained from the workshop and mentors

List of Topics

The following were the topics discussed in the training. The training design with session plans are found in Annex II and the PowerPoint presentations of each of these sessions are found in Annex VIII.

Table 4. List of Topics and Discussants

TOPIC[1]	DISCUSSANTS
Interface of the Natural Environment and the Economy	Germelino M. Baustista, PhD
Fishery and Coastal Resource Management	Germelino M. Baustista, PhD
Resource Valuation Methods	Majah-Leah V. Ravago, PhD
Alternative Financing Mechanisms for Coastal Resource Management	Rina Maria Rosales
Livelihood Alternatives	Joselito T. Sescon
Cost-Benefit Analysis	Leonardo Lanzona, PhD
Doing Research in Coastal Resources: An Overview and some tools	Arlene B. Inocencio, PhD
Monitoring and Evaluation	Marghieth Garcia

Profile of Mentors/ Lecturers

The 8-day training was divided into eight (8) sessions. Each session focused on specific topics which were chosen by the mentors themselves. The profiles of the mentors and lecturers are summarized in Table 4 and the brief description of the team, which was distributed to the participants to get to know their mentors, is found in Annex VII.

[1] Annex VIII

Table 5. Profile of Mentors and Lecturers

NAME	PROFESSION	CONTACT DETAILS	EDUCATIONAL ATTAINMENT	RELEVANT SPECIALIZATION
Mentors				
Agustin L. Arcenas	Associate Professor – School of Economics, University of the Philippines – Diliman/ Consultant	arecenasa@yahoo.com	Doctor of Philosophy in Agricultural Economics, Michigan State University Master in Sciences in Agricultural and Applied Economics, University of Wisconsin – River Falls Bachelor of Arts in Economics, University of the Philippines - Diliman	Environment economics, natural resource economics, agricultural economics, payments for environment land tenure, survey, agricultural market information dissemination, services designs, project evaluation, capacity building
Tonie O. Balangue	Consultant	balangueochoatonie@yahoo.com	Doctor of Philosophy in Foresty Major in Forest Resources Management and Resource Economics and Policy, University of the Philippines – Los Banos Doctoral Enrichment in Environmental Land Use Planning, State University of New York, School of Environment and Forestry, USA Master of Science in Forestry Major in Forest Resources Management/ Integrated Land Use Management, University of the Philippines – Los Banos Bachelor of Science in Forestry, Major in Forest Resources Management, University of the Philippines – Los Banos	Environment and natural resources management, resource assessment and valuation, land use and development planning, watershed management, feasibility/ appraisal studies, research and training and capacity building

NAME	PROFESSION	CONTACT DETAILS	EDUCATIONAL ATTAINMENT	RELEVANT SPECIALIZATION
Germelino M. Bautista	Professor, Department of Economics, Ateneo de Manila University/ Consultant	gbautista@ateneo.edu	Doctor of Philosophy in Development Studies Major in Economics, University of Wisconsin – Madison Master of Arts in Economics, Ateneo de Manila University Bachelor of Arts in Ateneo de Manila University	Water resource management and regulation; development economics, natural resource management, land management and administration, institutional capacity building; environmental policy, planning and management; environmental resource economics
Gem B. Castillo	Professor/ Consultant	gembcastillo24@gmail.com	Doctor of Philosophy in Forest Economics and Certificate in Resource Economics – Department of Forestry, Michigan State University Master of Sciences in Forestry Major in Forest Resource Management with specialization in Forest Economics, University of the Philippines – Los Banos Diploma in Development Economics, School of Economics, University of the Philippines – Diliman Bachelor of Science in Forestry Major in General Forestry, University of the Philippines – Los Banos	Forests and Forestlands Management; Forest and Resource Economics; Development Economics; Cost-benefit analysis/Financial analysis; Project Evaluation and Review Technique-Critical Path Method (PERT-CPM); Systems modeling, simulation and linear programming; Spatial analysis; Statistical analysis/econometric analysis/logit & probit analysis (Using SAS, LIMDEP, TSP, SPSS, Excel); Database development; Geographic Information System (GIS); Database development; Decision-support systems.

NAME	PROFESSION	CONTACT DETAILS	EDUCATIONAL ATTAINMENT	RELEVANT SPECIALIZATION
Arlene B.Inocencio	Associate Professor, De La Salle University – Manila / Consultant	arleneinocencio@yahoo.com	Doctor of Philosophy in Econoics, School of Economics, University of the Philippines – Diliman Doctor Enrichment Fullbright Program (Professional Development Program), Department of Applied and Agricultural Economics, University of Minnesota Master of Arts in Economics, School of Economics, University of the Philippines – Diliman Bachelor of Science in Mathematics, University of San Carlos	Water resource economics, natural resource economics, environmental economics, capacity building
Rina Maria P. Rosales	Consultant	rrosales@reecs.org	Master of Arts in International and Development Economics, Yale Garduate School of Arts and Sciences Master in Sciences in Economics (Candidate), University of the Philippines – Diliman Bachelor of Sciences in Business Economics, University of the Philippines-Diliman	Environmental economics; Natural resource economics; Econometrics; Coastal resource management; Protected area management; Rural/agricultural development.

NAME	PROFESSION	CONTACT DETAILS	EDUCATIONAL ATTAINMENT	RELEVANT SPECIALIZATION
Lecturers/ Resource Persons				
Leonardo Lanzona	Professor, Department of Economics, Ateneo de Manila University/ Consultant	llanzona@ateneo.edu	Post-doctoral fellow, Economic Growth Center, Yale Univesity Doctor of Philosophy in Economics, School of Economics, University of the Philippines – Diliman Master of Arts in Economics, School of Economics, University of the Philippines Bachelor of Arts in Economics, Ateneo de Manila University	Labor and demographic economics, policy formulation and development planning, econometrics, quantitative methods, international trade, development economics, agricultural and environmental economics
Majah-Leah Ravago	Professor, School of Economics, University of the Philippines - Diliman/ Consultant	mvravago@econ.upd.edu.ph	Doctor of Philosophy in Economics, University of Hawaii Master of Arts in Economics, School of Economics, University of the Philippines - Diliman Bachelor of Science in Business Economics, School of Economics, University of the Philippines - Diliman	Resource economics, environmental economics, microeconomcis
Joselito T. Sescon	Lecturer Depart of Economics, Ateneo de Manila University/ Consultant	jtsescon@yahoo.com	Asia- Pacific Leadership Programme, East West Center, University of Hawaii Master in Development Economics, School of Economics, University of the Philippines – Diliman Bachelor of Sciences in Civil Engineering, Mindanao State University	Development economics, impact evaluation, project evaluation, theory and practice of social development, macroeconomics, microeconomics

NAME	PROFESSION	CONTACT DETAILS	EDUCATIONAL ATTAINMENT	RELEVANT SPECIALIZATION
Marghieth Garcia	Consultant	marghieth@gmail.com	Master in Environment and Natural Resource Management, University of the Philippines – Open University Bachelor of Science in Biology, Minandao State University	Institutional capacity building, training, project development and management

The following sections serve as a documentation of the training:

Formal Opening Program (Day 1)

The program started with welcome remarks from Mr. Mark Anthony M. Ramirez, Executive Director of REECS, highlighting the significance of working together to address environmental concerns. At the end of the welcome remarks, Ms. Emerlinda Dizon provided an opening message giving the background of the UMP in behalf of Ms. Evangeline Florence Miclat, Senior Policy and Development Manager.

Introduction and Objective Setting (day 1)

After the opening messages had been delivered for the morning session, the Project Coordinator, Ms.Marghieth Garcia, conducted an activity for the self-introduction of the participants. She started it off by creating a mood monitoring chart. The chart aimed to monitor the day-to-day mood of the participants before and after the session. The participants were asked to introduce themselves and to draw facial expressions showing their current mood. During the self-introduction, the participants had raised their concerns (Short Notice, Venue, and Criteria in Selecting the Participants) and expectations from the 8-day training. They had also expressed the following:

- *"Happy to attend the training."*
- *"Attending the training would further enhance my knowledge on coastal resource management."*
- *"Even though my field is irrelevant, I am willing to gain new knowledge."*
- *"I am willing to do something for my province in return."*

SESSION 1: INTERFERENCE OF THE NATURAL ENVIRONMENT AND THE ECONOMY (DAY 1)

Resource Person: Germelino M. Bautista, PhD

The resource person worked on the flow of discussion as follows:

- Scope of Ecological/ Environmental Economics
- Functions of the Natural Environment
- How do these functions relate and benefit the economy?
- Impact of the economy and property rights on the environment.

The first session of the training focused on how environmental economics can help in studying and managing natural resources and environmental problems. It highlighted the difference of various functions of the environment – carrier functions, natural production functions, information functions and regulations functions. The resource person further elaborated that while nature's production or information functions provide natural goods and resources through labor expenditures or at a cost, regulation functions, however, can be obtained freely without any human labor/ and energy expenditure. This, in effect, made regulation functions to be considered as natural public goods with indirect use value. However, the resource person pointed out that these functions are inter-related and equally important.

The concepts of public-private goods, rivalry and exclusion were also discussed during the session. The presence of rivalry and exclusion in the direct and indirect uses of goods and services transformed the public into private goods. The nature of a public-private good with its rivalry-exclusion dimension in a matrix form can be presented in a matrix form shown below:

		RIVALRY (CONSUMPTION DIVISIBILITY)		
		NO/ LOW	**MEDIUM**	**HIGH**
EXCLUSION	Zero to Increasing Exclusion	Resources open-to-all, freely accessible. Costly to prevent entry. No regulations on resource use. No pricing of resources. Result: Resource degradation and undersupply	Competition and conflict over resource use in some areas. No stewardship requirements for property rights holders. No resource pricing to reflect scarcity value. Greater resource degradation.	Increased competition and conflict. Dominance of particular uses, and the rise of dominant users in some areas. No stewardship requirements for dominant users. Dominant user may either improve the resource or deplete it.

	From MEDIUM to Greater Exclusion	*Property rights* and regulated access established in some areas. *Nominal entry/ permit fee* is levied. Regulations on resource use are enunciated There are pressures for pricing public goods. Resource management in areas under property rights.	Private property rights *extended over larger areas*. *Prospects for higher fee* for resource access and use. *More regulations* on water rights holders. Greater *pressure for higher resource pricing*. *Uncertainty* over implementing higher resource prices.	*Conflict* with rising dominant uses/ users in the public domain and with those with property rights. If tariffs/ charges are not raised, *dominant users* obtain greater *rents/ incomes*. Uncertainty over the management functions of property right holders.

The resource person explained that through stable and sustainable operations of the environment's carrier and production functions can only the natural regulation functions flow unimpeded. These conditions define the quality of the environment. However, because of human/ economic activities and limited restorative interventions, these have caused negative impingement to the environment. It was further discussed that there are four underlying causes of the present environmental crisis. These are the government's commodity bias and economic growth pre-occupation, the low value for ecosystem protection and resource conservation, the failure to institute the requirements for economic and environmental sustainability and the absence of a credible agency to resolve the overlapping claims or competing resource uses. With these underlying events, it was stressed that the drive to protect the environment and its functions is seen crucial.

Prior to the end of the session, the participants were asked to identify the environment functions present in the coastal areas. They were divided into groups representing their respective geographies. The objective of the activity was for the participants to understand how to identify and classify the functions in their respective geographies. Each group was to work on a given template for them to fill-up. The following table (Table 6) shows the output of the Palawan Group:

UPSTREAM/ DOWNSTREAM	PRODUCTION/ PROVISIONING	REGULATORY	SUPPORTIVE CARRIER	INFORMATION/ CULTURAL
Mangrove Forest Seagrass/Algal Beds Coral Reefs Open Sea	Food, Wood (construction, fuel), Tourism, Aquasilviculture Fisheries Food Raw materials (medicinal and cosmetics) Fisheries, Tourism, Aquarium Trade Fisheries	Shoreline Protection, Filtration function, Carbon sequestration, Carbon sequestration, Coastal Stabilization Coastline Protection, Habitat, Carbon Sequestration Climate Regulation	Nursery, Habitat, Oxygen Production Oxygen production Genetic Biodiversity Maintenance Water Transport	Heritage, Scientific information, Aesthetic Scientific information Aesthetic, Scientific Information Research Education, Heritage

SESSION 2: FISHERY AND COASTAL RESOURCE MANAGEMENT (DAY 1)

Resource Person: Germelino M. Bausita, PhD

Dr. Bautista aimed to demonstrate the basics of fishery economics, the problems of resource depletion, habitat degradations and poverty and their relationship to the property rights regime and to evaluate the different resource-habitat management options. He discussed this through the stock and yield functions. In order to do so, he followed the outline as follows:

1. The concepts of stock and yield functions, carrying capacity, sustainable yield and harvest, steady state and rent;
2. Cause of depletion, habitat degradation and poverty; and
3. Resource and habitat management tools.

He discussed the stock and yield functions through fishery resources. According to Dr. Bautista, one of the characteristic of fishery resources is that it is biological in nature. Hence, many have interpreted this as naturally reproducible and seemingly inexhaustible. Historically, fishery resource is considered as public good without access limits, but it has a poorly defined property rights. The resource person highlighted that considering the nature of fishery resources, there might come a time that there will be no more room for growth. At a particular time of fishery resources, there is a maximum stock or when the yield is at maximum. Understanding this, people must only extract only what nature provides. If extraction is more than what is needed, it would cause depletion of fishery resources.

While discussing the harvest function (economic production), there are two factors that would affect production. These are the 1) effort and the manpower and 2) technology. Dr. Bautista discussed that if

there are more effort and technology involved, it would mean more harvest. However, he pointed out again that if there would be more harvest, the tendency would be decreased in stock.

To have a sustainable fishery, he said that harvesting must be proportion to the stock. In order for stock to be maintained, fishing industry and local fisherforlks must limit their effort to operate efficiently. By doing so, it would also prevent the decrease of stock due to over harvesting. The resource person referred to this as the *tragedy of the commons.* He attributed this to the lack of property rights and the nature of fishery resources as being open access and lacking of protective and conservative measures.

He added that the maximum fishery resource stock or marine carrying capacity depends on the extent of fishing activity, the state of the coastal ecosystem, and the impact of economic activities on these habitats and water quality and other land-based activities.

Dr. Bautista asked the participants if the resources are faced with depletion, under what conditions do common property institution emerge/ evolve in addressing this. By referring to "Reformulating the Commons", he said that it depends on the attributes of the resources and the resource users.

Attributes of resources are as follows: 1) resource conditions have not become too degraded; they continue to provide incentives for organizing. (Feasibility of improvement); 2) available indicators of resource conditions are reliable, valid and obtained at a relatively low cost; 3) the flow of resource units is relatively predictable; and 4) the spatial coverageis relatively small or manageable, given the available transportation and communication technology. The common property holders can determine its boundaries and internal micro-environment.

On the other hand, the attributes of the users to consider are 1) dependence on the resource base for a major portion of their livelihood (salience); 2) shared image of how the resource system works and how they affect it (common understanding); 3) no perceived significant differences between present and future benefits to be achieved from the resources (low discount rate); 4) they trust one another, and relate to one another with reciprocity; 5) autonomous in determining access and harvesting rules. No external authorities overruling them; and 6) possess organizational experience and leadership skills because of participation in local associations and learning from other groups.

However, the resource person added that there are certain conditions/ principles underlying Sustainability of Common- Pool Resource Institutions, there are:

- User rights and boundaries of the resource are clearly defined.
- Distribution of benefits from appropriation rules is proportionate to the costs imposed by the rules. These rules with respect to time, place, technology and quantity should be related to local conditions.
- Individuals affected by the rules can participate in modifying the operational rules.
- Those who monitor/ audit the resource conditions are the users themselves and are accountable to the others.
- Violators receive graduated sanctions, depending on the seriousness & the context of the offense from other users, officials.
- There are low-cost, local arenas for resolving conflict among users or between officials and users.
- The rights of users to devise their own institutions are not challenged by external gov't authorities.

- The appropriation, provision, monitoring, enforcement, conflict resolution and governance activities are organized in multiple layers of nested enterprises. (How to address externalities from one group to the others)

Before the resource person ended his session, he left to the participants to answer this question: What needs to be done to sustainably manage the resources/ habitat? Based on the answer of Tawi-tawi participants, they suggested the following:

- *"Conduct research on sustainable development of marine resources to support enabling policies for the sustainable development of our marine resources (mainstream within the LGU Comprehensive Development Plans (CDPs)."*
- *"Strong academe and LGU partnership to implement programs to preserve and conserve our marine resources."*
- *"Strengthen academic curriculum by introducing new technologies, and other inputs i.e. laboratory equipment, faculty development program, demonstration vessels, instructional materials, etc."*
- *"LGU, academe and community partnership towards proper utilization and conservation of our marine resources i.e. Information, education, and communications (IEC), Muslim Religious Leaders (MRLs) and CSOs."*
- *"Strict implementation of R.A. 8550 and other related laws on conservation and protection of our marine and terrestrial resources."*
- *"Advocate strong participation of the AFP, PNP, and Bantay Dagat for a joint efforts to conserve and protect our resources."*

SESSION 3: RESOURCE VALUATION METHODS (DAY 2)

Resource Person: Majah-Leah V. Ravago, PhD

On the start of the session, the resource person handed out two (2) sets of survey questionnaires to the participants. The participants were given 5 to 10 minutes to accomplish the survey form. This was done ahead with reference to the contingent valuation topic to avoid biases in answering surveys. The purpose of this was for the participants to understand the problems in developing survey questions on valuation.

She then proceeded with discussing that by understanding the importance of resource valuation, it will help the participants in analyzing and understanding the technicalities behind the cost-benefit analysis (CBA) reports. Also, this will help the participants to know whether each of those cost and benefits are valid and well-accounted. Once aware of these concepts, one would be able to understand the economic methodology behind the CBA. She further discussed the resource valuation in the context of CBA and that CBA is very important in decision making of polices and projects.

After discussing the importance of the topics, she discussed the objectives of the session as follows:

1. To understand the complexities of cost-benefit analysis; including the monetization of costs and benefits;
2. To define what is value and its types (use value, option value, existence value and total willingness-to-pay) ;
3. To classify the available non-market valuation methods by whether they are based on observed behaviour or a hypothetical market and whether they are direct or indirect;
4. To present the potential biases associated with the contingent valuation methods.

The session also focused on the following major topics:

1. What is value?
2. What are the types of value
3. Marginal cost functions
4. Difference and Relationship of stock and flow
5. Valuation techniques
6. Economic Methods for Measuring Environmental and Resource Values (Stated Preferences Methods and Indirect Revealed Preference Methods)
    a. Contingent valuation
    b. Conjoint analysis
    c. Travel Cost Model
    d. Hedonic Pricing Technique
    e. Hedonic Wage Approach
7. Willingness-to-pay (WTP) vs. willingness-to-accept (WTA)

Prior discussing the resource valuation, she differentiated how to value goods in using the concepts of stock and flow. At first, she asked this to the participants by showing two (2) pictures in her presentation. The pictures shown were a pile of timbers and the other were planted trees. As the discussion went by, the participants had a hard time identifying what the stock and the flow were. The resource person then clarified that the difference between the two was the factor of growth or movement. While the flow showcases growth, stock goods are static in nature. Once the participants had a clear understanding of what stock and flow were, Dr. Ravago discussed how to put value with regards to time preference. She then pointed out the relationship of stock and flow. She discussed that the present value of stock goods and present value of flow must be in equilibrium.

Another question raised by Dr. Ravago was *"Is any number better than no value?"* Most of the participants answered yes. The resource person backed this up by saying any number would mean there is value. However, putting number posed difficulties. She discussed in order to overcome these difficulties, valuation techniques should be used to value the benefits and cost/damages of the environmental services.

As part of her discussion, the resource person showed two (2) video documentations showing the importance of resource valuation. She then raised a question whether humans should place an economic value on the environment where most of the participants answered yes. She pointed out that there are also group of people that will oppose on placing value on environment.

One controversial question was *'Is Valuing Human Life Immoral?'* This was raised since valuing human life is still part of the valuation process especially when there is disaster. The discussion was done through a debate wherein the participants were divided into two groups – the affirmative and the negative side.

The affirmative side started the debate by raising the point that valuing life is immoral. They stated that if it is moral to value human life, then the concept of fairness would also be questioned. The team raised the point the inequality of being rich and poor in case of putting value on human life. They also pointed out the importance of putting human's present and future value. On the practical aspect of the negative side – putting value to human is not immoral, the first speaker stressed out that it is moral. She stated that since the other team raised the issue of having one life, the negative team firmly believed that in this sense, putting value is deemed moral. The team raised that if materials things can be valued, why not also the life of human being. She explained it in the context of insurance. She said that in cases of

accident, it is right to know the value of human for insurance purposes. On the necessity aspect of the positive side, the proposition of the speaker pointed out that humans are not animals. The speaker of the negative side raised that preservation of life is a moral principle in which actions can be measured. However, she also pointed out that there are other values that supersede life like the value of protecting and providing safety and justice. For their final speech, the positive side connected their stance in religion aspects. The speaker also discussed his two versions of value: the essence of being and the value that can be monetized. The speaker of the activity from the negative side still believed that no matter what humans are, they should be valued.

However, the resource person pointed out, whether moral or immoral, putting value on human life remains a controversial subject because of uncertainties. In putting value in human life, it is important to focus on calculating the change in probability of death resulting from a reduction in some environmental risk and then placing a value on that change.

FEEDBACK SESSION (DAY 2)

Project Coordinator: Marghieth Garcia

Ms. Garcia began the session by placing sheets of papers on the wall, each with its corresponding attributes. For the first sheets, she started it off by asking the participants things they will walk out with after the training. Each participant was given *metacards* to write what they expected to gain and/ or achieve from the training.

List of things that the participants will walk out with after the training:

- *"KSA on Economics"*
- *"Written Concept"*
- *"Friendships"*
- *"Facts, Feeling and Experiences"*
- *"Enhanced Researched Skills"*
- *"Resource Economics Assessment Tool Kit"*
- *"Fundable Research"*
- *"Functional Solutions and Pressing Problems Faced by Marine Resources"*
- *"Bacon"*
- *"Assurance on Research Grant"*
- *"Research Concepts on CRM"*
- *"CRM"*

On the second sheet, she asked the participants on how they will achieve that *'eureka'* moment coming from the confused stage during the first day of the training. Listed below were some of the ideas the participants posted by the participants.

- *"Theories that can be used into practice"*
- *"Equations"*
- *"'pica-pica' to keep us awake"*
- *"Guided lecturing procedure with practical samples"*
- *"Provide notebooks so we can take down notes"*
- *"Different examples"*
- *"Concepts to more specific examples and cases"*

- *"Practical samples"*
- *"Inclusion of CBA in project proposal/ research"*
- *"Terminologies explained in layman terms"*
- *"Valuation methods applications."*
-

An exchange of thoughts on the metacards was then done by the group to validate what these meant. One important item which was discussed the expectations on the grants which Ms. Dizon helped clarify, saying that the proposals of the participants should reflect a doable research within 4-6 months, and that the budget should be based on the activities under the proposed research, instead of a set budget dictating the activities to the proponents. It was also clarified that the proposals are subject for approval, not assured, although they will given an opportunity to to improve on their proposals with the inputs of the mentors. Collaboration among the participants within a province or region was encouraged.

Two other sheets were posted so anytime the participants can post their thoughts: the *'burning issues'* and the *'parked ideas'*. On the 'burning issues', the participants were asked to place all their concerns that needed immediate actions and for the 'parked ideas' were for the concerns that could be dealt with in a later time.

SESSION 4: ALTERNATIVE FINANCING MECHANISMS FOR COASTAL RESOURCE MANAGEMENT (DAY 2)

Resource Person: Rina Maria P. Rosales

Connecting the lesson from the earlier discussion on resource valuation, the session aimed to introduce the concept of economic instruments and sustainable financing in coastal resource management as a tool and to identify and demonstrate the role of economic instruments and sustainable financing in coastal resource management and conservation conservations. Ms. Rosales explained that aside from CBA, economic instrument are policy tools that use resource valuation to influence the behaviour of people and for management planning through pricing schemes. She stressed that when imposing economic instruments, it should be based on economic value. She pointed out that economic instruments become relevant when there are scarcity of resources. The use of economic instruments is one way of regulating the use of these scarce resources. One of the questions raised during the discussion by the participants was what do you call the study if the resources are abundant. Ms. Rosales answered that it is still economics.

She discussed the major concepts as follows:

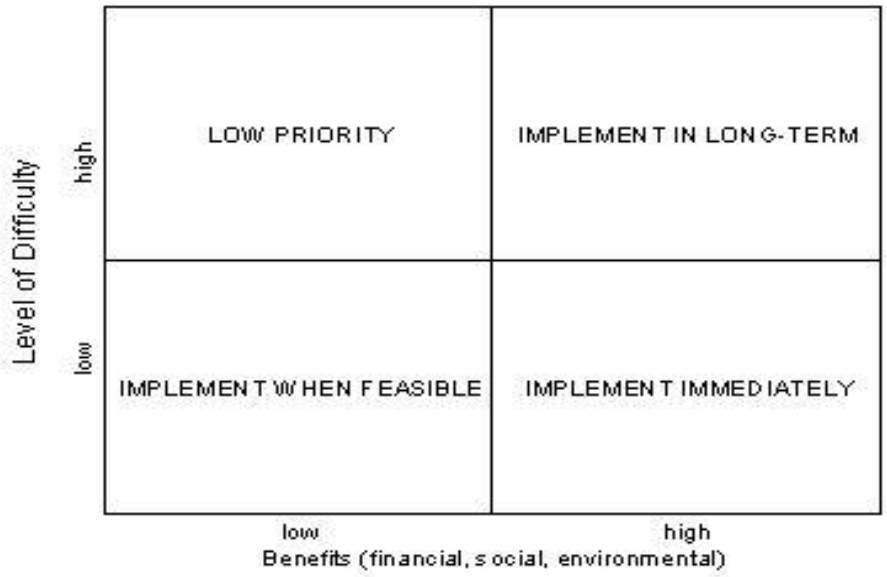
1. Definition of economic instruments and sustainable financing;
2. Types of economic instruments;
3. Important considerations in developing economic instruments methods of estimating; and
4. Factors in attaining sustainability.

She also discussed that by placing economic instruments, this will regulate the use of the resources. She answered one query of a participant stating that economic instrument is an economic tool thus it is a form of economic intervention. Although, she reiterated that economic instruments cannot stand alone and that they should be used in conjunction with, or backed up with information, education and

communications instruments (IEC), legal instruments and other management tools/ instruments in order to be effective. She raised the question on how the economic instruments can be regulatory. One participant answered that by having an economic instrument, it separates those who can afford it and who cannot, and to those who are willing to pay.

According to Ms. Rosales, there are three (3) objectives when it comes to affecting the behaviour of the communities. An economic instrument is a management tool for a medium term objective. For the short – term objectives, there are legal instruments/ hard enforcements – fine, penalties, ordinances, etc, used in discouraging destructive behaviour. And for the long-term objective of changing the behaviour of the many, an effective tool for achieving this is through IEC. If the economic instrument becomes successful, it can contribute as well in meeting the long-term resource management objectives.

Ms. Rosales discussed how to prioritize financing mechanisms. This can be summarized as shown below:



Other concepts discussed were on financing alternatives. These were:

1. Public sources (public budget funding; earmarking from general taxes, from specific taxes, and from public charges; development bank loans, debt-for-nature swaps, environmental funds, etc);
2. Private not-for-profit sources (community self-support groups, secular and faith-based charities, special fund-raising campaigns, merchandising and good cause marketing, lotteries, social and environmental NGOs and foundations;
3. Private for-profit sources (household, saving and labor assets, community based enterprises, micro-saving, micro credits and micro insurance, micro-finance institutions, private investment by local business, commercial bank loans, direct investment by non-local investors, public-private partnerships, private-community partnerships, etc) ;
4. Payment for environmental products; and
5. Payment for environmental services

The resource person mentioned that the Foundation for the Philippine Environment (FPE) is an endowment fund created through a debt-for-nature swap. It is a funding agency that deals with forest management projects. She also added the Philippine Tropical Forest Conservation Foundation as another debt-for-nature swap. The only difference between the two is that the fund in PTFCF is described as a sinking fund or the fund is limited. She also explained the difference between the public-

private partnership (PPPs) of the National Economic Development Authority and the public-private partnership in the context of natural resource management and conservation.

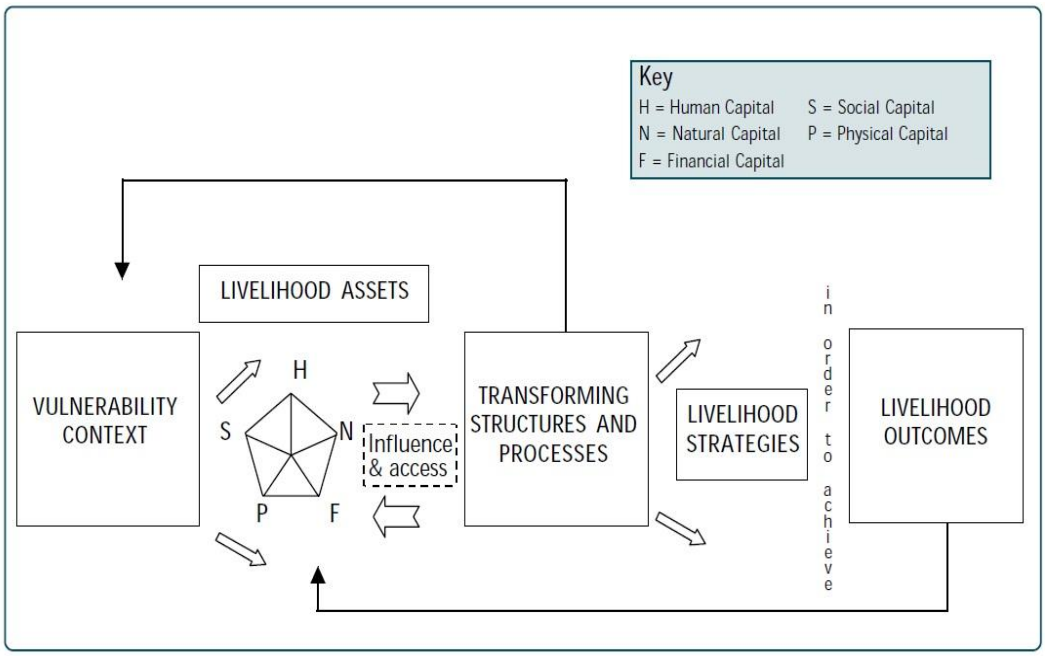
As part of the discussion, the resource person asked the participants to identify/ list down the coastal resources – goods and services, found in each respective area and their uses. From the list of uses which they did on the first session of day 1, the participants were also to identify the current users of these uses. The participants then proceeded to identifying potential economic instruments and proposed estimation methods. Shown below (Table 7) is the output done by the group from Pangasinan:

RESOURCES (GOODS AND SERVICES)	RESOURCE USES	CURRENT RESOURCE USERS	POTENTIAL ECONOMIC INSTRUMENTS	ESTIMATION METHOD
Mangrove	Habitat of aquatic and terrestrial fauna Carbon sequestration Protection (e.g. coastal erosion, wave actions) aquasilviculture	Local community Researchers Sual Coal Power Plant	Licensing PPP -do-	Market Price Method Contingent valuation method Productivity method
Seagrasses	Source of food habitat, Coastal stabilizer	Local community researchers gleaners		Market Price Method Replacement method (when habitat is destroyed)
Corals	Maintenance of biological, genetic diversity , nursery and habitat Tourism/recreational	Fisherfolks Researchers Tourists/divers	Entrance Fees /licensing Bioprospecting fees PES	Replacement Methods Resource extraction fee Travel cost method
Coastal water	Navigation Carrier for fishpen/fishcages Seaweed farms	Coastal /local community Mariculture operators	Toll fee Licensing Permits/taxes	Travel Cost method Market Price/
Fisheries	Food /livelihood	fisher folks	fees/permits for bancas	Market price method

SESSION 5: LIVELIHOOD ALTERNATIVES (DAY 3)

Resource Person: Joselito T. Sescon

Ms. Sescon focused on the sustainable livelihood approach (SLA) wherein he discussed the components of SLA. He emphasized that prior developing alternative livelihood, there must be community profiling (individual and household) to determine their capacity to sustain alternative livelihoods. He also added that it is important to know the sources of vulnerabilities and the role of institutions. Doing sustainable livelihood approach can be of use to community analysis and thus, analysis should be people-centered, holistic, dynamic and linked with macro analysis. He also discussed the concepts of jobs and livelihoods in the Philippine setting. He discussed that the nature of the livelihood activities in the Philippines are affected by the economic opportunities generated by natural structure of the local economy. The SLA framework can be summarized in the figure shown below:



One of the highlighted questions of the session was *'if jobs and livelihoods demand are derive demand from the market, what are the primary sources that drive these markets and the derive demand for jobs and livelihoods?'* The answers were economic size and growth, inter-sectoral interaction and institution. By understanding the economic size and growth and inter-sectoral interaction, limitations of livelihood opportunities can be established as the economy transform. In addition, knowing the effects of institution to the peoples livelihood assets and strategies, it brings in the idea to transform or create livelihood opportunities constrained only by the institutional rules.

To further discuss the SLA framework, he presented a case study in Barangay Uno, Calatagan, Batangas where the students of Ateneo de Manila University had worked. He showed to the participants the community's profile using the SLA. According to the resource person, it is important to develop a project framework approach to indentifying the social costs and benefits of livelihood enterprises. He explained that a good project means that the social benefit is greater than the social cost of the projects. Conducting a project framework approach and exercise is the crucial in doing social CBA for the livelihood enterprise proposals.

Activities	Inputs (*Costs*)	Output (*Benefit*)	Potential Outcomes	Potential Social Impacts (*Benefits*)
All related activities required to produce the particular output identified.	All related inputs required to produce the particular output.	*Each output (good or service) must be analysed separately in the activity-input-output-outcome-impact linkage*. The benefit of the output is the market value corrected for taxes and subsidies.	Described all possible outcomes in the consumption (use) of the particular output including related inputs used to produce the output.	Measured changes in the well-being of directly and indirectly affected stakeholders in particular and society in general in the consumption (use) of output and related inputs.

The resource person asked the participants to describe a mangrove reforestation project through the Project Matrix shown above. In doing the matrix, Mr. Sescon said that the output (benefit) should be filled up first. Once the output is identified, the process will be easy. When asked whether the resource person has a criterion in choosing a livelihood alternatives, Mr. Sescon answered that although he has not developed any criteria yet, it would be good to consider the financial capabilities and available resources in the community. It was also raised that the participation of the community in choosing the alternative livelihood is important.

In evaluating the criteria, the resource person admitted that they were not able to arrive at that point. The work output of the team (Table 8) from Tawi-tawi is shown below.

ACTIVITIES	INPUTS (COSTS)	OUTPUT (BENEFIT)	POTENTIAL OUTCOMES	POTENTIAL SOCIAL IMPACTS
Initial Site selection Social Preparation ▪Community dialogue ▪Household survey Final site selection Collection/ gathering propagules Planting of propagules Management and monitoring	Propagules Labor Land/water transportations Measuring instruments Rope Jute sacks meals, snacks	2 hectares of land reforested with 20 thousand mangrove propagules	Community awareness on conservation on mangroves Habitat to marine organisms	Regeneration/recovery of aquatic organisms Increase production of marine animals Livelihood enterprise (source of financial self-sufficiency of the community)

The resource person ended his session by leaving a remark that alternative livelihood alternatives are constrained by the development of the market and the economy at large.

SESSION 6: COST- BENEFIT ANALYSIS (DAY 3)

Resource Person: Leonardo Lanzona, PhD

Dr. Lanzona started off his lecture with the presentation of the outline and objectives of the session. The main concepts discussed during the session were:

1. Difference between Cost-Benefit Analysis and Extended Cost-Benefit Analysis;
2. Project appraisal; and
3. Relationship of Cost-Benefit Analysis and the Environment.

Concepts from previous sessions were used by the resource persons in discussing CBA and its technicalities. He stressed that in order for CBA to be a useful technique; two main conditions must be met: 1) investment must be sufficiently large or important to merit the time and cost of CBA; and 2) social and other intangible costs and/or benefits must be prospectively and sufficiently large for selection by cost-in-use or investment appraisal to be invalid.

He said that CBA should not be done too often. He discussed that the reason why CBA should be done is when the project is too large and there are many intangible costs and benefits.

Another point highlighted in the discussion was the criteria of an efficient project. In order for a project to be efficient, three (3) conditions must be met: 1) benefits gained fully compensate the losers; 2) gainers, in principle, compensate the losers, even if they do not; and 3) doing a small number of efficient projects.

He discussed that CBA aims to value the effects of a project as they would be valued in monetary terms by the individuals affected. In doing CBA, two important steps must be made: 1) list all parties affected by the project; and 2) value the effects on their welfare as it would be valued in money terms. On the other hand, extended CBA is the social appraisal of projects, although, both CBA and extended CBA use the same tests.

While the resource person discussed the importance of doing conducting CBA, he also acknowledged its criticisms. According to Dr. Lanzona, CBA is being criticized with the following points: 1) morally unacceptable to put value on nature; 2) not practical; 3) it does not deal with social values; 4) it is biased; 5) individuals have different preferences; and 6) it tends to have a narrow outlook on the environment. However, he presented alternative approaches besides CBA. These are Cost-Effecting analysis, environmental impact assessments and multi-criteria decision analysis.

Despite the shortcomings and criticisms of CBA, Dr. Lanzona concluded that CBA provides systematic and consistent evaluation methods. Aside from giving clear results, CBA highlights trade-offs and opportunity cost which are considered important.

BREAK (DAY 4)

SESSION 7: DOING RESEARCH IN COASTAL RESOURCES – AN OVERVIEW AND SOME TOOLS (DAY 5)

Resource Person: Arlene B. Inocencio, PhD

Dr. Inocencio aimed to enhance the technical proficiency of the participants when it comes to drafting and writing research proposals. She discussed how to identify research gaps and key constraints in preparing research proposal. The discussion followed the outline:

1. Selecting a Topic/ Formulating Research Questions
2. Writing the Introductory Chapter
3. Reviewing the Literature
4. Developing the Study Framework
5. Collecting the Data
6. Processing and Analyzing the Data
7. Writing the Results
8. Writing the Conclusion and Recommendation
9. Writing the Research Proposal

During the discussion, the resource person asked the participants what research they had done. Besides identifying the type of research, she also asked what constraints they had encountered while doing the research and other facilitating factors. Below is the summary of their discussion.:

TYPE OF RESEARCHES	CONSTRAINTS	FACILITATING FACTORS

• Experimental
• Descriptive
• Household Survey (Cross section)
  ○ Profile and issues/. Information relevant to certain programs
• Analytical
  ○ Bio-physical characterization – "sizing"
• Qualitative Research
• Quantitative research
  ○ Ex. Profitability - stocking
• Policy analysis
	• Information gaps
	• Uncooperative respondents
		• Get "elders"
		• Funding
		• Other support

She also provided guidelines and general formats in writing proposals. Some of which were that of the EEPSEA and BAR. She reminded the participants to consider the funding agency in writing the proposal.

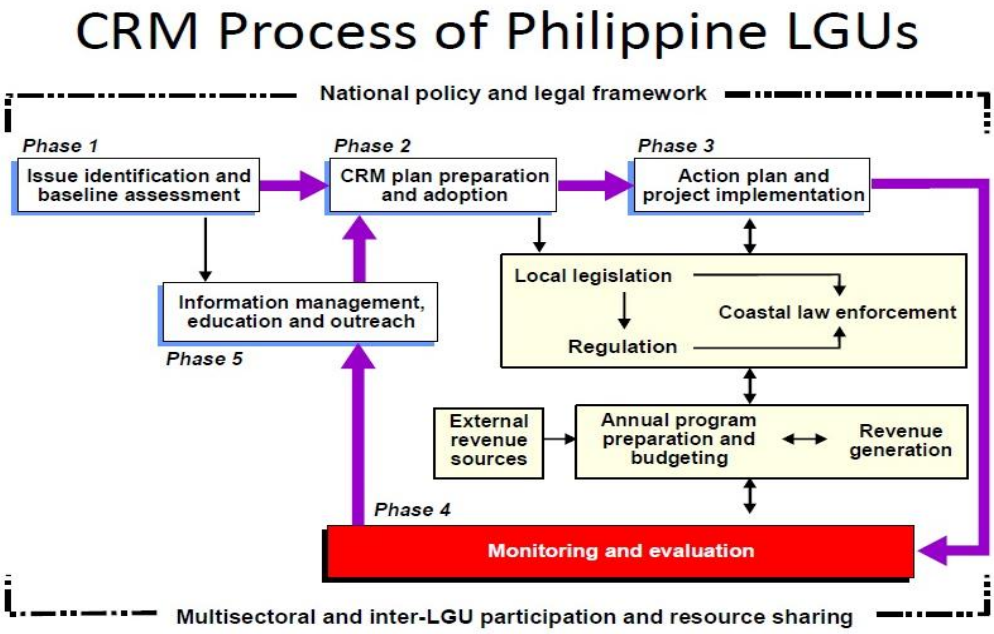
In synthesis, she mentioned that no matter how different the researches are, it all fall into the same research process. After following the research process, she discussed that presenting the results of the research should be done strategically by making use of tables and graphs. By doing so, key messages and

findings will be conveyed properly. She reminded the participants to make use of all available tools to them in preparing a proposal.

SESSION 8: MONITORING AND EVALUATION (DAY 5)

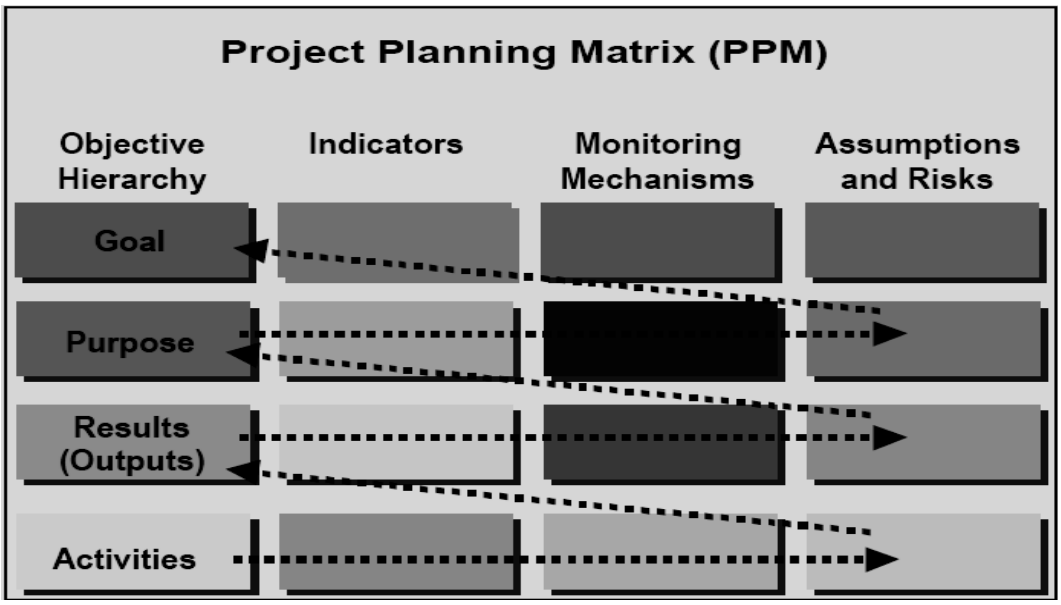
Resource Person: Marghieth Garcia

Ms. Garcia discussed the monitoring and evaluation process using the Coastal Resource Management process as example. She discussed that the M&E can start in any phase of the CRM process. However, she pointed out that M&E should ideally start at the beginning of the process. By doing or gathering baseline data and information, one has already begun M&E. Shown below (Figure 3) is the CRM Process of Philippine LGUs.



Source: DENR-USAID-CRMP

She handed out forms to the participants to identify their goals. She discussed goals should be well-communicated and known by the different stakeholders. The resource person classified CRM goals into three categories: 1) environmental; 2) human-environment interaction or convergence; and 3) socio-economic goals. One way of developing goals and objectives is by using the logical framework as shown below. The logical framework as shown in Figure 4 can also be used as a tracking tool for the performance of a project or program.



In order to have an effective way of managing the performance of the project, the resource person identified three (3) steps. First is to develop the goals and SMART objectives. Second is to develop a system to track or monitor the progress towards the objectives and help answer the question of why or why not the objectives are achieved. Last is to use the gathered information to change the strategy and operations to better achieve the objectives. In addition, she stressed the importance of involving human aspect in doing M&E. This can be done through consultation and participation of the internal and external stakeholders.

In assessing the cost-effectiveness of the M&E system, she said that it is important to identify first the benefits and the costs. Understanding what information stakeholders use and what information each one already generates and putting these together helps in developing a harmonized, efficient and cost-effective M&E system.

By establishing the M&E system, it will put the goals and objectives of the project into practice. Below is a sample M&E Plan Matrix:

Detailed Result M&E Plan

Evaluation Questions	Required Information and Indicators	Data Gathering Methods, Frequency and Responsibilit-ies	Baseline Information Requirements Status and Responsibilit-ies	Required Forms, Planning, Training, Data Management, Expertise, Resources and Responsibilit-ies	Analysis, Reporting, Feedback and Change Processes and Responsibilit-ies

Ms. Garcia provided the participants some samples of M&E tools and reference materials such as guides in making a log frame and the evaluation matrix to measure relevance, efficiency, effectiveness, impact and sustainability.

In synthesis, Ms Garcia reminded the participants that although there were many monitoring and evaluation techniques available, it is important to consider the way of doing the techniques. Other important things to considering in planning, monitoring and evaluation are:

- Validation or triangulation
- Buy-in participation
- Cost-effectiveness
- Utility of data
- Communication and feedback
- Adaptive management
- Know and use what is there (entry points/ other sources)
- Adjust and fill in the gaps
- Comparability
- Attribution

Site Visit: Calatagan Mangrove Nursery and Rehabilitation Project in Balibago and Ang Pulo, Quinitisan, Batangas (Day 6)

Conservation International: Emerlinda Dizon

For the participants to have a better understanding and application of the topics discussed, the participants were brought to two sites in Calatagan, Batangas, - in Calatagan Mangrove Nursery and Rehabilitation Project in Balibago, and Ang Pulo, a mangrove forest conservation park situated in Quilitisan. The site visit aimed to:

1. Understand the sustainable financing schemes of the Mangrove Rehabilitation Project;
2. Assess the level of success in terms of socio-economic impact of the project; and
3. Learn the best practices of the project.

Some of the highlights were:

1. The project team and participants donated 75 mangrove seedlings to the Calatagan Mangrove Nursery and Rehabilitation Project in Balibago.
2. Best practices of each site were shared to the participants.
3. Issues and concerned by the management were raised. The participants were able to suggest measures to address these matters.

INITIATIVES OF LGU CALATAGAN ON FISHERIES/ ENVIRONMENTAL MANAGEMENT (DAY 6, AS PART OF SITE VISIT)

Presented by: Ma. Emelyn Cadano-Custodio

The participants were invited by Ms. Ma. Emelyn Cadano-Custodio, Municipal Agriculturist to visit the local government unit of Calatagan, Batangas and learn about their best practices. Ms. Custodio showcased the LGU's programs and projects on environmental conservation and protection.

She highlighted the following initiatives undertaken by the LGU:

1. Creation of Municipal Fisheries and Aquatic Resource Management Council (MFARMC)
2. Law Enforcement/ Implementation of the Fisheries Code of 1998 and Calatagan Municipal Fisheries Code of 2006
3. Formulation of Municipal Fisheries Code of Calatagan (Municipal Order No 83-2006)
4. Solid Waste Management
5. Establishment of Marine/ Mangrove Protected Areas (MPA)
6. Establishment of Mangrove Nursery
7. Mangrove Reforestation/ Rehabilitation
8. Reef Check Monitoring
9. Coastal Clean Up
10. Community/ Barangay Clean
11. Youth Sector Environmental Programs/ Projects
12. Marine Mammals and Sea Turtle Rescue
13. Organization of the out-of-school youth and involved in environmental activities
14. Rehabilitation of Ilog Santiago
15. Tree Planting
16. Climate Change Adaptation Strategy

The participants were engaged in the presentation and asked a lot of questions to learn more about the strategies and programs developed by the Municipality of Calatagan. One of the main projects that caught the attention of the participants was the Ecobank project, where students earned from the recyclable materials that they collected and brought to school. This project has played a significant role in materials recovery and waste management in the town, apart from helping the students generate funds for their education.

CONCEPT NOTE PROPOSAL WRITING (DAY 7)

The participants were given the whole day to write their proposals. They were given the liberty to choose whether to submit in groups or individual. The project coordinator worked on providing technical assistance by giving comments and suggestions in writing the proposal and developing the research problem of each participant. A hybrid of Economic and Environment Program for Southeast Asia (EEPSEA) and Commission on Higher Education (CHED) template in writing the proposal was used. The concept note template and attachments (Table 9 and Table 10) are as follows:

CONCEPT NOTE TEMPLATE (based on CHED & EEPSEA Templates)
A. Basic Information 1. Project Title: XXX 2. Proponent & Institution a. Name: b. Designation: c. Agency & Address: d. Telephone/Fax: e. E-mail: 3. Project Duration: 4. Total Budget Requested: **B. Technical Description** 1. Research Problem 2. Objectives 3. Methodology a. Research Site b. Research Design and Data Collection c. Research Instrument Description d. Data Analysis 4. Expected Results and Dissemination 5. Institution and Personnel 6. Timetable 7. Budgetary Requirement 8. Bibliography/ Literature Cited 9. Attachments: a. Logical framework b. Research Budget Breakdown

Table 9: Template for Logical Framework

Research Project Title:
Duration:
Project Proponent:
Proposed Budget:

NARRATIVE SUMMARY	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Goal:			
Purpose:			
Outputs:			
Activities:			

Table 10: Sample Financial Plan

MAINTENANCE AND OPERATING EXPENSES	AMOUNT (PESOS)
A. Services (Based on DOST Rates)	
1. Honoraria	
> Study Leader - Overall/ Study 1 (P ____ x ____ months)	
> Co-Study Leader - Study 2 (P ____ x ____ months)	
2. Contract Labor	
> Statistician	
> Enumerators	
> Encoders	
3. Sundries	
B. Supplies and Materials	
1. Paper	
2. Ink	
3. Report Packaging Materials	
4. Survey Kits	
5. Other Miscellaneous Supplies	
6. Equipment Rentals	
C. Travel	
1. Transportation	
> Local	
> Provincial	
2. Food	
> Workshops and Meetings	
> Food Allowances for Travel	
3. Per Diem - Outside Home Base	
C. Communications	
Sub-Total	
Administrative Cost	
Total (Exclusive of Taxes)	

Note: Items in Red are just examples

PRESENTATION AND CRITIQUING OF RESEARCH CONCEPT NOTES (DAY 8)

A total of 7 proposals were prepared and presented. Five were through group effort while the other two were prepared individually. The mechanics given for the presentations were as follows:

1) Each concept note will be allotted 20 minutes maximum for the presentation proper. The presentations will be in PowerPoint. The word version of concept notes following the prescribed format will be submitted by tomorrow morning before the presentations.
2) Suggested breakdown of PowerPoint slides:
    a. Background and Research Problem – 1-3 slides
    b. Objectives – 1-3 slides
    c. Methodology – 3-6 slides
    d. Expected Results and Dissemination – 1-2 slides
    e. Institution and Personnel – 1 slide
    f. Timetable – 1 slide
    g. Indicative Budget – 1 slide
    h. Logical framework (will serve as summary) – 2-3 slides
3) Please practice the delivery time of your slides as we will be strict in following the time thus some presentations might be cut short if not properly timed.
4) After the presentation, 10 minutes will be given for a feedback session and open forum:
    a. After the presentations mentors will give their comments on the presentation and suggestions on how to further develop the full proposal
    b. After the mentors give their comments there will be an open forum with the rest of the audience for other comments, questions and suggestions
5) Remember that the feedback sessions are meant for constructive comments in the spirit of making the final proposals better. This is not being done as a basis of accepting or rejecting the proposals. The awarding of grants will be based on the merits of the final proposals.

A day before the presentation, the participants had a draw lots to determine the order of presentation. Five (5) mentors were present during the presentation. The proposals, as shown in Table 11, were as follows:

NAME	INSTITUTION	TOPIC[2]	PROPOSED BUDGET	ORDER OF PRESENTATION
Individual Presentation				
Anacleto Caringal	Batangas State University	Local Knowledge on the Values of the Philippine Teak Forest Along the Verde Island Passage Marine Biodiversity Conservation Corridor	PhP 39,800.00	6

[2] Will be further discussed in the next section

NAME	INSTITUTION	TOPIC[3]	PROPOSED BUDGET	ORDER OF PRESENTATION
Lyca Sandrea Castro	Western Philippines University	Sustainable Financing Mechanisms for Binduyan Community Sustainable Enhancement Project (BCSEP)	PhP 500,000.00	7
Group Presentation				
Shella Parreño Rosie Abalos	Pangasinan State University	Socio-Economic Impact of Mariculture Operations in Lingayen Gulf	PhP 652, 428.00	3
Albaris Tahiluddin Nestor Delasas	Mindanao State University – Tawi-tawi College of Technology and Oceanography Provincial Government of Tawi-Tawi	Socio-Economic Assessment of the Seaweeds Farmers in Tawi-Tawi	PhP 649, 200.00	4
Franie Afable Regal Izon Macario Masagca, Jr. Marilyn Alcanices	Mindoro State College of Agriculture and Technology Provincial Government of Oriental Mindoro	Sustainable Financing thru Eco-Tourism: Marine Protected Areas of Calapan City	PhP 483,000.00	5
Heidi Baraan Angelica Macalalad Anacleto Caringal Octavio Pujanes Bernardo Lunar Divinia Mercado	Batangas State University De La Salle Lipa Provincial Government of Batangas	Economic Valuation of MPAs along Coast of Calatagan, Batangas	PhP 250, 000.00	2

[3] Will be further discussed in the next section

NAME	INSTITUTION	TOPIC[4]	PROPOSED BUDGET	ORDER OF PRESENTATION
Maricel Elorde Marsha Lita Ocampo Eva Marie Connie Ponce de Leon Mark Ace dela Cruz Cherry Lyn Jalover	Palawan State University Provincial Government of Palawan	Economic Valuation of Natural Resources: Puerto Princess Subterranean River National Park (PPSRNP)	PhP 772, 921.00	1

CLOSING PROGRAM (DAY 8)

Ms. Evangeline Florence Miclat and Mr. Rollan Geronimo of Conservation International Philippines attended the closing program. The program included discussion of the UMP Process, sharing of experiences, overall impression and takeaways from the training of the participants, awarding of certificates and closing remarks from CI.

[4] Will be further discussed in the next section

Research Proposal of Mentees[5] and Summary of Mentor's Comments per Proposal

Each presented research proposal showcased what they have learned during the 8-day training. Topics on resource valuation, sustainable financing, and cost-benefit analysis, among others were chosen by the participants as the main focus of their topics.

Economic Valuation of Natural Resources: Puerto Princesa Subterranean River National Park (PPSRNP)

M. Elorde, M.L. Ocampo, E.M.C. Ponce de Leon, M.A. dela Cruz, C.L. Jalover

Participants from the Palawan State University and the Provincial Government of Palawan teamed up to make a proposal on the valuation of the Puerto Princesa River National Park (PPSNRP). The general objective of the proposal is to determine the total economic value of the natural resources of the PPSRNP. The specific objectives are as follows:

1. To identify the existing available natural resources in the study site including its economic uses (i.e., use and non-use values);
2. To identify the users of the natural resources and their degree of dependency on the resources;
3. To estimate the economic value of each identified resource use;
4. To calculate the net economic benefits derived from the natural resources of the PPSRNP.

After the duration of the project, it is expected to update the inventory of available natural resource in PPSRNP and its uses, update the resource users' profile and estimate the total economic value (TEV) of PPSRNP.

General comment given by the mentors was the project proposal is too ambitious. Given the short period allotted for the implementation of the project, the mentors suggested to limit the objectives and research question of the proposal. Specifically, while the team aimed to valuate different uses, the mentors recommended valuating specific and strategic use (the most threatened or promising use) and using specific valuation methods that are doable in the given time period.

[5] Annex IX

Economic Valuation of MPAs along Coast of San Juan, Batangas

H. Baraan, B. Lunar, A. Macalalad, D. Mercado, O. Pujanes, A. Caringal

The research proposal presented by the participants from Batangas State University, De La Salle Lipa and Provincial Government of Batangas aimed to provide economic analysis and valuation of the MPAs along the Coast of Calatagan, Batangas. The research proposal aimed to identify and obtain the following:

1. The total economic value of the MPA; and
2. The total economic cost incurred in establishing and running the MPA.

At the end of the project, expected outputs are:

1. Direct, indirect, option and non-use existence values of MPAs will be indentified;
2. Management, opportunity and indirect costs of establishing and running of MPAs will be indentified; and
3. Cost-benefit analysis will be done to determine the total economic value and results of the project will be well-communicated.

Issues with the methodology were raised by the mentors, one of which was for them to identify what kind of cost-benefit analysis they should use whether economic or financial cost-benefit analysis. Given proposal's objective and research question, the mentors recommended the use of financial cost-benefit analysis. They also suggested that in doing cost-benefit analysis, they should have a comparative study – a study between those that have managed MBA and those without MPA in order to identify its impact. In doing the total economic valuations, the participants were told to focus on a particular uses and benefits. However, the mentors suggested that identifying the total economic valuation in line with their objectives was not necessary. Instead, they suggested focusing on valuating the fisheries and tourism.

Socio-Economic Impact of Mariculture Operations in Lingayen Gulf

S. Parreño, R. Abalos

The main objective of the research proposal is to ensure an ecologically sound coastal environment and sustainable fisheries, specifically:

1. To increase the contributions of fisheries in terms of food security, income generation and employment, and
2. To clearly define the socio-economic and environmental impacts of mariculture operations in Lingayen Gulf.

Expected results are as follows:

1. Baseline data on economic of mariculture operations
2. The research paper to be used as guide in planning and policy making by the LGUs

3. Dissemination through presentation (Brgy. Council meeting, SB and SP sessions and Research Fora)

The comment provided by the mentors was to focus on the rivalry – exclusion relationship on the site identified in the research proposal and for them to identify what part of the site under the property right system (permits, zoning arrangements, etc) and of the commons and its impact. Before valuation, they have to identify the distribution of benefits and access rights in the site.

In addressing the sustainability of the mariculture operations, they can conduct comparative analysis on two sites having different attributes. In doing valuation, the mentors suggested that they can estimate the incomes earned through using the fish cages as supposed to those who have not used.

Seeing the importance of property rights system, the mentors suggested addressing this and its impact on the stock and community welfare.

Socio-Economic Assessment of the Seaweeds Farmers in Tawi-Tawi

A.Tahiluddin and N. Delasas

The proposal presented by the team from Tawi-tawi aimed to determine the income level of the seaweeds farmers of Tawi-tawi and establish the reasons from their marginalization; to make seaweeds as a valuing instrument to determine the socio-economic status of the seaweed farmers; and to recommend measures in improving the lives of the seaweeds farmers of Tawi-tawi.

To address the objectives on marginalization, the mentors suggested to the presenter to tap the capital of the community though looking at their educational attainment, health, diet and access to credit. They also need to contextualize the marginalization in Tawi-Tawi relative to other provinces.

Sustainable Financing thru Eco-Tourism: Marine Protected Areas of Calapan City

F. Afable, R. Izon. M. Masagca Jr, and M. Alcanices

The team from Oriental Mindoro aimed to address the following on their research proposal:

1. To provide an overview of the current financing situation of Harca Piloto and Mangrove Conservation Zone in Calapan City;
2. To identify a number of key issues related to MPA costs and revenues; and
3. To make recommendations on how to enhance the financial sustainability of existing and future MPAs.

Employing the use of secondary data and survey instruments, the research is expected to serve as basis for fee collections while taking into consideration the economic value of the site. In the same time, the research will be able to identify livelihood alternatives in the community.

In using the travel cost methods, the mentors reminded the presenter that this is only used when there is already the presence of visitors in a given area. Since there are no specific correspondents to the project, they have yet to identify them. When it comes to doing feasibility assessment on tourism, they need to identify the unique features that the area has to offer to the visitors/ tourist.

They added that besides the output of the research, the documentation of the implementation of the project can be used in replicating the project in other sites/ areas.

Local Knowledge on the Values of the Philippine Teak Forest Along the Verde Island Passage Marine Biodiversity Conservation Corridor

A. Caringal

The proposal of Mr. Caringal was to address the lack of awareness and inadequate information of communities on the Philippine teak forest. By addressing this, it would become an important in articulating the 'ridge-to-reef' concept of conservation.

The objectives of the research proposal were to:

1. Determine the village-level knowledge about Philippine Teak forest along the Verde Island Passage;
2. Account the tangible values or uses of the Philippine teak forest by the community in the study area, and
3. Identify the formal institutional efforts, if any, relative to the conservation of Philippine teak forest in the study area.

The expected results and outputs for dissemination are as follows:

1. New specific data
2. Verified population density/ geographic distribution record of critically endangered Philippine teak
3. Data on extant local use and knowledge about Philippine teak
4. Information for Island LGUs of the VIP to set the agenda for coastal eco-tourism using the Philippine teak tree as flagships species for conservation of coastal ridge forest, or as priority species of national importance.

The mentors commented that even though that the Philippine teak does not have utilitarian value, it still has a value for knowledge that mentors wanted to explicate. Other comments included - that is good to know the impact of reintroduction of species to the site, to determine the effects of the Philippine teak to the coastal resources. Another suggestion was to do valuation of the beach forest.

Sustainable Financing Mechanisms for Binduyan Community Sustainable Enhancement Project (BCSEP)

L. S. Castro

To address the concerns of their adopted community, Ms. Castro opted to work separately from the Palawan group. The research problem deals with the identification of the current funding gaps in the project – Binduyan Community Sustainability Enhancement Project (BCSEP) and to identify the projected costs and revenues associated with taking project into action.

The study aims to:

1. Determine the current revenue of residents involved in coastal livelihoods;
2. Determine the economic value of coastal habitats in Binduyan;
3. Assess the ecotourism potential of each coastal habitat;
4. Identify costs associated with project managements; and
5. Identify prioritize Sustainable Financing options for the community.

At the end of the project duration, expected results are a clear and well-defined sustainable financing framework for BCSEP and increased livelihoods in Binduyan in an environmentally, socially, and economically sustainable manner.

Through stakeholders' consultation, bulletin of information for the barangay, presentation in scientific fora and publication, results will be disseminated.

The general comment from the mentors was about the coverage of the research given project site. The suggestion provided was to trim down the research problem and objectives. They suggested that the proposal they presented should be the research agenda of the university involved in the community.

Closing Comments

While most of the presenters mentioned research fora and research proceedings as ways of disseminating results, the mentors suggested to find more efficient and effective ways of information dissemination for policy purposes. Given the time of making the proposals, the participants were commended for presenting their topics with definite usefulness to their respective communities. On their logical framework, the participants are reminded to make it in line with their research problem and objectives, as currently most of the log frames covered a larger scope. In closing, the mentors stressed to make a realistic proposal that is doable given the short time period, then their other objectives or components of the research can be addressed in the future.

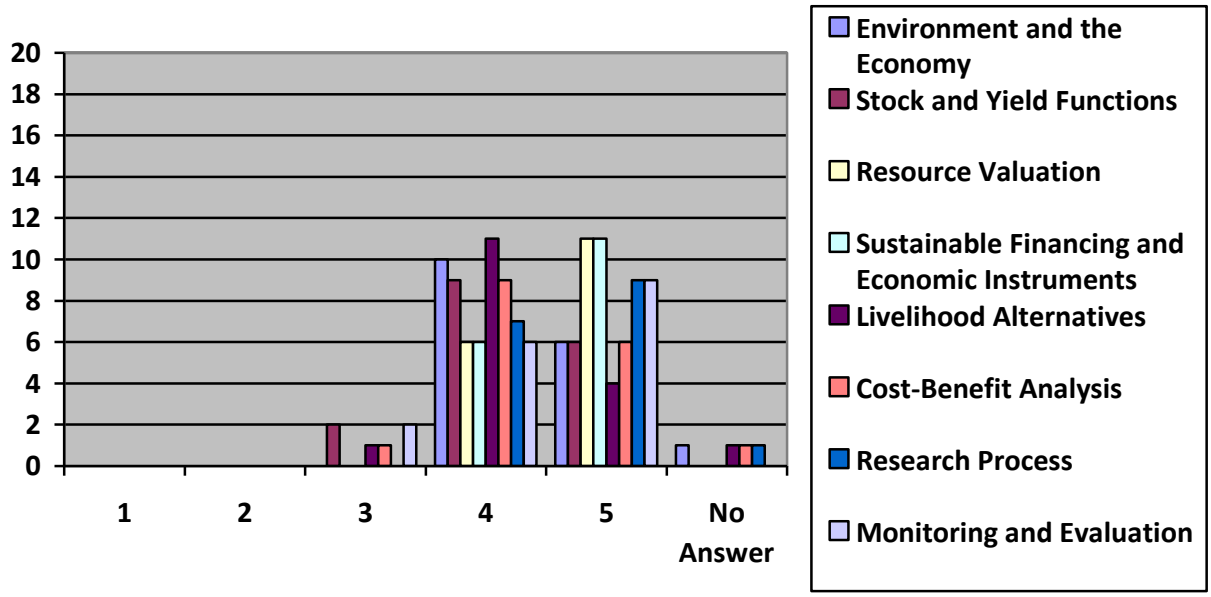
Assessment and Recommendations

The assessment for the first quarter of implementation of the UMP by REECS is divided into two sections. The first part is the assessment of the training based on the participants' feedback, which was done on Day 7 of the training using an evaluation and feedback form (a sample is shown in Annex X). The second part narrates the challenges encountered by the project team, solutions undertaken and recommendations for future implementation of the UMP.

Assessment of Training

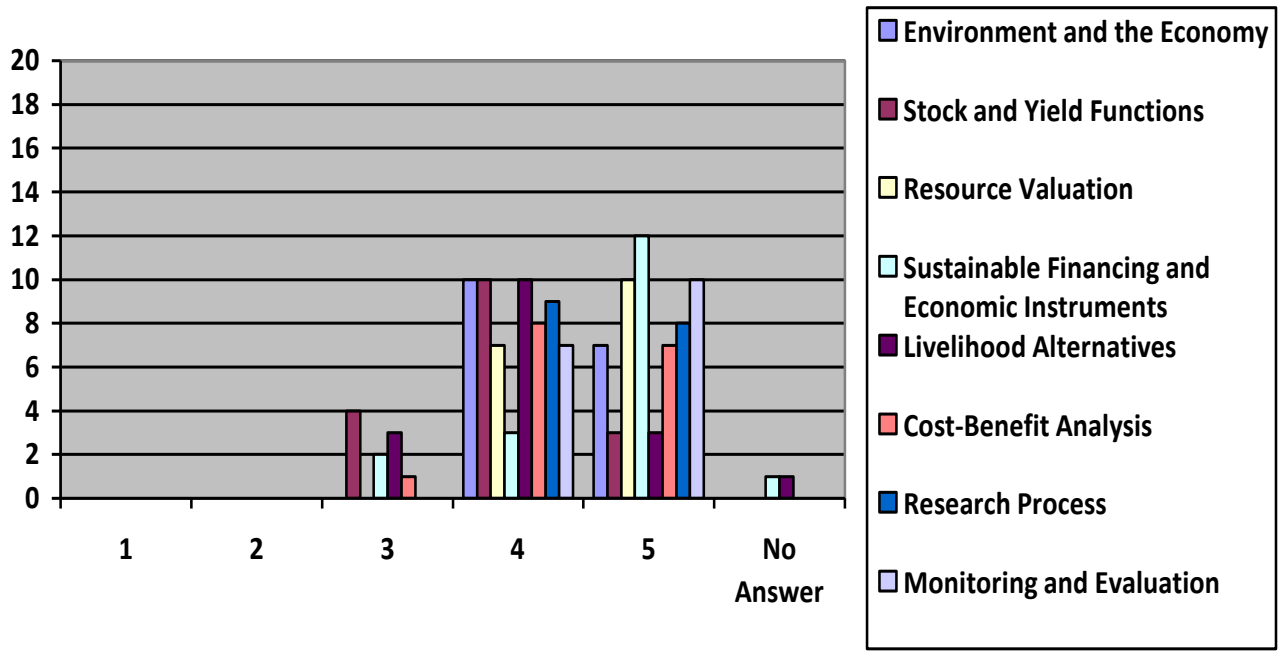
To improve and provide recommendations for future training activities, the project team conducted evaluation and feedback session. The participants were asked to fill out an evaluation and feedback form (Annex X) to assess the training. The rating used was from 1 to 5, with 1 being the poorest and 5 being excellent. It included the performance of each mentor or lecturer, the delivery of the training program, and their opinion regarding the relevance of their participation in the training.

Amount of information provided in the each sessions



The participants were asked to rate the amount of information/ levels of details discussed during the 8 sessions. They have highly rated both Resource Valuation and Sustainable Financing and Economic Instruments, with 11 out of the 20 participants giving both topics a rating of 5.

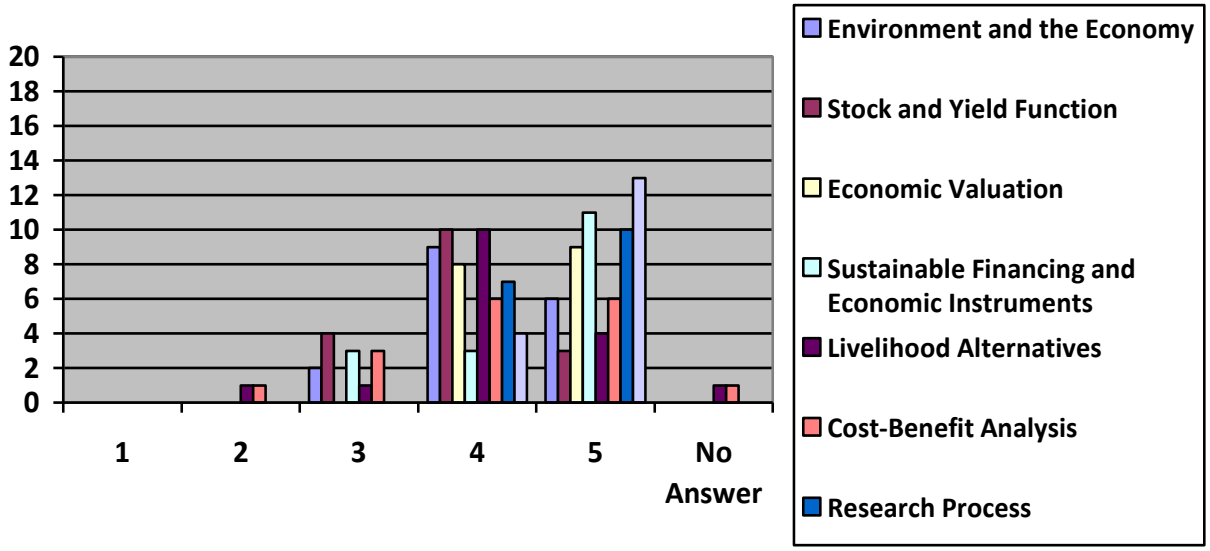
USEFULNESS OF THE IDEAS AND CONCEPTS PRESENTED IN WRITING THEIR RESEARCH PROPOSAL



Different ideas and concepts were presented in each session. However, the participants ranked the session on Sustainable Financing and Economic Instruments highest as to how valuable the session was in preparing their research proposal.

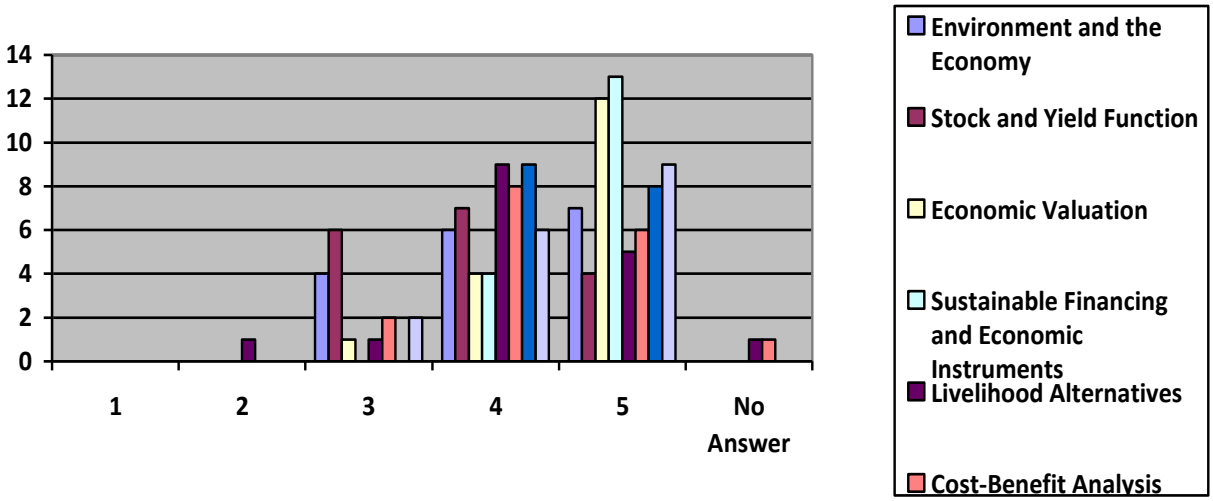
CHANCES OF APPLYING THE IDEAS AND CONCEPTS IN THEIR WORK

One of the main objectives of the training was for the participants to gain new ideas and concepts that they can use in their work. According to the answers of the participants, ideas and concept on monitoring and evaluation, and sustainable financing and economic instruments were ranked as most applicable by the participants.



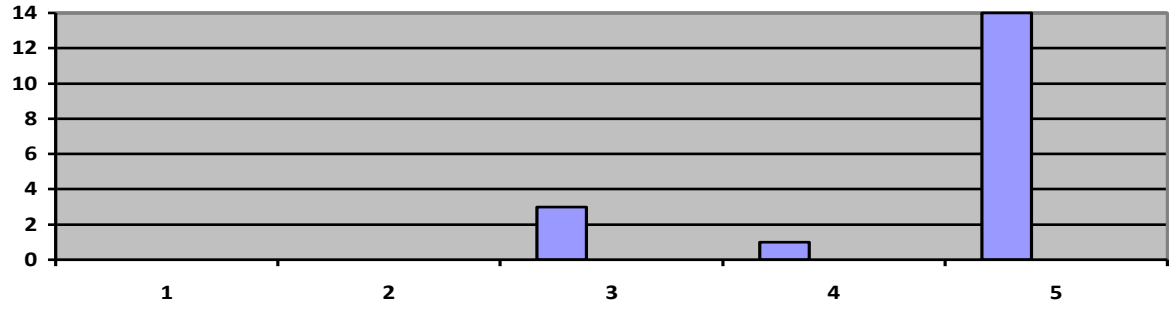
OVERALL PERFORMANCE OF THE RESOURCE PERSON

Among the 7 resource persons, Ms. Rina Maria Rosales and Dr. Majah-Leah Ravago were rated excellent by the participants. Some comments noted were *"great job", "among the resource speakers, she's the best", "good she touched all things tangible"* and *"great lecturer"*.



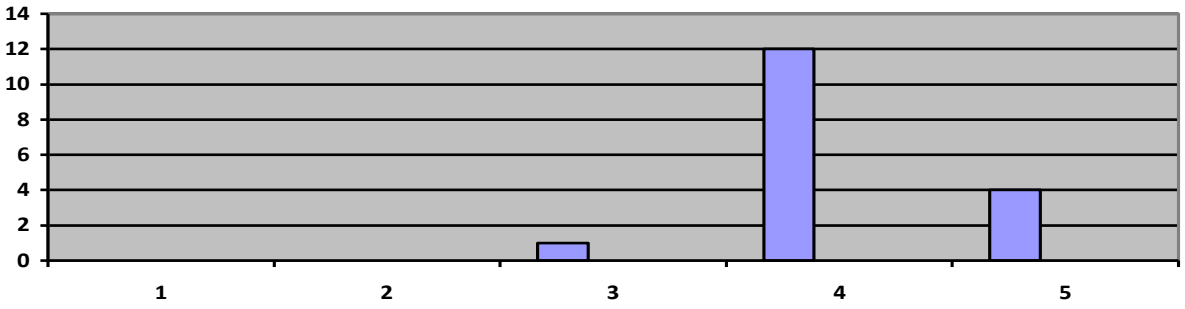
How Valuable their Attendance in the Mentoring Program was

Most of the participants ranked the level of their attendance in the mentoring program to be valuable.



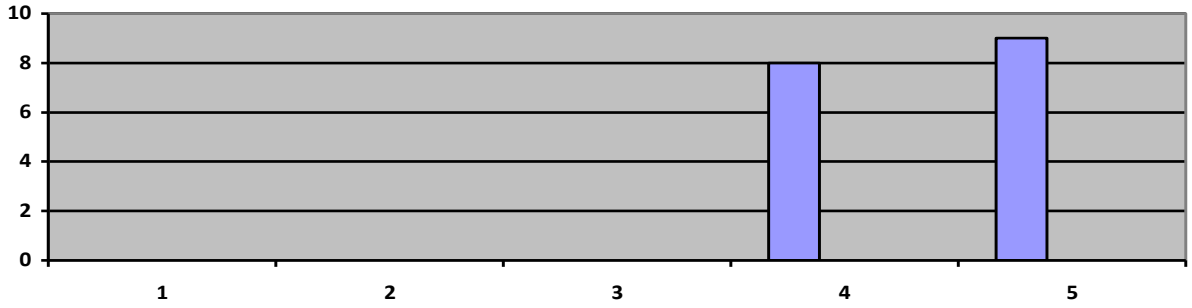
Overall expectations in the Mentoring Program

Relatively, the mentoring program met the overall expectations of the participants.



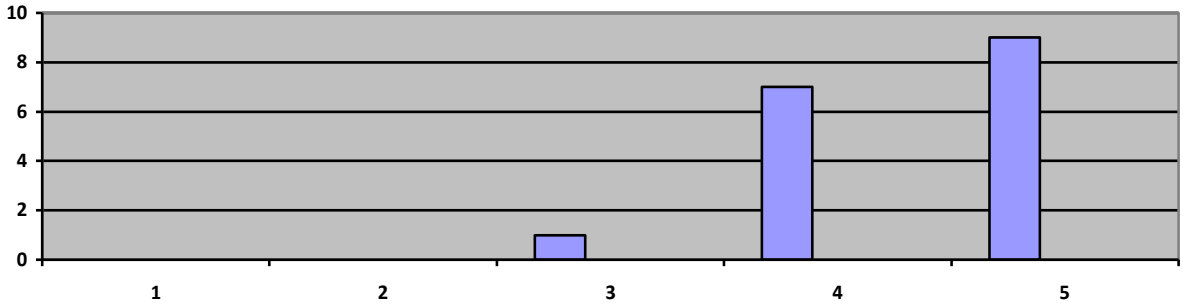
Chances of applying for this kind of activity

If given the chance to be invited again in a relevant or similar activity, the participants would most likely apply.



Overall experience in the Mentoring Program

The overall experience in the mentoring program was highly ranked by the participants.



Helpfulness in Preparing their Research Proposal

This question was answered by almost all of the participants. Some of their answers include:

- *"All the topics that have been discussed are worth learning, not only for the current proposal that we are preparing but as well for its implementation and for further researches in the future."*
- *"The training course was very useful in identifying appropriate valuation methods. However, it would be better if the materials were given before hand to have collateral reading."*
- *"It provides better methods to come up w/ better proposal. Basic principles of valuation and CBA are crucial for the preparation of the research. Through mentors, I was able to identify considerations to be made and have better conceptualization on matters to be valued."*
- *"Certain areas that need to be highlighted in the research proposal were elaborated. The presentation in M&E is very interesting."*
- *"The session helps a lot to prepare and develop our research proposal w/c is relevant to socio-economic assessment."*
- *"It provided certain understanding on some topics that were useful in the development of the research concept notes."*
- *"The conceptualization of the research proposal is possible because of all the sessions."*
- *"Gives more idea/ wide range of ideas."*
- *"Very useful."*
- *"I learned from this session not only the technological and socio-economic considerations in preparing research proposal but more so the valuation of economic resource (coastal resource) & its environmental efficiency…"*
- *"The sessions equipped me to be a future wholistic researcher."*
- *"Although I have a little background in environmental service and economics but from the training I gained a lot of information w/c could be helpful in writing a research in CRM and also help to my future studies in our institution."*
- *"This leads me to a higher level- making proposal of wider scope and more relevant to needs of my community and municipality."*

Suggestion to Improve the Session in the Future

The participants' suggestions in improving the session include:

- *"More time especially in proposal/ concept note writing"*
- *"Present and give the format of the concept note at the beginning of lectures so it can be done little by little during vacant time and while the learnings are still fresh in the mind."*
- *"Venue should be at least near to the field exposure site to minimize travel time"*
- *"Topic may include concrete examples/ illustrations to back up theories presented. If possible, kit may be provided at the start of the training to have longer time reading/ analyzing it. Better internet connections to be able to download references."*
- *"A carefully prepared, printed modules (compendium) of all the presentation must be given at the stat of the very first day of the activity. It will serve, somehow, as a textbook for participants."*
- *"More practical application and longer session."*
- *"Discuss first or review the basic economic concepts before further discussion."*
- *"I hope that it could be expanded to 2 full weeks of training, with relevant reading materials for intended trainees to read emailed at least a week before the start of the training proper. Likewise, I suggest handouts be given (hard copies)…"*
- *"For field trip, maybe consider the travel time and location."*
- *"Advanced copy of reading materials for us to have a collateral reads so we won't cram/ feel lost during mentors' discussion."*
- *"I suggest that there will be data to be given. Actual application of the different valuation tools should be done."*
- *"To inform the speakers not too give many theories better give samples and how to apply."*
- *"A bit prolonged immersion with the local folks. Gaining ideas from the grassroot provides great help to be sufficiently informed."*

Other Comments

Other comments included:

- *"Topics discussed were very much relevant for preparation of research proposal. Maybe presentation/ discussion can be done in a slower pace w/ more illustrations to give ample time to digest things…"*
- *"The organizers found the best value but better ensure a reliable internet access next time."*
- *"Overall, the training is memorable. I learned a lot…"*
- *"The venue was good for the training though and Marghieth and King were helpful and accommodating. The chosen mentors also provided very good inputs and suggestions."*
- *"The training period is not enough."*

Assessment of The First Quarter

Being a pilot for the socio-economic component of the UMP, the project team has been taking note of the challenges in the implementation, the solutions that have been undertaken and recommendations for further development and expansion of the program.

The most overarching of the challenges would be the "newness" of program itself. Since the systems are still under the process of development, things being encountered have no immediate policy or procedure to address the situation. The examples of this will be seen in the following paragraphs, but basically, the solution is to document the processes that are being followed, the assessments and adjustments in order to capture the learning to later become the elements of an operations manual for the program and templates for contracts and memoranda.

Another important challenge would be the selection of participants where there was no detailed criteria established yet. The solutions undertaken were: 1) develop and tweak the criteria for selection and replacements based on then available pool of applicants and how they received their invitations to participate; and 2) constant coordination with CI as they had already touched based earlier with the applicants and thus served to provide the needed background information needed to make decisions; facilitated the follow-up communications; and identification of appropriate replacement when called for.

Related to selection of participants was the quality of the applications received. While Coastal Resource Management involves interdisciplinary approaches, there should still be a way of targeting the people strategically to increase the chances of the program's realization of its outcomes and impact. It is thus recommended that the set of pre-qualifiers be identified with the criteria, to get a pool of applicants who are better aligned with the context of UMP itself. As mentioned in the section on Pre-Training Activities, the mentors recommended demonstration of strategic advantage of the University or strategic role of the applicants defined as:

> "Strategic advantage or role (i.e. location, institutional capacities, etc) means the qualities that are needed to implement the UMP within the CTI. That is, the university is proximate to the prospective research area (or communities with an existing or required MPA). It has potential, if not existing capacities for ecosystem research, management and monitoring, and can collaborate or has been collaborating with the LGU."

The call for applications should communicate this, as well as the criteria for selection, with the University Administrators who will recommend their faculty. When the applications are properly contextualized, and when applicants have a better match with the rest of the criteria earlier identified, this can solve other challenges as well, such as:

1. Having less of a gap between the technical nature of the sessions and the baseline knowledge of the participants. This does not necessarily mean that the participants are from disciplines close to resource economics, but it can mean having participants with higher level of interest, appreciation and/or exposure to the concepts if their role or potential role is strategic.
2. It could have greater relevance to the career paths that the participants want to build for themselves.
3. Sustaining the motivation of the participants, given how demanding of time and energy these research projects can be.
4. There may be greater buy-in and support from their supervisors and administrators in their universities because the relevance of the training can easily be connected.

For the implementation of the research in teams, we have yet to test how the coordination among the mentees from different campuses or universities within a CTI site will be done. There might be problems within the teams which the project team should pay attention to in order to troubleshoot or provide support as needed.

As seen in the suggestions to the training, some of the sessions were highly theoretical and technical. The program should attain a balance between equipping the participants with a good grasp of the concepts to implement a good and publishable research, and making the concepts more practical so that these can be easily appreciated and applied. There may be a need to orient the mentors who are used to the academic setting of adult learning and training methods. Inclusion of field practitioners as mentors may also help address this.

Another problem that was identified by the participants was the venue's location, although the facilities were highly conducive to training. The selection of venue was quite difficult as there was a very short amount of time in booking the place. Originally, the number of mentees was supposed to be 12, and bringing the number to 20 negatively affected the budget per participant. In future activities, there should be ample time and more accommodating budget in order to choose the most appropriate venue.

Time constraints pose another major challenge for the program. This appears in many contexts of the program, with these three being the most apparent:

1. With respect to the semestral and trimestral schedules of different universities, the availability of the mentees and mentors to take a leave for a week-long training are varied.
2. The implementation of the research projects themselves within a 4-6 month period is challenging given the workload of the participants.
3. The release of funding for grants came later as an addendum to the contract, thus scheduling of actual implementation of the project was moved from June 2012 to September 2012, and this limited the research time significantly.

The next round of training should study the cycles where the professors have a likelihood of less workload, such as semestral or summer breaks. If the program becomes large enough, then the trimestral and semstral universities can be clustered. Mentors from outside of universities such as retired professors, consultants or field practitioners can also be tapped. In order to save time, maximizing use of technology such as consultations and support through online and mobile means should be built as a culture, though this may not be as readily done in remote areas.

Conflicts in workload of both mentees and mentors is also seen as a challenge. Ensuring that the administrators handling both groups are supportive and formalizing institutional arrangements may facilitate the lightening of their loads to accommodate the activities under the UMP. In this case, the institutional benefits to the Universities should be clearly communicated.

PHOTO DOCUMENTATION

Mark Anthony M. Ramirez, Executive Director of Resources, Environment and Economics Center for Studies, Inc. giving his welcome remarks.

Ms. Marghieth Garcia, Project Coordinator, explains the Mood Monitoring Chart.

Ms. Eva Marie Connie Ponce de Leon, participant from Palawan State University introduces herself and fills up the Mood Monitoring Chart.

Dr. Germelino M. Bautista discusses the technicalities behind Fishery and Coastal Resource Management.

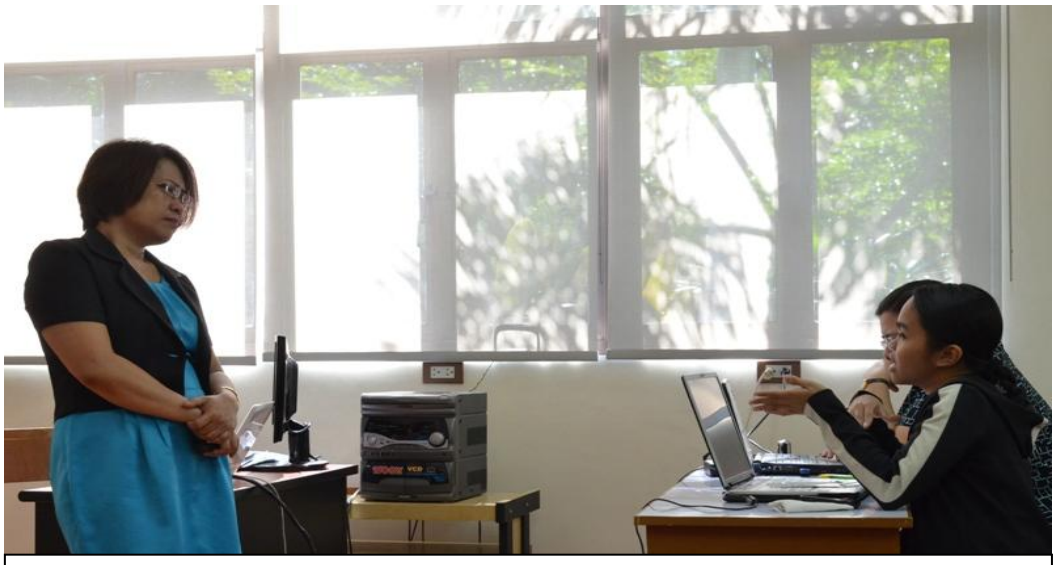
Ms. Marilyn Alcanices, LGU representative of Oriental Mindoro shares their activity output.

Dr. Majah – Leah Ravago hands out survey questionnaire before she starts with her session on Resource Valuation Method

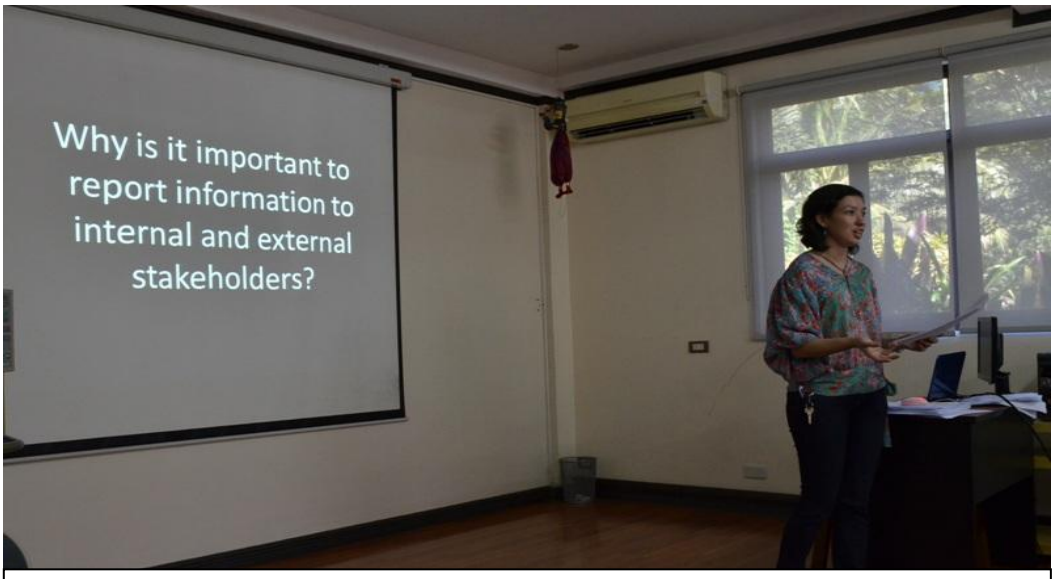
Mr. Nestor Delasas of LGU Tawi-Tawi and Ms. Marghieth Garcia exchange words during the Feedback Session.

Ms. Rina Maria P. Rosales delivers her lesson on Economic Instruments and Sustainable Financing.

Dr. Leonardo Lanzona talks about the concepts of Cost-Benefit Analysis.



Dr. Arlene B. Inocencio (left) hears out the idea from Ms. Cherry Lyn Jalover (right) of LGU Palawan during the discussion on Research Process.



Ms. Marghieth Garcia discusses the importance of conducting Monitoring and Evaluation.

The participants attend a courtesy call to the LGU of Calatagan, Batangas in the presence of Ms. Emelyn Cadano- Custodio, Municipal Agriculturist.

Mr.Virgilio Enriquez of the Calatagan Nursery and Rehabilitation Project in Balibago shares their practices and issues encountered in handling the project.

Personnel of Ang Pulo Calatagan Mangrove Forest Conservation Park introduces the People's Organization to the participants.

Personnel of Ang Pulo Calatagan Mangrove Forest Conservation Park shares about the brief history of the MPA.

Personnel of Ang Pulo Calatagan Mangrove Forest Conservation Park shares the best practices, ecotourism activities and livelihood program of Ang Pulo.

Nestor Delasas of LGU Tawi-Tawi presents their research proposal on the Socio-Economic Assessment of the Seaweed Farmers of Tawi-Tawi.

Participants share their overall feedback and experience during the 8-day training through creative means.

After completing the 8-day training, the participants receive their Certificate of Completion.

Batch 2012 of the University Mentoring Program poses together with the Project Team, Mentors and CI Representatives for a group souvenir shot.