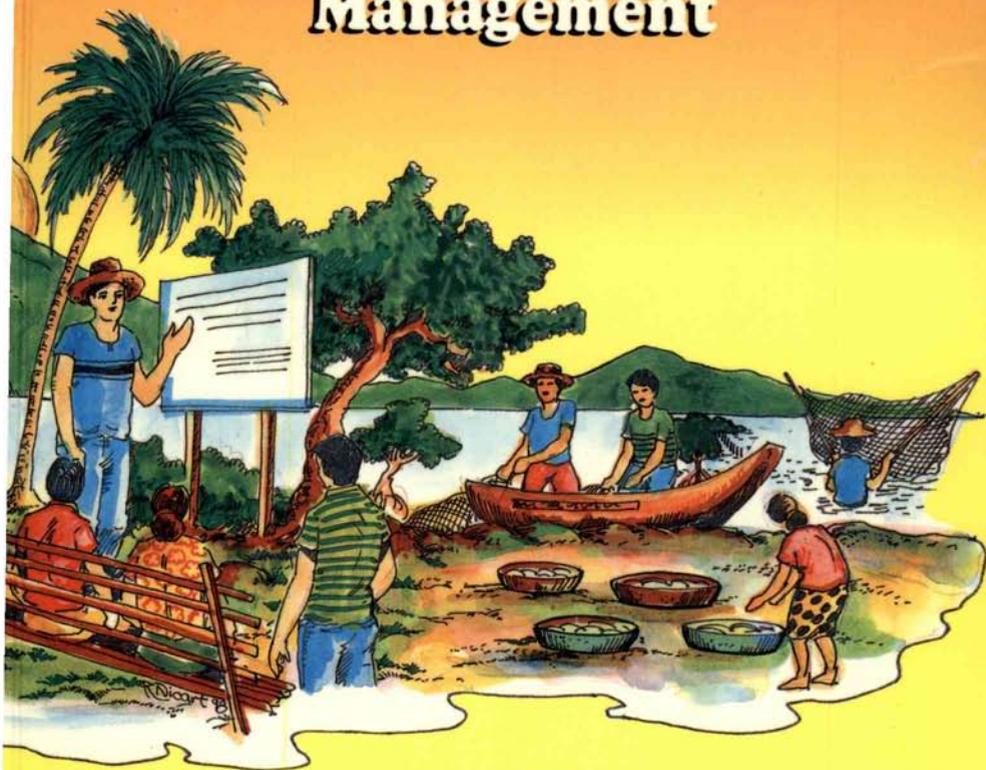


Volume 1

Introductory Papers



Participatory Methods in Community-based Coastal Resource Management



This report is presented as received by IDRC from project recipient(s).
It has not been subjected to peer review or other review processes.

This work is used with the permission of International Institute of Rural Reconstruction.

© 1998, International Institute of Rural Reconstruction.

Participatory Methods in Community-based Coastal Resource Management

VOLUME I

Introductory papers

1998

ARCHIV
577.4:301.185
IS
V. 1



IIRR

The International Institute of Rural Reconstruction (IIRR) is a non-profit, non-government organization that aims to improve the quality of lives of the rural poor in developing countries through rural reconstruction: a sustainable, integrated, people-centered development strategy generated through practical field experiences.

IIRR publications are not copyrighted. The Institute encourages the translation, adaptation and copying of materials for non-commercial use, provided an acknowledgement to IIRR is included.

Correct citation:

IIRR. 1998. Participatory methods in community-based coastal resource management. 3 vols. International Institute of Rural Reconstruction, Silang, Cavite, Philippines.

Published 1998 by the
International Institute of Rural Reconstruction
Silang, Cavite 4118, Philippines

 (63-46) 414 2417

 (63-46) 414 2420

 iirr@cav.pworld.net.ph

Printed in the Philippines

ISBN 0-942717-90-2

Contents

Funding partners	v
Collaborating organizations	vii
Members of the management team and steering committee	ix
Acknowledgement	xi
Introduction	xv
How this sourcebook was produced	xxi

Introductory papers

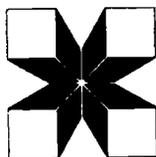
Coastal communities living with complexity and crisis in search for control	3
Community-based coastal resource management	15
Community organizing and development process	30
Participation and participatory methods	41
General guidelines for using participatory tools	51
Glossary	61
Workshop participants	75
Workshop staff	85

Funding partners



Canadian International
Development Agency

IDRC



CANADA

International Development
Research Centre



Royal Netherlands Embassy

and



Small Islands Agricultural Support
Services Program



Western Samar Agricultural Resources
Development Programme

Collaborating organizations



IIRR

International Institute of
Rural Reconstruction



International Development
Research Centre



International Center for Living
Aquatic Resource Management



Voluntary Service Overseas



SEAMEO Regional Center for
Graduate Study and Research in
Agriculture



Small Islands Agricultural
Support Services Programme



Coastal Resource Management
Project

Members of the management team and steering committee

Project management team

Joy Rivaca-Caminade, International Institute of Rural
Reconstruction (IIRR)

Julian F. Gonsalves, IIRR

Gregory C. Ira, IIRR

Gary F. Newkirk, Dalhousie University and International
Development Research Centre (IDRC)

Steering committee members

Geoff Brown, Voluntary Overseas Services (VSO)

Francisco Fellizar, SEAMEO Regional Center for Graduate
Study and Research in Agriculture (SEARCA)

Elmer Ferrer, College of Social Work and Community
Development - University of the Philippines (CSCWD-UP)

Julian Gonsalves, Gregory Ira and

Joy Rivaca-Caminade, International Institute of Rural
Reconstruction (IIRR)

Minerva Gonzales, Community Extension and Research for Development (CERD)

Ken Mackay, International Development Research Centre (IDRC)

Annette Juinio-Menez, Marine Science Institute - University of the Philippines (MSI-UP)

Marie Grace Madamba-Nuñez, Philippine Partnership for the Development of Human Resources in the Rural Areas (PhilDRRA)

Gary Newkirk, Dalhousie University and International Development Research Centre (IDRC)

Robert Stephen Pomeroy, International Center for Living Aquatic Resource Management (ICLARM)

Becky Rivera, Tambuyog Development Center

Rathin Roy, Bay of Bengal Project (BOBP)

Herman Ongkiko and William Jatulan, Small Islands Agricultural Support Services Programme (SMISLE)

Alan White, Coastal Resource Management Project (CRMP)

Acknowledgement

Publications such as the “Participatory Methods in Community-based Coastal Resource Management” are products based on knowledge acquired from direct field experience of individuals and institutions operating at the community level. IIRR relied heavily on the experience of partners and peers engaged in the field of community-based natural resource management. These supporters include a large number of people who have contributed in various capacities over time.

First on the scene were Ken Mackay, International Development and Research Centre of Canada (IDRC); Julian Gonsalves, International Institute of Rural Reconstruction (IIRR); and Gary Newkirk, Dalhousie University’s Coastal Resources Research Network (IDRC/CoRR). Together they recognized the need for a publication that documents participatory methods used specifically for coastal settings. At that time, it was felt that IIRR’s experience with participatory methods for rural development would play an important role in the overall project. Similarly, it was felt that the wealth and depth of experience in community-based coastal resource management in the Philippines warranted its selection as the venue for the participatory workshop.

An organizing committee was initiated including (in addition to those above) Gregory Ira and Joy Rivaca-Caminade (IIRR); Bob Pomeroy, International Center for Living Aquatic Resource Management (ICLARM); Francisco

Fellizar, SEAMEO Regional Center for Graduate Study and Research in Agriculture (SEARCA); Rathin Roy, Bay of Bengal Programme (BoBP); Rebecca Rivera, Tambuyog Development Center (TDC); Annette Junio-Menez, University of the Philippines at Diliman, Marine Sciences Institute (UP-MSI); Elmer Ferrer, University of the Philippines at Diliman, College of Welfare and Social Work and Community Development (UP-CWSWCD), Geoff Brown, Voluntary Service Overseas (VSO); Marie Grace Madamba-Nuñez, Philippine Partnership for the Development of Human Resources in Rural Areas (PhilDHRRA); Alan White, Coastal Resource Management Project (CRMP); Herman Ongkiko, Small Islands Agricultural Support Services Programme (SMISLE); and Minerva Gonzales, Community Extension and Research for Development (CERD).

The documentation of the experiences of these committed individuals and each of the contributing authors into the final sourcebook could not have taken place without the financial support of donors. We are grateful to the following organizations and their representatives for recognizing the value of the sourcebook and having confidence in our capacity to produce it. Initial financial support came from Ken Mackay of IDRC. Additional financial support came from Mr. Paul Huddleston and Zenaida Cuenca-Forbes of the Canadian International Development Agency (Environment Development Fund), Ambassador Eric T.J.T. Kwint of the Royal Netherlands Embassy (Small Embassy Projects Programme), Herman Ongkiko of SMISLE and David J. Moles of the Western Samar Agricultural Development Programme (WESAMAR).

IIRR also remains appreciative of the support it has received (over the years) from the United States Agency for International Development (USAID) and the Ford Foundation (FF). Such institutional support allows IIRR to leverage resources and foster partnerships with other institutions.

The entire list of participants is provided in this sourcebook. Their contributions go well beyond their respective papers. Each participant added value to the work of their colleagues.

There are, however, certain individuals that deserve special mention for the special effort they provided. First, we would like to thank the VSO volunteers who provided editorial support during the workshop: Arlene Brooks, Cathy Rosario, Sarah Jane Curran, Maeve Nightingale, Stuart James Green and John Purvis. Arlene Brooks and Cathy Rosario extended their stay with us to help integrate third round revisions into the papers. Their voluntary support was characteristic of the commitment of VSO to assist local organizations in the pursuit of CBCRM.

Marie Grace Madamba-Nunez provided IIRR staff with critical technical support in the post-workshop editing of the papers. Dr. Gary Newkirk provided extremely valuable comments to the various drafts.

The International Institute of Rural Reconstruction would like to thank these individuals and each of the authors and support staff for contributing their time and experience toward the successful completion of this publication.

Mabuhay!

Introduction

The need for a sourcebook on participatory methods for community-based coastal resource management (CBCRM) arose from the absence of practical field-tested reference materials that merge the participatory nature of CBCRM with the unique conditions of the coastal zone. Field workers from government, non-government, community-based and even research organizations are increasingly applying participatory and community-based approaches (developed primarily in terrestrial settings) to work in the coastal zone.

While the general principles of participatory methods for conservation and development apply equally well to coastal conditions, the specific tools and their applications will differ. Practitioners of CBCRM have been developing and adapting participatory tools to their unique environments for many years now.



There is no one way to do community-based coastal resource management. Its concepts and processes continue to evolve as field practitioners relentlessly explore, innovate and generate new ideas and techniques in managing the coastal environment. This sourcebook is an attempt to document the various tools and methods developed in the course of doing CBCRM as actually and effectively employed by field practitioners in countries like the Philippines, Indonesia, India and other Asian countries.

The sourcebook is heavily biased towards participatory methods because the authors believe that such processes not only intend to empower, but *do* empower. Participatory approaches also generate relevant information from local and indigenous knowledge that is crucial to community-based coastal resource management.

The sourcebook is designed for use by people working directly with coastal communities to help strengthen their capability to manage, protect and develop their local resources. These include community organizers, community leaders, researchers, other field workers who may come from NGOs, GOs or research and training institutions. The tools are meant to guide users and not to be taken as rigid formulas. The tools can generally be applied or adapted to all types of coastal settings with a little resourcefulness and creativity.



The first booklet

The first section of the sourcebook zooms in on the coastal zone, the principles and components of community-based coastal resource management, community organizing as an underlying and integrating component to CBCRM and an overview of participation. This section differs from the rest of the sourcebook because it is more of a “reader” with basic background information; a foundation for the rest of the sourcebook.

The paper on the coastal zone emphasizes the challenges of the terrestrial and marine interface including the following characteristics: the prevalence of open access conditions; predominance of common pool resources; the mobile nature of many of the resources; the unique influence of temporal (e.g., lunar) cycles; the frequently strong gender differentiation in productive roles; and the dual (i.e., terrestrial and marine) nature of coastal livelihoods.

The paper on community-based natural resource management presents the evolution, principles, stages and strategies of CBCRM. CBCRM is presented as a framework for coastal conservation and development in partnership with community based organizations, local governments, non-governmental organizations and others.

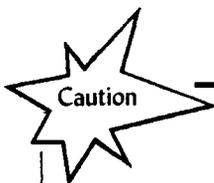
Community organizing (CO) is covered in the introduction because of its central role in integrating CBCRM activities. Participants recognized the diversity in CO approaches and the political and administrative obstacles in some countries. Nevertheless, the depth of experience and central role of CO in the Philippines (a recognized leader in CBCRM) supported its inclusion in the introduction.

Finally, the issue of participation itself is presented. The rationale for participation, the forms of participation, the obstacles to participation and the relationship between participatory approaches and non-participatory approaches are discussed. General guidelines for using participatory methods are also included.

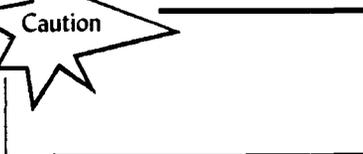
The types of participatory methods presented in the sourcebook and the degree to which they promote participation varied greatly. The methods range from survey type questionnaires (less participatory) to locally designed wealth ranking tools (more participatory). A common sentiment was that the only “correct” level of participation is that which is acceptable to the local community members.

The second booklet

The main section of the sourcebook is the step by step description of various participatory methods field-tested by the authors and their organizations. A simple outline was devised for most of the topics in this section and include the following headings: definition, purpose, materials, suggested approach, outputs, strengths, weaknesses and variations. Examples were commonly used to illustrate key points. In most cases, the examples were based on actual experiences. Cautions highlight areas where potential problems are likely to occur. Icons were also used for these special considerations.



Caution



The methods can be categorized in a number of ways: 1) the type of tool employed (e.g., matrix, diagram, timeline); 2) the purpose of the tool (e.g., temporal analysis, spatial analysis, comparison); and 3) the stage in the project cycle when it is applied (e.g., analysis, planning, implementation). Eventually, the final groupings adopted for the sourcebook emphasize the type of tool and its purpose. The judicious use of cross-referencing was used to address any weakness in the categorization of the topics.



The sourcebook is not intended to be read from cover-to-cover. The organization of the book does not imply a sequential order for using the tools or any relative importance of particular tools.

The third booklet

While the primary focus of the book is on methods for analysis, planning, monitoring and evaluation, the authors felt strongly that a description of a few critical “implementation interventions” was warranted. Hence, the topics on mangrove reforestation and establishment of marine protected areas. The sourcebook also recognizes the importance of gender and indigenous knowledge as cross cutting themes, thus their inclusion.

In addition, appendices including a list of relevant equipment and a matrix of livelihood options for CBCRM are included.

A distillation of practical field experiences

The sourcebook – like most of IIRR publications -- is a distillation of practical field experiences of a committed group of conservation and development practitioners. There

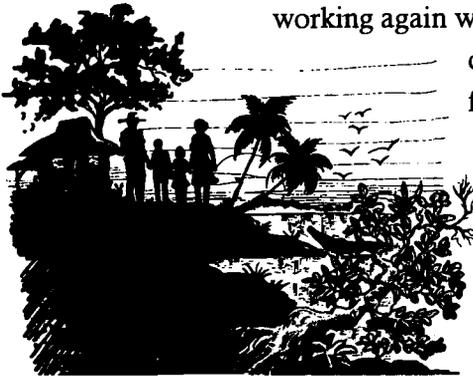
is no cutting edge science or even new knowledge. The strength of the sourcebook is its ability to simplify and communicate ideas clearly to a particular audience.

There is, however, an inherent contradiction in such undertakings. It is often difficult to balance the site-specific nature of field-tested experiences with the need to provide useful information to a wider audience. Authors were encouraged to be specific in describing the tools and methods they used. At the same time, they were reminded to avoid or explain local terms, norms or institutions. In general, the steps or the suggested approaches are written in generic terms and selected examples are used to illustrate the specific experiences from which the method was derived. Ultimately, it is the reader that will determine the local relevance of the methods.

The success of the publication will be measured by the creases on the binding and the amount of salt spray that forms on its cover as practitioners regularly turn to it in the field.

The creativity and ingenuity of the users will determine the life-span of the sourcebook. Improvements and adaptations are welcome and expected. Indeed, we look forward to working again with the original

contributors as well as future users of the sourcebook to continually provide relevant and practical materials in support of CBCRM.



How this sourcebook was produced

This sourcebook is the final output of the workshop conducted at the International Institute of Rural Reconstruction (IIRR) in Silang, Cavite, Philippines on 28 July - 08 August 1997. The workshop, organized by IIRR, brought together about 35 community-based coastal resource management (CBCRM) practitioners in Asia. They worked closely with a production team of editors, artists and desktop publishing staff.

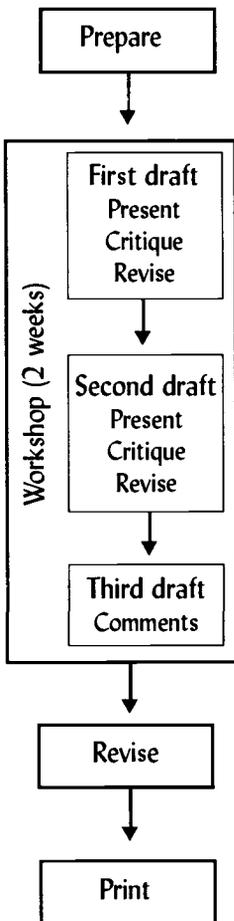
It is during the workshop that these participatory tools in CBCRM were compiled and participatorily edited. This publication is aimed at community workers, researchers, community leaders, extension agents and field teams of various government, non-government and community-based organizations.



Workshop objectives

Process, participation and product were the 3Ps stressed in the workshop which recognized the following objectives:

1. To compile participatory field methodologies, tools and approaches used in coastal communities into a sourcebook for use, testing and adaptation by other practitioners and organizations involved in CBCRM.
2. To produce a sourcebook based on successful practices.



Workshop process

Planning and preparation for the production of the sourcebook started long before the workshop. With the members of the steering committee (representing various organizations in Asia), the focus of the publication was decided on. The steering committee also assisted IIRR in the identification of topics and resource persons for the workshop.

The workshop used a process developed and pioneered by IIRR. This process had been used to produce information kits on a range of topics related to agriculture and natural resources management, including agroforestry technologies in the Philippines, integrated agriculture-aquaculture in Asia, ethnoveterinary medicine in Asia and environmental concepts and actions.

During the workshop, each participant presented his or her draft paper, using overhead transparencies of each page. Copies of each draft were also provided to all other participants who critiqued the draft and suggested revisions.

After the first presentation, an editor-artist team helped the author revise and edit the draft and draw illustrations to accompany the text. The edited draft and artwork were then desktop published to produce a second draft.

Each participant then presented his or her revised draft to the group for the second time, also using transparencies.



Again, the audience critiqued it and suggested revisions. After the presentation, the editors, artists and desktop publishing staff again helped the author revise it and develop the third draft. Toward the end of the workshop, the third draft was made available to the participants for final comments and revisions.

The workshop allowed inputs from all participants to be incorporated, taking advantage of the diverse experience and expertise of all present. The concentration of resource persons, editors, artists and desktop publishing staff at one time and place enabled materials to be produced more quickly than is typical for similar publications. And the sharing of experiences among participants allowed the development of networks that would continue to be fruitful long into the future and would lead to concrete follow-up activities.



Introductory papers

Coastal communities living with complexity and crisis in search for control

Coastal communities are people living on the thin strip of land or on the water along the fluctuating line where the sea meets the land. Trying to otherwise define either this group of people or delimiting the resources upon which they depend is an elusive task.



The coastal zone may be defined “ecologically” as the land area influenced by the sea; politically by some arbitrary distance inland from high tide level; or socially as the area occupied by people dependent on the sea for livelihood. For any means except setting an arbitrary distance, the exact extent of the coastal zone defies rigorous definition due to the interconnectedness of ecosystems and human activities in this productive strip between land and sea.

In this chapter, aspects of the nature of the overall coastal system, including people and their coastal environment, will be discussed. It is dangerous to generalize but some aspects seem to be common enough to warrant comment.

Understanding the nature of the complex system can help the outsider better work with people who are part of the system and may not themselves consciously think about the overall system. This should help the outsider contextualize work with coastal communities and “probe beneath the surface.”

Common assumption: “Coastal resources” are living and non-living things found below the surface of the sea.

Reality: Livelihoods of coastal communities also depend on “terrestrial” resources for food or income.

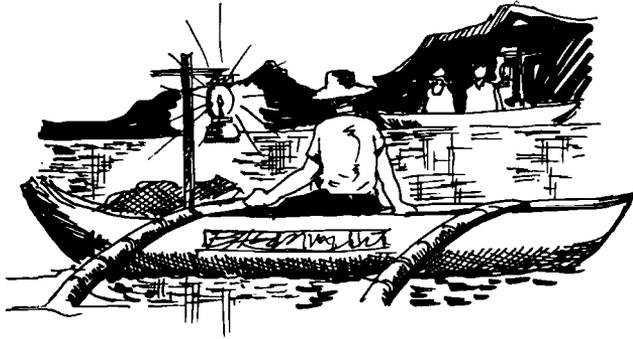
Since terrestrial resources are essential for coastal communities and they affect the health of, or the use of, marine resources, they are considered by some to be “coastal resources” along with the living and non-living resources in the sea.

Coastal communities

Coastal communities have multiple sources of income but there are often serious threats to food security.

*They live at the edge of the “bountiful sea”
but they are generally poor, crowded and
marginalized.*

*However, they are resourceful when resources are
degraded;
they may lack monetary resources but they survive.*

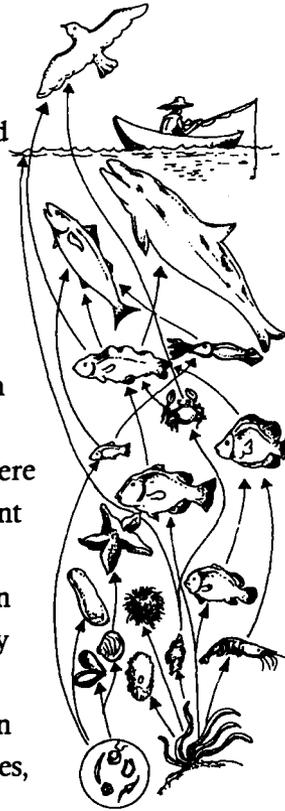


Fishers have traditionally been migratory, as families or as individuals. Recently, the increased population pressures in many countries have pushed inland people to the coast in the hopes of maintaining a livelihood based on marine resources which are often considered common property. Some of these migrants, either as families or individually, move to cities or foreign countries in search of work. All of these migrants contribute to change in local populations, mixing ethnic groups, cultures and language. Whether from inland or from other coastal areas, these migrants are people without previous ties to the locality, which means less local ecological knowledge but they add richness to the communities with different cultures.

Complexity

The ecological and human systems which form the coastal zone are ecologically and demographically highly complex.

The interface of land and sea is a dynamic habitat where energy, nutrients and populations of plants and animals mix and are recycled. This results in some of the most productive areas on earth characterized by complex food chains that maintain high production potential. Anecdotal evidence speaks of the historically high levels of productivity of coastal areas, especially high levels of fish stocks. There is good reason to believe that the current dismal nature of some coastal areas is primarily due to the chaotic destruction of the complex ecological networks. By reversing the overexploitation of key parts of the food chain, which are often commercially valuable predatory species, the ecological balance can be restored.



Flow is an important part of the complexity of the marine and estuarine habitats. The complexity and flow of coastal resources and coastal communities make assessment or information gathering by outsiders a difficult task.

It is hard to observe resources that are: mobile, underwater, change seasonally and move between different habitats.

Such movement is often predictable on a seasonal, monthly or daily cycle but knowledge of the exact location or size of fish stocks is not easily obtained although local knowledge may be available. However, if the ecology has changed through overexploitation or habitat degradation, traditional ecological knowledge may no longer be relevant, or young, active fishers may not have experienced the richness of the habitat prior to its devastation. One option is to seek information from older residents but it is difficult to cross check such information. Fish catches many years ago occurred under very different market conditions and it may not be possible to obtain a good estimate of the potential yield of the resources even if the habitat is restored.

Furthermore, if those active in fishery have recently moved to the area, their depth of knowledge of the local ecology may be limiting.

There is less isolation of marine ecosystems than one finds on land even when the marine habitats differ in appearance. The aquatic medium connecting different places in the sea is itself habitat and provides connectivity among distant locations. Many species spend different life cycle stages in very different habitats and fish move along the three dimensions of the sea.

Although they may be physically distinct, ecosystems such as coral reefs, mangroves and marshes are highly interactive with surrounding marine habitats. Outsiders may view the coastal ecosystem in separate units and not appreciate the level of interaction among them.

The ecological links between land and sea are tremendously important. Aside from the flow of people, possibly the most important connection, is the flow of water and silt from rivers to the estuaries and coastal areas. Under natural conditions in the uplands, this flow of nutrients would maintain a healthy coastal ecosystem. However, degradation of uplands, primarily due to deforestation, causes increased erosion and siltation, resulting in degradation of coastal ecosystems. Further impacts from the land come in the form of water pollution from cities and intensive farm lands.



Resources which are mobile, nocturnal and difficult to see pose problems for the researcher or change agent working with coastal communities. It is difficult to assess the range of available and potentially-available resources under these conditions.



Ecosystems	Estuaries	Mudflats	Seagrasses	Mangroves	Coral reefs
Characteristics	<ul style="list-style-type: none"> • Diverse • Nurseries • Fluctuating • Open to inputs and impacts 	<ul style="list-style-type: none"> • Shallow • Tidal 	<ul style="list-style-type: none"> • Sandy/muddy • Shallow • Seasonal • Productive • Nurseries 	<ul style="list-style-type: none"> • Intertidal • Trees • Productive • Muddy • Brackish 	<ul style="list-style-type: none"> • Productive • Delicate • Diverse • Colorful • Open coast
Benefits and uses	<ul style="list-style-type: none"> • Nursery • Fishing • Aquaculture • Tourism 	<ul style="list-style-type: none"> • Fishing • Shellfisheries • Seaweeds • Feeding for birds 	<ul style="list-style-type: none"> • Nursery • Fishing • Shellfisheries • Sea cow habitat 	<ul style="list-style-type: none"> • Nursery • Fishing • Shellfisheries • Fuelwood • Medicinal plants • Forage • Shoreline stabilization • Nutrient production • Nutrient pollution trap 	<ul style="list-style-type: none"> • Fishing • Habitat • Aesthetics • Tourism • Shoreline protection • Medicinal uses
Problems/issues	<ul style="list-style-type: none"> • Impacts of land-based activities • Pollutant accumulation • Land reclamation 	<ul style="list-style-type: none"> • Pollution • Land reclamation • Aquaculture ponds 	<ul style="list-style-type: none"> • Pollution • Siltation • Dredging • Eutrophication • Over-exploitation of shellfish • Boating 	<ul style="list-style-type: none"> • Pollution • Overcutting for fuel • Aquaculture ponds • Land reclamation • Tenure 	<ul style="list-style-type: none"> • Pollution • Sedimentation • Sand and coral mining • Cyanide fishing • Fishing • Ecotourism • Biopiracy • Anchor damage • Thorns • Storms • Other destructive fishing methods • Nutrients from land run-off

Crisis

Ecosystems and coastal communities are in crisis due to overexploitation and overpopulation. Much of this crisis is due to lack of control of resources, however, local people can take control.

The devastation of coastal resources has been increasing in recent years. Degradation of coral reefs, mangrove forests and estuaries is caused by: poverty driven over-exploitation, destructive fishing methods, pollution, erosion and other impacts of land-based “development”.

Few coral reefs near populated areas are healthy. They have lost biological and structural diversity and the abundance of life they should support. Many mangrove forests are gone. Many estuaries have become sewers. It might be argued that the main crisis is that of control.

Who owns this sea?

There is a tremendous diversity of systems throughout the world determining who “owns” or has “rights to” coastal resources. However, the harvest of fish stocks is often subject to a competitive scramble in an open access system. There are few or no tenurial systems recognized by central governments outside of the national policies. Informal rules for use of the resources are sometimes difficult to determine.

Case study: Mangrove degradation

Mangrove forests have sustained some communities for generations but with increases in population, the threats have mounted. The uses of mangroves by local communities are often so dispersed as to be considered unimportant in the national economy. Much of the "value" of mangroves is in non-market goods and services such as erosion control, nursery for species harvested elsewhere, providing nutrients, subsistence use of wood and food species, etc. Nevertheless, the major pressure on the mangroves has been a result of demands from distant "markets" or users. The open access of most mangrove forests make them easy targets for removal of wood for charcoal production. The demands of urban populations create attractive markets which are difficult for local people to resist in the face of no restrictions on mangrove use. Extensive areas have been turned over to national or international companies to raise shrimp for export markets. This free-for-all system results from the "nationalization" of resources by colonial and subsequently central governments. Local control of mangrove management has been lost but is essential for sustainability.



The uncertainty of rights of access or tenure of coastal resources has often left the poor fishing communities with little choice except to take what they can, when they can. Without assurance that young fish left to grow will return benefits to the one who practices conservation, there is no incentive. However, it has been demonstrated that when people have incentives and reasons to expect that investments in conservation will bring future benefits, they do protect the environment.

Although the coastal zone is currently seen as being seriously impacted and fishing is often considered an occupation of last resort, the potential productivity may be recaptured and provide support for well-being of local people. This productive area can continue to support many communities but control and management are essential.

Coastal resource management

Who is involved?

The sea goes from the beach in one village past the next village, around the country, and connects to the rest of the world. “Everyone” should be involved in managing the resources of the sea or coastal resource management.

International agreements regulate some activities in the open sea. National agencies are often involved in Coastal Zone Management (CZM).

In recent years, a number of integrated approaches to CZM have been adopted. These include consideration of jointly managing all the activities of commerce, housing, fisheries, recreation, government, etc. which take place in the coastal zone. This process includes all the “stakeholders” in CZM in variations such as: Integrated Coastal Management (ICM), Integrated Coastal Zone Management (ICZM), Integrated Coastal Area Management (ICAM), and Integrated Management of Coastal Zone Environment (IMCZE).

Although details of these variations differ, they are almost universally initiated by governments and include different levels of government. Because the USERS are involved, these

“integrated” approaches to management may generally be described as CO-MANAGEMENT. More and more, the user groups include “community groups”.

*However, the degree and effectiveness of
“involvement”,
“sitting at the table”
or being a “stakeholder”*

depends on

the social and cultural context,

*the ability of local people to negotiate with the
political and economic interests,*

and the political will of the government to ACT.

As in many natural resource areas, the management of coastal resources through central authorities has failed to curtail overexploitation and destructive impacts. However, many countries are turning to local control of many natural resources because those who directly depend on resources are often the most committed, conscious and capable guardians.

There are some problems that are difficult to control locally such as global market pressures and pollution. However, there are many issues that can be addressed locally.

Community-based coastal resource management

Community-based coastal resource management (CBCRM) is a process of involving local communities in managing the coastal resources upon which they depend. As more and more users of resources are directly included in management

decisions and the scale of responsibility becomes local, the “ownership” of responsibility increases and the compliance to rules increases.

CBCRM is a movement to address the problems through more local control of resource management. As CBCRM becomes more sophisticated, it addresses the issues of coastal communities in a more holistic way. CBCRM is a conscious effort for the “community” to have control.

A perspective of sustainable livelihoods rather than a more restricted “alternative livelihoods” approach encompasses social, cultural and political dimensions impacting peoples’ well-being in addition to those which are considered economic and environmental. If people are to take responsibility for management, the benefits have to be obvious, real, equitable and not result in unacceptable trade-offs. A holistic assessment is essential. Most of the degraded ecosystems can be recovered. Control of use and abuse will bring back the productive potential of the coastal zone, and coastal communities, with care and concern, can improve their well-being and that of their children.



The sea has sustained people for a long, long time.
We have mistreated this gift.
It no longer provides what it could.
If we treat it well, the sea will respond and coastal communities may live “sustainably” again.

Prepared by Gary F. Newkirk

Community-based coastal resource management

Community-based coastal resource management (CBCRM), is a comprehensive strategy that seeks to address the multi-faceted issues affecting the coastal environment through the active and meaningful participation of coastal communities. More importantly, it seeks to address the core issue of open-access, with all its inefficient and iniquitous consequences, by strengthening the community's access and control over their resources.



Underlying the term “community-based” is the principle that primary resource users should also be the rightful managers of their resources. This makes it distinct from other natural resource management strategies which are either highly centralized or fail to involve communities who are directly dependent on the resource.

Experiences in many countries show that centralized management systems have not been very effective in managing coastal resources in a sustainable manner. As a result, many coastal communities have lost their sense of “ownership” and responsibility over their coastal areas. Through its various processes, CBCRM hopes to restore this sense of “ownership” and responsibility.

CBCRM is also a process through which coastal communities are empowered politically and economically so that they can assert and gain rightful access and management control over their coastal resources.



Ideally, the move to initiate such a process should come from the community itself. Given their disempowered situation, however, most communities lack the capacity to initiate the process of change by themselves. This, among other factors, has led outside agencies and organizations to facilitate the processes involved in CBCRM, including community organizing work.

Principles of CBCRM

Following are the generally accepted principles governing CBCRM:

Empowerment

In coastal communities, empowerment is the development of the ability (power) to exercise management control of resources and institutions to enhance own livelihoods and secure sustainable use of resources upon which communities depend. This is often done in conjunction with established agencies of government.

By strengthening the communities' access and control over coastal resources, there is greater chance that economic benefits will accrue locally. The successful management of the resources by community-based organizations can also contribute to their recognition as legitimate partners in coastal resource management.



Empowerment also means building the capability and the capacity of the community to efficiently and effectively manage their resources in a sustainable manner.

Equity

The principle of equity is linked with the principle of empowerment. Equity means that there is equal access to opportunities among people and among classes. Equity would be attained when small fishers have equal access to the opportunities that exist for the development, protection and management of coastal resources.

CBCRM also ensures that there is equity between the present and future generation by providing for mechanisms that ensure the protection and conservation of coastal resources for future use.



Ecological soundness and sustainable development

CBCRM promotes technologies and practices that are not only appropriate to the socio-cultural and economic needs of the community, but are also ecologically-sound. That is, technologies that recognize the carrying or absorptive capacity of resource and ecosystems.

Sustainable development, on the other hand, means seriously considering the state and nature of the natural environment while pursuing economic development that does not compromise the welfare of future generations. Caring for the environment is integral to the principle of stewardship which recognizes that people are simply guardians of this earth.



Respect for traditional/indigenous knowledge



CBCRM recognizes the value of indigenous knowledge and wisdom. It encourages the adoption and use of traditional/indigenous knowledge in its various activities and processes.

Gender-fairness

CBCRM recognizes the unique roles and contributions of men and women in the productive and reproductive spheres.

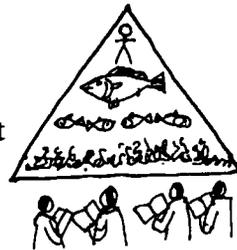
CBCRM promotes equal opportunities for meaningful participation of both women and men in resource management.



Components of CBCRM

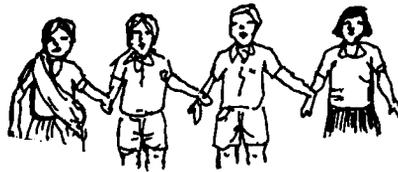
Resource tenure improvement

Resource tenure improvement means gaining/ensuring access and management control by the community over productive resources. This is also called the clarification of use rights or community property rights. Operationally, this means institutionalizing access and control through national or local policies or legislation. This is largely achieved through effective community organizing and policy advocacy work.



Capability building

Capability-building means empowering the community through education, training and organizational development. Environmental or conservation education is a critical part of capacity building. It helps to build a common understanding

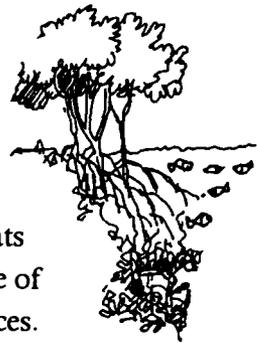


of the often complex and interrelated aspects of coastal resource management. By emphasizing local issues, environmental education can build awareness and skills that contribute to the capacity of individuals and communities to effect change.

Community leaders build their confidence through the acquisition of knowledge and skills. It also includes building and strengthening the people's organizational capacity (e.g., training its leaders, expanding its membership, acquiring funds and assets, installing organizational systems, networking). All these efforts are directed towards achieving greater autonomy and self-reliance for the community-based organizations and the community as a whole.

Environmental conservation

Coastal habitats support the coastal resource base. Once habitats are degraded or destroyed, there is an immediate impact on resource productivity. The health of coastal habitats is directly related to the intensity and type of activities carried out to exploit the resources.



Environmental conservation focuses on the rehabilitation, enhancement and protection of the coastal habitats. Examples of these measures include the establishment of marine reserves and sanctuaries, and mangrove reforestation and rehabilitation.

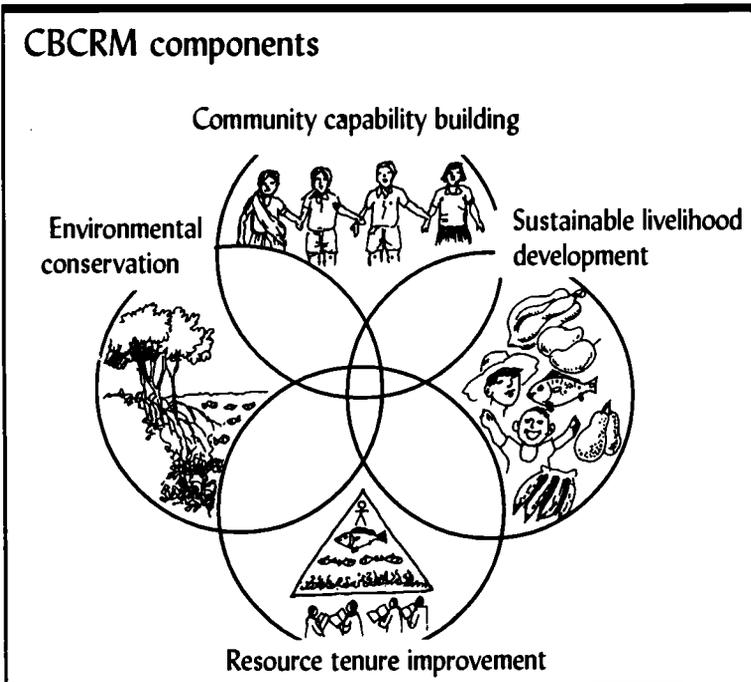
Environmental conservation should cover the various coastal ecosystems because these ecosystems are interconnected, from the watershed to the open sea. Environmental conservation is closely linked with regulation and strict enforcement of environmental laws to minimize the damaging impact of some activities on the coastal resource base.

Sustainable livelihood development

Food security is a primary concern of CBCRM. Sustainable livelihood development plays a key role in ensuring the economic and food security of fishers. Livelihood is the main point of interaction between the fisher and the coastal resource. The type of interaction determines whether the use is sustainable or not.

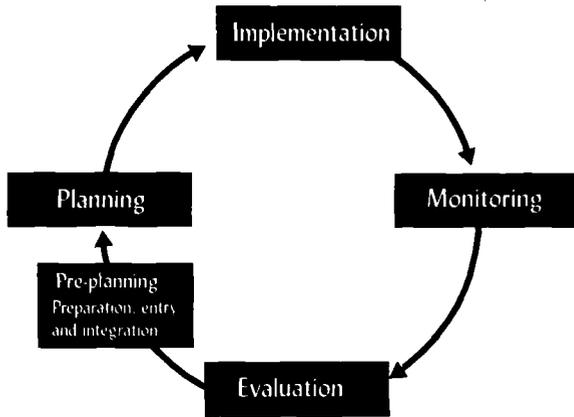


Sustainable livelihood development may involve introduction of alternative land- or sea-based livelihoods (e.g., pig or livestock dispersal, mariculture), promotion of existing sustainable livelihoods, modifications or improvements to existing livelihoods and campaigns against destructive methods. Promotion of household and village food security is an important aspect of this component.



The CBCRM Cycle

The CBCRM cycle has four major phases: planning, implementation, monitoring and evaluation (PIME). The phases vary in length and level of complexity depending on the capability of the community to undertake the activities in each phase. This is a continuous process which the community undertakes with or without assistance from an external facilitator. The process discussed in the text below is for a comprehensive CBCRM cycle, but there can be smaller, focused cycles for specific projects (e.g., mangrove rehabilitation).



Planning phase

Assessment or pre-planning

During the assessment phase, a comprehensive coastal community profile is compiled to serve as the basis for planning activities and, at the same time, to provide baseline data for future monitoring and evaluation. The data can be broadly categorized into ecological, social, economic,

institutional and cultural aspects of the coastal community. The type and extent of information collected must serve the basic needs of future resource management processes but must also reflect community priorities that arise during problem and issue analysis. In CBCRM, social and economic issues are seen as part of resource management challenges, not as separate issues.

Secondary data is collected, and a participatory analysis of these data is conducted at the community level to validate the existing information and identify data gaps and further information needs. Through this process of interaction and collaboration, community leaders and key sectors (e.g., fishers' organizations) may be identified. These leaders or key sectors may be given additional training and can be encouraged to play key roles in CBCRM. Initial environmental education can be conducted during the assessment stage.

The data gaps/needs are filled using a variety of different participatory methods and techniques. The participatory methods to be used depend on the capability of the community and/or facilitators. Different community sectors are encouraged to share their knowledge and experiences.

At the end of this stage, there should be sufficient information available to prepare a comprehensive coastal community profile. The community may also start to identify potential options for developing CBCRM.

Once the coastal community profile has been consolidated, the CBCRM facilitator focuses on participatory methods that assist the community to:

- identify issues and problems of common concern; and
- identify strategic objectives (desired changes).

Coastal community profile

Environmental data

- Assessment of existing coastal habitats and resources (land and sea)
- Bio-geographical features, presence of watersheds and other connecting ecosystems
- Climate, conditions, oceanographic information
- Polluting industries and other major impacts in the area

Socio-economic data

- Demography
- Health
- Education
- Religion, history and culture
- Economy (household and community levels)
- Infrastructure
- Peace and order situation
- Gender roles

Resource use data

- Resource-based livelihoods (fishers, farmers, etc.)
- Commodity flows, marketing
- History of resource use and analysis of trends

Institutions and legal framework

- Land ownership and tenure
- Coastal resource access and existing management
- Existing support services, institutions and organizations
- Community structure, political situation



Planning proper

In this phase, the coastal community uses the information generated to formulate various plans using participatory methods. These plans should be structured around the four CBCRM components (capability building, sustainable livelihood development, resource tenure improvement, environmental conservation).

A long-term community development plan (e.g., a 3-5 year strategic development plan) is prepared first. This plan should reflect in operational terms the community's vision and goals. It should also contain its strategic objectives and targets. The community must determine whether the plan is feasible and if the impacts/risks (environmental and socio-economic) are manageable and/or acceptable. Any additional data needed for this risk and feasibility assessment should be gathered using participatory methods.

The community development plan is then translated into specific action plans that describe the different activities to be undertaken over shorter periods of time.

The community must be able to identify sources of funds and potential partners (e.g., non-government organizations, government, academe, donor agencies) for their plans and activities.

Implementation

During this stage, the community members execute their CBCRM action plans. This can include community capability building activities, environmental education, resource and ecosystem conservation initiatives and sustainable livelihood development projects. Identified

appropriate strategies and technologies are researched, developed, tested, and when successful, adopted and replicated. Education and other technical inputs are often required to successfully implement the CBCRM plan.

Implementation mechanisms, either in the form of task forces or committees or multisectoral councils, should be put in place. Program management systems must also be installed (e.g., communication, finance, administrative policies).

Networking and establishing linkages between the community and external organization/individuals must be initiated to lend additional support to CBCRM activities.

Monitoring

Monitoring is done to record the progress of the project or certain changes in particular indicators at certain regular intervals during the project implementation. It allows adjustments to be made in the targets and plans, or to employ appropriate interventions midstream, if necessary, in order to achieve certain targets on time.

Key to effective monitoring is the selection of appropriate indicators earlier on during the planning phase. The indicators will eventually define the degree of success achieved (or not achieved) by the program or project.

Evaluation

The evaluation stage aims to establish the effectiveness of the CBCRM process by assessing the capability of the coastal community and the accomplishment (or if sufficient time has passed, the impact) of the individual projects/activities measured against the project's objectives and targets. It allows

for critical changes to be done following the analysis of end results vis a vis the program targets and objectives.

Various aspects of monitoring and evaluation are usually carried out by different organizations, committees, volunteers and external facilitators. Training on participatory monitoring and evaluation methods will be needed by these different groups. All of the groups will need to feedback the monitoring and evaluation results to the wider community.

At the end of the CBCRM project cycle, there may be a more extensive strategic evaluation to look at more qualitative indicators or impact.

Failures should not be hidden. The community should analyze these to ensure that the mistakes are not repeated and to gain insights into how they can adjust and improve. Lessons learned from the successes and failures should be incorporated into the planning cycle and shared with other communities.



References

- Dela Cruz, Q. L. 1994. Community-based coastal resource management: A response to an open-access coastal fishery resource. *Lundayan Journal*, Vol. 5, No. 4
- TRIMARRD. Program paper 1995. *Philippine Partnership for the Development of Human Resources in Rural Areas (PhilDHRRA)*, Manila, Philippines.
- VSO. 1993. *Our sea, our life*. Proceedings of the seminar-workshop on community-based coastal resources management. Voluntary Service Overseas, Quezon City, Philippines.

Prepared by Karen Vidler, Ingrid Gevers and Marie Grace Madamba-Nuñez

Community organizing and development process

Definition

Community organizing and development is a process by which a community empowers itself by working to identify its needs and to resolve its problems in a collective manner. This process develops the confidence and capability of community members to organize themselves. The processes involved in CBCRM are best facilitated through effective community organizing work.



Purpose

- To enable coastal communities become more aware of their situation and their environment and to realize their collective abilities and responsibility to manage themselves and their environment in a sustainable manner.
- To provide opportunity for participation of men and women in decisions and actions that will affect their lives, thus developing a sense of ownership and collective responsibility for such decisions and actions.
- To strengthen community capacity to access internal and external funds to support viable and sustainable socio-economic projects.
- To enable a community to link and form alliances for advocacy and technology sharing.
- To build and sustain permanent organizational structures for resource management.

The community organizer

The community organizer (CO) is a vital person in facilitating the whole community organizing process.



A community organizer should have:

- an understanding of development theories and concepts and processes of community organizing
- good social and community relation skills to promote social integration in the community
- an ability to work with other teams of professionals
- the knowledge and skills to enable communities to access specialized technical assistance in instances when this is needed
- sensitivity to the local culture
- gender-sensitivity.

Questions to ask yourself as a community organizer

- Do I talk to both men and women in the community?
- Do I feel comfortable living in the community with minimum amenities?
- Do I dress appropriately for community work?
- Am I sensitive to the culture of the people?
- Is my presence felt in the community?

Time frame

Community organizing is a process, hence the time frame varies depending on the objectives and outcomes set by the people, community organizer and the support agency. This can range from one to several years and the level of effort may change from beginning to end.

Commonly-used approach



This is not a prescribed formula or process to do community organizing. Every community has its own unique situation and context and this should determine the community organizing process for that particular community.

Pre-entry

Do the following activities before entry into the community.

1. Community organizing training and orientation in CBCRM.

2. Site selection including establishing a set of criteria for the choice of the area or community to be organized. It is essential that community members are receptive to

Ideally, a request for assistance in implementing a program should come from the community itself. However, in reality, the initiative almost always comes from NGOs.

the non-government organizations (NGOs) and the type of project they are proposing. This is done through consultations with the leaders of the community.

Other considerations include the peace and order situation in the area, interest and willingness of the local government to establish partnership with the project and accessibility of the project site.

This also involves gathering of secondary data about the community from the local government, selected key informants or NGOs that have done organizing work in the area.

3. Administrative preparations on the part of the implementing agency (e.g., setting up a local office, hiring of personnel).

Entry into the community/integration phase

At this stage, the community organizer integrates into the community and establishes a relationship based on mutual trust and respect. Other activities may include:

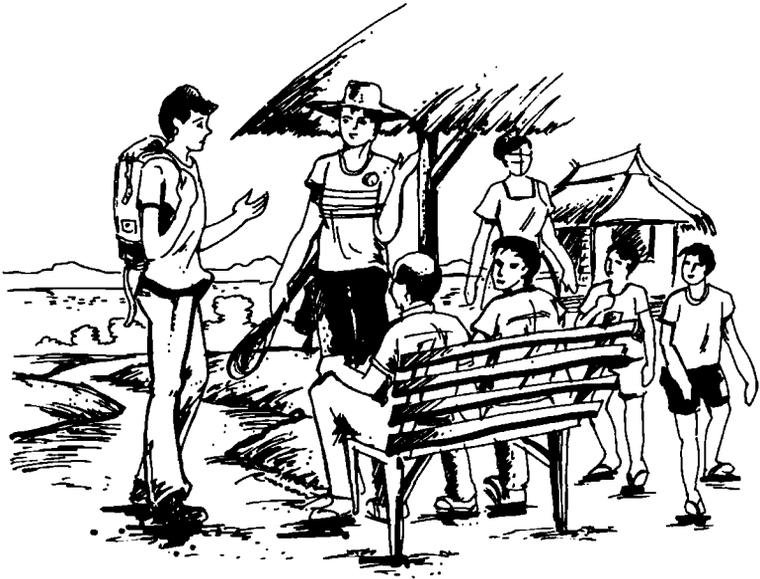
- courtesy calls to existing leaders
- identification of potential leaders
- data gathering done through involvement in the community's social and livelihood activities, e.g., fishing activities or the use of participatory coastal resource assessment approach.



Community discussion at the site of a mangrove reforestation project

- formation of a core group that could initiate CBCRM activities. The community may have various ways of working together. These existing networks must be considered when forming a core group.

- leadership training for the core group



Much can be learned from informal conversations.

Community planning and implementation

Once the community organizer has already established rapport with the community and has involved them in assessing their situation through the leadership of the core group, the organizer helps the community in strategic and action planning. The community organizer facilitates the process and provides information that could be used as input for planning. The output of the process would include strategies and action plans, series of activities for organization development, capability-building and resource management. The community decides the time frame and mechanics for actual implementation of the plan.

Example of activities

Organization development	Capacity building/ education and training	Resource management
<ul style="list-style-type: none"> • Recruitment of members • Leadership formation, training and team building • Organizational development in management and administration to support economic/ livelihood generation projects • Strengthening and formalizing the organization by registering it with an appropriate agency through a local government accreditation process, if appropriate 	<ul style="list-style-type: none"> • Gender sensitivity training • Study tours on CBCRM • Conflict resolution and management • Skills training and development • Advocacy and social mobilization • Environmental education 	<ul style="list-style-type: none"> • Engaging the community in resource enhancement activities, e.g., setting up of marine sanctuaries

Conflict resolution in the community

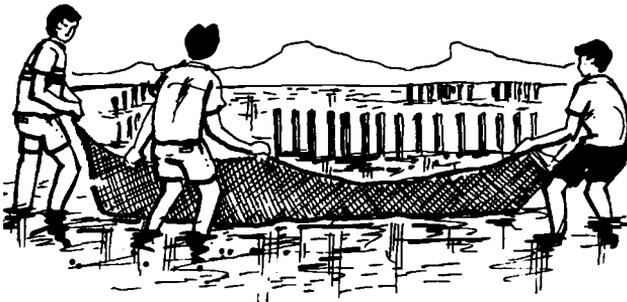
A community in Bohol, Philippines has an oyster culture project that makes a good profit every harvest. At one harvest, the cash profit was missing after being collected by the chairperson and treasurer. The community organizer called a meeting to discuss the problem. Although the other members of the organization were unhappy about what had happened, they were unwilling to confront the treasurer and the chairperson as they were related to a higher official in the barangay. Also, majority of the members were family-related to them.

The community organizer realized that meeting the problem head-on would weaken the organization. She, therefore, decided to wait until the forthcoming general assembly. There, both she and another member suggested that an 'auditor' be elected which would help ease the workload of the treasurer and the chairperson. The auditor's function would be to feedback to the organization on the accounts every month. Since then, the financial mismanagement has stopped.

Strengthening the organization

Strengthening the organization is crucial in sustaining the operations of the organization. This entails building the capacity of the organization's leaders and members to take on roles currently assumed by the community organizer. The organizer should then undertake any of the following activities to further institutionalize the processes and mechanisms initiated:

- training of leaders and/or community volunteers to do organizing work themselves
- consolidating organization's operating procedures (e.g., drawing up of policies for membership, refining the organizational structure and functions of each committee, etc.)
- networking and building alliances with other organizations
- strengthening socio-economic services and resource accessing
- specialized training for organizational development
- training of potential trainers and second-line leaders
- formation of women's groups
- maintenance and monitoring of resource enhancement measures (e.g., marine sanctuary, mangrove reforestation project)



Caution

Often, strengthening the organization in the community organizing process is overlooked. Some NGOs think that once plans have already been implemented and some success has been felt by the community, it is time for phasing out. However, experiences have shown that the initial success achieved by the community is not a guarantee that it can sustain the organization and its activities. The community needs time to consolidate the changes they have initiated, assess their capability to handle more complicated issues and tasks and reflect on the degree of community solidarity that has already been established.

Monitoring and evaluation

Monitoring refers to periodic assessment undertaken within the implementation period to measure progress. Evaluation assesses the degree to which the implementation of community plans has been successfully achieved. Both processes are used as basis for future planning which include changes in the strategies being adopted. (Refer to the topic on evaluation and monitoring tools.)

The community organization, with the help of the organizer, must continuously go through the cycle of planning, implementing, monitoring and evaluating their organization and their activities. This will help them keep track of their vision, mission, goals and objectives.



Phase-out /Termination phase

This is the phase when the community organizer already starts to withdraw from the community because goals set by the community and the organizer at the start of the process have been achieved. At this stage, it is assumed that the community has reached a certain level of capability with which they can sustain existing operations, expand or initiate new projects. The community now takes full responsibility for managing their resources.

It is likely that the community organizer and the assisting agency will not fully phase out from the community but simply modify their roles in the partnership.

For example, the community organizer may be less physically present in the community but still makes himself/herself available for some technical assistance or guidance when the community needs it.

A formal community turn-over can be an important ritual for highlighting the phasing out of the community organizer and the autonomy of the organization from the supporting agency.





Reminders

- The different activities identified at each stage are not mutually exclusive. Many of the activities, especially under the entry and planning and implementation phase, actually run throughout the process.
- The formation of a people's organization is not the end-goal of this whole undertaking, but a means of providing the people with a venue for collective action and for strengthening their capability to continuously deal with needs and problems.
- Most people's organizations usually require some external support mechanism to ensure sustainability.
- The organizing process does not always start with organizing a new group. Oftentimes, when community organizers enter into the area, there may already be existing groups and/or organizations. The role of the community organizer here is to assess the viability of existing groups/organizations and start from there.
- Economic, social and other incentives are often crucial in maintaining the viability of community groups, e.g., seed money for a cooperative economic undertaking can help strengthen the confidence of leaders.
- Gender issues and concerns, as well as indigenous knowledge and practices, should be consciously integrated throughout the process.

Prepared by Evelyn T. Deguit

Participation and participatory methods

What is participation?

Participation means taking part in an activity. People “participate” in local development every day through their family life, livelihood activities and community responsibilities. The degree of control that men and women have over these activities varies. The same holds true for initiatives that are initiated or involve “outsiders” such as conservation projects, development programs or advocacy campaigns.



There is no single correct example of participation. However, control over the rationale for participating and the degree of participation is the choice of the individual.

Why participation?

The rationale for participation involves two main themes. One suggests that participation is a necessary input to improve the chances of success of conservation and development initiatives. The other suggests that participation and the process of participation is a goal in itself and is not simply a means to improving conservation and development initiatives.

There are a large number of purported benefits of using participatory methods for conservation and development: These suggest that participation will result in:

- an increased sense of *ownership* of conservation or development initiatives by local communities;
- improved *productivity* and *efficiency* (i.e., greater benefits per unit of external assistance);
- increased *coverage of impact*;
- increased *equity and self determination*;



- an increased likelihood of *project continuation, maintenance or sustainability* after formal project support is withdrawn;
- increased *cost sharing and effectiveness* of conservation or development initiatives;
- increased *appropriateness and relevance* of conservation or development initiatives;
- greater emphasis in *non-violent forms of social action and change*, and
- fulfillment of *basic human needs and rights*.

Participation, however, is not without its own set of potential costs and weaknesses. These may include the following:

- raised expectations;
- possible distrust by national governments or local elites;
- increased time necessary to permit participation of significant stakeholder groups, and to build capacity of these groups to take advantage of participatory approaches;
- increased cost associated with planning, coordination, staff time and tailoring of interventions; and
- increased complexity of interventions as a result of adaptive processes.

It has been widely assumed - and occasionally documented - that the benefits of participation outweigh the costs. As a result, participation has been widely accepted as a means of achieving development.

The other theme that suggests that participation is an end in itself is based on the belief that powerlessness and the lack of control over resources and decisions related to family, livelihood and community life are the major causes of underdevelopment. This theme is also supported by the belief that participation is a basic human need and basic human right.



Degrees of participation

In order to assess the effectiveness of various forms of participation, it is necessary to have acceptable indicators or measures of participation. Some commonly-used indicators include the following:

- **timing of participation** (i.e., when does participation take place?).

Participation can take place at any stage of the project cycle, but the most useful participation will occur at all stages.

- **who participates**

Is it the local elite, the men only, the educated, those living closest to the village center? These questions raise an extremely important point about the equitability of participation.

- **extent of participation** (i.e., what activities do people participate in)
- **Probably the most important indicator, however, is the degree to which the community/household or individual has control over decision making related to the initiative.**

Who initiated the project? Whose research agenda is used? Whose needs are being met? Whose project design is being used? Who controls the budget? Who controls the direction of the project?

These questions address the degree to which community members have control or are empowered. With these indicators, it is possible to



make general assessments of the degree of participation taking place in a given project or activity. It also allows for some degree of comparison between objects.

While these indicators allow some means by which to assess or compare the degree of participation of a project or projects, they should not suggest that there is a “best” time to participate, “best” group to be involved in, or “best” set of activities to participate in. Each form of participation has some value and degree of effectiveness. What is more important is the overall extent of empowerment or control that the community has over decisions that affect their lives. This is what distinguishes meaningful participation from superficial participation. With this in mind, the various forms of participation can properly be compared (refer to tables 1 and 2).

Table 1. Typology of participation in development programs

Typology	Components of each type
1. Passive participation	People participate by being told what is going to happen, or has already happened. It is a unilateral announcement by the administration or project management, without listening to people's responses. The information being shared belongs only to external professionals.
2. Participation in information giving	People participate by answering questions posed by extractive researchers using questionnaire surveys or similar approaches. People do not have the opportunity to influence proceedings, as the findings of the research are neither shared nor checked for accuracy.
3. Participation by consultation	People participate by being consulted, and external agents listen to views. These external agents define both problems and solutions, and may modify these in the light of people's responses. Such a consultative process does not concede any share in decision-making, and professionals are under no obligation to take on board people's views.
4. Participation for material incentives	People participate by providing resources, for example, labor, in return for food, cash or other material incentives. Much on-farm research falls into this category, as farmers provide the fields but are not involved in the experimentation or the process of learning.
5. Functional participation	People participate by forming groups to meet predetermined objectives related to the project, which can involve the development or promotion of externally initiated social organization. Such involvement usually occurs not at early stages of project cycles or planning but after major decisions have been made. These institutions tend to be dependent on external initiators and facilitators, but may become self-reliant.
6. Interactive participation	People participate in joint analysis, which leads to action plans and the formation of new local institutions or the strengthening of existing ones. It tends to involve interdisciplinary methodologies that seek multiple perspectives and make use of systematic and structured learning processes. These groups take control over local decisions, and so people have a stake in maintaining structures or practices.
7. Self-mobilization	People participate by taking initiatives independent of external institutions to change systems. They develop contracts with external institutions for resources and technical advice they need, but retain control over how resources are used. Such self-initiated mobilization and collective action may or may not challenge existing inequitable distributions of wealth and power.

Pretty, et.al, 1995

Another typology of participation examines the specific relationship between farmers and scientists.

Table 2. Types of farmer participation in research

Mode	Objective
Contractual	Scientists contract farmers to provide land or service
Consultative	Scientists consult farmers about their problems and then develop solutions
Collaborative	Scientists and farmers collaborate as partners in the research process
Collegial	Scientists work to strengthen farmers' informal research and development systems in rural areas

Pretty, et.al, 1995

These typologies may be of use when evaluating the degree of participation in on-going projects. They can also be used as guide for designing new CBCRM initiatives.

Obstacles to participation

The degree of participation varies greatly from site to site and country to country. There are a large number of factors that can facilitate participation or hinder it. These factors can be external to the community such as the type of political system, or they can be internal to the community such as local cultural norms.

Oakley (1991) identifies three main categories of obstacles to participation: 1) political; 2) administrative; and 3) social.

Political obstacles can occur in centrally planned countries or in *de facto* authoritarian regimes. Participation that empowers local groups to chart their own directions for development could challenge the status quo and may be perceived as threatening.



Similarly, administrative systems that are highly centralized and dependent on controlled planning and blueprint approaches are not conducive to participatory and adaptive approaches.

Finally, social and cultural and historical obstacles may prove to be extremely challenging especially to the question of who participates. Equitable participation by marginal groups (women, tribal minorities, uneducated, etc.) will require efforts to address cultural norms that relegate these groups to the periphery.

Participatory methods and other research methods

The rationale for participatory methods provides a strong foundation for their promotion. It does not, however, imply that non-participatory methods lack utility or should be disregarded. Participatory methods should be seen as part of a larger set of research methods each with its own strengths and weaknesses. Participatory methods are often most valuable at the early stages of a project when the research questions and needs are still being formulated. The outputs of these participatory methods may suggest the need for additional and more detailed data on a particular topic. At that point, other more formal methods could be considered.

References

- Biggs, S.D. 1989. Resource-poor farmer participation in research: A synthesis of experiences from nine NAR systems, OFCOR Comparative Study Paper 3, ISNAR, The Hague, The Netherlands.
- Cohen, J.M. and N. Uphoff. 1997. Rural development participation: Concepts and measures for project design implementation and evaluation. Ithaca, New York, Cornell University.
- Oakley, P. 1991. Projects with people: The practice of participation in rural development. International Labor Office, Geneva, Switzerland.

- Pretty, J.N., I. Guyt, J. Thompson and I. Scoones. 1995.
Participatory learning and action: A trainer's guide,
IIED Participatory Methodology Series, IIED, London,
UK.
- Veldhuizen, L. van, A. Waters-Bayer, and H. de Zeeuw. 1997.
Developing technology with farmers: A trainer's guide
for participatory learning. ETC Netherlands and the
Technical Centre for Agricultural and Rural Cooperation.
St. Martin's Press, New York.

Prepared by Gregory C. Ira

General guidelines for using participatory tools

A large number of participatory approaches for assessing local conditions, problems and opportunities have been developed. This book provides a “basket” of tools and techniques for meaningful community participation in a wide range of CBCRM activities. These tools can be used to help mobilize and organize local people around issues they consider important.

Although the tools are generally applicable to all coastal communities, the following guidelines should be taken into careful consideration when choosing and using the tools presented:



- ✓ Set your objectives first so that you can select the most appropriate tool. You will not use a hammer to catch a fish. Be conscious in selecting and adapting tools that fit your objectives.
- ✓ Build on previous information gathered. As each tool is completed, the results generated will give you an idea which tool to use next to expand on the information gathered.

For example, a timeline might yield information about previous interventions made by other agencies. A venn diagram could then be used to further analyze what these agencies achieved or why they failed and what the community thinks about the agency and their activities.



- ✓ Cross-check and probe to ensure reliability of information. Use different sources of information, different tools and ask probing questions to ensure reliability.

- ✓ Analyze and validate on the spot. Immediate analysis and validation of information gathered by those present is an integral part of participatory methods. Cross refer between tools for more in-depth analysis. Hold a community validation meeting to have the information and the analysis validated. This can become the basis for important community decisions.
- ✓ Avoid collecting information that is not necessary. It wastes everybody's time and effort. You have to decide when you have sufficient accuracy and quantity, or when discrepancies have been sorted out.
- ✓ Avoid bias. Actively include members of the community who may otherwise not have enough opportunity to speak, e.g., women, the elderly, children or those living far away. Recognize your own biases, mistakes or omissions and avoid making value judgements about others. Avoid generalisations based on limited information and too few informants.



- ✓ Listen to the community leaders but recognize that they may be the local elites and have their own biases.

- ✓ Acknowledge the value of indigenous knowledge, skills and practice. Recognize that this is a two-way learning process. The community might have their own way of naming and doing things that may serve to enhance the use of the tools. Always use or adopt local names and concepts whenever possible. (Refer to topic on building on indigenous knowledge.)



- ✓ Be creative. Shells, stones, seeds, leaves, twigs, or even the ground can be used when applying the tools. Innovate on the suggested approaches to suit the situation, environment and culture. Learning should be fun.

Guidelines for facilitating groups

Most of the methods presented will appear to be facilitated by one person but several people can work together. Preference should be given to having a local resident – who has been trained or has experience – serve as the facilitator. The use of an interdisciplinary team helps to draw out and document different aspects of the subject.

The following are some of the standard operating procedures when facilitating groups and/or participatory sessions:

- ✓ Always begin by introducing facilitators and participants.
- ✓ If the community is particular with certain religious or cultural practices, start the session with a prayer or appropriate ritual.
- ✓ Use the local language or ask the participants if they can understand and are comfortable with the language you're speaking. If not, find an interpreter and allow time for translation.



- ✓ Start the session by explaining the nature and objective of the activity or tool to be used. Describe the output expected at the end of the activity.
- ✓ Explain the process that the group will undergo, and the amount of time involved. If certain roles will be assigned, explain clearly how the roles will be played (e.g., role of observers in the manta tow technique, role of volunteers in key informant interviews or monitoring of mangrove projects/sanctuary).

- ✓ Document discussions and outputs. Leave a copy for the community and/or participants. Assign a documentor; the facilitator should not be tasked to document.



- ✓ Be resourceful and creative. Use various audio-visual aids to help make discussions more interesting and effective. Use local materials whenever possible.
- ✓ Always be sensitive to participants' needs. If the participants are becoming restless, take a break. Be flexible. If something comes up that was not anticipated, trust the process. Do not feel obliged to follow previously-prepared guidelines rigidly.
- ✓ Choose an appropriate time and place for the community to participate. Avoid times when important activities are being done. The setting should be familiar to all and informal.
- ✓ Do not rush. Activities can last from half an hour to half a day and the whole process in the CBCRM cycle can take a very long time. The whole process can be more effective if done at the speed of the community and not to fit the facilitator's schedules.

- ✓ Encourage participation. Draw responses from each participant, as much as possible. Control or neutralize participants who try to dominate discussions.
- ✓ Always listen to answers and do not interrupt. Respect the opinions given. Repeat responses if needed to further clarify points raised.
- ✓ Always include names of participants and date of activity on the output.
- ✓ Settle disagreements through dialogue and consensus-building. Clarify contentious issues and get the opinion of everybody, if possible. Exhaust all arguments until contending parties are convinced or until they change their views or one party withdraws its position, and a compromise or consensus is reached. Both participants and facilitators must have the patience to go through this long, but rewarding process.



- ✓ Be gender-sensitive. Be conscious of your language and gestures. Group men and women separately if the issue to be discussed is sensitive to either or simply as a way of identifying various perspectives. Avoid jokes that are offensive to either or both sexes.



Reminder

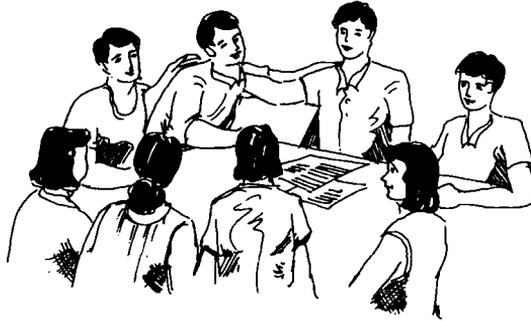
People do not live day to day by considering in sequence ecology, economics, equity, nutrition, health, etc. Life is holistic and complex. Do not artificially dissect it!

While working with a community...

- ✓ Foster the right attitude. Be humble. Do not act like you are more knowledgeable than the community members. Remember, they too have a lot of knowledge and wisdom to share. Do not be arrogant. Be aware of your body language as it can give away your feelings. Be modest and friendly. Always observe and adapt.
- ✓ Facilitate learning. The community does the information gathering, planning, implementing, monitoring and decision-making themselves. Their ideas and opinions, much more their decisions, should be given primacy over others, especially “outsiders”. Facilitate, do not impose.



- ✓ Fit into the community and establish rapport. Follow the local dress codes, make jokes, share meals. Be sensitive to the local culture (i.e., religious rituals, community affairs). Put people at ease and do not set yourself apart or act superior.



Tips for teams

- An interdisciplinary team requires its own social organization and set of relationships.
- Team work requires work and patience.
- “Disciplines” view the world in different slices. Information collected in “slices” must be pieced together.
- Listen to the people in the community; they do not work and play in “disciplines”.
- The team should develop its own group norms, for example, they should not be seen to be disagreeing with one another in front of the participants or community.
- Roles and responsibilities should be assigned and agreed on in advance.
- Regular meetings should be held to discuss progress and issues.
- Everyone should know what the other team members are working on.
- During team formation, pre-testing of methods will help build relationships.

Prepared by Karen Hampson

Glossary

This glossary is designed to provide both general definition of terms used in the sourcebook as well as special forms of usage that have been adopted for this particular publication.

A

ancestral waters marine areas claimed by indigenous peoples as having been part of their territory since time immemorial

approach a systematic strategy or methodology for addressing a development or conservation concern

For example, community based coastal resource management is an approach to addressing integrated conservation and development in coastal areas.

artesian fisheries usually small-scale, local, subsistence fisheries conducted by individuals or small groups

assessment a review or informal evaluation of a selected condition

associated species living things (e.g., plants, animals) that are commonly found or interact with a given organism, habitat or ecosystem

B

baseline information usually the first measurement of an indicator taken at the beginning of a project and used to compare with subsequent measures taken after some intervention has been implemented

biases a prejudiced outlook of an individual or group of individuals based on a perspective or pre-conceived notion that does not fairly represent the larger population.

biodiversity the variety of living things found in a given area

This includes the variety of genes (i.e., genetic diversity), the variety of species (species diversity) or the variety of ecosystems (ecosystem diversity). In addition, the variety of functions (e.g., producers, consumers and decomposers) and the variety of cultures or cultural diversity (e.g., distinct ethnolinguistic groups) are also considered part of biodiversity.

buffer strips lengths of land or water that serve to provide protection to an area in need of protection from some external threat

For example, a five-meter wide strip of land running alongside a river may serve as a buffer strip to prevent surface erosion from entering the river.

buffer zone an area of land or water that serves to provide protection to a conservation area (usually surrounding it) designated for protection from some external threat

For example, an area one hundred meters wide surrounding a marine sanctuary that may have some regulations regarding productive activities.

C

case study a short description of a particular project, situation or condition that serves to communicate key messages to the reader

Case studies are commonly used to document experiences and share them more widely through training or workshops.

community an association of people living in a given area or sharing some general commonality in addition to geographic proximity

An ecological community refers to an association of plants and animals living in a given ecosystem.

comparative information data that relies on other data as a point of reference (i.e., relative measures) and that can not provide a precise measure of accuracy in and of itself

For example, trend analysis may indicate that fish yields are decreasing every year, but will not necessarily provide the absolute figures for yield for each year. Similarly, local preferences may rank choices by comparison and not necessarily by some independent quantitative measure. This information may be all that is necessary to initiate some action, in other cases, more absolute information may be required.

consensus agreement by a large majority of a population or group

It is considered ideal when the entire population or group is in agreement.

conservation the maintenance of careful regulation of a resource or area through sustainable use

The term conservation has been commonly and mistakenly been used as a synonym for preservation which refers to strict protection of a resource or area.

coping mechanisms ways in which individuals, households or groups adjust to or deal with difficult or changing conditions

For example, during periods of peak labor requirement, children may be taken out of school to provide additional labor. For projects, coping mechanisms may refer to ways in which project staff address problems that may impede the implementation of planned activities.

customary laws rights, regulations and norms that have been established over time and are generally accepted by a group as a framework for governing social behavior

Contrast with State law, which refers to an official legal system of a nation.

cross-check a way of ensuring accuracy of data collection by comparing information on a given subject from one source or method with information on the same subject from another source or method

cyclical periods specific lengths of time that are established by naturally occurring cycles or rhythms

For example, the length of time required for the earth to make one complete revolution (orbit) around the sun is referred to as an annual or solar cycle. Depending on latitude and regional climate, this will result in regular seasonal patterns. Similarly, the length of time required for the moon to revolve (orbit) the earth is referred to as a lunar cycle. This cycle influences tides and associated phenomena.

E

emphatize the ability to understand the feelings of another person or group by trying to put oneself in the position of the other person and feel the emotions from this perspective

enhancement the improvement of some condition based on a human perspective of what constitutes improvement

F

fish fry recently-hatched fishes

G

gender “the socially constructed roles and responsibilities of women and men, in a given culture or location” (*CEDPA/ Gender and Development Training Manual, 1996*)

gender analysis “an organized approach for considering gender issues in the entire process of program development” (*CEDPA/Gender and Development Training Manual, 1996*)

gender and development an approach which seeks to empower women and transform unequal relations between women and men” (*CEDPA/Gender and Development Training Manual, 1996*)

genera plural form of *genus* which is a category or level used to classify living things according to biological and structural similarities and differences

gleaners individuals or groups that collect or harvest resources from the wild without cultivation or propagation

indicative data data that implies, demonstrates or suggests a certain condition

For example, the existence of coral rubble in a circular pattern is indicative data suggesting the occurrence of dynamite fishing.

indicator species a specific organism that implies, demonstrates or suggests a certain condition

For example, the occurrence of large numbers of crown of thorns starfish.

indigenous knowledge information, practices, technologies, beliefs, tools, materials, experimentation, skills, pedagogy, communication systems and other social systems or institutions that people in a given group, community or area have tested, adapted and continue to adapt over time

indigenous taxonomies systems and categories of organizing or associating living and non living resources

For example, local groups will classify or categorize soil, fish and other resources into locally-recognized groupings.

informal community organizations organizations that are not officially registered or recognized by national or local governments

informant a person who provides information

intertidal zone the area between above the lowest low tide mark up to the point where tidal influence continues (commonly the highest high tide mark) or slightly beyond

J

juveniles fish or aquatic organisms usually characterized by the incomplete development of reproductive organs

L

legend a description of symbols or abbreviations used on a map

letter-petition a formal and organized request for change or action by preparing a letter of request and having it signed by a large number of people who support the specific contents of the letter

local ecological knowledge *refer to indigenous knowledge*

logbook a notebook used to record in chronological order the events considered important based on local needs and preferences

M

manta tow a shallow water survey method that employs towing a swimmer behind a boat by a length of rope with a wooden board at the swimmers' end that is used for stability, maneuverability and recording observations

marine reserve an area of ocean protected from specified or all uses for any number of reasons including unique biodiversity, its support as habitat for local fisheries, educational purposes, rehabilitation and resoration

marketing the entire process of identifying, creating addressing and supplying the demand for any given product

This may involve market research, product development, pricing, advertising and determining methods of sales.

media any or all of three forms of information dissemination: 1. print (e.g., newspapers), 2. audio (e.g., radio) and audio-visual (e.g., television)

media campaign a systematic effort to use the media to gain support for a particular position or objective

medium a channel of communication or information dissemination (*refer to media*)

methodology a general approach or framework that employs a related collection or body of methods consistent with the overall approach

For example, CBCRM can be seen as a methodology.

methods a systematic procedure employed to achieve a certain objective

For example, participatory methods are procedures that follow certain guidelines to maximize participation, minimize bias, ensure validity and balance precision with time and effort. The methods described in this sourcebook make use of more specific tools such as matrices or diagrams and are part of a larger methodology.

monitoring the process of measuring changes in specific indicators at regular intervals over time

morphology relating to the shape (i.e., form or structure) of an organism

N

numeric data information presented in quantitative form or using numbers

O

organization a group or association of people bound by a common interest

P

paralegal a person with training in the law but not licensed to practice the law officially

permanent belt a permanent transect distinguished by two parallel lines

point of first sale the site at which a product (e.g., marine resource) is first transferred from the person who caught or produced the product to a person who pays for the product

preservation the strict protection (i.e., no use) of all resources (living and non-living) in a defined area

process a predetermined and systematic series of steps, actions or operations used by an individual or group to achieve specific objectives and move toward a general goal

productive roles the activities, responsibilities and expectations of an man or woman related to providing the basic economic needs of a household (e.g., food production, wage employment, etc.)

property rights the official or legal interest of an individual or group to access or control a certain area of land or water or resource

protected area the generic term used to describe an area of land or sea that is governed by some form of protection from use or degradation

This may be in the form of conservation or strict preservation.

Q

quadrats a rectangular plot or frame used to assist in the measurement and study of ecological conditions

R

rehabilitation the process of improving the conditions of an area of land or sea so that they are more favorable to conditions suitable to humans

reproductive roles the activities, responsibilities and expectations of a man or woman related to the care and maintenance of the household (reproduction, child care, education, health, home maintenance, security, etc.)

respondent a person who provides information to another person often through completing a survey questionnaires but also through participating in group discussions or participatory methods of analysis

restoration the process of returning a given area of land or sea as closely as possible to the specific conditions (i.e., specific species, relative abundance, etc.) that existed in an earlier time

S

sanctuary an area of land or sea that is often governed by strict protection (i.e., no activities or resource use allowed) often placed within a larger marine reserve

spatial related to geographic area

For example, spatial tools look at where things occur in a given area or in relation to each other. Compare with temporal tools which means having to do with or related to time.

spawn the production or deposition of eggs or young of aquatic organisms

species a category of formal scientific biological classification that describes organisms that are biologically and morphologically similar and capable of interbreeding

stakeholder usually groups of individuals – within a larger population (e.g., community) - that share a common interest, perspective, worldview or background

T

temporal related to time

For example, a time line is a temporal tool that looks at the significant events in the history of community.

tenure the right to access or control over a resource or area of land or sea

terrestrial related to land as opposed to sea

tools specific analytical techniques (matrices, diagrams, transects) that assist in the collection and analysis of data

For example, a matrix is a tool that can be used for participatory livelihood analysis which is a participatory method and is part of an overall methodology that is community-based coastal resource management.

triangulation (validation) the process of confirming, validating, or improving the precision of data by seeking separate and independent confirmation of the data

Triangulation can be done by using different methods to collect the same data or seeking different respondents or both.

triangulation (geographic) the process of determining or locating a specific point on a plane using landmarks to determine the intersection of two lines

transect a length of land or sea – usually a straight line – that is used as the basis for sampling plants, animals or other indicators of interest using various sampling techniques

V

village assembly a meeting open to all residents of a village for the purpose of sharing views and disseminating public information

W

watchdog groups informal groups or formal organizations that serve to monitor activities related to a particular issue

For example, a small group of residents may form a group to monitor the occurrence of illegal fishing operations in sanctuary.

watershed an area of land that shares a common point where water drains – usually to the ocean

Watersheds are commonly divided into functional (although arbitrary) sections such as upland, lowland and coastal ecosystems. Another functional grouping looks at catchment areas, service areas and drainage areas.

Z

zoning the process of determining and assigning specific purposes, uses or regulations to specific portions of land or sea in order to optimize land-use

For example, a zoning plan for a bay may be developed to ensure the optimal and equitable allocation of space for often competing uses such as aquaculture, recreation, transportation, conservation or preservation, etc.

Workshop participants

Vence D. Adajar

Fisheries Specialist

Western Samar Agricultural Resources Development

Programme (WESAMAR)

P.O. Box 42, 6700 Catbalogan

Samar, Philippines

 756-0179

Grizelda M. Anda

Environmental Legal Assistance Center, Inc. (ELAC)

#11 Mendoza Street, Puerto Princesa City

Palawan, Philippines

 (48) 433-4388

 (48) 433-5183

 elac@pal-onl.com

Ephraim "Patrick" T. Batungbacal

Research Officer

Tambuyog Development Center

108 PSSC Commonwealth Avenue

Diliman, Quezon City, Philippines

 (2) 926-4415

 (2) 926-4415

 tambuyog@skyinet

Melodie M. Buendia

Training Specialist

Small Islands Agricultural Support Services Programme
(SMISLE)

NMRDC Building, San Miguel

Jordan, Guimaras, Philippines

 (912) 520-0444

 (912) 520-0444

Ma. Jovelyn T. Cleofe

HRD Coordinator

Community Extension and Research for Development, Inc.
(CERD)

2-A San Pablo Road, Philam

Quezon City, Philippines

 (2) 928-7775

 (2) 925-1642

Ingrid P. Consing

Resource Specialist

Hayuma Foundation, Inc.

#8 Maya Building, EDSA Cubao

Quezon City, Philippines

 (2) 912- 3608; 912-7093; 912-7085

 (2) 912 - 3479

Pido M. Dano

c/o TESAG

James Cook University of North Queensland

Townsville, Queensland, Australia 4118

 (61-77) 814-020

 (61-77) 816-930

 pmz@cathan.jcu.edu.ev

Evelyn T. Deguit

Coastal Resource Management Project (CRMP)
Humabon and J. Luna Streets, North Reclamation Area
Cebu City, Philippines

 (32) 232-1821 to 23; 412-0487 to 88

 (32) 232-1825

 prccebu@usc.edu.ph

Margarita T. dela Cruz

Executive Director/Asst. Professor
Guiuan Development Foundation, Inc.
117 P. Zamora Street
Tacloban City 6500, Philippines

 (53) 325-6592

 (53) 321-4479

Roy Olsen D. de Leon

Deputy Administrator
Center of Excellence in Coastal Resource Management
Silliman University
Dumaguete City, Philippines

 (35) 225-4608

 (35) 225-6711

 admsucrm@mozcom.com

Angelita M. del Mundo

Associate Professor
Institute of Human Nutrition and Food
College of Human Ecology
University of the Philippines Los Banos (UPLB)
College, Laguna, Philippines

 (49) 536-2445; 536-2364

 (49) 536-2918

Ma. Victoria O. Espaldon

Institute of Environmental Science and Management (IESAM)

University of the Philippines Los Banos (UPLB)

College, 4031 Laguna

 (49) 536-2251

 (49) 536-2836

 nidb@mudspring.uplb

Ma. Luisa L. Fernan

National Integrated Protected Area Programme (NIPAP)

CPO 1156, Quezon City or

P.O. Box 1614, Quezon City

 (2) 9292-034; 9269-163; 9279-869

 (2) 9280805

 grnipap@iconn.com.ph

Len R. Garces

International Center for Living Aquatic Resources

Management (ICLARM)

Bloomington Building, Salcedo Street

Legaspi Village, 0718 Makati City

or MCPO Box 2631, 0718 Makati City, Philippines

 (2) 812-8641 to 47

 (2) 816-3183

 L.Garces@cgnet.com

Ingrid Gevers

Fisheries Adviser

Western Samar Agricultural Resources Development

Programme (WESAMAR)

P.O. Box 42, 6700 Catbalogan

Samar, Phillipines

 (57) 756-0179

Karen Jane Hampson

Agriculturist

Western Samar Agricultural Resources Development
Program (WESAMAR)

P.O. Box 42, Catbalogan 6700

Samar, Philippines

 (57) 756-0179

Gregory Ira

ICD Sub-program Coordinator

International Institute of Rural Reconstruction (IIRR)

Silang, Cavite, Philippines

 (46) 414-2420

 (46) 414-2417

 iirr@cav.pworld.net.ph

William P. Jatulan

Division Chief

Extension, Training and Communication

Small Island Agricultural Support Services Programme
(SMISLE)

35 M. Velez Street

Cebu City 600, Philippines

 (32) 254-4501

 (32) 253-5593

 smisle1@gsilink.com

Mohan J. Modayil

Professor and Head

Department of Fisheries Resources and Management

College of Fisheries

University of Agricultural Sciences

Mangalore, India

 (91-824) 439 322

 (91-824) 438 366

 root@afsib.kav.nic.in

S.S. Tabrez Nasar

Sr. Aquaculture Specialist

International Institute of Rural Reconstruction (IIRR)

Silang, Cavite, Philippines

 (46) 414-2420

 (46) 414-2417

 iirr@cav.pworld.net.ph

Gary F. Newkirk

Coordinator

Coastal Resources Research Network

Dalhousie University

1321 Edward Street

Halifax NS B3H 3H5, Canada

 (1-902) 494 2284

 (1-902) 494-1216

 Gary.Newkirk@Dal.Ca

Irene Novaczek

Technical Consultant

Yayasan Hualopu

P.O. Box 1224, Ambon 97012, Indonesia

 (0911) 69-258

 (0911) 69-983

 johnambon.@wasantara.net.id

Marie Grace Madamba-Nunez

Philippine Partnership for the Development of Human
Resources in Rural Areas (PhilDHRRA)

59-C Salvador Street, Loyola Heights

Quezon City, Philippines

 (2) 436-0702

 (2) 426-0385

 phildhrra@netasia.net

Perry M. Paleracio

Marketing Specialist

Hayuma Foundation, Inc.

#8 Maya Building, EDSA Cubao

Quezon City, Philippines

 (2) 912- 3608; 912-7093; 912-7085

 (2) 912 - 3479

Ricky Palyama

Field researcher

Yayasan Hualopu

P.O. Box 1224, Ambon 97012

Indonesia

 (0911) 69-258

 (0911) 69-983

 john ambon.@wasantara.net.id

Charlotte “Mayette” Z. Paredes

Fisheries Specialist

Western Samar Agricultural Resources Development

Programme (WESAMAR)

P.O. Box 42, 6700 Catbalogan

Samar, Philippines

 (57) 756-0179

 (57) 756-0179

Emmanuel F. Pastores

Ten Knots Development Corp.

2/f Builders Center Building, #170 Salcedo Street

Legaspi Village, Makati City, Philippines

 (2) 894-1134

 (2) 894-1134

Robert Stephen S. Pomeroy

International Center for Living Aquatic Resources

Management (ICLARM)

P.O. Box 2631, Makati City

Philippines

 (2) 750-0309

 (2) 816-3183

 r.pomeroy@cgnet.com

Giacomo Rambaldi

National Integrated Protected Area Programme (NIPAP)

CPO 1156, Quezon City or

P.O. Box 1614, Quezon City, Philippines

 (2) 9292-034; 9269-163; 9279-869

 (2) 9280805

 grnipap@iconn.com.ph

Felixberto “Joji” H. Roquia, Jr.

Gender development expert

University of the Philippines at Los Banos (UPLB)

College, Laguna, Philippines

☎ (49) 536-2588

📠 (49) 536-1478

✉ joji@baylink.mozcom.com

Dipankar Saha

Training Organizer

Ramkrishna Ashram Krishi Vigyan Kendra

P.O. Nimpith Ashram

District: South 24 Parganas, West Bengal, India

☎ (91-33) 3218-20280

📠 (91-33) 249-2815

Severino G. Salmo III

Resource Specialist

Community-Based Coastal Resources Management Program

Marine Science Institute

University of the Philippines

Diliman 1101, Quezon City, Philippines

☎ 922-3921; 920-5301 to 99 local 7428 or 7430

📠 924-7678

✉ jon@msi.vpd.edu.ph

Susana V. Siar

Aquaculture Department

Southeast Asian Fisheries Development Center (SEAFDEC)

Iloilo, Philippines

☎ (33) 335-1009

📠 (33) 335-1008

✉ seafdec@mozcom.com

Henrylito R. Tacio

Program Information Officer

Mindanao Baptist Rural Life Center (MBRLC)

Kinuskusan, Bansalan

3005 Davao del Sur, Philippines

 (82) 222-0368; (0912) 702-8631

 (82) 64617

 2081351@mcimail.com

Andre Jon Uychiaoco

Researcher

Marine Science Institute

University of the Philippines

Diliman, Quezon City, Philippines

 (02) 920-5301 local 7426

 (02) 924-7678

 andreu@msi01.cs.upd.edu.ph

Karen P. Vidler

CRM Consultant

Philippine Rural Reconstruction Movement (PRRM)

940 Quezon Avenue

Quezon City, Philippines

 (2) 410-5235

 (2) 928-7919

 prrm@mnl.sequel.net

Alan T. White

Coastal Resource Management Project

Humabon and J. Luna Streets, North Reclamation Area

Cebu City, Philippines

 (32) 232-1821 to 23

 (32) 232-1825

 prcebu@usc.edu.ph

Workshop staff

Coordinators

Joy Rivaca-Caminade
Gregory C. Ira
Jaime Ronquillo

Editors

Arlene Brookes
Joy Rivaca-Caminade
Sarah Janne Curran
Stuart James Green
Maeve Nightingale
John Purvis
Cathy A. Rosario

Desktop publishing

Jerome P. Bonto
Erwin D. Escubio
Evangeline C. Montoya

Artists

Ricardo E. Cantada
Reymundo D. Cuevas
Renato B. Eje, Jr.
Rollie N. Nicart

Materials production

Evangeline C. Montoya

Logistics

Estella S. Kasala

Support staff

Erlinda A. Puspos
Wendell Cuenca
Noli Amodente

Post production staff

Editors

Arlene Brookes
Joy Rivaca-Caminade
Gregory C. Ira
Marie Madamba-Nuñez
Gary Newkirk
Cathy Rosario

Desktop publishing

Evangeline C. Montoya
Librado L. Ramos

Artists

Ricardo E. Cantada
Rollie N. Nicart

Volume I

Introductory Papers

