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## EVALUATION REPORT

*Bolanao Community Based Coastal Resources Management Project*

*Prepared for Coastal Resources Research Network (CoRR)  
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Halifax, N.S., Canada*

by

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## EXECUTIVE SUMMARY

**Background:** The Community- Based Coastal Resources Management (CBCRM) Project located in Bolinao, Pangasinan Province, Philippines supported by IDRC- Canada and implemented by the University of the Philippines; College of Social Work and Community Development (CSWCD) and Marine Science Institute (MSI); and the Haribon Foundation was reviewed during October, 21-27, 1996. The project was funded for two years (July 1995-July 1997). The review team visited the four Barangays in Bolinao Municipality; discussed with all site staff, the Manila based Management Committee, community leaders and members of the newly formed people organizations; and interviewed local and regional government officials.

The achievements and learning of the CBCRM-Bolinao Project can not be viewed in isolation. There has been a considerable history of support for various projects related to CBCRM in the Bolinao and adjacent area and substantial other support to coastal management in the Philippines. The result of all of these activities has been to create a supportive framework; develop researchers and community organizers who are familiar with each other and the problems of coastal communities; supply successful models and experiences with which to base interventions. These advantages, however, were almost lost, when during project formulation multinational developers with strong national political support proposed a cement plant complex for Bolinao. This industrial development would have had profound impacts on the ecological system and the communities, not to mention on the implementation of the CBCRM project. A large group of concerned citizens lead by the Movement of Bolinao Concerned Citizens Inc. (MBCCI) with substantial input at the scientific level from MSI were able to successfully raise the concerns to a national level such that the Environmental Panel turned the project down in August, 1996. This issue had both positive and negative impacts on the project.

The review first looked at the accomplishments, impacts and issues at the Barangay, Municipal, Regional, National and International levels; then at the organizational issues; at the project framework or hypothesis; other issues ; and then made recommendations.

**Outcomes and impact:** What emerges from a detailed look at the four Barangays is that there are some very clear indicators of early success and considerable potential for future impact. The project has succeeded in facilitating the formation of four Peoples Organization in each of the Barangays, this in spite of considerable difficulties and resistance from local government. Although some are still weak they have all been able to start addressing some of the serious coastal resource management issues, in particular Marine Protected Areas (MPA's) and fish sanctuaries, they are becoming involved in coastal development planning, and initiating dialogue with neighboring Barangays on overlapping resource management issues.

The issues at the Barangay level are related to the need:  
to develop a closer link between livelihood and resource management specifically to strengthen research and community experimentation in small scale mariculture, explore the

livelihood and resource management issues of shellfish and seaweed collecting by women and children, and to examining the economic importance of the handicraft activities;

for project and staff to consider strategies and action on the various emerging resource management issues, so they can respond quickly and appropriately to issues like the fish pens in Arnedo and Pilar, fry concession in Balingasay, and the aquarium fishing ban in Binabalian.

While the project is intended to be interdisciplinary and inter institutional, it is separated into four components: Community Organizing (CO); Resource Management (RM), Livelihood ;and Networking Advocacy. The early successes are primarily in the CO and RM components while the livelihood component has presented the greatest challenge. It has suffered from some of the Institutional problems discussed later. There are a few emerging successes primarily related to handicrafts but a number of unsuccessful ventures and a lack of options that clearly link to and support sustainable resource management.

The project while clearly focusing on individual Barangays is also achieving impact at the Municipal, Regional, National and International levels. Furthermore the potential for future impact is considerable at these levels. Impact at the Bolanao Municipal level is occurring by expansion and involvement of other nearby Barangays and by direct networking and advocacy with government officials.

However, the dealings with the Municipal Mayor has not been smooth. The mayor and some of his counselors were adversaries during the cement plant conflict and are clearly stake holders in the fish pen issue. The mayor on the other hand has pushed some other enlightened measures for sustainable fisheries management.

A side result of the cement plant issue was the development of a strong municipal group the MBCCI headed by Margaret Celeste, the mayors sister (but also his protagonist), opposed to the cement plant. This organization centred in Bolanao town was organized outside the CBCRM project but worked closely with the project during the battle. It has now gained considerable credibility and is currently a focus for a number of organizations interested in furthering activities in ecotourism and sustainable livelihoods. It will be important in a second phase of the CBCRM project that mechanisms are developed to work closely with the MBCCI.

There has been close interaction<sup>ing</sup> at the region level with NEDA, Region I and LGCAMC and staff from both organizations are very supportive. It was clear to the reviewers that many of the CBCRM achievements were possible only because of the supportive frameworks and pressure on local government by the LGCAMP. This is especially clear in environmental education, the cement plant and Coastal Development Planning.

In addition to major involvement at the national level during the cement plant battle. There has

also been involvement in a number of national workshops and input to national training on coastal management. The major activity was a national CBCRM workshop *The Festival-Workshop* on CBCRM held in Bolinao, which involved many of the organizations working in CBCRM. The Bolinao activities were presented in this workshop and included in the workshop publication, and the input of project staff (particularly the livelihood component) was crucial to the organization and success of this workshop. The project has also been involved in a number of international meetings and has hosted trainees.

The early impacts and potential for increased impact at the Municipal, Regional, National and International levels is heartening but increases the pressure on the project to expand to other Barangays, interact with other organizations, increase the time devoted to networking and advocacy, and the need to coordinate these activities closely.

**Organization:** The project was designed to be multi-disciplinary and inter-institutional. Each of the three Metro Manila based institutions supply two coordinators who coordinate one of the components and serve on the management committee (MANCOM) along with the overall full time project coordinator from MSI. The site researchers are divided into three component teams of four each working in a separate Barangay, a representative from each of the component teams working in the same Barangay act as the Barangay team. The review team found that the project is strongly organized around components both at the project and community levels. The project structure reinforced a discipline approach thus the multidisciplinary focus was confused with Institutional issues.

Multi-disciplinary and inter-institutional research is not easy and in this project there has clearly been severe conflicts. There are three institutions who have different "discipline" biases, different philosophies, different "modus operandi" for community based work, and considerable differences in their past exposure to the area and the problems. There was no level playing field. The review team accepts these difficulties as a given as this situation is common to most such multi-disciplinary projects. The concern of the review team has been, has the problem been solved and how does the conflict affect future institutional support for the project and the communities?

The review team concluded that in spite of considerable attempts to "level off" there are still problems, the conflict has been intense and has affected the performance of some components. At the site level working relationships have now been established and while there are some problems the work is proceeding. However, at the MANCOM level these past difficulties are affecting the institutional commitment to future activities. The review team had the impression that some coordinators feel burned out or burned and are unwilling to fully commit to a second phase.

The site teams have difficulty functioning as multi-disciplinary teams. The project structure stresses institutional responsibility for certain activities and this is carried through to the site

level, this is reinforced by differences in philosophy and approaches, lack of clear site level coordination, the organization of the POs, lack of allocation of leadership responsibilities and the lack of activities that are the responsibility of all the members of the site teams. Nevertheless, the review team felt that the site teams have established working relationships in which they more or less do their own activities but they do discuss and consult with each other and try not to work at cross purposes.

The discipline/component teams seem to function very well and work closely with the coordinators and function as teams. It was not clear how the networking and advocacy component interacts with the site teams as the formal structure has this component reporting to the Project Coordinator not to the site teams. This will be important for the future as this component will become more important.

The livelihood component has been the most difficult component. One of the challenges to the project is to do some brain storming and document the: problems, the need for a different approach and some suggestions for future activities, and potential approaches. There is a need here to involve other groups (research or NGO's) with livelihood experiences. This documentation and suggestions for future directions would prove invaluable for future projects.

MSI played a strong role in the cement plant campaign, they thus are seen by some local government and municipal officials as being antidevelopment (the fish pond issues may further compound this). This has negative consequences for the project in some Barangays and in negotiating with the Municipal officials. The project can do little about this but continue to carefully choose their strategies, continue to strengthen the POs and stress the inter-institutional nature of the CBCRM project.

There was also some concern about project ownership as most people from the community and regional officials view this as a MSI project. This is understandable given the long time presence of MSI in Bolinao and their involvement in other projects in the area. It was not clear how large a problem this was with the other partners but the move by the Haribon CO's to set up their own house in Bolinao was an attempt to separate themselves from the MSI image. Small things like the fact that all MANCOM meetings are held at UP-MSI tend to re-enforce this image.

There have been some problems with overall coordination and input from the MANCOM. It has been difficult to get full time input from the Program coordinator and 2 weeks/month from the Component Coordinators. The change in the project structure from one to two component coordinators has partially solved this. The review team, however, notes that many of the issues related to Institutional conflict and future direction of the project are related to over commitment of the senior coordinators. The problem of involving senior staff is still a major one and is an issue that will need to be settled for a successful future phase.

The major issue is that of the future of the project after July, 1997. The MANCOM needs to

resolve the issue of if and how the institutions will continue working together in support of CB-CRM in Bolinao. The review team suggests that this issue be discussed at either a special meeting. Review team member Juju Tan is willing to assist as an external facilitator.

Communication with the project seems to have been adequate. But international communication has caused problems particularly between IDRC/CoRR and the project has been very difficult. Project e-mail seems to work sporadically, faxes are not delivered to the right people and incoming mail is often not acknowledged; this often entails considerable follow up via phone. This was particularly apparent during the process of trying to obtain feedback on earlier drafts of the review.

### ***Recommendations***

The project should :

- develop a strategy and plan for a future phase to allow continued involvement or alternatively develop a plan for a phase out.
- within the context of the final report document the learning the methods, the process, the successes and failures.

If the project continues in a second phase there should be:

- guideline for expansion to other Barangay's and interaction with other organizations;
- mechanism to respond quickly to emerging issues and to strengthen the interaction within the site teams, including a site coordinator;
- mechanisms for coordinating the municipal and regional networking with the Barangay level activities, and the Federation;
- strengthened of the livelihood component;
- a review of the methodology to insure that there is adequate base line data and indicators, and determine the most appropriate methods and tools to obtain those, secondly review the role and utility of PRA and other participatory tools in the context of documenting project learning and developing approaches to be used in future activities;
- determine if the Federation could assist in incorporation of participatory evaluation within the project management and planning of future projects.

IDRC should:

- be prepared to assist in the development of the second phase and possibly assist in sourcing funds and packaging the proposals;
- with assistance from CoRR document the project learning with regard to network training and methodology development and use this as a basis for discussion with the project on future directions and input to a regional network;
- ensure adequate monitoring including site visits and substantive input into the research agenda.

## Background

The Community Based Coastal Resource Management (CBCRM) project located in Bolinao Municipality, Pangasinan Province, Philippines is implemented by the University of the Philippines; College of Social Work and Community Development (CSWCD) and Marine Science Institute (MSI), and the Haribon Foundation with funding supplied by IDRC- Canada. Because of the importance of this project to others community based coastal projects funded by IDRC through two Program Initiatives: Community Based Natural Resource Management (CBNRM) and the Sustainable Use of Biodiversity (SUB) a mid term review was carried out.

There has been a 15-20 year history of activities and support for various projects related to Coastal Resources Management throughout the Philippines including the Bolinao and adjacent area. This has included substantial support from IDRC and other donors. The achievements and lessons of the CBCRM-Bolinao Project are part of a much larger picture of support for Community Based Coastal Resources Management(CBCRM) and can not be viewed in isolation.

- 1) IDRC has invested over 1.5 Million Canadian dollars in both previous projects and this current project. The CBCRM project has grown out of a long history of support, the details and relevant results are given in Appendix I.
- 2) The Marine Sciences Institute (MSI) of the University of the Philippines has been actively working out of the Bolinao Marine Sciences Laboratory since 1987. In addition to numerous faculty and student research projects, they have implemented the USAID funded Stock Assessment CRISP project which has quantified many of the current resource problems, and supplied much of the information for the environmental education program.
- 3) Haribon Foundation has been involved in training fishermen in Bolanao and near by areas of Zambales in the use of nets to replace cyanide in the capture of aquarium fishes. This Netsman project, partially funded by IDRC and CIDA has been on going since 1988. In addition Haribon has been involved in a successful CBCRM project in near by San Salvador Island, Zombales since 1988.
- 4) Lingayan Gulf was one of the sites of a large USAID funded ASEAN Coastal Area Management Project (CAMP), coordinated by ICLARM. This project concentrated on the macro level planning, problem identification and interagency cooperation and has set the political and policy stage for Integrated Coastal Area Management (ICAM) in Lingayen Gulf. There was also a follow up FAO/UNDP project on Integrated Coastal Fisheries Management which prepared environmental education material, carried out GIS assessments and documented the legal aspects of coastal management. MSI, Haribon, and CSWCD were all involved in some aspects of both the projects. As a result of the Lingayen Gulf CAMP activities Philippine President Fidel Ramos created the Lingayen Gulf Coastal Area Management Commission, LGCAMC (April 20, 1994; Executive Order No. 171). There is now firm funding for this commission of around 15 million pesos (750,000 CAD) annually from the Presidential office and line agencies. The LGCAMC is



very supportive of the initiatives of the CBCRM- Bolinao Project and as such has assisted in some of its early successes.

5) There has also been a longer history of projects focusing on community management of fisheries or coastal resources in the Philippines than in other Southeast Asian Countries. They include the World Bank funded Central Visayas Regional Project (CVRP-1) which started in 1984 and the ADB funded Fisheries Sector Project starting in 1989 and which was implemented in 12 large bays but did not include Lingayen Gulf.

6) There are also a number of NGOs and Peoples Organizations (POs) involved in CBCRM throughout the Philippines. A recent publication, *Seeds of Hope* (partly funded by IDRC/CoRR and involving the CBCRM project) gives case studies of a number of these activities.

The results of these activities has been to create a supportive framework; develop researchers and community organizers who are familiar with the problems of coastal communities; and supply some successful models and experiences with which to base interventions. In addition all three Institutions involved in this current project had previously worked with each other and with communities in Bolinao Municipality.

## **The Review**

### *Nature of the Review*

The instructions to the reviewers were:

*The project review for the IDRC supported CBCRM Bolanao Project is intended to provide project staff and IDRC with an indication of the appropriateness of the project framework, methods for operationalizing the framework and early indications of the success of the overall process in preparing coastal communities in Bolinao to act as a collective coastal resource manager. The main emphasis is on qualitative assessment of the process but quantitative measures may be used if desired. The review is not intended to be an inspection or examination, or performance evaluation of individuals. The evaluation should be participatory at all levels within the project, especially at the community level.*

*It is expected that the reviewers will work from a holistic perspective of the project and not examine components as separate units. The interplay and interdependence of the components should be paramount. This should be examined at all stages: from problem definition, solution identification, experiemental/ pilot testing, to support of uptake.*

*The project is intended to be participatory. The means used to involve people and people's organizations in project activity are to be examined. One indicator of this would be the responsiveness of project personel to needs and opportunities.*

*The project has not built in a participatory evaluation mechanism and, thus, input from PO representatives may not be anticipated by them. The reviewers recommendations on the evaluation process and means for incorporating participatory evaluation are expected.*

*Terms of Reference* were to :

evaluate the effectiveness with which the identified components of the project interact and work at the barangay level

evaluate the organizational structure of the project and the working relationships, including the ability of the project organizational structure to facilitate the implementation of the interdisciplinary nature of the project.

evaluate the level of user participation within the project and, to the extent possible, the actual or potential impact of the project on improvement of sustainable livelihoods in Bolinao

evaluate the review process and suggest means to include participatory evaluation in the project

#### *Project Objectives*

1. To develop interactive means to mobilize women and men of coastal communities toward collective coastal resources management using the strategies of community organization and environmental education.
2. To formulate participatory mechanisms through which people's organizations at various levels are legitimized, institutionalized and strengthened, by society and by law.
3. To determine and evaluate appropriate and equitable coastal resource and environmental management strategies which will ensure a sustainable base of living resources in the coastal area.
4. To identify and develop culturally appropriate, gender sensitive and environment-friendly sustainable livelihoods that will address the need for food and cash, and which will alleviate direct harvest pressure on living coastal resources.
5. To devise networking mechanisms through which efforts on coastal resource management at the barangay and municipal levels are linked to provincial, regional and national levels of governance to achieve maximum viability and impact of the management program.
6. To document the process of evolution toward a community-based coastal resource management program through an interactive learning process between the community and research program, for use in evaluation, training, networking, and application to other coastal communities.

## *Methodology*

The review team consisted of Dr Kenneth T MacKay, Senior Program Specialist, Coastal and Aquatic Resources, IDRC, Ottawa and Julio G. Tan, Institutional Development Director, Foundation for the Philippine Environment. Both reviewers had experience with community based coastal development but they had not been directly involved with the CBCRM project.

The review team follow the terms of reference but in addition to evaluating the process they also attempted to evaluate early achievements of the project.

The review was carried out over a 6 day period October 21 -27 and consisted of: formal briefings by the Metro Manila based Management Committee; review of the year 1 project report; briefings by the Bolinao site staff; visits and interviews with representatives of the peoples organization at each of the four barangy's; informal interviews with all site staff; meetings with the Municipal Planning officer, the Director and staff of NEDA Region 1, and the Executive Director and staff of the LGCAMC. During visits to the four barangays observations were made of the livelihood activities and products, mariculture experiments and sites of the MPA and fish sanctuaries. In addition one review team member attended the first meeting to initiate the formation of a federation among the peoples organization, which occurred during the review. The key findings of the review were presented to both the Bolinao staff and the Management Committee (MANCOM) at separate meetings to verify issues and receive feedback. The review team also followed up with individual MANCOM members to check on various issues and points. The project coordinator was out of the country during the review, although, one reviewer (KTM) met her in Montreal, Canada just prior to the review to obtain background briefing and spoke with her on the phone at the end of the review to check on a number of issues. A rough draft report was left with the project to check for accuracy and comments and a later version was forwarded to them. However, there were some problems with the printing of the report and distribution to the MANCOM team, and no formal responses were received by the reviewers..

## **Accomplishments/Impact**

The project objectives focused primarily on the Barangay level and the review team has looked at these in some detail. There have also been activities focused at the municipal, regional, national and international levels which were also examined by the review team.

*Barangay Level:* The major activities accomplishments and issues for each of the Barangays is summarized in the following tables.

Barangay Balingasay (pop=2500)				
Component	Activity	Comments	Problems	Recommendations
Community Organizing	Peoples Organization	Introductory PRA carried out; Legalized 1995, 88 members; Majority of members are fishers Main activities started in Year 2;	Multiethnic community has resulted in cultural & sectoral conflict within the PO and between leaders;	
Livelihood	Floating Cottage	Capital cost too high, not successful		
	Consumer Store	Planned		
	Food Processing	Feasibility study being done on Cashew, Jack fruit, Tamarind & Mango		
	Bangus fry	Community obtained 1/3 of concession; Grossed 250,000p, fee-125,000, net income 52,000.	Urgent need for decision on future involvement in concession--will it be given no fee, or open bid; Catch declining, will need to implement & link management measures to concession & consider trade offs; Only few leaders involved in concession & potential conflict of interest in handling income;	The internal conflict within the PO and the need to implement resource management into the concession should be dealt with.
Resource Management	Marine Protected Area (MPA) & Fish Sanctuary	Site Selected based on fishers knowledge; Staff to survey; Benefits will be recovery of fish and sea urchins; Excellent support from Brng council; PO helping 2 other Brngs develop plans for MPA		

<b>Barangay Balingasay (pop=2500)</b>				
Component	Activity	Comments	Problems	Recommendations
	Coastal Development Plan	Zoning being developed	Fishing gnds limited and share with 3 other Brng	
	Ecotourism	Considerable potential	Not clear on projects involvement.	

<b>Barangay Arnedo pop=2000, 300 households, 80 fishers</b>				
Component	Activity	Comments	Problems	Recommendations
Community Organizing	Peoples Organization-SAPA	Legal entity, 80 members, wide community representation, but few people actively involved;  PRA carried out in earlier CSWCD project & followed up;	strong resistance from Brng. govt; apparent weak commitment to SAPA; Many previous projects;  PRA not yet compiled;	
Livelihood	Soap Making	Experimental		
	Paper Making	paper & paper products being produced and sold	Need to increase scale, financing for equipment and technical assistance in dieing	Should have economic evaluation of livelihood activities
	Woodcraft	No information		
	Seaweed Culture	Failed previously due to grazing, low salinity and marketing problems	Commercial venture now starting involving some PO leaders in individual capacity results in- mixed messages to community & potential conflict of interest	

<b>Barangay Arnedo pop=2000, 300 households, 80 fishers</b>				
<b>Component</b>	<b>Activity</b>	<b>Comments</b>	<b>Problems</b>	<b>Recommendations</b>
	Sea Urchin Culture	Experimental trial-yields low (5kg/cage), 40 % mortality, feed collection problem ; future for restocking;	Community viewed this as potential livelihood rather than as expt.	
Resource Management	MPA & Fish Sanctuary	19 ha area identified & surveyed; considerable fisher involvement & local knowledge; considerable effort to get approval from Brgy council (3 hearings);	Initially not approved then not supported by Brng council; Conflict over area with commercial sea weed farm;	
	Coastal Development Plan	Planning & zoning on going;		
	Fish Pens	Emerging issue	Not following spacing & size of Municipal ordinance	
	Mangrove reforestation	requested		
	Environment Education	Useful; More requested;		
	Exposure trip	Key in convincing the PO to implement MPA		

Barangay Binabalian 400 households				
Component	Activity	Comments	Problems	Recommendations
Community Organizing	Peoples Organization SAMMABI	Legalized Nov 95- 52 members (<20 households); Former site of Haribon Netsman training;  expanding to adjacent brng's by training local CO's; Supportive of federation	Only 1 purok; Interteam conflict; Did not work with existing aquarium fishers association (130 aquarium fishers); Aquarium ban affected membership due to migration; Lack of project involvement & confusion on project stand on aquarium fishing;	Project should re-evaluate stand on aquarium fishing ban and future involvement in issue:
Livelihood	Rice store	Constructing structure; Applied for loan LGCAMC;	Loan not yet approved, store not operational;	
	Buri-craft	Exploratory- 5 participants		
	Resource Mapping and Inventory	Being completed; Possible food processing and fish trading;		
Resource Management	MPA and Fish Sanctuary-286 ha.	Considerable fisher, Brgy. and municipal support; Ongoing consultations with neighboring Brgy.; Incorporated local fishermens knowledge; Modified size based on consultation;	Trade offs with other users not yet resolved; Monitoring plan needs to be formalized; Will fish catch be doubled?;	Project should develop monitoring and evaluation plan to assess resource improvements and beneficiaries.
	Coastal Develop - ment Plan	On going- MPA major part of zoning		

Barangay Binabalian 400 households				
Component	Activity	Comments	Problems	Recommendations
	Aquarium fishing	mayor offered to reopen fishing if controlled by SAMMABI	Confusion on role of SAMMABI in management of reopen fisheries	Project needs to decide policy;
	Environmental Education	Exposure trip instrumental in convincing PO's of value of MPA;		

Barangay Pilar				
Component	Activity	Comments	Issues	Recommendations
Community Organizing	Peoples Organization	Legalized May 96, 52 members; Expansion with in Brng started; Built on Plan Intern. Program; Paralegal and organization training carried out;	Initial focus on one Purok; Low representat- ion of fishers; High representat- ion of women; Focus on livelihood; Conflict with & threats from Barangay Captain over resource issues-fish pens;	
Livelihood	Buri Craft	traditional craft involving 90-95% of households; project attempts to diversify products;	low price; lack capital (proposal being submitted to LGCAMC); need direct marketing;	
	Soap Making	experimental with 18 participants		
	Future- Fruit processing- mangoes; Mushroom production; Dress making			



Barangay Pilar				
Component	Activity	Comments	Issues	Recommendations
	Fisheries related		lack of alternatives for involvement of men	
	Inventory of possible community livelihood resources	Being completed and will be presented to community shortly;		
Resource Management	Fish Pens	Rapidly expanding pens with munic. permits but do not meet regulations on size & distance apart; Community petition;  PO offered area for fish pen; Community willing to accept municipal regulations on spacing and size and include monitoring;	Munic.officials have financial stake; technical input required from MSI; Community concerned about lack of staff support for meeting with mayor; PO has to decide whether to take offer of pen and their conditions;	Project to decide stand and strategy on fish pens <b>immediately</b> (fish pens could represent the major entry point for future community involvement).
	Coastal Development Plan	Planning underway	illegal fishing; fish pens and role of municipal councilors & mayor	
	Mariculture	experimental Holothurian culture;  experimental siganid culture;  experimental polyculture suggested;	difficult to separate experimentation and alternative livelihood; discontinued--fin rot, conflict with fish pens; await decision on fish pens	Project & MSI consider strategy and approach for Mariculture development
	Mangrove rehabilitation	Community interest as this is seen as part of access strategy to fish pen issue; area surveyed;	Issue overtaken by fish pens;	

Barangay Pilar				
Component	Activity	Comments	Issues	Recommendations
	Shellfish & seaweed collecting & gleaning	Important women & childrens activity for income and household nutrition.	Totally missed	Project should re look at previous report on gleaning & follow up in this and other brngs. and use results to establish activities for RM & LH

In summary what emerges from a detailed look at the four Barangays is that there are some very clear indicators of early success and considerable potential for future impact. The project has succeeded in facilitating the formation of four Peoples Organization in each of the Barangays, this in spite of considerable difficulties and resistance from local government. Although some are still weak they have all been able to start addressing some of the serious coastal resource management issues, in particular Marine Protected Areas (MPA's) and fish sanctuaries, they are becoming involved in coastal development planning, and initiating dialogue with neighbouring Barangays on overlapping resource management issues. A number of other issues have emerged or are emerging which have required or require action or invention by the POs and support from the project. These include a proposed cement plant (discussed later), an aquarium fishing ban, the rapid increase in fish pens primarily controlled by outside interests, and Bangus fry fishing concessions. These emerging issues have presented the POs and the project staff with considerable challenges to respond quickly and appropriately.

The livelihood component has presented the greatest challenge and has not been as successful as the other components. There are a few emerging successes primarily related to handicrafts but a number of unsuccessful ventures. The most serious difficulty is a lack of options being presented that clearly link to and support sustainable resource management. These issues will be discussed in greater detail in the consideration of the individual components and the project structure.

#### *Municipal:*

The project while clearly focusing on individual Barangays is also achieving impact at the Bolanao Municipal level. This is occurring by expansion and involvement of other nearby Barangays and by direct networking and advocacy with Barangay officials. The major vehicle for increased impact at the Municipal level will be the newly formed Federation of the POs.

In the process of developing the plans for the MPAs and the Coastal Management Plans it has been necessary for the POs to consult with nearby Barangays, in turn these communities are now asking the project for advice and assistance in organizing. This does put additional pressure on

the site teams to be involved in other communities. The recent formation of a Federation of the existing 4 PO's will strengthen the impact on the Municipality and will also offer a mechanism to assist other Barangays in CBCRM. The reviewers also note that the training of community leaders as local Community Organizers (COs) offer a potential mechanism for working in a greater number of communities without requiring a full time CO.

There has also been direct contacts with Municipal Officials and staff through the Networking and Advocacy component. The contact with the Natural Resource Development staff consists primarily of information on the project activities and technical guidelines on MPA's and Fish Ponds. The officer in discussion with the review team said

*"CBCRM has helped to increase environmental awareness, developed interest among fishermen for fish sanctuaries, identified areas for them and created political will for their support, they have also increased interest in other Barangays who are not in the project. However, the problems still remain, they have given knowledge but not yet food in stomachs. There is a great need for alternative livelihoods and credit schemes.."*

The project has also dealt directly with some Municipal Councillors to give them information on MPA's and other information related to the project which has helped in the discussions on the MPA's.

The dealings with the Municipal Mayor has not been smooth. The mayor and some of his counsellors were adversaries during the cement plant conflict and are clearly stake holders in the fish pen issue. The mayor on the other hand has pushed some other enlightened measures on sustainable fisheries management. The Natural Resource Development staff said to the review team

*"Mayor Celeste has given preferential treatment to marginalized fishermen and has contributed to controlling illegal fishing."*

A side result of the cement plant issue was the development of a strong municipal group opposed to the cement plant. This group the Movement of Bolinao Concerned Citizens Inc. (MBCCI) is headed by Margaret Celeste, the mayor's sister (but also his protagonist). This organization centred in Bolinao town was organized outside the CBCRM project but worked closely with the project during the battle. It has now gained considerable credibility and is currently a focus for a number of donor organizations and businessmen interested in furthering activities in ecotourism and sustainable livelihoods. It will be important in a second phase of the CBCRM project that they develop mechanisms to work closely with the MBCCI.

#### *Regional:*

The project has had close contacts with the NEDA (National Economic Development Agency) in Region 1 and with the Lingayen Gulf Coastal Area Management Commission (LGCAMC). In both cases there have been mutual benefits.

NEDA in Region 1, was involved in the original ASEAN CAMP project. They have been involved in policy, planning and technical issues. They have relied on the technical advice from UPMSI and the Bolanao based activities. NEDA was very concerned about the cement plant issues, illegal fishing, fish pens and now they see the need for a focus on ecotourism. There are, however, no specific plans for ecotourism and detailed planning is needed.

NEDA works with a number of provincial line agencies and while they are involved in macro planning and give advice they do not implement projects. In the Philippine Local Government Code the management of natural resources is now the responsibility of the local government ie. The Municipalities. The two major concerns of NEDA are now Water Resources for the Coastal Zone and squatters.

NEDA is very positive on the work and impact of the project. Staff indicated that CBCRM is essential for the implementation of the plans for Lingayen Gulf. The government can't organize communities and needs NGO's involved at the community level and also assisting in educating local government officials.

LGCAMC evolved out of the ASEAN CAMP. It was formed by a Presidential Executive Order and reports directly to the Office of the President. Funding has been received directly from this office and DENR. Their function is to implement the Lingayen Gulf Coastal Area Development Plan. The approach is best summed up in the wording of the Presidential Proclamation declaring Lingayen Gulf as an environmental critical area.

*“Lingayen Gulf is an area to be devoted to sustain (sic) production of fish and other marine products, preserve genetic diversity, protect natural features, and enhance outdoor recreation.”*

Their role is to strengthen policy and legislation and coordinate but they do not have policing powers. They are, however, coordinating coast guard and the navy by supplying operating funds and may assist in purchase of new vessels. They are very involved in education and are just implementing an environmental education curriculum focused on the sustainable management of Lingayen Gulf. LGCAMP's support was critically important in the decision on the cement plant and they are also spear heading the attack on illegal fishing. The next challenge in Bolanao will be ecotourism this will be the focus of a Philippine government cabinet meeting to be held in the nearby province of Zambales ( November 5, 1996) and the November, 1996 APEC meeting.

The CBCRM project has interacted closely with LGCAMC especially on the education activities and the cement plant. The LGCAMC director was particularly supportive of the technical presentations from MSI on the cement plant, the input into the environmental education program, and the formation of the Federation (“*this is very important for LGCAMC*”). In addition at the Barangay level the project has assisted the PO's in the preparation of proposals for small grants and loans from LGCAMC. The reviewers note that the interaction of the CBCRM project with LGCAMC on the environmental education activities will result in Region wide impact from the

training materials prepared by the project.

It was also clear to the reviewers that many of the CBCRM present and future achievements were possible only because of the strong support and pressure on local government by the LGCAMP. They have acted as a counterbalance and pressure on local government in the case of the cement plant and illegal fishing. They have also put in place the development of Coastal Plans which has offered the project the opportunity to involve the communities in the development of these plans.

#### *National:*

The major involvement at the national level has been related to the cement plant battle, which is discussed in a separate section. There has also been involvement in a number of national workshops and input to national training on coastal management.

The major activity was the Festival-Workshop on CBCRM in Philippines, held in Bolanao, which involved many of the organizations working in CBCRM. The Bolanao activities were presented in this workshop and are included in the workshop publication "Seeds of Hope". The leader of the livelihood component Dr Elmer Ferrer and CSWCD were critical to the organization and success of this workshop.

#### *International Level:*

Many of the international activities have been closely related to the CoRR network. They have included articles in the CoRR newsletter *Out of the Shell*, hosting of trainees from Cambodia and Vietnam, and presentations at a number of international conferences including:

Coastal Zone Canada 94, Halifax where the CBCRM project and their approach was highlighted in a special conference workshop "Integrated Coastal Food Production" and they contributed significantly to a pre-conference workshop.

Asian Fisheries Society, Beijing, October 1995 a special session on Community Based Fisheries Management.

World Conservation Congress, IUCN, Montreal. October, 1996

Most of these presentations have focused on the model and approach but have not yet critically addressed the lessons learned and assessment of alternative models.

#### *Issues/Concerns*

The major issues that emerge at the Barangay level is that there are now four Peoples Organizations some stronger than others but all requiring continued support in training organization and technical input beyond the end of the current project in July 1997. The future support for another phase is discussed in a later section but it is critical for the POs that there be a clear message on what will be the future and clear plans put in place to either continue support or

phase out .

There are also issues related to the need for the project and staff to consider strategies and to respond quickly and appropriately to the considerable challenges raised by the various emerging resource management issues : fish pens in Arnedo and Pilar; fry concession in Balingasay; aquarium fishing in Binabitan; and the need to develop a closer link between livelihood and resource management, specifically to strengthen research and community experimentation in small scale mariculture; explore the livelihood and resource management issues of shellfish and seaweed collecting by women and children; and to examining the economic importance of the handicraft activities.

It is also clear that while the project objectives focus on the Barangay level, there are also a number of early impacts at the Municipal, Regional, National and International levels. Furthermore the potential for future impacts is considerable at these levels. This, however, increases the pressure to expand to other Barangays, interact with other organizations, increase the time devoted to networking and advocacy, and the need to coordinate these activities closely.

#### *Recommendations*

The project should :

- develop a strategy and plan for continued involvement or phase out of community organizing and support of the POs.

If the project continues in a second phase there should be:

- guideline for expansion to other Barangay's and interaction with other organizations
- Mechanism for handling emerging issues
- mechanisms for coordinating the municipal and regional networking with the Barangay level activities, and the Federation, and
- the livelihood component should be strengthened

#### **Organization**

The operational *organization structure* is shown in the original proposal this actual structure has been modified some what. Major changes include the addition of two coordinators for each program component, the reduction from 5 to 4 sites and the assignement of one full time staff from each component to each site. A separate position was created for Networking and Advocacy reporting directly to the Project Coordinator.

The advisory council: This meets twice a year is normally composed of the Director of MSI, the Dean of CSWCD, the executive director of Haribon and on one occasion a donor representative (CoRR coordinator). This council offers the overall institutional legitimation, has developed the Institutional MOU's, offers administrative advice on Inter-Institutional issues and is periodically updated on project activities.

The MANCOM: The Management Committee (MANCOM) composed of the project coordinators and the two coordinators for each component meets monthly, usually immediately after a joint staff meeting. All meetings are held at MSI. The MANCOM is the policy body for the project. At the beginning of the project there was an attempt to have General Staff and MANCOM meetings in Bolinao and include field supervisor visits to the sites. A number of difficulties were experienced, the visits to Bolinao were rushed, it was difficult to fit in all the meetings, it was difficult to coordinate schedules so that the coordinators and MANCOM could all come at the same time and at a time that field staff were free. The arrangement of having field staff come to Manila appears to work better.

The Program Committee does not appear to meet separately and it appears that its function is now subsumed by the MANCOM.

The individual *component teams* are made up of the separate component team staff (eg CO Team, RM Team, and LD Team) supported by two staff from the host institution (eg the two Haribon staff coordinators back up the CO team). These teams meet separately with the coordinators in Manila during the time of the joint staff meeting. The Bolinao based teams meet at least once per month and more frequent when needed. There is also a monthly Field Staff Meeting in Bolinao normally just proceeding the general staff meeting in Manila.

There is also a parallel structure within each PO and while they vary from organization to organization in general there is a committee for livelihood, resource management, environmental education, and community organizing. It is these committees which relate directly to each of the component/ discipline teams.

#### *Working Relations:*

The terms of reference suggested that:

*“ it was expected that the reviewers will work from a holistic perspective of the project and not examine components as separate units. The interplay and interdependence of the components should be paramount. ”*

This was very impossible. The project is strongly organized around components both at the project and community levels. All presentations to the review team were made on the basis of components and even where issues overlapped they were assigned to one or the other component. **As commented on later the project structure reinforced a discipline approach thus the multidisciplinary focus was confused with Institutional issues.** The review therefore had to focus on the individual components.

#### *Components/Disciplines*

##### *Community Organizing (CO)*

#### Success Factors

- 4 People's Organizations Advocating a Coastal Development Plan for Bolinao (Formal organizations are present with functional committees and clear vision, mission goals; Majority of members are active in the organization attending major activities such as environmental education activities, meetings and community consultations);
- Heighten Environmental awareness of members and leaders of People's organizations (leaders and members cite that their present organization is very different from past experiences since they are made more aware of their environment and have been challenged to actively respond to problems);
- Shift from Dewey to Pilar (recognition of program's limitation to deal with the problems in Dewey; the choice of an area that has a strategic importance in the formulation and advocacy of a coastal development plan);
- Skills training provided good foundation of people's organizations (The members and leaders interviewed have good recall of trainings conducted particularly the environmental education, exposure visits, paralegal training and leadership formation which was decisive in the formation of people's organizations).

#### Potential for Success

- Federation of People's Organizations in Bolinao;
- Impact of community consultations in neighboring barangays especially with regards to the Marine Protected Areas establishment;
- Municipal government granting concessions to people's organizations (Fry concession in Balingasay and Fishpens in Pilar);

#### Issues and Concerns

- Continued antagonism of barangay and municipal officials to the PO, program (e.g. UP-MSD);
- How do we define an organized community? Does this mean majority are organized or a small but representative group is able to effectively influence decision-making in the community?;
- The need for more value formation activities that will transform individualistic and self-interest attitudes to community perspectives;
- Measures to address and ensure PO's sustainability once program is phased out;



- The need for a strategy to address present and future resource use conflicts;
- How to effectively involve the POs in networking and advocacy

### ***Resource Management and Environmental Education***

#### **Success factors**

- Marine Protected Areas identified as priority in 3 Barangays ( Arnedo, Balingasay and Binabalian, the sites have been selected based on local fishers knowledge and surveyed, negotiations carried out within the communities and with other communities to obtain acceptance of the MPAs and the process of official legitimization has been started);
- Environmental Education (see also Community Organizing section) (All POs are aware of the problems of destructive and overfishing and communities are searching for solutions);
- Exposure Visits ( Every community indicated that the cross visits to communities in Zambales and Batangas that had implemented MPAs was critical in convincing them to decide to implement a community MPA).

#### **Potential for Success**

- Implementation & Impact of MPA's;
- Coastal Development Plans (CDP) (all communities are now developing their plans and there is also dialogue with adjacent communities).

#### **Issues & Concerns**

- Evaluation of MPA's (what are the indicators used to measure impact of MPAs, is there sufficient baseline data to evaluate the ecological and social impacts of the MPAs, ie does catch increase and for what species, how are the increases shared equitably and who wins and who loses, and how is the community involved in this evaluation ?);
- Fish Pens (this is currently a very hot political topic with MSI in the middle, the resolution of this issue will have considerable consequences for other project activities);
- Mariculture (there is a perception at the community level that mariculture activities have been failures, this is partly because of the confusion between experimentation and livelihood activities, there also does not appear to be a clear R&D strategy for community based mariculture);
- Environmental Education (has previously been fairly general while there is now a need to

be much more focused on specific problems eg fish pens)

- Lack of womens concerns ( previous projects explored womens gleaning activites, the current project does not appeared to have considered resource management interventions related to shellfish and sea weed collection);
- Ecotourism ( there is now considerable interest in ecotourism, it will be important to integrate RM activities with ecotourism eg glass bottom boat tours of the giant clam ocean nursery, etc).

### ***Livelihood***

#### **Success Factors**

There were very few interventions that the revierwers considered successful.

#### **Potential for Success**

- Handicrafts (there are a number of handicraft activities that are currently operating at a small scale and are potentially successful eg. Buri, handmade paper, soap-making, the major problem will be that of scale and marketing)
- Entreprenureship trainings (early indications are that the greatest potential for success from these interventions is the buisness skills that are being learned incedentially);

#### **Concerns/Issues**

This is probably the most difficult component. There is considerable reteric in the development community about the need for alternative livelihoods for coastal communities that are linked to resource management, increase incomes and lessen pressure on the coastal resources. The reality is that there is very little experience. One of the early learnings of the project was that the solutions are probably to be found in supplemental rather than alternative income projects which may require a change in paradigm. An additional difficulty was that previous experience of the communities with livelihood projects (not related to the CBCRM project) were that the projects supplied capital rather than built capacity. Other additional difficulties observed by the review team included:

- A number of failures and the appearance that past activities are scattered
- Confusion of mariculture experiments with livelihood activities
- Need to consider improvement of existing livelihoods
- Need to focus on some land based activities eg agriculture
- Gender issues vis-a-vis the type of livelihood project and
- Lack of a focus on coastal resource management linked activities.

The above difficulties have combined with high staff turn over (100%), so that the current livelihood staff are less experienced than other field staff and appear to receive less coordinator support.

This component has also suffered because of the lack of interdisciplinary activities as many of the activities in resource management are livelihood related but the lack of a holistic mechanism means they are not examined from a livelihood focus.

### ***Networking & Advocacy***

#### **Success**

- Bolinao Cement Plant
- Strong Support by NEDA & LGCAMC

#### **Potential for Success**

- Federation but primarily CO function

#### **Concerns/Issues**

- After Cement Plant What ?( The victory on the cement plant has clearly raised expectation from all sectors, so that there will be a need for future success to sustain interest and development);
- Fish Pens (see RM section)
- Municipal Approval of MPA's( there is still a lot of hard work in supplying scientific data and lobbying in order for municipality to approve the proposed MPA's, if they do not there will be considerable loss of credibility).

#### ***Issues/ Concerns***

The review team identified the following issues related to the organization and structure.

***Institutional conflicts:*** Multi-disciplinary inter-institutional research is not easy and in this project there has clearly been severe conflicts. There are three institutions who have different "discipline" biases, different philosophies, different "modus operandi" for community based work, and considerable differences in their past exposure to the area and the problems. There was no level playing field. The review team accepts these difficulties as a given as this situation is common to most such multidisciplinary projects. The concern of the review team has been how

has the problem been solved and how does the conflict affect future institutional support for the the project and the communities.

In this project the multidisciplinary conflict was reinforced by a structure that reinforced the “disciplines” with each institution being responsible for one discipline, this thus confused the multidisciplinary focus with Institutional issues. In addition the external time demands on the coordinators, the need to confront issues like the cement plant, and the lack of on-site mechanism to reinforce the site teams made it more difficult to resolve the issues. The review team concludes that inspite of considerable attempts to “level off” there are still problems, the conflict has been intense and has affected the preformance of some components. At the site level working relationships have now been established and while there are some problems the work is proceeding. However, at the MANCOM level these past difficulties are affecting the institutional commitment to future activities. We had the impression that some coordinators feel burned out or burned and are unwilling to fully commit to a second phase.

*Multidisciplinary approach:* Because of the difficulties previously discussed the site teams have difficulty functioning as multi-disciplinary teams. The project structure stresses institutional responsibility for certain activities and this is carried through to the site level, this is reinforced by differences in philosophy and approaches, lack of clear site level coordination, the organization of the POs, lack of allocation of leadership responsibilities and the lack of activities that are the responsibility of all the members of the site teams. Nevertheless, the review team felt that the site teams have established working relationships in which they more or less do their own activities but they do discuss and consult with each other and try not to work at cross purposes.

The discipline /component teams seem to function very well and work closely with the coordinators and function as teams. This is reinforced by a common approach and the fact they are living close together eg the CO team shares the Haribon House in Bolinao, the LD and RM teams both stay at the MSI Marine Station dormitory.

It is not clear how the networking and advocacy component interacts with the site teams as the formal structure has this component reporting to the Project Coordinator not to the site teams. This is particularly important now as the Federation of the POs will be also be closely involved in these activities.

*Project Ownership:* It was clear to the review team that most people from the community and regional officials view this as a MSI project, a few mentioned Haribon and no one mentioned CSWCD. This is understandable given the long time presence of MSI in Bolinao and their involvement in other projects in the area. It was not clear how large a problem this was with the other partners but the move by the Haribon CO’s to set up their own house in Bolinao was an attempt to separate themselves from the MSI image. Small things like the fact that all MANCOM meetings are held at UP-MSI tend to re-enforce this image.

MSI's played a strong role in the cement plant campaign, they thus are seen by some local government and municipal officials as being antidevelopment ( the fish pond issues may further compound this). This has negative consequences for the project in some Barangays and in negotiating with the Municipal officials. The project can do little about this but continue to carefully choose their strategies, continue to strengthen the POs and stress the inter-institutional nature of the CBCRM project.

*Coordination and Input from MANCOM:* The original intent was for the Project Coordinator to be full time and the Component Coordinators to spend 2 weeks/month on project activities. This appears to have been unrealistic, the project coordinator is not able to put full time on the coordination and the Component Coordinators were often not available for meetings or site visits. The review team believes that many of the issues related to Institutional conflict and future direction of the project are directly related to overcommitment of the senior coordinators.

The coordinators are senior staff who while they do have a personal commitment to the project activities also have other commitments to their Institutions including teaching, research, and/or other projects. In addition, there are also increased requests for them to be involved in national and international meetings or trainings associated with the project activities. The project has attempted to solve this by increasing the Component coordinators to two for each component and sharing the duties, while there are still time conflicts, this appears to have partially solved the problem. The review team was also told that the two coordinators allowed for different perspectives and expertise to be added to the project. The problem of involving senior staff is still a major one and is an issue that will need to be settled for a successful future phase.

*Communication:* Communication from IDRC and CoRR to the project has been very difficult. Project e-mail seems to work sporadically, faxes are not delivered to the right people. As income mail is often not acknowledged, it is often not clear whether mail has been received, this often entails considerable follow up via phone. This was particularly apparent during the process of trying to obtain feedback on earlier drafts of the review.

*Emerging Issues:* A number of issues have emerged previously and continue to emerge, such as the proposed cement plant, an aquarium fishing ban, the rapid increase in fish pens, and Bangus fry fishing concessions. These emerging issues have presented the PO's and the project with considerable challenges to respond quickly and appropriately. The current structure of monthly staff and MANCOM meetings some times can not respond quickly enough.

#### *Recommendations:*

The MANCOM needs to resolve the issue of if and how the institutions will continue working together in support of CB-CRM in Bolinao. The review team suggests that this issue be discussed at either the next schedule meeting or a special meeting, possibly when the CoRR network coordinator visits. Review team member Juju Tan is willing to assist as an external facilitator.

One of the challenges to the project is to do some brain storming and documentation on the livelihood component: problems, the need for a different approach and some suggestions for future activities, and potential approaches. There is a need here to involve other groups (research or NGO's) with livelihood experiences. This documentation and suggestions for future directions would prove invaluable for future projects.

There is clearly a need to strengthen the interaction within the site teams and establishing a mechanism to respond quickly to emerging issues. There is also a need to increase activities involving all site staff eg baseline data collection and focused PRAs. The review team suggests that a full time site coordinator, with considerable experience of both community based resource management and research could help resolving these issues. This is a long term issue and should only be implemented if there is a longer term commitment to continue integrated work at these sites.

The problems of coordination and communications should also be addressed for an future activities.

### **Framework**

*Hypothesis:* The CBCRM Bolanao project design and approach has a number of built in hypothesis which have grown out of the previous Philippine experiences. The reviewers were asked to determine the appropriateness of the framework and methods for operationalizing the framework. There was not sufficient time to examine this in detail and the reviewers felt that there were more urgent institutional issues that required urgent action. The reviewers, however, encourage the project as part of the final report to reevaluate the evolution of the framework hypothesis and validity in the light of the project learnings and suggest modifications.

The following list the *Project Hypothesis* and some initial observations by the reviewers.

- 1) Community involvement and participation a prerequisite for CBCRM;
  - Clearly a factor in the early successes of this project.
- 2) Community involvement requires the organization of peoples organizations possibly outside the existing structure;
  - The Community Organizing has clearly been successful in spite of some institutional difficulties, active opposition from some local officials, complex communities, the disruptive and divisive influence of the cement plant issue, and a short period of time; organizing outside the existing power structures clearly challenges the powerful and may result in organized resistance;
- 3) Community organizing and environmental education needed to strengthen the peoples

## organizations

- The Environmental Education has been very successful in building awareness of some of the resource management issues in the communities, it has also been well appreciated by the communities, the importance and impact of this component should be documented;

- 4) CBCRM requires a partnership between community and researchers;  
- More information on this partnership and examples of community input into research are needed;

- 5) CBCRM also requires advocacy and networking outside the community at municipal, regional and national levels.

- Clearly this has been important in this project with the Cement Plant issue being the best example, in this case the past history of other projects is clearly important;

- 6) Interlocking components

- a. community organizing
- b. alternative livelihood
- c. resource management
- d. networking advocacy

- The components are important but so is the institutional arrangements to encourage team work, this is one of the weaknesses of this project;

- 7) Organizational structure should be closely integrated interagency interdisciplinary teams;

- This project has considerable learnings about the problems of integrated interagency interdisciplinary teams, there is also difference of opinion on the sequence of the inputs from different components and the role of the COs, these all should be documented;

- 8) Individual sites are replicates and can offer examples for other CBCRM activities;

- Clearly each site is different, there are different ethnic groups, social organizations, and different resources and different resource management strategies but it is important that the project document these and some of the common features;

- 9) Alternative livelihoods are necessary in order for sustainable resource management;

- The role and paradigm for alternative livelihood needs to be developed further

## Other Issues

The review team identified a number of issues which while outside the terms of reference of the review were important issues that warranted comment and recommendations by the review team. These issues include: Methodologies, IDRC Management and Future Funding.

### *Methodology*

The *Exposure Visits* particularly to Zambales and Batangas to visit communities which had implemented community marine protected areas appeared to be the critical factor in influencing PO leaders to initiate a MPA in their own Barangays. The efficiency of farmer to farmer extension has been reasonable well documented in the Farming Systems Literature but there has been little formal documentation on the use of fisher to fisher exchanges.

It was expected that *PRA* would be one of the major tools used in this project. The project proposal states :

*" The first step of this iterative approach is the conceptualization of issues, needs and solutions pertinent to CRM. The conduct of a participatory rapid appraisal will allow the community and researchers to interact in systematically gathering and analyzing data about the former's environment and resources. ---"*

In addition there had been *PRA*'s carried out in Arnedo, Dewey and Luciente I, by the previous IDRC project (Participatory Action Research on Coastal Resources Management) with CSWCD.

The review team found major difficulties on the use of *PRA*'s. There are different philosophies on its use but more seriously those differences have not been resolved, such that *PRA*'s are lacking at some sites, and where done *PRA* are not continual updated and verified, nor is the write up completed of previous *PRA*'s eg Arnedo. There are also serious questions from team members about the utility of *PRA*'s. The *PRA*'s are the responsibility of only the livelihood team and do not involve the whole site team. This is partly responsible for their limited use but also has meant that there has not been an integration of methods and tools used by the CO and RM teams into the *PRA*. The end result has been that at most sites there is a lack of adequate baseline data or indicators for evaluating potential project impacts on livelihood, nutrition and resource management at both the household and community level.

The short term issue to be addressed is the need for adequate baseline data and indicators. The longer term issue is to resolve whether *PRA* and other participatory tools are useful for CBCRM.

### *Participatory Evaluation*

Participatory evaluation is incorporated within the individual components at the Barangay level. This does not appear to be formalized within the project management and planning. The formation of the Federation now offers a mechanism for the formal incorporation of participatory



evaluation in to future projects.

## *Gender*

The Proposal specifically indicates that there are gender issues:

*"The dominant economic activity in the coastal zone is fishing which is perceived as being a male activity. However, studies have confirmed the essential role of women in assisting in a variety of fishing activities like gear preparation and that women are the usual ones to market fish products. Although it is known to be important, there has been little documentation and quantification of the contribution of gleaning and other small scale fishing by women and children in gathering food which contributes to household food security. With this has been a neglect of the essential role of women in this sector as resource managers."*

And the objectives indicate a focus on womens activities:

*4. To identify and develop culturally appropriate, gender sensitive and environment-friendly sustainable livelihoods that will address the need for food and cash, and which will alleviate direct harvest pressure on living coastal resources.*

The project is to be commended for their serious approach to the gender issue. About half of the staff are women. Women have been heavily involved in the Peoples Organizations and in some have taken the leadership roles. The livelihood component has focus on various options for women including handicrafts and marketing.

The reviewers had some minor concerns that could be addressed in future activities. They include the need to ensure there is a gender balance in the POs. The need for the livelihood component to also consider activities related to resource management for both men and women, and for the resource management component to develop activities related to activities carried out by women and children e.g. shellfish and sea weed collection.

## *IDRC Management*

*Administration and Financial Management:* This management is supplied by the IDRC ASRO office in Singapore with Stephen Tyler acting as the contact point . There have been no problems and the project has been pleased with the financial arrangements.

*Technical Monitoring:* There was substantial input from IDRC staff and particularly the coordinator of the IDRC funded Coastal Resources Research (CoRR), Network in the development of the proposal. However, project staff feel there has been much less input since then. Due to program staff reductions in ASRO, the responsible staff person, Stephen Tyler has not been able to supply technical monitoring and this function has been passed to Gary Newkirk, the CoRR coordinator. There is some confusion in the project on the transfer of this role. There has been no additional funding to CoRR to carry out this function thus visits to the project are combined with visits to the Philippines associated with the CIDA funded ISLE project. The

project feels that monitoring visits are fit around the ISLE project and as such they have lower priority; that they have been focused on meeting with the MANCOM and have not included visits to the sites; and have not dealt with substantive research issues.

The review team recommends that because of the importance of this project in supplying learnings to other regional and global activities, IDRC/CoRR should ensure adequate monitoring including time for site visits and substantive input into the research agenda. There will also be a need for additional input into the development of a second phase and possible assistance in sourcing funds or packaging the proposals.

*IDRC Perception:* As the UP/Haribon group of Institutions and researchers are considered the most experienced and mature in the region there was an expectation within IDRC that this project was also to synthesis project learnings and methodologies that are applicable to coastal projects throughout the region and elsewhere. This objective has not yet been achieved.

The review team has some concerns in this area but it is too early in the project cycle to judge the project on these criteria and we feel that there may be some misunderstanding on this objective.

The project objectives clearly focus on local objectives e.g.:

*“ Objective 6 : To document the process of evolution toward a community-based coastal resource management program through an interactive learning process between the community and research program, for use in evaluation, training, networking, and application to other coastal communities”*

While what is mentioned of regional networking in the proposal gives responsibility to CoRR

*“ CoRR will use the results of this project and disseminate them to other projects. Working closely with CoRR, this project will be linked to other IDRC activities mainly in Asia, but also in the Caribbean and Latin America. Short term training to be arranged through the Network can be provided by this project team with field experience in the coastal barangays of Bolinao. The links through CoRR will also help the Bolinao residents and project staff to learn and appreciate other approaches to CB-CRM”.*

### *Future Funding*

Funding for the current project ends July 31, 1997. There is considerable concern from the Peoples Organizations, Regional Organizations, field staff, the MARCOM, and IDRC/CoRR about the future activities.

The review team sensed that with the recent project successes including the cement plant victory,

considerable community interests in MPA's and coastal development planning, and the initiation of the Federation there is now a greater expectation from the Communities, Local Government and Regional Bodies that the CBCRM project will continue to play a major role in Bolinao.

The review team was also able to identify a considerable interest, partly related to the cement plant victory, from various donors and foundations (see Table 1) in funding future activities in Bolinao. There is, however, as indicated previously a lack of clear direction from the MANCOM on the future of the project. The review team heard from the MANCOM that in terms of future involvement only MSI has a future and long term commitment, and have prepared a Capsule Proposal on Resource Management. CSWCD is not clear about its future role and time commitment, while Haribon has a long term commitment to the POs but is not sure of the future project direction and is preparing to phase out the CO's by July 1997. This issue of future commitment is the most serious one facing the project and one that has to be dealt with immediately.

**Table 1** Donors identified by the review team who are potential interested in funding future CNCRM related activities in Bolinao.

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The Netherlands who approached MSI for a proposal on Resource Management, a capsule proposal has been prepared ( but not seen by the review team).

Foundation for the Philippine Environment, there is interest in support directly to the newly formed Federation which could include much of the current CO activities and expansion to adjacent Barangays.

Foundation for Sustainable Society. A foundation set up by Swiss debt swap funds has approach Margie Celeste, and indicated they would like to fund ecotourism and livelihood projects related to sustainable resource management through the MBCCI

IDRC has indicated a long term interest in continuing funding but at a lower level than previously. These funds could be flexible and be used for coordination and filling gaps that other donors do not cover. There is, however, a need for parrallel or co-funding by other donors.

There are also other private investors now interested in ecotourism related activities and funding through NEDA and LGCAMC for livelihood and environmental eductaion related activities.

UNESCO might also be interested as part of their Coastal and Small Islands program.

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### *Recommendations*

Methodology The review team recommends that the MANCOM should address first the short term issue of obtaining adequate base line data and indicators and what are the most appropriate methods and tools to obtain those. Secondly they could address the longer term issue of the role and utility of PRA and other participatory tools in the context of documenting project learnings and developing approaches to be used in future activities. The project has an opportunity to evolve and adapt the above tools to best assist the communities and researchers.

A broader issue is the lack of documentation of learnings. The project could, within the context of the final report document the learnings the methods, the process, the successes and failures.

Participatory Evaluation: The project could use the Federation as a mechanism for formalizing the incorporation of participatory evaluation within the project management and planning in future projects.

Gender: The project should continue their focus on gender activities, and specifically explore resource management activities carried out by women and children e.g. shellfish and sea weed collection.

IDRC Management: The review team has recommended previously there is a need to solve the general problem of documentation and believe that recent instructions by the project coordinator to all component coordinators to give priority to documentation including assembling the environmental education material and focus on synthesis of learnings should assist in this process. The team further recommends that **CoRR** documents the learnings from the previous involvement of this project with network training and methodology development and use this as a basis for discussion with the project on future directions and input.

Future Funding: As recommended previously the first priority should be to resolve the Institutional questions related to the future, the review panel further recommends that the MARCOM could with the assistance of the advisory panel (including IDRC) develop a funding strategy, prepare capsule proposals and follow up with full proposals such that funding is in place starting in mid-97 to continue the various activities. It is also essential to involve and keep informed both communities and field staff on these developments.

## APPENDIX I

History of Support to the Institutions involved in the Bolinao Project (edited from the proposal to IDRC).

The following is a history of institutional support by IDRC and others. The support was initially to the University of the Philippines (UP), Diliman Campus: the Marine Science Institute (MSI) for the development of culture and management of seaweed and invertebrates; then to the College of Social Work and Community Development (CSWCD) for the socio-economics of technology development and its transfer to communities in Bolinao, Pangasinan; and in 1993 the 2 UP institutions were joined by the environmental NGO, the Haribon Foundation, in the development of an integrated community-based coastal resource management program for Bolinao.

Previous Related IDRC Projects;

UP-MSI: Seaweeds Project (3 P 87-0034)-1987-1991 and Seaweeds and Invertebrates (3 P 91-0143), 1991-1993

The Phase I project initially provided information essential to the expansion and diversification of the seaweed industry and the management of seaweed resources. The project included: an inventory of the major seaweed species and their economic value in 79 study sites; initiated the development of seedling banks; determined the growth performance based on carrageenin content and pigments for *Eucheuma* and *Kappaphycus* strains at Danajon Reef, Northern Bohol; developed culture technologies for various species in Bolinao, Pangasinan; technical and financial assistance was given to a few groups of seaweed farmers for pilot farms in Bolinao and Alamino, Pangasinan; basic information on the biology of *Gelidiella acerosa* and *Sargassum* sp. valuable to the formation of management schemes for the natural stocks of these species was generated; and the Seaweed Information Center (SICEN) and library was established which included a computerized database, including the inventory of the herbarium collection of UPMSI and also published books, leaflets and newsletters. The initial efforts in introducing seaweed farming were partially successful but various technical and socio-economic issues hampered their sustainability and expansion.

The second phase of the project was designed with a major emphasis on the refinement and transfer of the seaweed culture technologies and development of management strategies for natural stocks of *Gracilaria*. New components were initiated: to determine seasonality in production and carrageenin quality in Bolinao; the determination of critical environmental factors to provide a basis for the choice of seaweed growing sites and there was an expansion to include studies of the biology and culture of selected marine invertebrates in Bolinao. These activities included two subprojects on invertebrates which followed up 8 years of ACIAR project support for the growth, reproductive biology and culture of giant clams (Family Tridacnidae) and the earlier studies of the biology and management of commercial macrobenthic invertebrates in Bolinao focusing on the sea urchin, *Tripneustes gratilla*. In addition SICEN was expanded to become a database for seaweeds and selected marine invertebrates.

The seaweed farming subproject mapped potential seaweed culture sites in Bolinao, incorporating critical environmental parameters and the estimation of potential seaweed production in the area. The experience of researchers and farmers was used to modify the culture methods and transferred to the barangay of Arnedo, Bolinao.

The original natural products study involving a characterization of carrageenin was expanded to develop the skills of local communities. There were also explorations with the CSWCD surveys of alternative products (agricultural and marine) that may be developed for local processing such as soap.

A stock assessment of *Gracilaria* was carried out in Manila Bay and Bolinao which included rapid rural appraisals (RRA). The focus of the assessment group shifted in 1994 to the inventory of potentially harvestable seaweed species, habitat restoration through mangrove planting and establishment of artificial seagrass beds in order to address the identified community needs.

The giant clam subproject upgraded the larval and juvenile rearing facilities, collected additional broodstock, and improved grow-out techniques, resulting in increased seed stock production and expansion of the restocking program. Research on predation control and reproductive conditioning are in progress. Educational and culture training seminars were conducted. A pilot giant clam farm has been established at Dewey, Bolinao to test a contract growing approach. The development of a market for giant clams in the aquarium industry and promoting "clam gardens" as an attraction for ecotourism ventures are being pursued.

A comprehensive market survey of locally important invertebrate species in Bolinao has been completed. Preliminary valuation of the invertebrate fishery resources in the area is being refined with a determination of the percentage of catch that is for household consumption.

Initially the sea urchin subproject aimed to promote strict observance of a legislated closed season through information campaigns and dialogue with local officials, collectors and buyers supported by studies of the urchin population dynamics to gain insights to appropriate management schemes. With a total collapse of the fishery in early 1993, development of sea urchin culture was started after short term training in Japan to provide seed urchins for further field studies. To date over 1,000 juveniles from 5 cultures have been reared and placed in experimental sea pens with a local cooperator in Dewey Island. Methods to scale up larval and juvenile production are being developed along with research on natural stocks. The use of sea pens as family or community based sea ranching, to provide "reproductive reserves" and a source of supplemental food, will be explored by field teams.

#### Expanding Institutional Linkages

The limited success of Phase 1 of the Seaweed Project in transferring and sustaining seaweed farming activities called attention to the need for a socio-economic study complementary to the research of MSI. Initial attempts at transferring seaweed culture technology were met with disinterest by local fishers, probably due to the lack of social preparation prior to technology development and transfer. Thus, there were efforts to develop a project with the UP College of

Social Work and Community Development (CSWCD) in 1991 as part of the MSI Phase 2, Seaweeds and Invertebrates Project, to assist in the social preparation for the transfer of the technology MSI was developing. However, there were difficulties in formulating a proposal with the desired participatory approaches until 1992. During the subsequent development of the CSWCD proposal, Dr. Juinio-Menez of MSI worked with Prof. Elmer Ferrer of CSWCD to develop the common ground for the 2 institutions. Prior to finalizing the proposal Ferrer worked with Juinio-Menez and Dr. Liana Talaue McManus (then Deputy Director of the Bolinao Marine Laboratory) to hold the first multisectoral Coastal Resources Management Forum in Bolinao, July 30 to August 1, 1992.

#### Participatory Action Research on Coastal Resource Management (3 P 92 8009) (CSWCD)

The CSWCD team selected 3 barangays (Arnedo, Luciente I and Dewey) as study sites on the basis of criteria which included the diversity of resource and economic base, community support and urgency for CB CRM, resource conflicts, and accessibility and size of the community. One of the major objectives of the research project is "to develop a participatory process of generating knowledge and understanding of the coastal communities' resources and social system..." Complementary to this, is the objective "to develop, use and validate the application of research techniques and methods (e.g., participatory rural appraisal or PRA, transect studies, etc.) in coastal communities in understanding the resource system and social system."

A training exercise on PRA was conducted at the UPMSI Bolinao Marine Laboratory and at the project site (Arnedo). The hands-on training allowed the participants to apply and adapt the principles, methods and tools of PRA to coastal communities. The training was facilitated by consultants from the Institute of Environmental Studies and Management (UPLB) and the Tambuyog Development Center, an NGO with experience in applying PRA. The research team adapted and refined the methodology through cycles of theoretical inputs, field practice, group discussions and synthesis. After an initial write up of the results and popularizing the material, the results were presented in a community validation workshop. Subsequently, PRA's were undertaken in barangays Luciente I and Dewey.

From the validation workshops issues were identified and prioritized by the community. Based on these initial priorities, community organizing was started. Potential leaders were identified, techno-cells formed and capability building activities were undertaken. After more than a year a techno-cell for seaweed farming is now operating in Arnedo and a group is working on the grow out of giant clams in Dewey. Simultaneous with community organizing and capability building, the research team has undertaken in depth studies of the cultural, legal/institutional and marketing/technology aspects of coastal resource management systems.

#### Interdisciplinary Team Building

Though the working relationship was being built, the development of a functional common workplan for the 2 institutions did not materialize until the second half of 1993 since most of the MSI research activities were already programmed and CSWCD needed time to set up its

program, train field staff, and conduct research on the application of participatory action research in coastal communities. This time was spent in furthering working relationships by developing mutual understanding of disciplinary approaches to resources and communities. In the mid project review of MSI's Phase 2 held in May 1993, institutional coordination was recognized as a major gap in realizing collaboration of MSI and CSWCD. The subsequent provision of a coordinator (Dr. Talaue McManus) facilitated further collaboration.

### Community Organizing

Another need recognized by 1993 was that of community organizing and mobilization which could not be done by the social science research staff while doing field research. In October 1993 Haribon, an environmental NGO, brought in its expertise in community organizing. This resulted in a multi-institutional and multi-disciplinary team for the development of CB CRM in Bolinao. The participants from the 3 institutions had different orientations and experiences. Thus, a staff workshop was conducted to allow some "levelling off" of expectations and to begin the arduous task of working towards an interdisciplinary framework that all would internalize. This framework is the CB CRM framework which has evolved to the one presented in this proposal. The choice of the framework was in part influenced by the redirection of IDRC and interaction with the Coastal Resources Research Network.

In addition to these family and barangay level initiatives, other activities are directed at the needs of the municipality in general. As an example, project personnel from all 3 institutions were involved in working with the community in evaluation of the proposed cement factory in Bolinao. The project hosted Coastal Resources Management Forum II at the request of various local groups with the theme: The Proposed Cement Factory and Natural Resources in Bolinao. Results of the socio-economic and resource assessment studies of UP were valuable inputs during the forum. In addition, research by different institutions on the technical, environmental and social and economic impacts of similar development initiatives in the country provided a broader perspective for discussions and further consideration by the parties involved (local government, people's organizations, developers and the EIA consultants of the developers). Whatever the outcome of the issue (which has not been resolved as of November 1994), the program involvement undoubtedly contributed to ensuring that the different parties can make informed decisions regarding development initiatives and the active role of people's organizations is both possible and will not be ignored. It is inevitable that other heavy industry proposals for Bolinao will be forthcoming because of its strategic location and similar consultations will be needed.