

COASTAL RESOURCE CO-MANAGEMENT RESEARCH PROJECT: PHASE II

1. Context

Many fisheries management experts recognize that the underlying causes of fisheries resource overexploitation and coastal environmental degradation are often of social, economic, institutional and/or political origins. The primary concerns of fisheries management, therefore, should address the relationship of fisheries resources to human welfare and the conservation of the resources for use by future generations. That is, the main focus of fisheries management should be people, not fish per se. Policy interventions, if they are to bring about lasting solutions, must address these concerns.

Fisheries management in many countries has been heavily influenced by the temperate scientific model of calculating maximum sustainable yield of a few key species and of the need for centralized administrative authority. This model has been shown to have limited applicability in multi-species, multi-gear tropical/sub-tropical fisheries. It also provides for little or no effective consultation with, or participation from, fishers (Pauly and Chua 1988; Pauly 1989). Fisher participation in management can provide a wealth of local or indigenous knowledge to supplement scientific information, to help monitor the resource, and to improve overall management.

As fisheries were developed over the last four decades, most countries increased the role of government in managing fisheries. The role of local level control, through traditional management and custom, has correspondingly diminished. By appropriating this control over coastal fisheries management, the government has often underestimated the capacities of coastal resource users, learned through often long and difficult experience, to manage local fisheries resource systems to meet their needs. In many instances, the government has overestimated its ability to manage these same resources. When community-level institutional arrangements for coastal fisheries management are undermined, the usual common property resource management regimes (in which group size and behavioral rules are specified), have been, in many instances, replaced by open-access regimes, a free-for-all with uncontrolled entry for resource use and the economic incentive for the user to extract as much of the resource as possible before others do. The cumulative effects of these forces, in most instances, have led to overexploitation and degradation of coastal resources and rent (profit) dissipation from the resource.

Recent investigations on coastal fisheries management around the world have shown that when left to their own devices, communities of fishers, under certain conditions, can regulate access and enforce rules through community institutions and social practices to use fisheries resources sustainably. Without denying that the traditional systems of fisheries management can often be inequitable and ineffective, state interventions which have chosen to ignore them have seldom fared better. National governments have, for the most part, failed to develop an adequate

substitute for or complement to these traditional resource management systems. Policies of nationalization or privatization have not solved the resource overexploitation and degradation problem, and in many instances, may have deprived many small-scale fishers of their livelihoods.

Fisheries management abounds with laws, rules and regulations in most countries and many of them are quite specific and well intentioned. However, the effective capacity of many fishery management agencies to enforce the laws and to regulate what goes on in widely scattered, often isolated fishing grounds, is distinctly limited. Under these conditions, the decentralization of fisheries management and the allocation of decisions to the local level may be more effective than the management efforts which distant, under-staffed and underfunded government fishery agencies can provide.

The growing realization of the need for increased participation by resource users in fisheries management and greater localized control over access to the resource can be seen in a wide range of policies and programs worldwide. In many cases, what is needed is a more dynamic partnership using the capacities and interests of the local fishers and community, complemented by the ability of the state to provide enabling legislation, enforcement and other assistance. This approach, called "co-management," will require a shift away from a centralized, top-down form of management to a new strategy in which fisheries managers and the fishers and other stakeholders jointly manage the fishery. Fisheries co-management can be defined as a partnership arrangement in which government agencies, the community of local resource users (fishers), non-governmental organizations, and other stakeholders (fish traders, boat owners, businesspeople, etc.) share the responsibility and authority for the management of a fishery. Co-management covers various partnership arrangements and degrees of power-sharing and integration of local (informal, traditional, customary) and centralized government management systems. There is a hierarchy of co-management arrangements or types. Sen and Raakjaer-Nielsen (1996) identified five broad types of co-management according to the role played by government and resource users. These are: instructive (minimal information exchange), consultative (consultation exists), cooperative (cooperation as equal partners), advisory (user advice to government), and informative (delegation of authority to users). They further state, "However, this typology is a simplification of a very complex situation. There is a multitude of tasks that can be co-managed under a different type of co-management arrangement at different stages in the management process." The amount of responsibility and authority that the government and fishers have will depend upon country- and site-specific conditions.

Co-management is a middle course between state-level concerns in fisheries management for efficiency and equity and local-level concerns for self-governance, self-regulation and active participation. Co-management should not be viewed as a single management strategy. There is no single model of co-management. Instead it should be seen as a process of resource management; adjusting and maturing to changing conditions over time and involving aspects of democratization, social empowerment, and decentralization. Co-management should be seen as a flexible management strategy in which a forum or structure for action on participation, rule making, conflict management, power sharing, leadership, dialogue, decision-making, knowledge generation and sharing, learning, and development among resource users, stakeholders and

government is provided and maintained. The co-management process may include formal and/or informal organizations of resource users and stakeholders. Co-management may be simply a formal recognition by government of a system of fisheries management which already exists. Traditional or customary management systems already exist side-by-side with formal state-level management systems. The establishment and successful operation of fisheries co-management can be a complex, costly and multiyear effort.

2. Project Justification

2.1 Objectives and Accomplishments of Phase I (1994-1998): A Background

The first phase of the Fisheries Co-management Research Project had the overall purpose of determining the prospects for successful implementation of fisheries co-management strategies. The project systematically and comparatively documented and assessed models and processes of fisheries co-management implementation in Asia and Africa, particularly at the national and community levels. This was accomplished largely through comparative case studies, country research and information exchange.

Over the past five years, the project has contributed insights into co-management strategies, methods, processes and impacts. In Asia, where research is coordinated by ICLARM, outputs include 12 research reports and working papers on co-management case studies and country research in the Philippines, Indonesia, Vietnam, Bangladesh and Thailand. Other research includes an impact evaluation of community-based coastal resource management projects in the Philippines; policy reviews of devolution and co-management in Indonesia and the Philippines; hypothesis testing on co-management versus centralized management systems including lower transaction cost, greater levels of enforcement and compliance in Malaysia, Indonesia and the Philippines, and institutional resiliency in Indonesia; and baseline studies (i.e. resource and ecological assessment, socioeconomic study and institutional analysis) for a pilot co-management site at Honda Bay, Palawan, Philippines. Moreover, methodological/analytical tools for research were formulated on the institutional analysis research framework, process appraisal for community fisheries management systems. Two recent paper include a process for implementing community-based fisheries management and the identification of key conditions and principles for successful implementation of co-management.

The project also generated twelve articles on co-management in Asia for international scientific and popular journals and publications, eight newsletters, two conference proceedings on co-management in the Philippines, a project policy brief, and a research report that synthesizes the key findings and conditions for successful implementation of co-management arrangements in Asia. Other project accomplishments include the strengthening of the capacities of research partners in Asia through technical assistance, trainings and workshops; expansion of linkages with various government, NGO, academic and research institutions conducting research and development on co-management; and establishment of a web site for co-management. The project also offered technical support on co-management to the CARICOM-Caribbean Fisheries Resource and Management Project. A paper on co-management in the Caribbean was produced.

A complementary research project is being undertaken at ICLARM on legal and institutional issues for the co-management of fisheries, coastal resources and coastal environments in Asia. Working with national research partners in the Philippines, Cambodia, Vietnam, Thailand, Indonesia and Bangladesh, the research will identify legal, policy and institutional opportunities and constraints to improved coastal resources management.

In Africa, where research is coordinated by IFM, outputs include research reports and working papers on co-management case studies in Benin, Cote d'Ivoire, Malawi, Mozambique, Senegal, South Africa, Zambia and Zimbabwe. Other publications include proceedings from regional co-management workshops in Kariba, Zimbabwe and Mangochi, Malawi, as well as documentation of policy processes in South Africa and West Africa. The project has undertaken training activities with research partners in Zimbabwe and Mozambique and has provided extensive research planning assistance to partners in South Africa. Mr. Steve Donda, Senior Fisheries Officer of the Department of Fisheries, Malawi, has been associated with the project since 1996 as a Ph.D. student at Aalborg University / Institute for Fisheries Management.

An IFM staff member is undertaking a comparative analysis of the reallocation of access rights in the South African *hake* fishery and the Zimbabwean *kapenta* fishery in Lake Kariba. The issue of access rights and reallocation is a critical and important factor which may result in changes in the legitimacy of fisheries management and fishers' rule compliance. The research is carried out in collaboration with the University of Cape Town and Centre for Applied Social Science (CASS) at the University of Zimbabwe. An IFM staff is also undertaking a comparative research project (Ph.D. dissertation project) on the legitimacy of fisheries co-management approaches with small-scale fishers in Mozambique and South Africa and the processes of empowerment of this group.

Overall, the Fisheries Co-Management Research Project has been instrumental in demonstrating that co-management is an equitable, efficient and sustainable management strategy through a systematic, comparative and analytical assessment of the performance of co-management regimes in various countries. An awareness of co-management arrangements among government, non-government organizations, academic and research institutions, fishers, fisher organizations, and other resource stakeholders has been made possible through the dissemination of journal articles and project publications, presentation of research results in local, regional and international trainings, workshops and conferences, interaction with national partners, and installation of a co-management web site. Both quantitative and qualitative tools have been employed to substantiate research results. ICLARM staff have, for instance, measured the biological and socioeconomic outcomes of marine protected areas and other coastal resource management projects under co-management regimes offering concrete examples of co-management as a successful strategy for safeguarding the well-being of coastal resources, promoting sustainable resource uses, and assuring livelihood for coastal resource users. In this regard, co-management as a strategy is supportive of environmental protection, food stability and poverty alleviation.

2.2 Need for a Second Phase

During the first phase of the Fisheries Co-management Project (1994-1998), a great deal of knowledge was generated concerning the approaches, methods, process and impacts of co-management. This research generated new information on key conditions for successful design, development and implementation of co-management. The second phase (1999-2003) is based on a need to continue on with this earlier research and to develop new research directions in order to generate more specific information for policy and practical application. Emphasis in Phase II will still be on utilizing a comparative analytical approach relying on a common research strategy and research framework. The focus of Phase II, however, will be on policy analysis and on the testing of certain hypotheses concerning co-management. In addition, a greater focus will be put on broadening the research activities in Africa. A good deal more research output was produced in Asia compared with Africa. This was due, in part, to the existence of research partners in Asia who had more experience in conducting research on co-management.

2.3 Expected Situation at the end of the Project

The proposed Phase II of the Co-management Project will, at the end of the project, have identified situations in which co-management is feasible; that is, assuming that co-management is desirable and there is a need for it, when is the sharing of power, responsibility and authority possible and feasible. Key conditions which define and facilitate successful co-management at both national government and local community levels will be identified and documented. While co-management may not be a viable alternative fisheries management strategy for all countries and coastal communities, the project will identify the reasons for success and failure of co-management and make recommendations concerning the process of co-management and recommend how it can be successfully implemented.

It is expected that there will be increased application of co-management by several of the partner countries and in coastal communities and the development of new laws, policies and programs in support of co-management. Specific methodologies for implementing co-management at the local community levels will be available for use by the target beneficiaries. An indirect benefit of the project will be improvement in food security and poverty alleviation in coastal communities as a result of new policies and programs for coastal resource management integrating co-management.

2.4 Target Beneficiaries

During Phase I, the co-management project has worked with three target beneficiaries groups: a) partner research and development institutions - National Aquatic Research System (NARS) and non-governmental organizations (NGOs); b) government decision-makers and agencies; and c) coastal resource users, residents and communities. These three groups will continue to be the target beneficiaries during Phase II.

2.4.1 National Aquatic Research System (NARS) and Non-Governmental Organizations (NGOs)

NARS include academic institutions, government agencies, research institutions and individual scientists. NGOs are involved at both national and community levels in development activities, and to a lesser extent, research related to coastal resources management and coastal community development. These institutions work collaboratively with ICLARM and IFM on the project and benefit, both directly and indirectly, from the project in several ways. The NARS and NGO partners will take primary leadership for conducting research in their country with technical assistance provided by ICLARM and IFM and will collaborate in methodological development. NARS and NGOs which participate in the project will benefit through increased competence to conduct applied social science and biological research, multidisciplinary research, implementation of resource management and development projects, and relevant policy research related to co-management. The co-management project will coordinate its activities with member institutions of the Asian Fisheries Social Science Research Network.

2.4.2 Government Decision-Makers and Agencies

As elected and appointed government officials and agencies seek to improve the way in which they govern and manage coastal resources within their country, they will need information on alternative resource management strategies as the basis for improved decision-making and policy and legislative development. The results of the project will benefit the governments (national, provincial/state, municipal/district) in partner countries through the relevant policy research output developed through the project on the applicability of co-management as a sustainable, equitable and efficient management strategy.

2.4.3 Coastal Resource Users, Residents and Communities

Coastal resource users, residents and communities will benefit from the project through new and improved policy and legislation in support of co-management. This will allow for greater participation in coastal resource management. The methodologies, guidelines and lessons learned from the project will be of direct use to the target beneficiaries as they prepare and implement coastal resource management and community development plans and strategies.

In addition to the above three target beneficiary groups, academics, development practitioners, policy-makers, resource managers and researchers in non-partner countries, both developing and developed, will benefit from the project. Many of the results generated by the project will be applicable for use in other resource systems such as forestry, irrigation and agriculture. A continued exchange of information with these other beneficiaries through reports, journal articles, web site, and participation in international meetings should benefit both the project staff, as well as the target groups they are assisting.

2.5 Project Strategy

The Coastal Resource Co-management Project will conduct research in selected coastal, coral reef, lake, river, floodplain, and inland waterbody systems in several countries of the world in order to determine if co-management is a viable management strategy under varying conditions (political, social, cultural, economic, biophysical, technological).

2.5.1 Aquatic Resource System Selection

The Phase II of the project will continue to focus activities on fisheries while encompassing coastal ecosystem and coastal resource management. This broader focus illustrates the increased attention co-management is receiving from resource managers in other coastal resource systems. The resource systems to be studied will now include fisheries, coastal, coral reef, mangrove, sea grass, lake, river, floodplain, wetland, and inland waterbodies. Coastal will be defined to include not just the marine coast but the coast of lakes and inland waterbodies. An ecosystem management focus means that co-management will address the interaction of different resource systems, for example, coral reef, mangrove, upland areas; and have a broader scope and scale for co-management. Co-management of infrastructure will be studied where there are links to the coastal resource systems.

2.5.2 Region, Country and NARS Selection

In Phase II, Asia and Africa will continue to be the regional focus for the project. Within the two regions, partner countries are selected for conducting research. In Asia this includes Philippines, Vietnam, Cambodia, Laos, Thailand, Malaysia, Indonesia, Bangladesh and Myanmar. In Africa this includes South Africa, Malawi, Mozambique, Zimbabwe, Zambia, Senegal, and Benin.

The partner countries selected to conduct the Phase II project were given priority based on a number of criteria. These criteria include number of beneficiaries to be affected by the research, extent of impact on beneficiaries, extent of potential use by NARS and host government, extent to which results will strengthen national programs, interest of NARS and host government to participate in project, contribution of project to sustainable, equitable and efficient fisheries resource management in the country, probability of achieving research objectives, and potential for methodological and paradigm transfer to other countries, NARS and resource user groups.

The NARS within each country were selected based on their current or planned interest in developing an expertise in fisheries co-management and social science research, their interest to participate in the project, and their current or planned research activities in fisheries co-management. Special funding may need to be identified to meet more substantial social science training needs. There is a need to establish an African Fisheries Social Science Research Network. Collaboration with the Asian Fisheries Social Science Research Network will continue.

The project activities under Phase II may be expanded to other regions and countries through collaboration with an ongoing project or with the acquisition of additional funding.

2.5.3 Research Strategy

The Coastal Resource Co-management Research Project will look into the prospects for successful implementation of coastal resource co-management. The project will not advocate or promote co-management, but systematically and comparatively document and evaluate processes and feasibility of co-management implementation at government and community levels and their performance and impacts. General conditions and factors which facilitate the successful implementation of co-management strategies will be identified. The research will have a strong applied policy focus, specifically in strengthening national policies, laws and programs for co-management.

The research activities will be conducted through eight components:

- case studies
- hypothesis testing
- studies of issues related to process and management systems
- legal, policy and institutional analysis
- national policy development
- technical assistance to co-management initiatives
- synthesis of research results
- networking/capacity building

The research project will utilize a comparative analytical approach, relying on a common research strategy and research framework for use in each partner country and resource system, in order to integrate and improve the understanding and implementation of co-management strategies. Additional research activities and modifications to the components may be made during the period of the project based on the availability of new information of co-management and on capacity, conditions, interests and priorities of ICLARM, IFM, partners countries and NARS.

The institutional analysis research framework was developed in Phase I and is presented in Working Paper 1. The research framework will continue to be used in Phase II, but will be modified based on feedback and suggestions from the NARS partners and ICLARM and IFM staff who used it in Phase I.

ICLARM and IFM will continue to provide research leadership in Phase II. ICLARM, IFM and NARS partners will work collaboratively on the research activities. Due to the importance of biophysical and technical attributes of the resources, the project will be multidisciplinary in nature, requiring biological expertise to complement the social science aspects of the project. This biological expertise is available from ICLARM, IFM and NARS.

2.5.4 Project Components

2.5.4.1 Case Studies of Co-management

During Phase I, a number of case studies of fisheries co-management were undertaken in Asia and Africa using the institutional analysis research framework to evaluate successful implementation, process documentation, and impact and performance analysis. These case studies provided valuable information on conditions and factors which lead to successful co-management and a better understanding of the process of co-management. In Phase II, case study analysis will continue but with a slightly different focus. New case studies will be undertaken in Asia and Africa but the selection of cases will be dependent on what new information the case can provide in terms of successful implementation of co-management and impact and performance. Selection will be conducted based on the criteria that the case fills a "gap" in missing information or that the case is of a type (resource system, type of fishery such as industrial, approach) that has not been studied.

In addition to new case studies, a number of the existing case studies which were studied in Phase I will be selected for long term monitoring. Since co-management is a relatively new management strategy, long term monitoring of the process, impacts and performance can provide a great deal of new information. A monitoring procedure will be developed for use at the selected case study sites.

2.5.4.2 Hypothesis Testing

A number of hypotheses exist concerning the advantages of co-management, especially as co-management compares to centralized management. A number of these issues were addressed under Phase I including enforcement and compliance, transaction costs and resiliency. Additional research on these issues will be undertaken in Phase II. A priority for research will be given to a number of the hypotheses.

The priority hypotheses to be examined include:

- co-management leads to greater legitimacy of the management system among resource users
- co-management leads to lower transaction costs
- co-management leads to lower enforcement costs and higher level of rule and regulation compliance
- co-management institutions can be designed to be resilient to political, economic and social shocks
- co-management leads to improvements in conflict management among resource users
- co-management, being participatory and locally-based, can lead to changes in resource user behavior for resource use and management

Other areas for hypotheses testing include:

- co-management leads to improvements in ecosystem health
- co-management leads to increased and improved knowledge and data on the resource and information sharing about the resource among resource users
- co-management leads to reduced political and equity problems in the community
- co-management leads to improved levels of resource stewardship

2.5.4.3 Studies of Issues Related to Process and Management Systems

A number of cross-cutting issues related to co-management exist which are felt to not be dependent upon resource systems or other conditions. These will be tested in Phase II.

- gender: roles in management
- organizational form: most appropriate and effective
- scale: of institutional and organizational arrangements, ecosystem, user
- process: institutional and organizational arrangements evolution over time (dynamics)
- structure and content of agreements
- impact: measurement of short and long term impacts of co-management

2.5.4.4 Legal, Policy and Institutional Analysis

During Phase I, a series of legal, policy and institutional analyses were carried out in several Asian countries including the Philippines, Thailand, Vietnam, Cambodia, Bangladesh and Indonesia to evaluate constraints and opportunities for and to make recommendations in support of co-management. Experts with a legal background coordinated this research. Specific research activities include a summary of coastal resource and environmental status, values and threats; historical overview of management; current legal, institutional and policy context and its impacts; status and policy, legal and institutional constraints and opportunities for co-management at the local level; and country policy synthesis and recommendations. Using a similar framework, legal, policy and institutional analysis will be carried out in selected African countries including Zambia, Zimbabwe, Mozambique, Malawi and South Africa. The implementation of this research will depend on identifying national research partners and the identification of additional funding to support this research.

2.5.4.5 National Policy Development

The Project, through its national partners, will work closely with policy makers and resource managers in order to assist in the development of policies and strategies for co-management. Researchers and practitioners will link up with government policy makers and resource managers in order to develop applied policy analysis in support of co-management initiatives. The linkages will also be used to educate the policy makers and resource managers about co-management. While the project will continue to not advocate or promote co-management, it will serve to transfer results of research for use by government and support policy analysis research for the

development and implementation of co-management. A focus of research will be on factors which motivate governments to implement co-management.

2.5.4.6 Technical Assistance to Co-management Initiatives

During Phase I, the Project initiated activities at a co-management pilot site in Honda Bay, Puerto Princesa City, Palawan, Philippines. These activities were undertaken with a consortium of Philippine-based institutions and included baseline surveys and the preparation of a project proposal for international donor funding. In addition, a pilot site (Nha Phu Bay, near Nha Trang city, Khanh Hoa province) was identified in Vietnam but no research was undertaken at the site. It is the philosophy of the project that due to the high cost of pilot site research, these pilot sites will only be supported if additional funding from outside sources is obtained. Pilot site research will be undertaken in a collaborative mode with national partners. Wherever possible, the project will try to collaborate with an existing and ongoing project undertaking co-management in order to share and learn from each other. Co-management project staff will provide technical assistance where they can make a contribution to the project and obtain data in support of the co-management research.

2.5.4.7 Synthesis of Research Results

Phase II, similar to Phase I, will have a number of distinct research activities. Each of the research activities of the project builds on the results of other research activities in order to provide increased understanding of the complex, intertwined factors and relationships which can facilitate successful implementation and sustainability of co-management systems. In order to bring together the results of these distinct research activities, a synthesis report(s) will be prepared which address the prospects and key conditions for co-management as a sustainable, equitable and efficient management strategy.

2.5.4.8 Networking/Capacity Building

The various research activities being undertaken by ICLARM, IFM and its partners on coastal resource co-management worldwide will be coordinated through a network of information exchange, meetings, workshops, publications, training, and partner exchange. The project will make use of the worldwide web through a web site at both ICLARM and IFM and through use of the internet and e-mail discussion group. Networking and capacity building among research partners in all project countries is critical, but especially so in Africa. Some research partners in certain countries are not as strong scientifically as those in other countries. It may be necessary to conduct training to improve the understanding and scientific capacity of these collaborators to conduct research on co-management. Limited support will be provided for research of PhD students who are conducting research of relevance to the co-management project. An effort will be made to obtain additional funding from other sources for PhD students.

The project strongly endorses the establishment of an African Fisheries Social Science Research Network based on the model of the Asian Fisheries Social Science Research Network. Financial

support will be given from the project to the African network. The African network will have linkages to the Asian network. It may be necessary to obtain external funding for some of the networking activities. Co-management core staff from ICLARM and IFM will act as facilitators for some of the networking activities including the coordination of meetings and workshops and conducting training. The project, in selected cases, will invest in capital equipment (computers, modem, etc.) for long term research partners.

2.6 Institutional Arrangements

The Coastal Resources Co-management Project is a collaborative project between ICLARM, IFM and national partners in Asia and Africa. In Phase I, ICLARM had leadership responsibilities for research in Asia and IFM in Africa. Both institutions shared responsibility for implementing the research strategy and various project components and activities. In Phase II, the administrative responsibilities for these two geographic regions will remain the same. The leadership for implementation of the research strategy under Phase II will be divided up reflecting shared and exclusive responsibility of each institution. Thus, for each of the major research activities, responsibility for leadership will be specified as follows:

1. Institutional Analysis Research Framework: IFM/ICLARM
2. Case Studies: IFM/ICLARM
3. Hypothesis Testing: ICLARM/IFM
4. Studies of Issues Related to Process and Management: IFM/ICLARM
5. National Policy Development: ICLARM
6. Legal, Policy and Institutional Analysis: IFM
7. Synthesis of Research Results: ICLARM/IFM
8. Technical Assistance to Co-management Initiatives: ICLARM
9. Networking/Capacity Building: ICLARM/IFM

3. Project Purpose/Development Objective

The Project has two purposes: a) to gain practical knowledge and experience in coastal resource co-management; and b) to analyze and demonstrate the applicability of co-management as a sustainable, efficient and equitable resource management strategy.

The global development objective to which the Coastal Resource Co-management Research Project will contribute is sustainable, efficient and equitable management of fisheries and coastal resources in developing countries to meet food security, economic and environmental needs of poor people.

4. Outputs

The expected outputs of the project over a five-year period (1999-2003) are: a) research results from case studies, hypothesis testing, studies of issues related to process and management systems, and institutional, policy and legal studies; b) synthesis reports; c) information on the

applicability of co-management directed at decision-makers and managers; d) technical assistance to co-management initiatives taken by national partners; and e) functioning network/capable partners.

5. Approach

The Phase II of the Coastal Resources Co-management Research Project will be for five years beginning on 1 January 1999. There will be a smooth transition between Phase I and 2. Some of the research activities initiated in Phase I will be continued into Phase II. At the end of 1998 or early 1999, there will be several synthesis reports prepared from the results of the research conducted under Phase I. There will also be a workshop conducted during this period bringing together the partners in the project to discuss the results of Phase I and plan and initiate activities for Phase II. The various research activities planned for Phase II will be undertaken at different times during the project period.

6. Project Review, Reporting and Evaluation

The core project staff at ICLARM and IFM will prepare an annual project progress and review report. This report, prepared in collaboration with national partners, will present a summary and review of activities taken to meet the project development objectives and annual work plan objectives and activities. The report will be based on the Logical Framework Analysis. The annual project progress and review report will serve to guide the formulation of the next year's project work plan and activities, which will be included with the progress report. An annual budget will be included.

7. Logical Framework Analysis

A logical framework analysis is attached to this project document to guide project implementation. It summarizes the verifiable indicators, means of verification and important assumptions corresponding to the goal, purpose, outputs and activities of the Project.