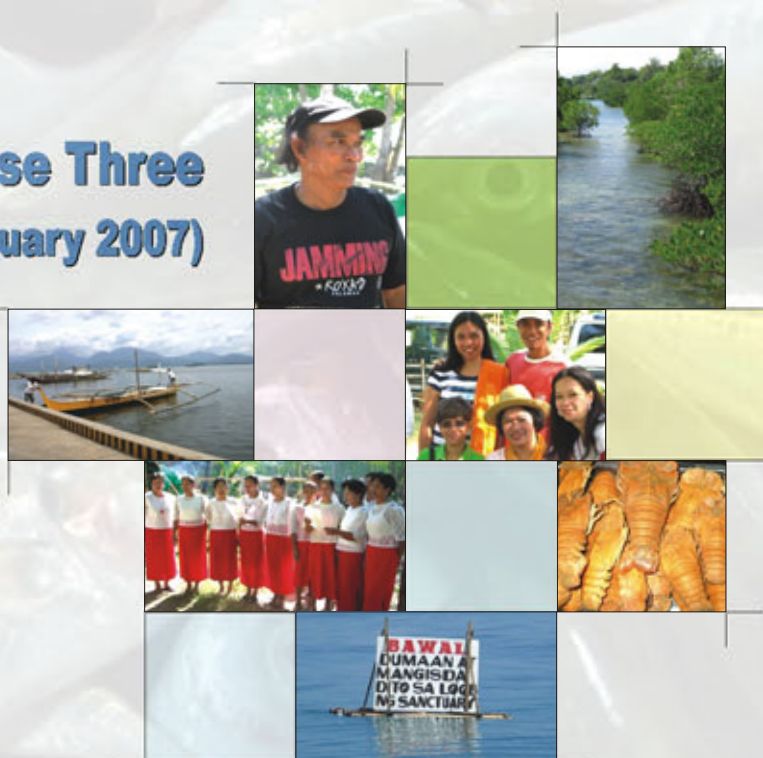


Training Project for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines

**Report of Phase Three
(11-16 February 2007)**

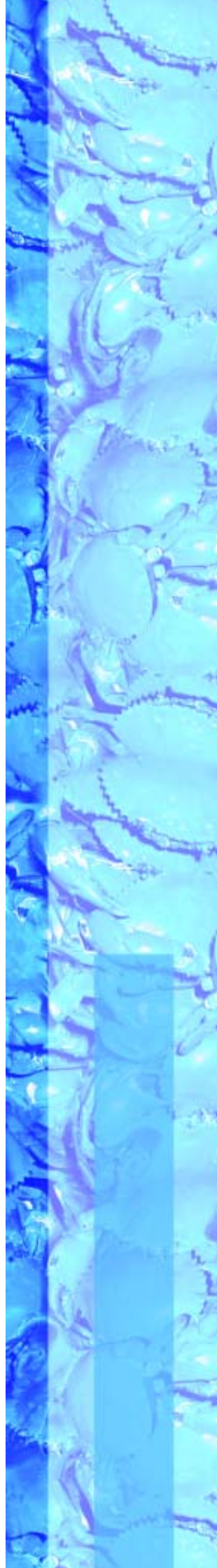


**International Cooperative Fisheries Organization
of the International Cooperative Alliance &
Cooperative Union of the Philippines**

Training Project for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines

Report of Phase Three
(11-16 February 2007)

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Report prepared by
Yugraj Singh Yadava
Bay of Bengal Programme
Inter-Governmental Organisation

Photographs
Y S Yadava, M Sato, G Diaz, Ed Gamolo

Layout Design and Graphics
S Jayaraj and Y S Yadava
Bay of Bengal Programme
Inter-Governmental Organisation

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Copies of Phase Three Report can be requested from:

Mr Masaaki Sato
Secretary
International Cooperative Fisheries Organization of the
International Cooperative Alliance
c/o Zengyoren 1-1-12 Uckhikanda
Chiyoda-ku, Tokyo
Japan 1010-8503
Tel: + 81 3 3294 – 9617; Fax: + 81 3 3294 – 3347
Email: kokusai-sato@r6.dion.ne.jp
@ICFO 2007

Preface

The International Cooperative Fisheries Organization (ICFO) of the International Cooperative Alliance (ICA) implemented the Training Project for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in Asia (CFRM Training Project) in the Philippines during July 2006 – February 2007. The CFRM Training Project is one of the 'Partnership Strengthening Projects among Japan and ASEAN countries', funded by the Japanese Government. The Project is designed to contribute to the sound development of the primary industry including fisheries in the region, promote cooperation and exchanges that would lead to increasing of income of primary industry producers and thereby help narrow the gap in their economic status through appropriate interventions.

The CFRM Training Project was initiated in the Japanese Fiscal Year (JFY) of 2006 (April, 2006 – March, 2007) and is expected to continue for five years until JFY 2010. Under the Project, ICFO will select one country from Asia every year for implementation of the CFRM activities. During the first year of the Project, ICFO selected Philippines for implementation of the CFRM Training Project.

The purpose of the CFRM Training Project is to promote community-based fishery resource management by small-scale fishers engaged in coastal fisheries and by their organizations (fisheries cooperatives), strengthen their activities and help contribute to ensuring sustainable production, creation of employment opportunities and poverty alleviation. The CFRM Training Project comprises three phases, which include: dispatching of experts to the country selected by ICFO (Phase One), fisheries resource management study visit in Japan (Phase Two) and finally a seminar in the selected country (Phase Three).

The Cooperative Union of the Philippines (CUP), one of the member organizations of ICFO, assisted ICFO as a local partner organization in implementation of the CFRM Training Project in the Philippines. The Project was implemented as per the following schedule:

- 1) Phase One: Dispatching of Experts to the Philippines during 10 -17 July 2006 (Manila and Palawan).
- 2) Phase Two: Fisheries Resource Management Study Visit in Japan during 10 - 19 September 2006 (Tokyo and Okinawa Prefecture).
- 3) Phase Three: Seminar during 11 - 16 February 2007 (Puerto Princesa City, Palawan).

Phase One and Phase Two have been successfully completed. Their reports were printed and used as reference material in the Seminar for the 'Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines', which was organized as a part of the Phase Three Programme. The Seminar was conducted at the Legend Hotel, Puerto Princesa City, Palawan, during 11-16 February 2007. Forty-nine participants representing the fisheries cooperative sector of the Philippines, officials of the Bureau of Fisheries and Aquatic Resources (BFAR), officials of the Local Government Units, etc and five Advisors and Observers participated in the Seminar. Mr Masaaki Sato, Secretary, ICFO, represented the organizers.

The Seminar aimed at capacity-building of fisheries cooperative leaders for promoting community-based fisheries resource management and establishing close linkages with responsible government officials and other stakeholders for the purpose. This may be referred to as the beginning of a stronger fisheries co-management phase in the Philippines. At the conclusion of the Seminar, participants unanimously adopted the 'Palawan Declaration', which embodies the long-felt needs of the fisheries sector for developing a healthier and vibrant fisheries and for an equally dynamic cooperative base to meet the challenges of community-based fishery resource management in the Philippines.



I would like to take this opportunity to thank all those who cooperated in bringing together their experiences, ideas and resources for making it possible to adopt the 'Palawan Declaration'. In particular, I would like to thank the Seminar participants for their active participation and constructive opinions, which immensely contributed to the success of the Seminar.

For Phase Three, the ICFO invited seven speakers, four from abroad and three from the Philippines. The speakers were (i) Dr Yugraj Singh Yadava, Director, Bay of Bengal Inter-Governmental Organization, Chennai, India (also Advisor to the Project); Dr Masahiro Yamao, Professor, Graduate School of Biosphere Science, Hiroshima University, Higashi-Hiroshima, Japan (also Advisor to the Project); Dr Uwe Tietze, former Fishery Industry Officer, Food and Agriculture Organization (FAO), Rome, Italy (currently an international consultant on small-scale fisheries management and socio-economics, residing in Washington, USA); Mr Joaquin Cortez, Fishery Planning Officer, FAO, Rome, Italy; Ms Jessica C Muñoz, Project Director, Fisheries Resource Management Project, BFAR, Philippines; Ms Sandra Victoria Arcamo, Chief, Fisheries Resource Management Division, BFAR, Philippines and Dr Romeo M Cabungcal, Chairman, Palawan Agri-Fisheries Employees Multi-Purpose Cooperative, Puerto Princesa, Palawan, Philippines.

I would like to extend my cordial thanks to each of these speakers and advisors. Further, I would like to extend my thanks to Mr Ichiro Nomura, Assistant Director General (Fisheries), FAO, Rome, Italy for allowing Mr Cortez to participate in the Seminar. I would like to also thank Attorney Malcolm I Sarmiento, Director, BFAR, for his whole-hearted cooperation to the CFRM Training Project in the Philippines. Without his whole-hearted support to the Project and the excellent cooperation given by his staff, it would not have been possible for ICFO to achieve this success.

Last but not the least, I would like to extend my thanks to Attorney Toribio S Quiwag, Chairman of CUP, Mr Felix A Borja, Secretary General of CUP, Ms Nancy Marquez, Administration and Finance Officer of CUP and Chairperson of the Philippine Federation of Women in Cooperatives and all other staff of CUP for their dedicated effort in preparing not only the Phase Three activities but also all the Project activities implemented during Phase One and Two.

I would like to thank Hon Joel T Reyes, Governor of Palawan, Hon David Ponce De Leon, Vice-Governor of Palawan and Hon Edward S Hagedorn, Mayor of Puerto Princesa City, Palawan for their cooperation, support and hospitality for the CFRM Training Project implementation in Palawan.

The cooperation received from all these persons has contributed enormously to making the CFRM Training Project of JFY 2006 a success. I would like to reiterate my thanks to all of them.

As chairman of ICFO and as an organizer of the Seminar, I hope that the 'Palawan Declaration' is distributed widely and used by all those concerned for furthering the intent and objectives of the Declaration. I also hope that the intent and objectives of the Declaration are included in future fisheries policies and programmes in order to help develop the fisheries sector of the Philippines.

As stated in my message in the opening ceremony of the Seminar, let us try to become an effective teacher who can inspire the fishers and the people and let us contribute to the development of fisheries and to the economy of the Philippines!



Shoji UEMURA
Chairman

International Cooperative Fisheries Organization
of the International Cooperative Alliance

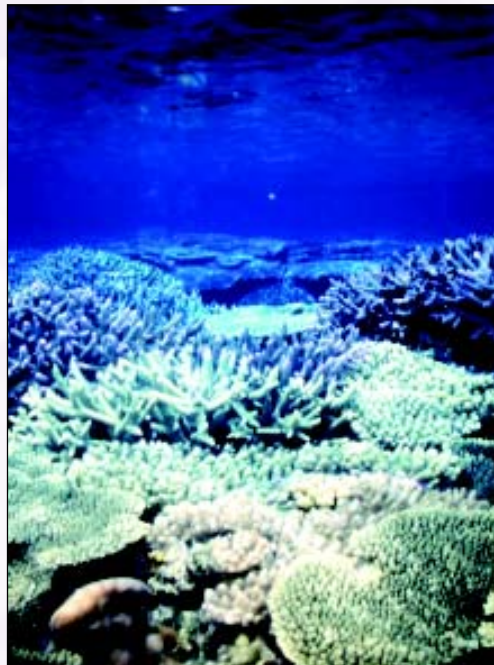
31 March 2007



Acknowledgement

The cooperation and assistance received from the following organizations/ agencies/ individuals in successful completion of the **Seminar for the Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines** is deeply acknowledged:

- Ministry of Agriculture, Forestry and Fisheries, Government of Japan.
- Hon Joel T Reyes, Governor of the Province of Palawan.
- Hon David Ponce De Leon, Vice-Governor of the Province of Palawan.
- Hon Edward S Hagedorn, Mayor of the City of Palawan.
- Bureau of Fisheries and Aquatic Resources, Department of Agriculture, Government of Philippines.
- Cooperative Union of the Philippines.
- Food and Agriculture Organization of the United Nations, Rome, Italy.
- Office of the Provincial Agriculture, Provincial Government of Palawan.
- Palawan Co-operative Union, Palawan.
- Maliliit Na Mangingisda Ng Caramay Producers Cooperative, Caramay, Roxas, Palawan.
- The Manila and Palawan Press.
- Staff and Management of The Legend Hotel, Palawan.



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Participants with Hon David Ponce de Leon, Vice-Governor of Palawan.

Report of Phase Three

Phase Three of the Training Project for ‘Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines’ was organized in Puerto Princesa City, Palawan Province, Philippines from 11 to 16 February 2007. An important Phase Three activity was a Seminar for the ‘Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines’ and a field visit to the Caramay Small Fisheries Cooperative located in Roxas Municipality, Palawan Province. This Report describes the proceedings and conclusions of the Seminar.

2.0 The Seminar was held at The Legend Palawan, Puerto Princesa City, Palawan. Fifty-nine persons took part. They represented the Bureau of Fisheries and Aquatic Resources (BFAR), Department of Agriculture, Government of Philippines; the Cooperative Union of the Philippines (CUP); academic bodies and NGOs; the Ministry of Agriculture, Forestry and Fisheries (MAFF) of the Government of Japan; the Department of Environment and Natural Resources (DENR); the Japan International Cooperation Agency (JICA) Office, Manila; the Fishery Policy Division of the FAO; the International Cooperative Fisheries Organization (ICFO) of the International Cooperative Alliance (ICA). [Annexure 1](#) contains the list of participants. [Annexure 2](#) sets out the Seminar program.

Pre-Seminar Preparations

3.0 The advisors and staff of BFAR and CUP held an initial meeting at the office of the Philippine Cooperative Center, Quezon City on 09 February 2007. It discussed Seminar arrangements, especially the conduct of group discussions. It was decided that one advisor would be assigned to each group to facilitate discussions and a group presentation. The advisors were Mr Joaquin Cortez (Group A), Dr Sandra Arcamo (Group B), Dr Y S Yadava (Group C) and Dr Uwe Teitze (Group D).

Opening of the Seminar

4.0 The Seminar’s opening ceremony was held on 12 February 2007 in the Legend Hotel, Palawan. It began with an invocation by Ms Socorro S Tan, chairperson, Provincial Cooperative Union of Palawan ([Annexure 3](#)). The national anthem followed.

5.0 In opening remarks, Dr Luisito M Quitalg, Vice President, CUP, Visaya Region, thanked the Government of Japan for funding the training programme. Dr Quitalg said the training programme was timely and appropriate. It would help small-scale fishers to implement community-based fisheries management (CBFM), it would also help cooperatives engaged in fishing activities. It would enable sustainable development of fisheries and poverty alleviation. Dr Quitalg hoped that the participants, all of whom are development catalysts in their respective spheres, would put the training programme to good use. [Annexure 4](#) contains the text of Dr Quitalg’s opening remarks.

6.0 The Hon Dave Ponce De Leon, Vice-Governor of Palawan, welcomed Seminar participants. He expressed his gratitude to ICFO and CUP for choosing the Province of Palawan as the focal area for the training project on “Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines”.

7.0 The Vice-Governor said that that management of coastal resources is within the jurisdiction of Local Government Units (LGUs). The Palawan Council for Sustainable Management and the BFAR would work hand in hand to protect coastal resources. The Province of Palawan has the longest coastline in the country, a large stretch of which is rugged and difficult. He said that coastal resources are precious and finite. They are exhaustible and need to be utilized sustainably. Municipalities in the Province

of Palawan are responsible for enforcing rules and regulations; the Provincial Government helps the municipalities through legislation and appropriation of funds.

8.0 The Vice-Governor informed the Seminar about two landmark legislations enacted by the Province of Palawan. The first Provincial Ordinance bans the use of compressors in catching live fish. This ban will eliminate the use of sodium cyanide – which is used to catch aquarium fishes from coral reefs. Sodium cyanide has a deleterious effect on coral reefs; the ban will help check further damage to the reefs. The Ordinance also prohibits the possession of sodium cyanide by individuals, since it has no other application in the Province.

9.0 The Second Ordinance enacted by the Provincial Government aims at regulating the live fish trade. Vice-Governor De Leon said that the biggest threat to coral reefs stems from the unregulated and uncontrolled live fish trade. At present, it is only traders and exporters who benefit from the live fish trade; the benefits do not trickle down to fishers.

10.0 The Vice-Governor said that a moratorium on the live fish industry was declared last December. This was because 23 municipalities in the Province of Palawan failed to enact an enabling law or ordinances which would identify the municipality's sanctuaries, put out a fishing calendar and spell out the spawning season. "We told the industry that compliance to the ordinance was mandatory. Within three months of the ordinance enactment, they would have to come up with their own local enabling ordinance. However, none of them complied with the directions. Therefore, the provincial government was forced to stop their operations completely for two months, in November and December."

11.0 The Vice-Governor said the media criticized the authorities for their "indifference" to the live fish industry. In response, the latter highlighted the failure of the municipalities to comply with the live fish ordinance, which was mandatory, which was a Bible that could not be ignored. "So far, 15 municipalities have complied with the provincial government ordinance."

12.0 The Vice-Governor averred that the fishery resources of the Province ought not to be exhausted by the indiscriminate capture of fish, whether through legal or illegal means. He felt that the Seminar could help change the mindset, attitude, and conduct of the people and lead to greater respect for the province's God-given bounty.

13.0 The Seminar would enable better care and sustainable utilization of resources. "The present generation can benefit from it, and at the same time take care of these resources in such a manner that the future generation is not deprived of them." He said the principle of inter-generational responsibility (as enunciated in the landmark case of *Rebosa vs Factoran*) was being gradually imbibed and respected by the people of Palawan. Assistance to cooperatives would bring closer the ideal scenario of wise utilization and conservation of resources for future generations.

14.0 The Vice-Governor, on behalf of the Governor of the provincial government of Palawan, thanked the organizers for holding a very important Seminar. "We count this as one of the most important activities in the Province of Palawan. And we thank you so much for taking your time to come to Palawan and may your stay be fruitful and pleasurable". Annexure 5 contains the speech of the Vice-Governor.

15.0 Mr Masaaki Sato, Secretary, ICFO, read the welcome speech of Mr Shoji Uemura, President of ICFO, who could not attend the Seminar because of other commitments. Mr Uemura asked Mr Sato to lead the Seminar.

16.0 Welcoming the Hon Vice- Governor of Palawan and other guests and participants, Mr Sato said that ICFO had conducted two programs in the past for leadership development of fisheries cooperatives in the Philippines, with budgetary

support from the MAFF, Government of Japan. The first Seminar on “National Planning Workshop on Leadership, Technology and Infrastructure Development in Fishery Cooperatives” was conducted in February 1990 in Bagio. The second Seminar on “Community-based Fisheries Management through Cooperatives” was organised in October 1997 at Puerto Azul, Cavite. He was happy to be here again to conduct the third Seminar on a subject of global concern for small-scale fishers as well as for the people’s food security.

17.0 Mr Sato said that the Seminar was the first to be funded by the Government of Japan under the “Training Project for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in Asia”. This Project was a revised version of the former Training Project for Leaders of Fisheries Cooperatives in the World, which had been implemented for 20 years.

18.0 Mr Sato said that under the new Project, ICFO would select one country in Asia every year, and implement the program in three phases.

- (i) A preliminary study: experts would be sent to the country so selected;
- (ii) A study trip to Japan by invited fisheries cooperative leaders; and
- (iii) A seminar in the country so selected.

For the Japanese fiscal year April 2006 - March 2007, ICFO selected the Philippines. Two phases of the Project had been completed, and the Seminar constituted Phase Three.

19.0 Discussing the status of world fish stocks, Mr Sato said that according to FAO, more than 75 percent of the world’s major fish stocks had been either fully exploited or over-exploited. Fisheries management in many countries was ineffective because of indiscriminate fishing and unsatisfactory resource conservation. The 21st century was said to be the century of critical food, energy and environmental problems. Food was the most important; agriculture and fisheries had to be promoted to meet the demand for food. But global warming was becoming serious and might affect agricultural production. Much would therefore have to be derived from the seas to help fill the gap in agricultural production. But the seas would have to be tapped wisely to ensure sustainable production.

20.0 This was the scenario that determined the Project under discussion, Mr Sato pointed out. The revised Project was designed to promote CBFM by small-scale fishers and by their organizations (fisheries cooperatives), enhance their capacities, strengthen their activities, and enable sustainable production, creation of employment opportunities and poverty alleviation. Ensuring a better life for fishers was one of the important objectives of the ICFO; strengthening cooperatives was one of the best ways to do so. He drew attention to one of the resolutions adopted in the seminar held in 1997 in Cavite, which was as follows:

“We request the Secretary of the Department of Interior and Local Government to enjoin Local Government Units to observe the constitutional mandate of promoting and supporting cooperatives as instruments for social justice and economic development as enunciated under the Republic Act 6938.”

21.0 Mr Sato said the Seminar pursued the intent of this resolution. He hoped it would strengthen the cooperative spirit of small-scale fishers of the Philippines so that they could enjoy a better quality of life and contribute better to national food security and economic development. [Annexure 6](#) contains Mr Uemura’s message.

22.0 Mr Yukio Suzuki, Deputy Director speaking on behalf of the MAFF, Government of Japan, said it was a great honour for him to be present at the Seminar. He said the MAFF had a long history of collaboration with the ICFO of ICA. From 1987 until last

year, MAFF supported fisheries cooperatives to strengthen their capacity and develop cooperative institutions in Asian countries through a trust fund. In 2005, at the end of this 20-year cooperation, his Ministry and ICFO reviewed the results and tasks in marine fisheries. The new fishery resources management project for small-scale fishers in Asia was an outcome of this review. The Project started in fiscal year 2006 - 07 and would be funded for five years by the Government of Japan.

23.0 Mr Suzuki said that overfishing was the main cause for the worrying decline in fishery resources of recent years. However, demand for fish was expanding both because of better awareness of a healthy diet and concerns about animal health problems such as BSE and avian flu. It was essential to maintain or restore fishery stocks to sustainable levels. The Project had a very important role in this context.

24.0 Mr Suzuki said that to implement the Project, MAFF selects one country every year where potential for coastal CBFM is high. The key to effective fishery resource management was coordination between fishery cooperatives and administrative institutions. Japan and the Philippines shared some similarities: they were both island countries surrounded by sea, eating a lot of seafood. Philippines was therefore selected for the first year of the Project. He hoped the Seminar would be fruitful and lead to further sustainable development of fisheries. (Mr Suzuki's message is on [Annexure 7](#)).

25.0 In his keynote address, Attorney Benjamin Tabios, Assistant Director, BFAR congratulated the ICFO and its partner, the CUP, for successfully conducting the first two phases of the Project. He thanked the ICFO-CUP for making BFAR a partner. He said the Seminar was meant to discuss CBFM and enhance it. "We learn from past experience, recognize mistakes made from it, and devise means to avoid the mistakes lest we repeat history."

26.0 Mr Tabios said that in CBFM, local communities (and not the governments) take the center stage in identifying their fisheries resources and their developmental priorities, and in implementing them. People represented both the means and the end of the management process. The premise in CBFM is that the people who are actually using or tapping a given resource, and have first-hand information of it, are in the best position to protect and manage it.

27.0 He said that CBFM and a government-centred system can co-exist. The existing Local Government Code and Fisheries Code do provide an opportunity to local communities to manage fisheries resources. CBFM asserts the principle of local community empowerment; but it recognizes the importance of institutional and policy contexts to assess the performance of CBFM in sustainably meeting community needs.

28.0 Mr Tabios said that in coastal areas of the Philippines, CBFM has recorded some substantial achievements since the early 1970s. It has now generated a broad movement that advocates people participation, people empowerment, equitable access to resources and sharing of benefits from sustainable management.

29.0 Over the years, CBFM advocates and practitioners have put these principles into practice through several activities. These have come to define different aspects of the community-based approach to natural resources management. These have led to present wisdom on CBFM. Some assert that it is an old management method; others describe it as relatively new. "I would say that CBFM has been updated to suit newer realities. But to be effective, to flourish and expand and ensure sustainability, CBFM needs sufficient funding."

30.0 Mr Tabios hoped that Seminar participants from the government, NGOs and fishery cooperatives would formulate long-term plans or recommendations to implement CBFM in the Philippines. He also hoped this would make the co-operatives themselves

more sustainable and profitable. He assured participants of BFAR's partnership in CBFMR. [Annexure 8](#) contains the keynote address of Mr Tabios.

Technical Session

31.0 The Technical Session included seven lectures by invited experts both from the Philippines and outside which set the stage for group discussions. The first presentation in the Technical Session was made by Dr Yugraj Singh Yadava, Director, Bay of Bengal Programme Inter-Governmental Organisation, on 'Results of Scoping Study for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines'. The scoping study was based on discussions with various stakeholders and field visits undertaken during Phase One of the Project. Dr Yadava said there were various approaches to fisheries management. Whatever the approach, the stakeholders concerned needed to agree on objectives and methods, and join hands in implementation.

32.0 Dr Yadava said that effective fisheries management in the Philippines would require a close coordination between the national and provincial governments. The task is apparently complex because of the multiplicity of government ministries and departments with varied mandates and functions that are in the picture — but the task is not insurmountable. "What is needed is an integrated national policy on marine fisheries that encourages fishers to tap under-utilised fishery resources, adopt conservation measures such as artificial reefs, promote eco-friendly and sustainable coastal aquaculture, strengthen infrastructure facilities for fish landing and marketing, improve the socio-economic conditions of fishers, generate alternative employment opportunities for fishers, and modify existing fisheries legislation." The full text of Dr Yadava's paper is on [Annexure 9](#).

33.0 Dr Masahiro Yamao's presentation on "Community-based Coastal Resource Management and its Development: Lessons Gained through Japanese Experiences" acknowledged that Japan was one of the most successful countries in coastal resources management. He then provided a detailed overview of the long history of CBFMR in Japan. Uniquely, traditional Japanese systems of local fishery resource management had evolved into a modern, formalized management system. In other words, the modern system had assimilated local knowledge on sustainable resources utilization. Speaking about Asia and the Pacific region as a whole, Dr Yamao said that many traditional management systems worked effectively, but only a few had evolved into formalized management mechanisms.

34.0 Dr Yamao described decentralization as the key to CBFMR in Japan. He outlined the features of the system at the national, prefecture and community levels. At the national level, legislation was passed and authority delegated. At the prefecture level, management areas were demarcated and coordination between regions taken care of. At the community level, decisions were taken on ordinances and management plans were prepared. It was pointed out that at the community level, fishery cooperative associations play a fundamental role in coastal resources management and coordinate closely with their prefecture government.

35.0 Describing the rights-based fisheries management system in Japan, Dr Yamao said that marine fisheries was classified into three categories under the fisheries law. It included rights-based fisheries in coastal waters; license-based fisheries in offshore and distant waters; and open fisheries, where no government permission was required. Fishery Cooperative Associations (FCAs) played a crucial role in the management of rights-based fisheries.

36.0 Dr Yamao defined three types of rights-based fisheries – set or fixed net fisheries, where fishing rights are allocated to individuals; demarcated rights fisheries comprising mostly fish, shellfish, seaweed and kelp culture, where fishing rights are

allocated to both FCAs and individuals; and common fishing rights fisheries, which are allocated exclusively to FCAs. In the case of common fishing rights, fishers participating in FCAs have equal access to commonly owned fishing grounds.

37.0 Dr Yamao said that FCAs also play an economic role by carrying out business activities for the benefit of members through the supply of inputs, marketing, credit and other services. He drew attention to the fact that at present the number of multi-purpose FCAs was declining. The coastal fisheries faced stiff competition from imports and the fisher population was aging fast. There were signs of overexploitation of coastal fisheries resources, particularly in the case of migratory fish species.

38.0 In the context of resource rehabilitation programmes, new types of so-called Fisheries Management Organizations (FMOs) in Japan were emerging – such as the Wide-area Fisheries Coordination Committee (WAFCC). This functioned as an inter-prefecture institution. It coordinated and resolved conflicts between member-prefectures. It reduced fishing effort by establishing Total Allowable Effort (TAE) limits, and by controlling inputs through gear regulations, closed seasons and stock enhancement measures. Annexure 10 contains Dr Yamao's paper.

39.0 Dr Uwe Tietze presented a paper on "Present and future of fisheries co-management in the Philippines – issues and strategies for development." Describing the importance of coastal zones and resources in the Philippines, he highlighted the fact that two-thirds of all provinces, municipalities and *barangays* as well as the population are located in the coastal zone, which is the base for major industrial, commercial, social and recreational activities. Fisheries and fish farming are very important as they contribute 3.7 percent to the GDP and provide employment to 5 percent of the total labour force of the Philippines.

40.0 Dr Tietze went on to highlight the negative impacts of urbanization, industrialization and population increases on coastal and marine resources. These include the depletion of resources in municipal waters, the use of destructive aquaculture and fishing methods, pollution and contamination of coastal waters, degradation of coral reefs, mangroves, sea grass beds and other crucial habitats. Result: 80 percent of coastal fisherfolk lived below the poverty line.

41.0 Dr Tietze then provided an overview of the constitutional and legal framework of fisheries and coastal resource management in the Philippines. The framework includes the 1987 Constitution, the local Government Code of 1991, the Fisheries Code of 1998, the Agriculture and Fishery Modernization Act of 1997 as well as multilateral agreements. He then summarized past and present fisheries and coastal co-management programmes such as the Central Visayas Regional Project; the Fisheries Sector Programme; the Coastal Environment Programme; the Coastal Resources Management Project; the Community-based Coastal Resource Management Project; the Fisheries Resources Management Project and the JICA-funded *Bantay Dagat* Programme.

42.0 These programmes have promoted several policies and strategies in support of the co-management of fishery resources. Examples: Decentralize management in favour of municipalities, fishing communities and their organizations; strengthen enforcement through inter-agency law enforcement teams based in municipalities; take up community-based initiatives to rehabilitate coastal resources and environment; diversify livelihoods to sources of income other than fisheries; link coastal and fishing communities to training, extension, marketing, financing, infrastructure and other services.

43.0 Some examples of management interventions are: License municipal fishing vessels through municipal fisheries ordinances; establish and manage marine protected areas (MPAs) through community-based organizations in cooperation with LGUs; limit

access to fishery resources through community property rights; use the Philippine Fisheries Information System for information, education and communication purposes; involve universities and colleges in aquatic resource and social assessments.

44.0 Dr Tietze specified the criteria for the successful participation of fisherfolk organizations and cooperatives in co-management. These included homogeneity and mass participation; business management skills; democratically elected, controlled, strong and devoted leadership; equitable distribution of benefits among members; multipurpose functions; demand- and performance oriented infrastructure, financial, training and technical support from central and local government agencies; execution of government-sponsored coastal and fisheries-related conservation and rehabilitation programs through fisherfolk associations/ cooperatives and the granting of fishing rights through LGUs based on the principle of eligibility and performance.

45.0 After highlighting future challenges to community-based fisheries and aquatic resource management in the Philippines, Dr Tietze concluded his presentation by identifying important elements of future co-management of aquatic and coastal resources.

46.0 These included the following: Strengthen FRMCs at all levels. Carry out integrated management of contiguous water bodies such as bays. Promote economically viable and environmentally friendly fishing, fish farming, preservation and processing practices. Develop micro-enterprises. Encourage fishers to diversify livelihoods through micro-finance or credit support. Provide infrastructure and investment support to fisherfolk organizations and cooperatives. Strengthen such fisherfolk organizations/ cooperatives so that they can take part in co-management and improve the socio-economic status of members. Introduce mutual insurance services. Improve safety-at-sea programmes. Link fisheries and aquaculture with early warning systems for natural disasters. Annexure 11 contains Dr Tietze's paper.

47.0 Dr (Ms) Jessica Muñoz, in her presentation on "Key Elements in the Promotion of Fisheries Co-management in the Philippines: The Fisheries Resource Management Project Experiences" provided an overview of the rationale and goals of the Fisheries Resource Management Project (FRMP). She pointed out that the FRMP addressed two critical issues — fisheries resources depletion, and persistent poverty among municipal fisherfolk. The long-term goals of the programme were sustainable development and poverty reduction. The primary goal of the FRMP was to reverse fisheries resource depletion; the secondary goal, to promote alternative employment.

48.0 Dr Muñoz said that the FRMP covered new areas not tackled by previous projects. In addition, the FRMP also worked in bays and gulfs where previous projects had operated. She went on to describe the various components of the FRMP — use of the Philippines Fisheries Information and Geographic System; resource and social assessment; information, education and communication; coastal resource management planning and implementation; community organizing; promotion of micro-enterprises; mariculture development, training and on-site-coaching; consulting services and project management.

49.0 Describing the set-up of the FRMP, Dr Muñoz said that it had a project management office at the headquarters of the BFAR, plus project implementation units at the BFAR regional offices. Besides, the project included fisheries management units at LGUs, FARMCs, peoples' organizations, coastal communities, research institutions, NGOs and the private sector. Elaborating on national policies on coastal and fisheries management, she said these included the Executive Order No. 533 of 6 June 2006, which adopted integrated coastal management as a national strategy; and the so called *Ginintuang Masagaang Ani* for Fisheries Programme (2005-2010), which provides national direction and a framework for sustainable utilization, development, conservation and management of the fisheries sector of the Philippines.

50.0 Dr Muñoz detailed specific interventions and activities carried out in the framework of the FRMP. Such as the construction of watchtowers and training centres by LGUs; the publication of newsletters by NGOs and LGUs; resource and social assessments; capacity-building measures; the formation of fisheries law enforcement and coastal watch teams; and introduction of municipal licensing systems. Dr Muñoz also highlighted partnerships in advocacy with the private sector involving companies like San Miguel, United Robina, Filipinas Shell and Petron, which donated PHP (P) 400 000 for FRMP-CRM activities in Davao Gulf.

51.0 Talking about the project's income diversification activities, Dr Munoz cited the large-scale production of cassava, peanut, corn and coffee, and the participation of women in livelihood projects, as successes. Examples were provided of resource rehabilitation projects for the establishment of fish sanctuaries and marine reserves and riverbank bioengineering. Dr Muñoz concluded her presentation by highlighting some major future challenges to sustainable coastal and fisheries management — the lack of capable manpower, appropriate budgets, continued support from LGUs and lack of a functional organizational structure to continue and sustain the FRMP's activities. Annexure 12 reproduces the full text of Dr Muñoz's paper.

52.0 Dr (Ms) Sandra Victoria R Arcamo discussed the findings of a study trip to Japan. A group of fisheries administrators and cooperative executives from the Philippines had visited Japan during the second phase of an IFCO-sponsored Project. Object: to observe fisheries management policies and practices, and draw conclusions for fisheries and aquatic resource management and empowerment of fisheries cooperatives in the Philippines. The study group visited the Central Government Fisheries Agency of Japan, the Prefectural Government of Okinawa, the National Federation of the FCA, local FCAs, the Tokyo Central Wholesale Fish Market at Tsukiji, a local wholesale fish market at Naha as well as FCAs and their local markets.

53.0 Dr Arcamo outlined the geography and economy of Japan and profiled its fisheries sector. She went on to describe the legal framework of fishery resource management in Japan and the organizational structure and institutions concerned with resources management. She said that overfishing, loss of marine habitats and aging fisher populations were among the issues brought to the attention of the study group. It was pointed out that these and other issues were being addressed by FRM strategies — such as limiting fishing effort by setting total allowable catch and effort limits; and by carrying out resource recovery programmes.

54.0 Summarizing the effectiveness of FRM in Japan, she said that many factors were responsible. Legally recognized traditional systems of sea tenure; protection of small-scale fishers; their participation in resource management policies; homogeneity and social equity of fishers comprising FCAs; economically viable and sustainable fishing and fish farming operations; and administratively feasible management arrangements and measures. Scientific information on fish stocks was effectively used for fisheries management in Japan. Self-regulation had reduced management cost as well as competition among fishers. The FCAs had established an efficient marketing system for the benefit of their members.

55.0 How far was the Japanese experience applicable to conditions in the Philippines? Discussing this point, Dr Arcamo highlighted a number of constraints in the Philippines — the lack of good governance and leadership; non-conducive attitudes among fishers and other users of aquatic and coastal resources; lack of initiatives from fishers regarding control over and management of fisheries resources; and lack of financial and technological resources available for community-based fisheries management.

56.0 She concluded her presentation by highlighting the opportunities that exist for applying Japanese experiences in CBFM to the Philippines. She said the Fisheries Code of 1998, the devolution of authority to local governments and the establishment of FARMCs provided a sound legal and institutional framework for CBFM. The study group had noted that opportunities were being created through efforts to improve information on the status of fish stocks in the Exclusive Economic Zone (EEZ) of the Philippines, through better cooperation between management authorities and research institutions, and through expansion and growth of fisheries cooperatives. See [Annexure 13](#) for Dr Arcamo's paper.

57.0 The paper prepared by Mr Gerenimo T Silvestre, Chief of the FISH Project, on "The FISH Project: Status as of Year-End 2006" was presented by Dr Romeo Cabungcal. Mr Silvestre said the project's goal was to increase the abundance of fish stocks in four targeted areas in the Philippines by 10 percent. The project's methodology was: Build local and national capacity by involving local stakeholders in eco-based fisheries management and planning. Engage them in implementing fisheries management tools and mechanisms. Carry out multimedia education campaigns targeting different stakeholder groups. Use broadcast and print media to raise awareness on the impacts of overfishing.

58.0 Mr Silvestre said the FISH Project would facilitate creation of public-private sector partnerships to expand the constituency for sustainable fisheries management. His presentation pointed out that one of the key thrusts of the project for 2007 was the mainstreaming of municipal CRM programs within the context of eco-tourism. There were some other important thrusts as well: Operationalize existing MPAs including the design of a network. Formulate and implement a plan to address illegal fishing activities. Establish a management regime. Carry out registration and licensing of fishing vessels. Ensure completion of an inter-LGU fisheries management plan, which would also address zonation issues.

59.0 Mr Silvestre said the project would also help to establish catch and effort monitoring systems at all levels and use the fishery vessel registration system for fisheries management purposes. Other activities of the project in 2007 included strengthening of community-based MPA enforcement groups and establishment of new MPAs. The speaker concluded his presentation with a detailed description of the work plan of the project. See [Annexure 14](#) for Mr Silvestre's paper.

60.0 Mr Joaquin Cortez made the last presentation in the Technical Session on "Ensuring Responsible Fisheries: Monitoring, Control and Surveillance, and Co-Management". Mr Cortez began by explaining why it is imperative to ensure responsible fisheries in the Philippines. He said a recent study had found that Philippines is the global epicenter of marine biodiversity with approximately 950 commercial species of fish and 561 coral species, some of which faced the threat of extinction because of destructive fishing methods, runoff caused by deforestation, poor land use practices and other causes.

61.0 The speaker concluded that on account of the diverse biological resources in the Philippines, and the existing geo-physical, demographic and linguistic structure, responsible community-based fisheries should be the primary guiding principle in developing fisheries and related resources.

62.0 Mr Cortez went on to discuss the monitoring and surveillance systems, which would suit the needs of both responsible fisheries and co-management. A three-pronged strategy was proposed. The first strategy was adoption of the Ecosystem-based Community-centred Organization and Management (ECSOM) approach. The second strategy was to accord to island communities property or tenurial rights, which also meant rights over the use of fisheries and aquatic resources on which they relied for



incomes, food and nutrition. The third strategy sought to prevent illegal, unreported and unregulated (IUU) fishing in the territorial waters of the Philippines, its EEZ and its adjacent high seas, which would compromise the integrity, and productivity of the world's epicenter of marine biodiversity.

63.0 An example of the second strategy was the *Bantay Dagat* Programme, which was a joint effort of the National Agriculture and Fisheries Council (NAFC) and BFAR to conserve and manage the country's aquatic resources, ensure food security and alleviate poverty in coastal communities with funding support from JICA.

64.0 The speaker pointed out that while LGUs have powers to enforce all fishery laws, rules and regulations as well as valid fisheries ordinances in municipal waters, national law enforcement agencies such as the Philippines National Police Marine Group and the Philippines Coast Guard also share jurisdiction over the enforcement of fishery and environmental laws in municipal waters. The Philippine National Police is responsible for all police functions and the Coast Guard is responsible for the safety of life at sea and the protection of the marine environment. One of the components of the *Bantay Dagat* programme was the provision of patrol boats, communication and other equipment to LGUs in areas where illegal fishing was rampant.

65.0 Mr Cortez concluded his presentation by summarizing the applications and results of Monitoring, Control and Surveillance (MCS) and Vessel Monitoring System (VMS) systems in Philippine waters. He pointed out that BFAR was looking forward to establishing a VMS linking satellite to ground stations and transmitters. He said that in many countries where VMS systems have been introduced, the efficiency of MCS has gone up substantially. The speaker concluded that for a developing country like the Philippines, VMS makes MCS measures more effective and possibly less expensive when applied to national and foreign fishing vessels licensed to fish in the EEZ. See [Annexure 15](#) for Mr Cortez's paper.

Responses of participants to the presentations

66.0 Expressing "full support" to fishers, Senator (Ms) Nikki M L Coseteng said that those who assume the reins of power should also exhibit political will. Short-term solutions cloud one's vision; long-term solutions that lift people at the bottom of the social scale are needed. One solution for one island is not **the** solution for all the islands; each island is unique and, therefore needs to be considered differently. Municipal waters issues are complex and need to be resolved. Infrastructure should be built where it is most needed. Conservation measures have to be carried out through MPA, closed seasons, fish refugia, optimization of fishing effort, mesh size, protection of brooders, etc. We must think nationally, act locally.

67.0 Ms Coseteng said that cooperatives in the Philippines were still regarded as "social clubs". Many cooperatives were unable to convince banks to provide credit. Empowerment and social impact were essential. She felt that "women at the top think like men". She hoped that the Seminar would lead to a change in perceptions, attitudes and values.



68.0 Here's a summary of other responses.

- In the Philippines, more than 70 percent of the resources fall under the purview of LGUs. These carry out a wide range of activities. The best practices of the LGUs should be adopted everywhere.
- The enormous diversity of fish species and of human resources make a 'single solution' for the Philippines impossible. In other words 'there is no thumb rule' and every municipality has to have its own set of 'operational/ business' rules.



Welcome party and the cultural program hosted by Hon Edward S Hagedorn, Mayor of the city of Puerto Princesa, Palawan.

However, a thread of commonness running across all the LGUs is essential.

- Communities are the last frontier of coastal resource management issues in tropical fisheries management.
- Empowerment of cooperatives is essential to develop local economies and benefit local communities.
- The government should consider ways to earn “rent” or money from resources. Social, economic and environmental cost should be internalized, so that fisheries is made more accountable.
- Community property rights should be established (*i.e.* preference for locals) so that outsiders with money power cannot exploit the resources. This would also lead to localization of income. The principle of ‘subsidiarity’ should be practiced.
- Self-regulation can reduce the costs of MCS. However, this would need more consultations with the community.
- Fishing harbours and ports are under-utilized; there is no law for compulsory landing of fish at the established fishing harbour/ port. Fish landing sites are also a part of coastal resources and their management. Fish landing records should be systematically maintained and local taxes collected.
- Education and awareness creation are very important. Fast-changing technologies highlight the need to develop professionals. LGUs have to network with local educational institutions to create fisheries professionals. There is at present an outward migration from the fisheries sector. Fishery cooperatives should be developed as “business organizations”.
- Despite its importance, fisheries commands low priority in the Philippines and low budgetary allocations. The geographical spread of the country with a number of remote and inaccessible islands, a large number of subsistence fishers and very few researchers pose problems for progress. But a strong sense of community bonding exists among fishers.

69.0 A welcome party was hosted by the Hon Mayor of the city of Puerto Princesa, Palawan, Mr Edward S Hagedorn, at the poolside of the hotel on the evening of February 12, 2007. On this occasion, a covenant of support for sustainable promotion and development of cooperatives was signed by the CUP with the Mayor and Senator Coseteng. There was cultural entertainment as well – with local artists from Palawan presenting a lively programme of music and dance.

70.0 On the second day (February 13, 2007), the Governor of Palawan, Hon Joel T Reyes visited the Legend Hotel to welcome the Seminar participants and invited experts. The Governor was happy that Palawan was chosen as the venue for the Training Project and assured full cooperation of the Provincial Government in implementation of the recommendations of the Seminar.



Group Discussions

71.0 At the beginning of the second day’s proceedings, the participants formed four groups to discuss various issues pertaining to sustainable use and management of coastal resources. The topics assigned to the four groups were as follows:

Group A: Policy and Legal Support to Coastal Resources Management (CRM)

Policy and legal support to CRM; Monitoring, Control and Surveillance in CRM; Inter-sectoral and intra-sectoral conflicts and mechanisms for their resolution.



Hon Dave Ponce De Leon, Vice-Governor of Palawan handing over copies of the two Ordinances to Mr Masaaki Sato at the Palawan Provincial Board.

Group B: Sustainable Use of Coastal Resources and their Management

Sustainable fishing practices; Conservation and resource enhancement; Marketing and cold chain; Technological requirements.

Group C: Role of Institutions in Coastal Resources Management

Fisheries cooperatives, including their management bodies and activities; Institutional finance; Role of other departments and institutions such as universities, national and/or international NGOs, etc in management of CRM; Coordination and linkages among institutions in CRM.

Group D: Livelihoods, Security Nets and Human Resources Development in CRM

Alternate livelihoods (*e.g.* Eco-tourism) and additional income generating activities; Gender in CRM; Training and extension; Social security nets for fishers (including insurance for their implements, etc.); Safety and health of fishers.

72.0 The four groups assembled in different meeting rooms (Group A in Aborlan, Group B in Busuanga, Group C in Coron and Group D in Dumarán) and each group nominated a chairperson and a rapporteur for facilitating the discussions. One expert was also assigned to each group to serve as the advisor. After intense discussion, each group finalised its report for presentation in the plenary. The reports presented by the four groups are found in [Annexure 16](#).

73.0 At the invitation of the Vice-Governor of Palawan, Hon Dave Ponce De Leon, Mr Felix Borja, Mr Masaaki Sato, Mr Yukio Suzuki, Dr Uwe Tietze, Mr Joaquin Cortez, Dr Y S Yadava and Ms Socorro Tan visited the office of the Palawan Provincial Board. The Vice-Governor and the members of the Board welcomed the visitors and presented copies of the two landmark Ordinances enacted by the Provincial Government to ban the use of sodium cyanide and regulate the ornamental fish trade in the Province.



*Hon Joel T Reyes, Governor of Palawan
with the participants.*

Field Visit to Barangay Caramay, Roxas, Palawan

74.0 On 14 February 2007, the participants visited the Maliliit Na Mangingisda Ng Caramay Producers Cooperative (MMCP) located at Barangay Caramay, Roxas, Palawan. They acquainted themselves with the activities of the Cooperative and the pioneering programs being implemented by the Cooperative in the coastal waters of their municipality.

75.0 The MMCP was organized in 1998 by the HARIBON Palawan, an NGO that aims to reverse the destruction of Palawan's natural resources through the implementation of integrated development programs. The Cooperative's mission is to undertake conservation-oriented programs and sustainable livelihoods to support the requirements of present and future generations and enhance the socio-economic conditions of members. The Cooperative has been an active partner of HARIBON Palawan and the LGU (from the *Barangay* to the Provincial level) in the coastal resource management program in Roxas, Palawan.

76.0 The MMCP has 102 members, 70 percent of whom are full-time fishers and 30 percent part-time fishers. The Cooperative currently implements the Community-based Marine Sanctuary and Livelihood Support Project (CBMSMLSP), which is funded

by the United Nations Development Programme/ Royale Netherlands Embassy. The other activities include (i) Eco-tourism, (ii) Mariculture and seaweed farming, (iii) Management of a 50 hectare marine sanctuary, (iv) Value-added fish products, (v) Micro-finance and (vi) Rice-trading. Annexure 17 contains a report on the visit to MMCP, Roxas, Palawan.

Plenary Session

77.0 During the Plenary Session, all four groups presented the findings and observations of their discussion. Mr Michael de Guzman presented the report of Group A. A major recommendation of this group was that FADs should be set up on the 15 km boundary. This will help identify the boundary, also enhance fish stocks. The group felt that marketing of fish and fish products was poorly managed and that the Government hardly intervened. The high cost of electricity meant that ice was costly. The group stressed the importance of a strong political will to ensure fisheries development in the Philippines.

78.0 Mr Bernardo Dessabelle presented the findings of Group B. He said that there are many fish sanctuaries in the Philippines; but how many have been successful is not known. Other issues cited in his presentation included: provision of relief to fishers during closed seasons; hygiene, sanitation and food safety; certification of fish species (practices, sizes at which caught, etc); optimization of fishing effort; reducing wastage at sea; and improved post - harvest. Mr Dessabelle referred to boundary disputes between adjacent municipalities. These need to be resolved, and 15 percent of the municipal waters should be preserved as marine sanctuaries. The aim is to reduce pressure on the municipal waters – a majority of the fishers are municipal fishers. The objective of fish sanctuaries and marine protected areas is the same. He pointed out that the BFAR does not have a presence at the municipal level.

79.0 Mr Antonio de Vera presented the findings of Group C. He said that the fisheries sector does not get the attention it deserves. The sector has only a minimal budget to implement programmes; its manpower is inadequate to implement the mandates laid down in RA 8550. The group emphasised the need to create a Department of Fisheries. It also highlighted the lack of awareness on proper coastal resources utilization; lack of personnel and budget to supervise cooperatives; and low compliance with statutory requirements.

80.0 Mr Renato Broqueza and Dr Antonio Augustin presented the findings of Group D. They said that cooperatives are a manifestation of oneness. Safety at sea is linked to fisheries resource management, and families can play an important role in sea safety. The school curriculum should include lessons on sea safety and disaster management. A checklist should be made available to fishers on sea safety. A safety license can be issued to fishers after they have proved that they have basic knowledge on safety measures. The LGUs do the licensing.

81.0 During general discussions on group presentations, it was suggested that the fishing fleet should be optimized and that boats should be constructed with fiber-reinforced plastic (FRP). FRP boats are easy to maintain; during typhoons, these boats can be moved easily. On an average, some 20 typhoons hit the Philippines every year and many boats are lost. The CUP said that it has the technology to introduce good-quality FRP boats. Cooperatives could consider sending people to other places for training. Cold chains are important to avoid wastage. The key of being globally competitive is to use the best technologies.

82.0 Participants felt that the baselines for establishing the EEZ should be defined. The deadline for such establishment is 2009. At present, loans are not available to fisheries cooperatives; even boats are not regarded as collateral. Calamity resolutions should be rephrased. The success stories of the CBFM Projects in the Philippines should be collated and presented.

83.0 Fishers in coastal areas are organized; what's needed is to mobilize them into cooperatives. In Japan, fishers wear 'Radar' -activated hats so that they don't get lost if they fall overboard. Also in Japan, housewives use 'social pressure' to inculcate the safety culture amongst their menfolk. Women in the Philippines should also practice this kind of advocacy.

84.0 Following the group presentations, Mr Felix Borja summarized the four presentations. He said that the Cooperative Development Authority (CDA) is not just a regulatory body; a majority of its personnel are experts in cooperative development. It was reiterated that the ordinances enacted by the Palawan Province would be taken to the League of Provinces for implementation by other provinces in the Philippines. It was pointed out that the success of the Seminar lay in implementation of lessons learnt from it.

85.0 During the post-lunch session, all participants filled up the questionnaire provided by the MAFF about their Seminar impressions. A drafting committee comprising Mr Felix Borja, Dr Uwe Tietze, Mr Joaquin Cortez, Mr Masaaki Sato and Dr Y S Yadava prepared draft recommendations for consideration of the participants in the closing session of the Seminar.

Closing Session

86.0 Mr Felix A Borja, Secretary-General, CUP, presented the draft recommendations to the plenary for its adoption. On the basis of suggestions received from the participants, the recommendations were finalized as the 'Palawan Declaration'.

87.0 Mr Felix Borja congratulated the delegates on their enthusiastic and active participation in the Seminar and sincerely thanked the resource persons for their splendid and inspiring presentations; the ICFO for choosing the Philippines as the first country to be assisted under the ICFO Project; the MAFF of the Government of Japan; the Local Government of Palawan for making the participants' stay fruitful and pleasant; and the Palawan Cooperative Union for laying the groundwork for the Seminar in Palawan.

88.0 Mr Borja said that the real success of the Seminar lay in how participants could translate the knowledge and experiences gained into concrete programs and activities that would help effective and sustainable fisheries resource management in the Philippines. He said that BFAR, their counterparts, would play a very significant role in this endeavor, especially in harnessing government support to provide the necessary infrastructure and other forms of assistance to small-scale fishers and their cooperatives in coastal communities.

89.0 The CUP for its part should undertake strong advocacy of the resolutions and recommendations arrived at during the Seminar. "We shall further strengthen fishery cooperatives and organize new ones to reach out to small-scale fishers who need our assistance in breaking away from the bondage of poverty and hopelessness," Mr Borja said.

90.0 In conclusion, he expressed his deep appreciation and gratitude to Mr Shoji Uemura, Chairman of ICFO and president of JF ZENGYOREN, and to Ms Ryuko Inoue, Director of International Cooperation Division, International Affairs Department, Minister's Secretariat, MAFF, for their support to the Project. He described the Project as the beginning of a lifelong commitment to upliftment of the lives of small-scale fishers through cooperatives. Annexure 18 contains Mr Borja's speech.

91.0 Dr Yugraj Singh Yadava, Director, BOBP-IGO, thanked the MAFF and the ICFO on behalf of fellow advisors and observers for inviting them to take part in Phase Three activities. He thanked the Hon Vice-Governor of Palawan, Mr David Ponce De Leon, the Hon Governor of Palawan, Mr Joel T Reyes, and the Mayor of Palawan,



*Participants receiving certificates
from Mr Masaaki Sato.*

Mr Edward S Hegedorn, for the support, hospitality and courtesies extended to participants during their stay in Palawan. He also thanked the media in Palawan for the coverage provided to the Seminar.

92.0 Dr Yadava expressed pleasure over the excellent representation of women in the Seminar, a rare phenomenon. He said the Technical Sessions were very productive, the field visit to the Caramay Small-Fishermen Cooperative was most enlightening. He suggested that the Caramay Cooperative should be showcased as a success story for replication not only in the Philippines but also in similar environments elsewhere. He said the momentum generated by the Training Project should be carried forward so that it became a nation-wide movement. Annexure 19 contains Dr Yadava's speech.

93.0 At the Seminar's concluding session, Mr Ed Gamolo, Vice-Chair for Mindanao, CUP, thanked the officials of the MAFF, the Government of Japan and the officers of the ICFO for choosing Philippines as the first country under the Training Project and for selecting CUP as its partner in implementing the Project.

94.0 Mr Gomolo said that though Philippines was a hotspot of marine biodiversity and one of the 17 nations that held about 67 percent of the world's biological resources, its fishermen still lived below subsistence levels. In fact, they were among the country's poorest individuals – a case of poverty in the midst of plenty! Another sad reality was that the marine wealth of the Philippines, like other resources needed to sustain life, was dissipated relentlessly. He described the Seminar as very timely. Much knowledge had been imbibed, much skill had been acquired. What was now needed was action.

95.0 He expressed his gratitude to the group presenters for doing a good job and to staff of the CUP, led by Mr Borja and Ms Marquez, for effectively facilitating the Seminar's activities and for being responsive to the needs and desires of the participants. He thanked the participants for cooperating with him in his role as moderator at different sessions. See Annexure 20 for Mr Gomolo's remarks.

96.0 Mr Masaaki Sato, Secretary, ICFO, thanked all the participants in his closing speech for making the Seminar meaningful and memorable. He said that the intent and objectives of Phase Three had been effectively met. He said the recommendations adopted by the Seminar, as also the Palawan Declaration, were the expressions of consolidated efforts in pursuit of the goals of the Training Project. He hoped that they would be translated into action through cooperation between government agencies headed by the BFAR and the cooperative sector represented by the CUP. He would like to ensure that in future, the fishing industry of the Philippines developed along the lines of the recommendations adopted by the Seminar.

97.0 He expressed his gratitude to Hon Governor of Palawan, Joel T Reyes, the Hon Vice-Governor of Palawan, David M Ponce de Leon, and the Hon Mayor of Puerto Princesa City, Edward S Hagedorn, for their whole-hearted cooperation and hospitality in making the Seminar memorable one. He thanked all the invited speakers both from abroad and from within the Philippines. He thanked the BFAR for the cooperation extended during the three Phases of the Project and to the CUP for their dedication in bringing together all the resources needed for Project implementation.

98.0 In conclusion, Mr Sato recalled the remarks of Mr Shoji Uemura, Chairman of ICFO, at the opening ceremony. He said "We must seek to become great teachers who can inspires fishers and the people in the Philippines and contribute to the development of fisheries of this beautiful country." Mr Sato's speech is seen on Annexure 21.

99.0 Ms Socorro S Tan, Chairperson, Palawan Cooperative Union, spoke on behalf of the participants. She expressed her gratitude to the resource persons and the

Government of Japan and to CUP for their efforts in making the Seminar possible. She remarked “The knowledge we have obtained has given us more enthusiasm to do the best we can in any manner possible to manage our coastal resources.” She said the Seminar confirmed that the Philippines was one of the world’s richest nations in marine bio-diversity – a revelation that also meant a challenge and a responsibility.

100.0 Ms Tan said Palawan is famous for overwhelming its visitors with the “come back, come back” syndrome. She was sure outstation participants would want to return to this beautiful province. “We Palawenos wait to welcome you.” See Annexure 22 for her remarks.

101.0 The organizers and participants thanked the Palawan and the Manila Press for the coverage provided to the Seminar (press clippings on Annexure 23). They thanked the staff of the Legend Hotel, Palawan for the excellent arrangements and the courtesies extended to participants.

102.0 The Seminar participants and speakers were awarded certificates in appreciation of their participation and contributions to the proceedings.

Follow-up Meetings

103.0 Mr Felix Borja, Dr R Cabungcal, Mr Ed Gomolo, Ms Nancy Marquez, Mr Gloria Diaz, Ms Filipina Gohar, Ms S Tan, Mr M Sato, Mr Joaquin Cortez and Dr Y S Yadava took part in an informal meeting convened soon after the Seminar. Mr Sato expressed his satisfaction over the active participation of Seminar delegates. What was important now was to convert the Seminar’s recommendations into action. He commended the CUP’s strong initiatives and the BFAR’s strong support. “The MAFF representative was present not merely to participate in the Seminar, but to consider a new Project phase. The Seminar’s success had strengthened the positive impressions of the MAFF representative”. He said ICFO was grateful to the invited speakers for their excellent contributions and cooperation.

104.0 Mr Borja said that the sponsorship of Congressmen should be obtained in support of BFAR becoming a Department. The ‘Palawan Declaration’ should be submitted to the Committee on Fisheries in the Congress and also to all government departments. The CDA would be very willing to cooperate in the implementation of the ‘Palawan Declaration’. However, he felt that an assessment of fishery cooperatives in the country was necessary.

105.0 Ms Tan said that the Palawan Cooperative Union would continue to coordinate with CUP. It would also like to professionalize the management of cooperatives, which



needed managerial help and training at different levels. Seminar participants would have to tell members of the cooperatives what they learnt at the Seminar.

106.0 Dr Cabungal said that community - based coastal resources management was being implemented in Palawan. "Our efforts will be further strengthened through better understanding from this Training Project." He emphasized the need for a Fishery Office in the LGUs.

107.0 Ms Gohar said that BFAR was very supportive to the fishery cooperatives. The Director, BFAR, would be apprised of the outcome of the Seminar. She said that the National Anti-Poverty (NAP) Commission has urged the creation of a separate department for fisheries. The President herself chaired the Commission. "We have to demonstrate some doable projects and showcase them."

108.0 Mr Felix said that BFAR should play an important and aggressive role. The Department of Tourism could be contacted to support development of Caramay as a tourist destination. The Philippine Tourism Agency could be the funding agency. Mr Ed Gamolo said the present Project could be replicated in Mindanao Province. Mr Cortez suggested that BFAR could formulate a proposal for piloting Projects. The FAO could be approached for sourcing potential donors.

109.0 A wrap-up meeting was held at BFAR on 19 February 2007. Mr Benjamin Tabios, Ms Sandra Arcamo, Ms Gloria Diaz, Ms PI Gojar, Mr Felix Borja, Mr Sato, Dr Uwe Tietze and Dr Y S Yadava participated. It was suggested that the Phase Three Report should have a section on 'Follow-up Meetings'. Mr Joaquim Cortez should be requested to copy his back-to-office report to the FAO representative in Manila.



110.0 In the meeting with Mr Malcolm I Sarmiento Jr, Director, BFAR, Mr Sato said that the Seminar was a valuable exercise, which resulted in sharing of experiences, information, success stories, etc. It was suggested that BFAR, as one of main agencies to consider implementation of the 'Palawan Declaration' might consider preparing a detailed action plan for the purpose. Funding assistance for some of the action points might be sought from various UN Agencies (such as FAO) as well as donors (such as JICA) and financial institutions (such as ADB, etc).

111.0 It was also suggested that for assistance on a smaller scale (less than US \$ 30 000.00) the BFAR might send proposals to FAO Fisheries and Aquaculture Department through the FAO Representative in Manila. For larger projects including Technical Cooperation Program (TCP), the proposal would have to be routed through the FAO's focal point in the Philippines.

112.0 During discussions, it was suggested that after completion of activities (Project) in all the five countries, a round - up meeting could be held for selected participants from every country. The ICFO was requested to submit a proposal to MAFF for possible funding of such a consultation. It was also agreed that every country should have a focal point and set up a working group to ensure good follow-up of activities. In the case of Philippines, it was agreed that there would be one focal point in the CUP and one in BFAR. Mr Samiento said that Ms Jessica Muñoz would be the focal point from BFAR for coordination and follow up action in future.



2 The Palawan Declaration

THE PALAWAN DECLARATION

of February 15, 2007
at Puerto Princesa City
Province of Palawan, Philippines

We, the concerned leaders of fishery cooperatives of small-scale fishers in coastal villages in the Philippine archipelago, together with our equally concerned officials from the International Cooperative Fisheries Organization (ICFO) and the Cooperative Union of the Philippines (CUP), before representatives of government and peoples' organizations assembled at the Legend Hotel, Palawan solemnly **declare** –

That, we stand united and committed to safeguard the coastal and other bodies of water from pollution, over-exploitation and abuse;

That, we take this responsibility to preserve the God-given bounties of the seas, lakes, rivers and other fishery and aquatic resources for the food security of the present and future generations;

That, we commit genuine cooperation with government in the fight against illegal fishing, destruction of corals, reefs and natural sanctuaries of fishes and other forms of marine and aquatic life;

That, we shall uphold and help enforce fishery laws, rules and regulations in the pursuit of our livelihood in the coastal waters; and

That, to achieve these aspirations we urge government and all its instrumentalities to heed and implement the following:

RESOLUTIONS & RECOMMENDATIONS

1. Nationwide adoption by the Local Government Units (LGUs) of the ordinances now being implemented by the provincial government of Palawan on coastal resource management (CRM), as follows:
 - a) Provincial Ordinance No 941, as amended by Provincial Ordinance No 946, series of 2006; to wit:
Providing for a sustainable integrated regulation of live fish industry, imposing certain conditions for the catching, trading and shipment of live fish out of the province, providing penalties for violations thereof and for other purposes.
 - b) Resolution No 6001-05
A resolution banning the use of compressors as breathing apparatus in all fishing activities in the Province of Palawan and prescribing penalties for violations thereof.
2. A resolution requesting the upgrading of the Bureau of Fisheries and Aquatic Resources (BFAR) to a Department of Fisheries and Aquatic Resources to reckon with the enormous fishery resources and the attention it deserves as a major contributor to the economy.
3. A resolution requesting the National Mapping Resource Information Authority (NAMRIA) to provide technical assistance to the LGUs in demarcating the 15-kilometer municipal waters declared off-limits to commercial fishing boats with gross-tonnage of more than 3 tons immediately and require the Department of Budget and Management to allocate funds for the purpose.
4. A resolution urging LGUs to allocate tax collected from the fishery sector to the CRM project and the development of fishery infrastructure and facilities.
5. A resolution requesting the Cooperative Development Authority (CDA) to provide technical assistance and capability-building support to fishery cooperatives and their federations.



6. A resolution requesting the league of provinces to adopt ordinances that will strengthen or enhance conservation, protection and rehabilitation efforts and initiatives of community-based fishery cooperatives in the management of fishery resources.
7. A resolution requesting the Department of Education (DEPED), Technology and Skills Development Authority (TESDA) and the Commission on Higher Education (CHED) to integrate fishery resource conservation and management in appropriate courses in their curricula.
8. A resolution requesting the Department of Agriculture and the CDA to establish and maintain a database on fishery cooperatives, their products and services.
9. A resolution to provide incentives and encouragement for women to participate in CRM and Fisheries and Aquatic Resources Management Councils (FARMCs) or similar bodies at all levels.
10. A resolution to establish strong linkages amongst cooperatives and with institutions, NGOs and peoples' organizations that can provide critical marketing support.
11. A resolution urging LGUs to give priority to fishery cooperatives in the allocation of funds and other resources for fisheries resource management.
12. A resolution urging the Government Financial Institutions (GFIs) and other fund sources to open windows for loans to fishery cooperatives for their fishery and livelihood projects.
13. A resolution to urge Food and Agriculture Organization (FAO) of the United Nations and other inter-governmental fishery bodies and donors to assist the cooperatives in strengthening their skills and capabilities in community-based fisheries and coastal resources management.
14. Resolution urging the Cooperative Insurance System of the Philippines (CISP) and Philippine Assurance Cooperative (PHILAC) to establish insurance services to fishery cooperatives to protect their assets, life, and other risks.
15. Resolution urging the LGUs to create a separate regional, provincial, city and municipal fishery office and allocate funds therefor.
16. A resolution urging the LGUs to give the management of the municipal waters and fish terminals to qualified fishery cooperatives to enhance the livelihood of small-scale fishers and eradicate all forms of illegal fishing and abuse of fishery resources.
17. Resolution urging the Philippine Navy and the Philippine Coast Guard to give immediate action and special attention to the rescue of fishermen, their boat and equipment.
18. Resolution urging the government to adopt the "principle of subsidiarity" in true letter and spirit, thus ensuring empowerment, social justice and equity.

Done by the participants, resource persons, representatives from LGUs, government and private institutions in the **ICFO/ CUP Seminar for the Promotion of Community-based Fishery Resource Management by Small-scale Fishers in the Philippines** held at The Legend Hotel, Palawan, Puerto Princesa City, Philippines on February 15, 2007.

Attested by:



FELIX A BORJA
Secretary General
Cooperative Union of the
Philippines (CUP)



MASAAKI SATO
Secretary
International Cooperative Fisheries
Organization (ICFO)



Annexure 1

List of Participants

NAME & POSITION	OFFICE & ADDRESS	TEL, FAX, CELL, EMAIL
AGUSTIN, ANTONIO Fishery Cooperative Coordinator/ Executive Officer	Cooperative Union of Ilocos Sur, Vigan, Ilocos Sur, Philippines.	Tel: +77 7221509 Cell: +917-3865536
AGUSTIN, JOHNNY Fishery Cooperative Coordinator/ Executive Officer	Ilocos Norte Cooperative Union, San Nicolas, Ilocos Norte, Philippines.	Tel: +77 7812359 Cell: +919-3806408 Email: <i>agustincpa@yahoo.com</i>
ALVAREZ, YOLANDA Chairperson	Balabac Fishermen Multi Purpose Cooperative, Balabac, Palawan, Philippines.	Cell: +915-3378819
ARCA, EDMUND Special Project Coordinator	Fatima Multi-Purpose Cooperative, Vigan, Ilocos Sur, Philippines.	Tel: +77 7221792
ARCAMO, SANDRA VICTORIA Director	Fisheries Resource Management Division, Bureau of Fisheries and Aquatic Resources, 3 rd Floor, Philippine Coconut Authority Building, Diliman, Quezon City, Philippines.	Tel: + 632 9294894 Cell: +921-9718700
BORJA, FELIX Secretary General	Cooperative Union of the Philippines, CUP Building, Alejandro Roces Avenue, Mother Ignacia Street, Quezon City, Philippines.	Tel: +632 413-1602/03 Cell: +921-2314145 Fax: +63 2 373 2171
BROQUEZA, RENATO Chairman	Provincial Capitol Employees Cooperative, Trece Martires City, Cavite, Philippines.	Tel: +46 4193127
CABUNGAL, FELINA Officer in Charge, Fishery Division	Office of Provincial Agriculturist, Puerto Princesa City, Palawan, Philippines.	Tel: +48 433-2976
CABUNGAL, ROMEO Chairman	Palawan Agri-Fisheries Employees MPC, Puerto Princesa City, Palawan, Philippines.	Cell: +920-5473841
CALO, JEAN Chairperson	Southern Palawan Livefish Catchers MPC, Rizal, Palawan, Philippines.	Cell: +920-2435111
CAMBA, EMILIANO Member, Board of Directors	Salinungan West Fishery MPC, Isabela, Philippines.	Cell: +920-9030045
CORTEZ, JOAQUIN Fishery Officer	Fishery Policy Division, Fisheries Department, Food and Agriculture Organization of the United Nations, Rome, Italy.	Email: <i>cortez.joaquin@fao.org</i>
CUARESMA, LEONARDO Member, Board of Directors	Brooke's Point Municipal Employees MPC, Brooke's Point, Palawan, Philippines.	Cell: +915-5190043
DELA CRUZ, EDUARDO Member, Board of Directors	Member, Board of Directors, Brooke's Point Municipal Employees MPC, Brooke's Point, Palawan, Philippines.	Cell: +916-3622232
DERECHO, RODOLFO Chairperson	Caramay Small Fishermen Producers MPC, Caramay, Palawan, Philippines.	
DESABELLE, BERNARDO General Manager	First Consolidated Cooperative Along Taňong Sea Board, Toledo City, Philippines.	Cell: +906-6857408
DIAZ, GLORIA Chief	National FARMC Program Management Center, Bureau of Fisheries and Aquatic Resources, 3 rd Floor, Philippine Coconut Authority Building, Diliman, Quezon City, Philippines.	Tel: +632 3725051 Cell: +920-9055452 Email: <i>jinzde@yahoo.com</i>



NAME & POSITION	OFFICE & ADDRESS	TEL, FAX, CELL, EMAIL
FABREGAS, CLARENCE Bookkeeper	Caramay Small Fishermen Producers MPC, Caramay, Roxas, Palawan, Philippines.	Cell: +928-6082958
FERNANDEZ, RENATO Acting Chairman	Bagong Siglo Ng Mga Mangingisda MPC, San Vicente, Palawan, Philippines.	
FERIDO, LOURDES Treasurer	DA Empls. Multi-Purpose Cooperative and Executive Officer, Palawan Cooperative Union, Puerto Princesa City, Philippines.	Cell: +917-3110054
GAMOLO, EDGARDO Vise-Chair for Mindanao	Cooperative Union of the Philippines, CUP Building, Alejandro Roces Avenue, Mother Ignacia Street, 1103, Quezon City, Philippines.	Tel/ Fax: + 63 2 413 1602 Cell: +928-3030485 Email: edgamolo@gmail.com
GOJAR, FILIPINA Sr. Aquaculturist	Bureau of Fisheries and Aquatic Resources, 3 rd Floor, Philippine Coconut Authority Building, Diliman, Quezon City, Philippines.	Tel/Fax: +63 2 919 8074 Cell: +921-2070297
GUZMAN, MICHAEL DE Project Consultant	Mother of Perpetual Help MPC, Hagonoy, Bulacan, Philippines.	Cell: +915-4022924
ICALLA, WALTER Member, Board of Directors	Masisit Fishermen's Cooperative, Masisit, Sanchez Mira, Cagayan, Philippines.	Cell: +920-8604043
ISHIDA, HIDEO Expert of Training/ Extension	DENR-JICA Office, 3 rd Floor, FMB Annexe Building, DENR Compound, Visayas Avenue, Diliman, Quezon City, Metro Manila, Philippines.	Tel/Fax: +63 2 455 5799 Cell: +921-517-9140 Email: hishida15@yahoo.co.jp
JARABELO, HENRY Chairman	Malampaya Sound Small Fisherfolks MPC, Old Guinlo, Taytay, Palawan, Philippines.	Cell: +918-7147337
JOVEN, ARISTON Chairman	Apurawan Fishermen Marketing MPC, Aborlan, Palawan, Philippines.	
LAGAZO, CAROLINE Member, Board of Directors	Demacro Multi Purpose Cooperative, Davila, Pasuquin, Ilocos Norte, Philippines.	Cell: +915-4332151
MANIA, HENRY Chairman	Masinloc Agricultural, Social and Industrial MPC, Masinloc, Zambales, Philippines.	Cell: +921-5700810
MARQUEZ, NANCY Chairperson	Philippine Federation of Women in Cooperatives, Quezon City, Philippines.	Tel: +63 2 4131602/03 Cell: +918-925-8697 Email: nancy_fm2000@yahoo.com.sg
MARQUEZ, JEZREEL Member, Board of Directors	Municipal Cooperative Development Council, Aborlan, Palawan, Philippines.	Cell: +927-8809755
MONTALLANA, ANTONIETO Manager	Pinoy Fishmart Multi-Purpose Cooperative, Quezon City, Philippines.	Cell: +921-2490870
MONZAGA, SANTIAGO Chairman	Dalas Asin Multi-Purpose Cooperative, Mariveles, Bataan, Philippines.	Cell: +918-5836447
MUNOZ, JESSICA Project Director	Fisheries Resource Management Project, 2/F, Estuar Building, 880 Quezon Avenue, 1103, Quezon City Philippines.	Tel: +63 2 4109990 Tel/ Fax: +63 2 3725008 Email: jmunoz@frmp.org
NASIL, ABDULKARIM Chairman	Bansalan Matangula Aqua-Based MPC, Balabac, Palawan, Philippines.	Cell: +926-3177374
OBANA, LINO President and General Manager	Abucay Multi Purpose Cooperative, Abucay, Bataan, Philippines.	Tel: +47 461 2351 Cell: +920-9068945
OMIPLE, RAYMUNDO Chairman	Quezon Fisherfolks Marketing MPC, Purik Amihan, Barangay, Alfonso XIII, Poblacion, Quezon, Palawan, Philippines.	Cell: +921-2112178



NAME & POSITION	OFFICE & ADDRESS	TEL, FAX, CELL, EMAIL
PERALTA, ABELARDO Member, Board of Directors	Brooke's Point Area Fishermen MPC, Brooke's Point, Palawan, Philippines.	Cell: +906-8079080
QUITALIG, LUISITO Chairman & Fishery Cooperative Coordinator	Samar State University Employees MPC, Catbalogan, Samar, Philippines.	Cell: +921-2144725
SABUGA-A, KAREN Municipal Agriculturist - In charge of Fishery	LGU Balingasag, Misamis Oriental, Philippines.	Cell: +915-5805510
SANTILLAN, RAMON Manager	St. Dominic Multi-Purpose Cooperative, Unisan, Quezon, Philippines.	Tel: +42 549 8432 Cell: +919-6229403
SANTIAGO, ARNEL Member, Board of Directors	Isabela Fishermen Multi Purpose Cooperative, Gaddanan, San Mateo, Isabela, Philippines.	Cell: +919-4770566; +918-3167941
SARIEGO, CONNIE Treasurer	Provincial Cooperative Development Office, Puerto Princesa City, Philippines.	Cell: +926-9450718
SATO, MASAOKI Secretary	International Cooperative Fisheries Organization of the International Cooperative Fisheries Alliance, C/o Zengyoren, 1-1-12 Uchikanda, Chiyoda-Ku, Tokyo, Japan 1010 – 8503.	Tel: +81 3 3294 9617 Fax: +81 3 3294 3347 Email: kokusai-sato@r6.dion.ne.jp
SEDA, ROMY Chairman	Triple Venture MPC, Brooke's Point, Palawan, Philippines.	
SENO, TIBURCIO Chairman	Pinagmanukan Fishermen & Marker Vendors MPC, San Vicente, Palawan, Philippines.	Cell: +916-8432136
SUAIB, NORRIAM Chairman	Brooke's Point Fisherfolks and Farmers MPC, Brooke's Point, Palawan, Philippines.	
SUZUKI, YUKIO Deputy Director	International Cooperation Division, International Affairs Department, Minister's Secretariat, Ministry of Agriculture, Forestry and Fisheries, 1-2-2 Kasumigaseki, Chiyoda-Ku, Tokyo, Japan.	Tel: +81 3 35028111 (Exten. 6756) Fax: +81 3 35028083 Email: yukio_suzuki@nm.maff.go.jp
TABIOS BENJAMIN Assistant Director for Administrative Services	3rd Floor, Philippine Coconut Authority Building, Diliman, Quezon City, Philippines.	Tel/Fax: +632 4263426 Cell: +91 84509387 Email: btabios@bfar.da.gov.ph
TAMPOS, LEMUEL Member, Board of Directors	Samahang Mangingisda Ng Balogo Centro, Masinloc, Zambales, Philippines.	Cell: +915-8250385
TAN, SOCORRO Chairperson	Rm 19, 2 nd Floor, Capitol Commercial Centre, Palawan Cooperative Union, Puerio Princesa City, Palawan, Philippines.	Tel: +63 48 434 2911 Cell: +917-3110075 Email: tan_ching013@yahoo.com
TATOY, TERESITA Chairman	PB-WISE Multi Purpose Cooperative, Port B+B171arton, San Vicente, Palawan, Philippines.	Cell: +919-5515313
TIETZE, UWE International Consultant	6345 Murray Court NW, Olympia, Washington, USA 98502.	Tel: +1 360 867 0252 Email: tietzeuwe@yahoo.com
TOBIAS, BONIFACIO Project Coordinator	Caramay Small Fishermen Producers MPC, Caramay, Palawan, Philippines.	Cell: +921-3892605
VALERIO, ISAGANI Vice-Chairman	Tabud Mandaragat Multi-Purpose Cooperative, Tabud, Bataraza, Palawan, Philippines.	Cell: +920-3830461
VERA, ANTONIO DE Chairman	Integrated Small Fishpond Owner and Lessee MPC, Binmaley, Pangasinan, Philippines.	Cell: +918-5569140
YADAVA, YUGRAJ Director	Bay of Bengal Programme Inter-Governmental Organisation, 91, St Mary's Road, Abhiramapuram, Chennai – 600 018, India.	Tel: +91 44 24936188 Fax: +91 44 24936102 Email: yugraj.yadava@bobpigo.org
YAMAO, MASAHIRO Professor	Graduate School of Biosphere Science, Hiroshima University, 1-4-4, Kagamiyama, Higashi-Hiroshima City, Hiroshima Prefecture, 739-8528 Japan.	Tel: + 81 82 424 7962 Fax: + 81 82 423 5329 Cell: +81 8019151756 Email: yamao@hiroshima-u.ac.jp



Hon Vice-Governor of Palawan and participants at the Opening Ceremony of the Seminar.

Annexure 2

Program

Date & Time	Program
February 11 (Sunday) 09:00 – 17:00	- Arrival and Registration
February 12 (Monday) 09:00 – 10:00	<p>Opening Ceremony</p> <p>Invocation - Ms Socorro S Tan Chairperson, Palawan Cooperative Union.</p> <p>National Anthem - Ms Concepcion A Villon Accountant, CUP.</p> <p>Opening Remarks - Dr Luisito M Quitaig Vice President of CUP for Visaya Region.</p> <p>Welcome Address - Hon David Ponce De Leon Vice-Governor, Palawan Province.</p> <p>Messages - Mr Masaaki Sato Secretary, ICFO for Mr Shoji Uemura Chairman, ICFO.</p> <p>- Mr Yukio Suzuki Deputy Director International Cooperation Division International Affairs Department Ministry of Agriculture, Forestry and Fisheries, Government of Japan.</p> <p>Presentation of Participants & Guests - Ms Nancy F Marquez Chairperson, Philippine Federation of Women in Cooperatives.</p> <p>Introduction of Keynote Speaker - Mr Felix A Borja Secretary General, CUP.</p> <p>Keynote Speech - Atty. Benjamin Tobias Assistant Director, Bureau of Fisheries & Aquatic Resources.</p>
10:00 - 10:15	- Tea Break
10:15 - 17:30	Plenary Session
10:15 - 10:45	<p>- Lecture No. 1: Results of Scoping Study for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines.</p> <p>- Dr Yugraj Singh Yadava, Director, Bay of Bengal Programme, Inter-Governmental Organization, Chennai, India.</p> <p>- Lecture No. 2: Introduction to Fisheries Resource Management in Japan and Selected Case Study Reports.</p> <p>- Dr Masahiro Yamao, Professor, Graduate School of Biosphere Science, Hiroshima University, Hiroshima-Ken, Japan.</p>
11:15 – 11:45	<p>- Lecture No. 3: Present and Future of Fisheries Co-Management in the Philippines – Issues and Strategies for Development.</p> <p>- Dr Uwe Tietze, Former Fishery Industry Officer, Fisheries and Aquaculture Department of FAO.</p>



Date & Time	Program
11:45 - 14:00	- Lunch
14:00 - 14:30	- Lecture No. 4: Key Elements Required for Promotion of Coastal Resource Management and Co-Management in the Philippines – Experiences from the Japan Bank for International Cooperation Project. - Ms Jessica C Muñoz , Project Director, Fisheries Resource Management Project, Bureau of Fisheries & Aquatic Resources.
14:30 - 15:00	- Lecture No. 5: Points to be noted from the Phase Two Study Implemented in Japan. - Ms Sandra Victoria Arcamo , Chief, Fisheries Resource Management Division, Bureau of Fisheries & Aquatic Resources.
15:00 - 15:30	- Lecture No. 6: Fish for Improved Sustainable Harvest - Mr Gerry T Silvestre , Chief of the Project, FISH (Lecture presented by Dr Romeo Cabungcal).
15:30 - 15:45	- Tea Break
15:45 - 16:15	- Lecture No. 7: Ensuring Responsible Fisheries: Monitoring, Control and Surveillance and Co-Management. - Mr Joaquin Cortez , Fishery Planning Officer, FAO of the United Nations, Rome, Italy.
16:15 – 17:00	- Discussions
17:00 – 17:30	- Formation of Groups for Discussion and Summing up
19:00 - 21:00	- Welcome Party
February 13 (Tuesday) 09:00 – 15:00 15:00 - 17:00	- Group Discussions - Finalization of Reports by the Groups
February 14 (Wednesday) 08:00 – 17:00	- Field Visit to Caramay Small Fisheries Cooperative, Roxas Municipality, Palawan.
February 15 (Thursday) 09:00 – 12:30	Presentation on the results of Group Discussions
12:00 – 12:30	Summing up by chair
12:30 – 14:00	- Lunch
14:00 – 15:30	- Filling up of the Questionnaire given by the Ministry of Agriculture, Forestry and Fisheries, Government of Japan.
15:30 – 16:30	- Presentation of draft recommendations
16:30 – 17:00	- Concluding Session

Master of Ceremonies: Mr Edgardo T Gamolo, Vice-chair of CUP



Annexure 3

Invocation

Ms Socorro Tan

Chairperson, Palawan Cooperative Union

Dear Lord, thank you for bringing us together in this Seminar for the **Promotion of Community-Based Fishery Resource Management by Coastal Small-Scale Fishers in the Philippines.**

Guide and direct us, as we go along in our sessions with the highest objectives to glorify You.

We humbly ask pardon for our many offenses and transgressions. Forgive us for not being so careful in the use of the countless blessings You gave us; for not doing anything to stop or even for our participating in wanton destruction of our natural resources, for not being vigilant in the protection, particularly of our coastal resources in which most of us here rely for our livelihood.

Enlighten our Participants, our Resource Persons, and the Organizers of this forum. Bless the people behind the International Cooperative Fisheries Organization, the Cooperative Union of the Philippines and the Palawan Cooperative Union.

May they continue to work together in harmony for the advancement of the cooperative movement.

Bless our leaders, may they recognize our efforts to be their partners in bringing about better lives to the Filipino people.

Lord, nothing good will result out of those efforts without You.

Thus, we offer everything in the sweet name of JESUS. AMEN!



Annexure 4

Opening Remarks

Luisito M Quitilig

Vice-Chairperson for Visayas, CUP

The active Secretary of the International Cooperative Fisheries Organization (ICFO), Mr Masaaki Sato; the Deputy Director of the International Cooperation Division, International Affairs Department, Ministry of Agriculture, Forestry and Fisheries of the Government of Japan, Mr Yukio Suzuki; speakers of the Seminar; our dynamic Secretary of the Cooperative Union of the Philippines (CUP), Engineer Felix A Borja; the Vice-Governor of the Province of Palawan, Hon David Ponce A De Leon; officers and members of the CUP; guests; ladies and gentlemen, good morning.

First and foremost, I would like to convey my earnest welcome and congratulations to all selected participants from the different parts of the country who opted to participate in this training program sponsored by the ICFO and the CUP.

Ladies and gentlemen, this Seminar is very timely and appropriate, as it will help in promoting community-based fisheries resource management in the Philippines and the beneficiaries will be the small-scale fishers who are engaged in coastal fishery activities.

The Seminar will also help strengthen the different fishery cooperative activities in the country, which will directly and indirectly help contribute in ensuring sustainable production, creation of employment opportunities and poverty alleviation of the mass-base. These are the basic considerations of this Program.

It is our hope that all the participants, as catalysts of development, will take full advantage of this Seminar in order to help uplift the socio-economic conditions of the common 'tao' (people) in particular and the nation as well.

Before I conclude, I would like to express on behalf of the officers and members of the CUP, my profound thanks and never-ending gratitude to the Government of Japan for funding this Program for without their support, this Seminar would not have been a reality.

Thank you once again and wish you all the best.



Annexure 5

Welcome Address

Hon David Ponce De Leon
Vice-Governor of Palawan

The Secretary of the International Cooperative Fisheries Organization (ICFO), Mr Masaaki Sato; the Deputy Director for International Cooperation Division of the International Affairs Department, Minister's Secretariat, Ministry of Agriculture, Forestry and Fisheries, Government of Japan, Mr Yukio Suzuki; Dr Yugraj Singh Yadava, Director of the Bay of Bengal Inter-Government Organization; Dr Uwe Tietze, former Fishery Industry Officer of the Fisheries and Aquaculture Department of the FAO, Rome; Mr Joaquin Cortez, Fishery Planning Officer of FAO, Rome; the Secretary General of the Cooperative Union of the Philippines (CUP), Mr Felix A Borja; Guests; Ladies and Gentlemen, Good Morning.



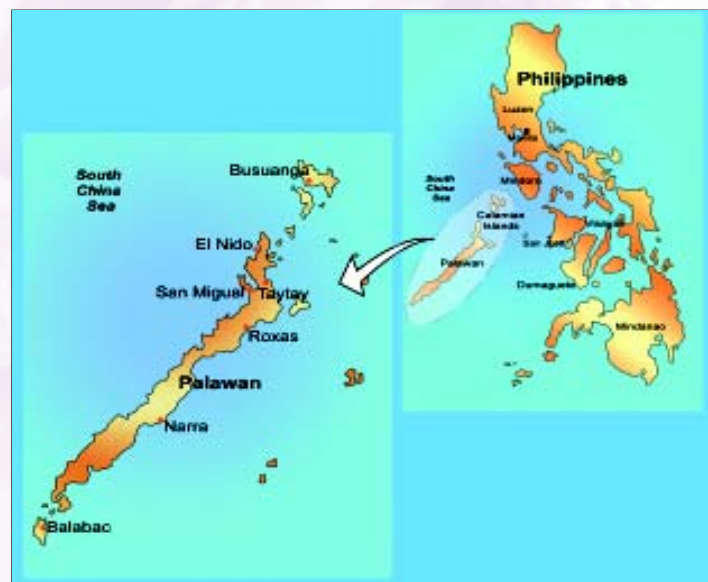
I am happy to represent Hon Joel T Reyes. On behalf of our Governor and the provincial government of Palawan, I would like to extend our gratitude to the ICFO and the CUP for choosing the province of Palawan as the venue and pilot area for this very laudable project - "Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines".

As you are aware, coastal management within the area of 15 kilometers is under the jurisdiction of the Local Government Units, particularly the municipal governments. This is specifically provided under the Fishery Code of the Philippines. All matters relating to the management and issuance of fishing permits for activities taking place within this area are the concern of our municipal government. But the experience in the province of Palawan is far from ideal. Our municipal governments are hard pressed in effectively enforcing fishery laws within the 15 kilometer area comprising the municipal waters. It is for this reason that the provincial government, along with the Bureau of Fisheries and Aquatic Resources (BFAR) and the Palawan Council for Sustainable Development, work hand in hand to augment the efforts of our municipal governments to protect our coastal resources.

I would like to inform you that this problem is very big and sensitive. You may know that the province of Palawan has the longest coastline. Out of the 7 100 islands in the country, Palawan has 1 700. The southern-most municipality of the province is just a few miles from the state of Sabah, Malaysia. In the North, the municipality of Busuanga is very near Mindoro. On the East, the eastern-most town of Cagayancillo is close to Antique province, which is also near Puerto Princesa City. And on the West, the 23rd municipality Kalayaan is right in the disputed Spratly's group of islands.

For this reason, the provincial government of Palawan, by way of legislation, provides appropriation for assisting our hard-pressed municipal government units insofar as fishery measures are concerned. I would like to highlight the fact that the provincial government has enacted and put in place two ordinances providing for penalties for illegal fishing and other violations to protect our coastal fisheries resources.

First, the provincial ordinance bans the use of compressors as breathing equipment for diving. The studies conducted by the Department of Health (DOH), the Department of Interior and Local Government (DILG) and the Department of Agriculture (DA) through the BFAR show that this is the favorite equipment of those involved in sodium cyanide fishing. Through the use of compressors, they are able to dive into coral areas to stun the fishes with sodium cyanide. The residual effect on the coral reef is tremendous. So we now have an ordinance that penalizes the use of compressors. Some sectors in the province are asking for exemptions; we are still in the process of studying these requests.



The second ordinance has enabled us to declare the possession of sodium cyanide, in any quantity, as illegal. We have put in place this ordinance based on the fact that sodium cyanide has no beneficial use in the province of Palawan. In some other provinces, perhaps, sodium cyanide is being utilized for fertilizer and for mining, but in the province of Palawan we have found that no industry uses sodium cyanide.

I would also like to point out that we have the provincial live fish ordinance that regulates the conduct of the live fish industry. The biggest threat to our coastal resources is the reckless behaviour of the live fish industry which, we all know, is a lucrative industry that earns millions of dollars. In fact, some live fishes caught in Palawan are brought to Manila and then exported to Hongkong and to other parts of the world. In this business, traders make the maximum profit. Some of them do not even pay the proper taxes.

This is on the economic side, but on the environmental side, the use of sodium cyanide is a practice many of them cannot resist. The provincial government therefore had to enact this ordinance to regulate the live fish industry. We also have put in place several environmental and marine protection laws such as the one for a marine sanctuary. We have to put in place open and closed seasons when fishing can be done and when no fishing can be done, identify the spawning period for the fish species and also identify the areas, which have been over-fished over the years.

These are our ordinances and I think we are the first to have them in the country. An ordinance that will regulate the live fish industry is very important because as I have said, if we allow the live fish industry to continue unregulated, it is likely that all species will be wiped out in a short period of time.

Last December, we declared a moratorium on the live fish industry. Why? Because 23 municipalities in the province of Palawan failed to enact their enabling law or ordinances, which will identify their sanctuaries, their fishing calendar and the spawning season. We told the industry that the compliance to the Provincial ordinance is mandatory within three months from the enactment of the ordinance and they have to come up with their local enabling ordinance. However, none of them complied with the directions.

Therefore, the provincial government was forced to stop its operations completely for two months, from November to December. As a result, the media criticized us for our indifference to the live fish industry. But we told them that this is the result of their failure to comply with the mandatory ordinance that we have enacted. We also told them that the live fish ordinance is the bible for their industry and cannot be ignored. So far, 15 municipalities have complied with the provincial government ordinance.

I would like to once again thank you for this very important Seminar. Our fishery resources are enormous and should not be exhausted by the indiscriminate catching of fish, whether through legal or illegal means. I feel a Seminar like this would positively contribute to the change in mindset, attitude, and conduct of our people and lead us to have more respect for the God-given bounty to the province of Palawan. The Seminar will also enable us to take good care of these resources in a way that we can utilize them sustainably. The present generation can benefit from it now and at the same time take care of these resources in a manner that the future generation would not be deprived of their use. I think the principle of inter-generational responsibility, as enunciated in that landmark case of *Rebosa vs Factoran*, is now being gradually imbibed and respected by the people of Palawan. We hope that helping our cooperatives and helping our people would in the end bring us closer to the ideal situation where we can benefit from our resources but at the same time protect them for future generations.

Once again, on behalf of the governor of the provincial government of Palawan, I thank you very much for holding this very important Seminar. We count this as one of the most important activities in the province of Palawan. And we thank you so much for taking your time to come to Palawan and may your stay be fruitful and pleasurable.



Annexure 6

Message for the Opening Ceremony

Shoji UEMURA
Chairman of ICFO

*M*agandang Umaga (good morning)!

I am Sato, Secretary of International Cooperative Fisheries Organization (ICFO). First of all, I would like to ask for your kind understanding. The Chairman of ICFO, Mr Shoji UEMURA, could not make it here today because of other commitments. He asked me to lead the Seminar. In this connection, kindly allow me to read out his speech on behalf of the ICFO of the International Cooperative Alliance.



Shoji UEMURA

- The Honorable David A Ponce De Leon, Vice-Governor of Palawan;
- The Honorable Guest Speaker who will be formally introduced later;
- Mr Yukio Suzuki, Deputy Director, International Cooperation Division, International Affairs Department, Minister's Secretariat, Ministry of Agriculture, Forestry and Fisheries (MAFF), Government of Japan;
- Our distinguished Foreign Resource Speakers:
 - Dr Yugraj Singh Yadava, Director of Bay of Bengal Inter-Governmental Organization, Chennai, India;
 - Dr Masahiro Yamao, Professor of Graduate School of Biosphere Science, Hiroshima University, Higashi-Hiroshima, Japan;
 - Dr Uwe Tietze, International Consultant on small-scale fisheries management and socio-economics, and former Fishery Industry Officer of the Food and Agriculture Organization (FAO), Rome, now residing in Olympia, State of Washington, USA; and
 - Mr Joaquin Cortez, Fishery Planning Officer, Fisheries and Aquaculture Department, FAO, Rome.
- Our presentors from the Bureau of Fisheries and Aquatic Resources (BFAR):
 - Ms Jessica Muñoz, Project Director, Fisheries Resource Management Project of BFAR; and
 - Ms Sandra Arcamo, Chief, Fisheries Resource Management Division of BFAR.
- Dr Luisito M Quitilig, Vice-chairman of Cooperative Union of the Philippines (CUP) for Visayas Region;
- Mr Edgardo T Gamolo, Vice-chairman of CUP for Mindanao;
- Ms Nancy F Marquez, Chair of the Philippine Federation of Women in Cooperatives;
- Officials of the BFAR and the Local Government of Palawan;
- Observers, participants and friends from the media;
- The Secretary General of CUP, Mr Felix A Borja;
- Palawan Cooperarive Union officers; and
- Fellow-Cooperators.

It is a great honor for me to address this opening ceremony on behalf of ICFO. ICFO has already conducted seminars in the past for leadership development of fisheries cooperatives in the Philippines, with budgetary support from the MAFF, Government of Japan. The first was in February 1990 in Bagio and the second one was in October 1997 at Puerto Azul, Cavite. We are happy to be here again to conduct the third seminar on a subject of global concern for small-scale fishers and for the food security of our people.

The first seminar in 1990 was entitled “National Planning Workshop on Leadership, Technology and Infrastructure Development in Fishery Cooperatives” and the second one in 1997 was “ICA/ CUP/ BFAR Workshop on Community-based Fisheries Management through Cooperatives”.

The Seminar we start today is the first to be assisted financially by the Government of Japan under the “Training Project for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in Asia” which is a revised version of the former “Training Project for Leaders of Fisheries Cooperatives in the World”, which has been implemented in the past 20 years.

Under the newly revised project, ICFO selects one country in Asia a year and implements three-phase programs, as follows:

- 1) A preliminary study: experts are sent to the country so selected;
- 2) A study visit to Japan: Selected fisheries cooperative leaders are invited to Japan; and
- 3) A seminar in the country selected.

In the Japanese fiscal year of 2006 (April 2006 – March 2007), ICFO selected the Philippines. We are pleased to report that we have completed the first two phases of the Project and we are now in Phase Three.

As you are well aware, the status of fish stocks in the world has been continuously declining over the years. According to FAO, more than 75 percent of the world’s major fish stocks have been either fully or over-exploited. Fisheries management in many countries is ineffective because of indiscriminate fishing operations and incomplete undertaking of resource conservation measures.

The 21st century is said to be the century of critical food, energy and environmental problems. Each of these, namely, food, energy and environment, is of critical importance to all of us now. Among others, food is the most important. If food is not available even for one week, people will start dying.

The world climate is changing and global warming is getting serious. The energy issue is important too. Both agriculture and fisheries must be promoted to satisfy the demand for food. Under the changing world climate, however, agricultural production will be precarious. A great deal has to be derived from the sea to help fill the gap in agricultural production. In order to use the potential of seas for food supply, it is necessary to use the seas wisely and ensure sustainable production.

It is on the basis of such a background that the revised project has been planned. The revised project is designed to promote community-based fishery resource management by small-scale fishers engaged in coastal fisheries and by their organizations (fisheries cooperatives), enhance their capacities, strengthen their activities. It will contribute to ensuring sustainable production, creation of employment opportunities and poverty alleviation. Because more than half of the fisheries production in the world is produced by small-scale fishers, and this sector provides employment opportunities for most of the world’s coastal villages, the project becomes all the more significant.

Ensuring a better life for fishers is one of the important objectives of the ICFO. To make this happen, strengthening of the economic power of fishers and their organizations, that is cooperatives, is essential. I would like to draw your attention to one of the resolutions adopted in the seminar held in 1997 in Cavite as follows:

“We request the Secretary of Department of Interior and Local Government to enjoin Local Government Units to observe the constitutional mandate of promoting and supporting cooperatives as instruments for social justice and economic development as enunciated under the Republic Act 6938.”

The Seminar starting today is in pursuit of that intent and direction. I hope that the Seminar will help strengthen the cooperative spirit of small-scale fishers of the Philippines so that they can enjoy a better quality of life and at the same time contribute to national food security and economic development in this beautiful country – Philippines.

In this Seminar, we expect to learn to lead, teach and guide our small-scale fishers from the coastal villages. Of interest is a quote from William Arthur Ward, an English philosopher who once said:

“The mediocre teacher tells
The good teacher explains
The superior teacher demonstrates
The great teacher inspires”

I understand that our participants in this Seminar are leaders of fisheries sector in the Philippines. Like our hero Dr José Rizal, why don't we follow his spirit and love of the country expressed in – MI ÚLTIMO ADIÓS (My Last Farewell):

“Adiós, Patria adorada, región del sol querida,
Perla de mar de oriente, nuestro perdido Eden !
A darte voy alegre la triste mustia vida,
Y fuera más brillante, más fresca, más florida,
También por ti la diera, la diera por tu bien.”

To paraphrase Rizal - - -

Por pescadores, Por pesca, por ti la daremos !

I pray for every success of the Seminar.

Thank you very much !

Shoji UEMURA

Chairman of ICFO

Read by **Masaaki Sato**

Secretary, ICFO





Annexure 7

Message for the Opening Ceremony

Yukio SUZUKI

Deputy Director

International Cooperation Division
International Affairs Department, MAFF
Government of Japan

The Hon Dave Ponce De Leon, Vice-Governor of Palawan; Mr Masaaki Sato, Secretary of the International Cooperative Fisheries Organization (ICFO); our distinguished Foreign Resource Speakers, Dr Yugraj Singh Yadava, Director of Bay of Bengal Inter-Governmental Organization, Chennai, India; Dr Masahiro Yamao, Professor of Graduate School of Biosphere Science, Hiroshima University, Higashi-Hiroshima, Japan; Dr Uwe Tietze, International Consultant on small-scale fisheries management and socio-economics, and former Fishery Industry Officer of FAO, Rome; Mr Joaquin Cortez, Planning Officer, Fisheries Department, FAO, Rome; our presenters from the Bureau of Fisheries and Aquatic Resources (BFAR), Ms Jessica Muñoz, Project Director, Fisheries Resource Management Project of BFAR and Ms Sandra Arcamo, Chief, Fisheries Resource Management Division of BFAR; Dr Luisito M Quitlig, Vice-chairman of Cooperative Union of the Philippines (CUP) for Visayas Region; Mr Edgardo T Gamolo, Vice-chairman of CUP for Mindanao; Ms Nancy F Marquez, Chair of the Philippine Federation of Women in Cooperatives; officials of the BFAR and the Local Government of Palawan; Observers, Participants and Friends from the Media; the Secretary General of CUP, Mr Felix A Borja; Palawan Cooperative Union Officers; and Fellow-Cooperators Good morning,

It's a great honor for me to be present here today and say a few words, on behalf of the Ministry of Agriculture, Forestry and Fisheries (MAFF), Government of Japan, on this occasion of the Opening Ceremony of ICFO/ CUP Seminar for the Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines.

Our Ministry has a long history of collaboration with ICFO of the International Cooperative Alliance (ICA). From 1987 until last year, we have supported fisheries cooperatives to strengthen their capacity and develop the cooperative institutions in Asian countries through the trust fund for ICA.

In 2005, at the end of this 20-year cooperation, our Ministry and ICFO reviewed and discussed the results and tasks in marine fisheries. Based on our discussions with Mr Sato, Secretary of ICFO, we developed this new fishery resources management project for small-scale fishers in Asia. This Project started in this fiscal year and will be funded for five years by the Government of Japan.

In recent years, the decrease in fishery resources has posed serious problems to the world. We have to point out that over fishing is its main cause. We can see the expanding demand of fish, which comes from concerns about animal health problems such as BSE and avian flu and also from awareness about healthy diet. It is essential to maintain or restore fishery stocks to the level that can produce the maximum sustainable yield in the world. From this viewpoint, this Project has very important roles.

To carry out the Project, we would select one country per year, which has a high potential for conducting coastal community-based fishery resource management. After selection, the Project will activate its three components, which are (1) dispatching a team of experts to the country in order to study the current situation and to provide suggestions and advice, (2) implement a study visit on fisheries resource management



in Japan and (3) conduct a seminar for leaders of fishery cooperatives and administrative organizations to strengthen legal and institutional activities for the fisheries resources management in the country. As you know, this Seminar in Palawan is the third one following two phases.

We recognize the importance of coordination between self-help activities of the fishery cooperatives and administrative institutions as the key element for effective implementation of sound fishery resource management. Japan and the Philippines have some similarities, if my understanding would be right: island countries surrounded by sea, eating a lot of sea food, so the fisheries sector is very significant. That is the reason why ICFO and we decided on the Philippines as the country for the first year of this Project.

Finally, on behalf of our Ministry, I would like to extend my thanks to Mr Borja, Dr Quitalig and Mr Sato, and all those who have extended their cooperation to prepare this Seminar.

I hope this Seminar will produce fruitful results, and lead to further sustainable development of fisheries in this beautiful country, the Philippines.

Thank you very much!





Annexure 8

Keynote Speech

Attorney Benjamin Tabios Jr
Assistant Director, BFAR

*F*irstly, congratulations are in order.

Congratulations to the International Cooperative Fisheries Organization (ICFO) of the International Cooperative Alliance (ICA) and its partner, the Cooperative Union of the Philippines (CUP) for having successfully conducted the first two phases of this Program. Thank you for making us a partner.

Congratulations to all participants for having recognized the need to participate in this activity. One of the aspects is the need to discuss community-based fishery resources management (CBFRM) and how to enhance it further. We learn from past experience and recognize mistakes made from it and then devise the means to avoid it lest we repeat history. This is how we enhance management.

The CBFRM is a system where local people and their communities organize themselves and take a center-stage role in identifying fisheries resources, and their development priorities, and implement a development paradigm which considers the people as both the means and the end of the management process.

Some others describe CBFRM as often opposed to the government-centered system where national government agencies (NGAs) take center stage in formulating policies, choosing appropriate management tools and deciding on their methods of implementing fisheries resources management programs. On the other hand, a community-based approach rests on the premise that the people who are actually using or exploiting a given resource, and who have gained first-hand information of such a resource from their daily interaction, are in the best position to protect and manage it.

There is no need to debate on this issue.

Both systems actually co-exist, harmoniously in our legal system. Our existing Local Government Code and Fisheries Code recognize the nature of our fisheries resources. They have made known the general policies on how to manage these and have provided the opportunity to the local community to implement this.

The CBFRM thus asserts the principle of local community empowerment while recognizing the importance of institutional and policy contexts in measuring its performance in harnessing local resources and using them productively, democratically and sustainably to meet community needs.

I understand that CBFRM has had a number of successful models in other Asian countries. In coastal areas of the Philippines, community-based coastal resources management or CBCRM has gained substantial successes since the early 1970s. It has now generated a broad movement that advocates peoples' participation and their empowerment, equitable access to resources and sharing of benefits from sustainable management. Through the years, CBCRM advocates and practitioners have been involved in various management activities that have put these principles into practice and have come to define the different aspects of the community-based approach to natural resources management. The modern lingo is to equate these as people empowerment.



Seminar participants at the Mariculture Demonstration Project of the Bureau of Fisheries and Aquatic Resources.

From that experience was derived our present methods utilized in CBFRM. Some assert that this is an old management method while others state that it is relatively new. I say it's been updated to suit newer realities. But for the CBFRM to be effective, flourish and expand, sufficient funding is a must for its sustainability.

Here lies the irony. The Local Government Units (LGUs) will most benefit from setting up an effective CBFRM. Yet not all LGUs set up their CBFRM. There are valid reasons. But these are not the only issues as you very well know.

But this I can safely say, the Bureau of Fisheries and Aquatic Resources will be there with you to be your partner in even becoming more adept and skillful at attaining the goals of CBFRM. Thus, we can confirm the following statements:

The purpose of the training project in the Philippines is to promote CBFRM by small-scale fishers engaged in coastal fisheries and by their organizations (fisheries cooperatives) to strengthen their activities, and help contribute to ensuring sustainable production, creation of employment opportunities and poverty alleviation.

It is hoped that the participants from national government/ LGUs, Fisheries and Aquatic Resources Management Councils, fishery cooperatives will study possible approaches for promotion of CBFRM, including considerations on appropriate legal and/ or institutional systems and measures, in the Philippines. It is aimed at helping build the capacity of fishers and their cooperatives for this purpose in cooperation with the government, or in other words, promotion of co-management. Phase Three will also take stock of the information and experiences of first two Phases of the Project.

With this 4-day Seminar, I believe the participants from the government, NGOs and the private sector (the fishery cooperatives/ associations) will be able to formulate long-term plans or recommendations in the implementation of a CBFRM in the Philippines.

It is hoped that this will further strengthen our fisheries cooperatives not only in fisheries resources management but also making them more sustainable and profitable as we attain food security for our people.

In all three phases, count us in.

Have a pleasant and successful Seminar!





Annexure 9

Results of Scoping Study for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines

*Yugraj Singh Yadava**

Summary

The speaker presented a broad overview of various approaches to fisheries management – relating to sustainable livelihoods, ecosystem-based fishery management and integrated coastal zone management. He says that whatever the approach, the stakeholders concerned need to agree on objectives and methods, and join hands in implementation.

The speaker suggested that effective fisheries management in the Philippines would require a close coordination between National and Provincial Governments. The task is apparently complex because many government ministries and departments with varied mandates and functions are involved, but the task is not insurmountable. What is needed an integrated national policy on marine fisheries that encourages fishers to tap under-utilised fishery resources, adopt conservation measures such as artificial reefs, promotes eco-friendly and sustainable coastal aquaculture, strengthens infrastructure facilities for fish landing and marketing, improves the socio-economic conditions of fishers, generates alternative employment opportunities for fishers, and modifies existing fisheries legislation.

1.0 Introduction

The Philippines archipelago is surrounded by the Philippines Sea from the east, the South China Sea on the west and the Celebes Sea on the south. The country is made up of 7 107 islands, covering a total area of 299 764 sq. km. Spanning 1 850 km from north to south, the country has a coastline of 17 460 km, total marine water area including the Exclusive Economic Zone (EEZ) of 2 200 00 sq. km and a shelf area (up to 200 meter depth) of 184 600 sq. km.

Philippines has a population of about 91 million. Its Gross Domestic Product (GDP) has been on the rise in recent years – from 3.2 percent in 2001 to about 6.0 percent in 2004. The country has vast fishery resources; fish production has gone up from 2.99 million metric tons (mmt) in 2000 to 3.93 mmt in 2004, recording an annual growth rate of 6.1 percent. In terms of value, production has risen to Pesos 138.8 billion in 2004 from Pesos 98.6 billion in 2000, an average yearly increment of Pesos 10 billion. The fishing sector has contributed 2.3 percent and 4.2 percent to the gross GDP at current and constant prices respectively.

The marine fisheries sector of the Philippines comprises municipal fisheries and commercial fisheries. Municipal marine fisheries operate in coastal waters within 15 km from the coastline (municipal marine waters), using vessels of ≤ 3 GRT, and even without vessels. The commercial fisheries operate outside the municipal waters, using vessels ≥ 3 GRT. During 2002, the fisheries sector employed a total of 1 614 368 fishing operators nation-wide (NSO 2002 Census for Fisheries), of which the municipal fisheries sector accounted for more than one million (1 371 676) operators. Commercial and aquaculture sectors added some 16 497 and 226 195 operators, respectively.

As a part of the 'Scoping Study,' a SWOT analysis (strengths, weaknesses, opportunities, threats) was attempted on the fisheries sector of Philippines. Table 1 presents the outcome.

* Director, Bay of Bengal Programme Inter-Governmental Organisation, 91, St Mary's Road, Abhiramapuram, Chennai - 600 018, Tamil Nadu, India.



Table 1: SWOT Analysis on the Marine Fisheries Sector of the Philippines

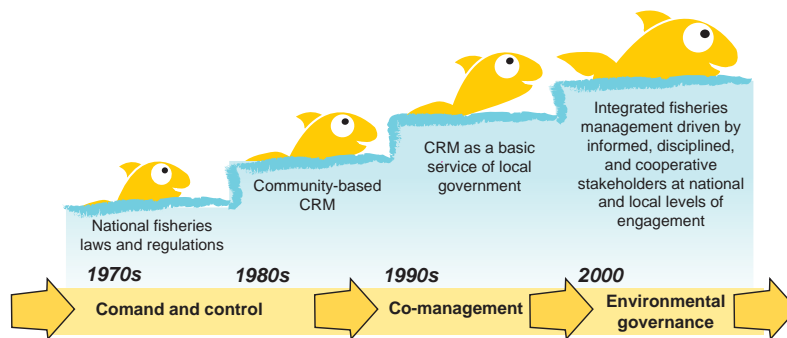
Strengths	Weaknesses	Opportunities	Threats
The marine waters are a hotspot of biodiversity, one of the richest in the world.	Depletion in the resource base (due to over-exploitation and open access conditions) of certain fish stocks (e.g. demersal fish).	High demand for fish and fish products regionally, nationally and internationally.	Some of the fish stocks (e.g. demersal) may have been depleted so severely as to upset the natural recovery mechanism (which is set in motion once fishing pressure is reduced).
The fish stocks are highly productive.	Limitations in the understanding of stock size and fishery resource dynamics.	If effectively tapped, the fishery wealth could create jobs and incomes and generate investment to boost the economy.	Most provinces in the Philippines are vulnerable to natural disasters such as typhoons. This may deter investments in infrastructure (harbours, jetties and associated onshore fish processing and storage facilities).
Fisheries are an important source of jobs and livelihoods for thousands of the coastal population and also in inland areas.	Lack of capacity within the BFAR and the LGUs (technical, managerial and financial) to implement management plans – in particular, those relating to resource assessments and fishing capacity regulations.	Fisheries management systems in the Philippines can benefit from the expanding knowledge database on the subject, and the many case studies worldwide, which provide valuable lessons and learnings.	Interventions have been unrelated to investments.
Fish is an important source of food supply and nutrition. It reaches both urban and rural markets through large-scale and small-scale marketing chains.	Many institutional weaknesses. Too many government bodies at different levels (national, provincial, municipal) influence the sector, poor coordination among them.	The process of decentralization can help in devolving power to the local administration.	Unrealistic expectations of the future could lead to discontent and social conflicts.
Export of high-quality and high-priced fish (e.g. tuna) earns valuable foreign exchange.	Political interference is counter-productive to effective regulation.	High demand and strong potential for development of new products and new markets.	Clamour for change among some stakeholders, resistance to change among others.
Strong cultural and family ties at all strata of society – from wealthy boat-owners to wage-earning fishers – create networks of support and cooperation.	–	The homogeneity in the society is an asset for taking quick decisions.	International trade barriers may limit export of fish.

2.0 Coastal resources management in the Philippines

Declining fish stocks, loss of biodiversity and fall in revenues and benefits from fisheries and coastal resources triggered the need for coastal resources management (CRM) in the Philippines. Starting from the early 1970s, resource management initiatives have evolved from command and control mode to environmental governance with large community participation and ownership (Figure 1).

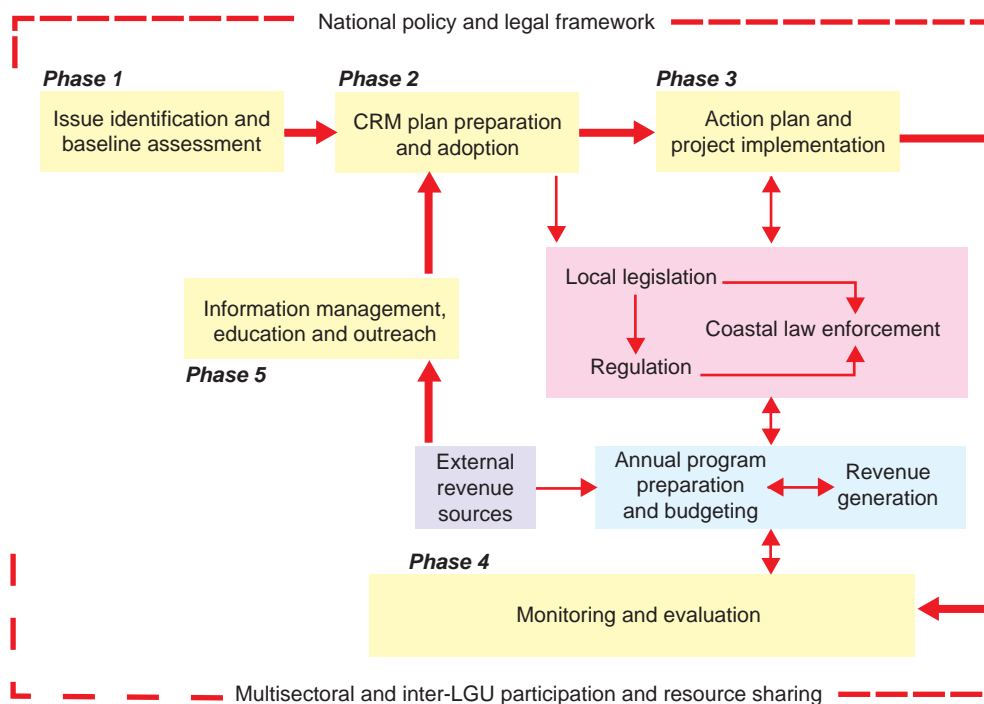


Figure 1. Evolution of resource management initiatives in the Philippines



The National and Provincial Governments, the Municipalities and the *Barangays* have all played important roles in the evolution of the CRM strategies in the Philippines and their adaptation to meet the local requirements. Figure 2 illustrates the coastal management planning process adapted by the Philippine local government.

Figure 2. Coastal management planning process



3.0 Community-based fishery resources management

The various approaches to fishery management include *sustainable livelihoods*, *ecosystem-based fishery management* and *integrated coastal zone management*. The broader principles of these approaches are largely consistent with the principles outlined in the 1995 FAO Code of Conduct for Responsible Fisheries. However, the challenge of all these approaches is to implement the principles they advocate and develop ways and means to make them operational. Trade-offs between different social, economic and ecological objectives of the fishery sector need to be considered, and stakeholders need to agree on what they are trying to achieve.



In the Philippines, as in most of the other South and South-east Asian countries, the marine fisheries sector operates in an 'open access – common property regime'. The term 'common property resource or CPR' is used variously to refer to property owned and defended by a community of resource users, to property owned by no one, and to property owned by a government. The persistent questions surrounding such property resources are (i) Who shall have access to them? and (ii) How can the resources be managed sustainably?

If Philippines is to ensure better management of fisheries through 'regulated access to fisheries,' it will need to engage a range of institutional actors at different levels and establish reliable mechanisms for communication and interaction between them. The key institutions are likely to be the Local Government Units that currently play an important role in fisheries management, including local-level conflict resolution; and the Bureau of Fisheries and Aquatic Resources that needs to develop its capacity as facilitator of management and as providers of technical advice in support of management decisions at different levels.

Besides regulated access to fisheries, management of CPR will call for a special emphasis on the sustainable use and conservation of the 'commons'. This brings up a number of legal and governance issues (including policy analysis): law and legal pluralism, conflict resolution, administrative and organizational problems and solutions, participation, collective action, social capital, appropriate technology, equity and efficiency.

Effective fisheries management in the Philippines will require a close coordination between national and provincial governments. This is apparently complex because many government ministries and departments with varied mandates and functions are involved, but the task is not insurmountable. What is needed is an integrated national policy on marine fisheries with the larger objectives of:

- encouraging fishers to exploit under-utilised fishery resources and reduce fishing pressure in inshore areas;
- augmenting aquatic resource production in inshore areas through conservation measures (fish refugias, marine protected areas), stock enhancement, and establishing of artificial reefs along the coast;
- promoting sustainable eco-friendly coastal aquaculture;
- strengthening infrastructure facilities for fish landing and marketing;
- uplifting the socio-economic conditions of fishers through welfare measures;
- generating alternate/ additional employment opportunities for fishers; and
- modifying existing fisheries legislation to suit present conditions.

3.0 Conclusion

Communities are the key to successful management of coastal resources. They may also be considered as the 'last frontier' in our attempts to manage coastal resources. The ideal approach to the development and management of fisheries resources lies in involving the community fully, establishing the 'principle of subsidiarity' and facilitating better inter-connectedness between fisheries and other sectors, by building new capacities, institutions and targeted investments.



Annexure 10

Community-based Coastal Resource Management and Its Development: Lessons Gained through Japanese Experiences

Masahiro Yamao¹

Summary

Describing Japan as one of the most successful countries in coastal resources management, the speaker gave an overview of the long history of community-based resources management (CBRM) in Japan. The unique character of fisheries management in Japan is borne out by the fact that traditional systems of local fishery resource management have evolved into a modern, formalized management system. Traditional and local knowledge about sustainable resources utilization has been applied to the management mechanism that currently prevails. As far as the Asia and the Pacific region as a whole is concerned, the speaker said that while numerous traditional management systems exist, which still work effectively, only a few have evolved into modern and formalized management mechanisms.

Decentralization is the key to CBRM in Japan, the speaker said. He gave an overview of the system at the national, prefecture and community levels. At the national level, legislation is passed and authority delegated. At the prefecture level, management areas are demarcated and coordination between regions is taken care of. At the community level, decisions are taken on ordinances and management plans are prepared. It was pointed out that at the community level, fishery cooperative associations play a fundamental role in coastal resources management and coordinate closely with their prefecture government.

The presentation went on to describe rights-based fisheries management in Japan. Marine fisheries are classified into three categories under the fisheries law – *i.e.* rights-based fisheries in coastal waters; licence-based fisheries in offshore and distant waters; and open fisheries, where no government permission is required.

Fishery Cooperative Associations (FCAs) play a crucial role in the management of rights-based fisheries. The speaker referred to three types of rights-based fisheries – set or fixed net fisheries, where fishing rights are allocated to individuals; the so-called demarcated rights fisheries, for mostly finfish, shellfish, seaweed and kelp culture, where fishing rights are allocated to both FCAs and individuals; and common fishing rights fisheries, which are allocated exclusively to FCAs. In the case of common fishing rights, fishers participating in FCAs have equal access to commonly owned fishing grounds.

As far as the role of FCAs is concerned, the speaker said that in addition to their management functions, they also play an economic role by conducting business activities for the benefit of their members through the supply of inputs, marketing, credit and other services. The speaker drew attention to the fact that at present, these multi-purpose FCAs were declining in number, as coastal fisheries faced stiff competition from imports, the fisher population was aging fast and there were signs of over-exploitation of coastal fisheries resources, particularly in the case of migratory fish species.

In the context of resource rehabilitation programmes, new types of so-called Fisheries Management Organizations (FMOs) in Japan were emerging. One example was the Wide-area Fisheries Coordination Committee (WAFCC). It functions as an inter-prefecture institution. It coordinates and resolves conflicts between member-prefectures. It reduces fishing effort through (a) the establishment of Total Allowable Effort (TAE) limits; (b) input controls such as gear regulations and closed seasons; and (c) stock enhancement measures.

¹ Professor of Hiroshima University. Graduate School of Biosphere Science, Hiroshima University, 1-4-4 Kagamiyama, Higashi Hiroshima, 739-8528, Japan.

1.0 Introduction

The failure of many top-down and centralized approaches in coastal resources management has sharpened the focus on participatory and decentralized management in many parts of the world, particularly in developing countries of Asia. Community-based coastal resource management (CBCRM) and co-management (CM) approaches are regarded as effective tools to achieve sustainable utilization of coastal resources, fitting in with local realities and the socio-economic conditions of coastal communities. It is widely acknowledged that Japan is one of the most successful countries in coastal resource management.

This presentation has two objectives. The first objective is to identify the mechanism of coastal fisheries resource management in Japan. The second is to learn lessons through Japanese experiences and to discuss whether it is possible to apply their unique approach toward CBCRM and CM methods elsewhere.

2.0 Decentralized Mechanism of Fisheries Management

The long history of CBCRM

CBCRM in Japan has a long history, deeply rooted in its culture and society. Traditional rules and customs were formalized and institutionalized during the long period from Meiji to Showa. FCAs were established to take the place of primary fishing communities, which had functioned as management bodies for coastal fisheries resources and fishing grounds. The fishing rights that were granted to FCAs were regulated as per fisheries laws enacted in 1949, after the end of the Second World War.

Is Japanese fisheries management unique?

Japanese fisheries management is considered unique, in that it has developed a participatory and decentralized mechanism that had traditionally functioned in fishing communities, and is successfully modified at regular intervals. Within a well-defined framework of fisheries management, local fishers and their organizations have made many efforts to create their own local CBCRM and CM models. Such efforts are based on consensus. The objectives, target species and fishing methods that local fisheries management defines can vary according to the environment and resource conditions. Traditional and/ or local knowledge about sustainable resource utilization has been applied to management mechanisms currently prevailing in Japan.

In the Asia-Pacific region, there are many traditional fisheries management practices that work effectively. However, very few have evolved into modern management mechanisms, together with the enactment of fisheries laws and regulations. On the other hand, Japanese fisheries management systems, especially those that relate to resources and the fisheries economy, have adapted to changing circumstances.

Decentralization is a key concept

Fisheries law defines the overall objective of fisheries management as efficient and extensive development of fisheries without over-exploitation. To achieve this, Japanese fisheries management is made up of five levels of coordinating organizations (see Table 1). At the central level, the Fishery Policy Council (FPC) acts as the advisory body to design and formulate a fishery policy. The Fishery Act provides a simple and rough framework that directs local fisheries management toward sustainable use of coastal resources and sound development of fishing communities. It also sets up a fishery rights and license system.

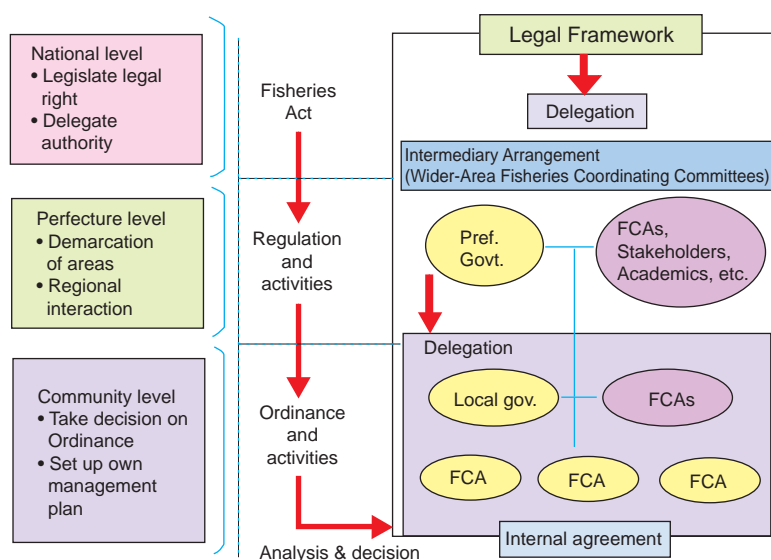
Table 1. Coordinating Organizations in Japan

Level	Organization	Functions
National Level	Fishery Policy Council (FPC)	Advisory body for central government. Coordination and design of national fisheries policy, etc.
Multi-Jurisdictional Level	Wide-area Fisheries Coordinating Committees (WFCCs)	Coordination of resource use and management of highly migratory species. Addressing resource enhancement and conservation plans.
Prefecture Level	Area Fishery Coordinating Committees (AFCC)	With participation of democratically elected fishers' representatives, they propose prefectural fisheries ordinances, coordinate fisheries conflicts, monitor fishing operations, and so on.
Local Level	Fisheries Cooperative Association (FCA)	With fishing rights granted, members themselves make management plan, regulate fishing activities, and enhance target resources.
Cross local level	Fishery Management Organizations (FMOs)	A wide variety of organizations. They set up particular rules and regulations, targeting special species

(Note) Modified from the table of Makino, 2004.

Figure 1 depicts the systematic decentralization mechanism in Japan, which consists of three tiers (national, prefecture and local levels). The WFCC stands between the national and prefecture levels. The Fishery Act amended in 2001 proclaims the establishment of an intermediary arrangement whose purpose is to coordinate resource use of highly migratory species and to adjust conflicts in fishing grounds. The WFCC is regarded as the intermediary institution.

Figure 1. Schematic representation of CBRM in Japan



At the prefecture level, the prefecture government has enacted a series of fisheries ordinances and regulations, with authority given by the central government. In reality, the prefecture government plays a decisive role in local fisheries management. The governor has the power to grant fishery rights and issue licenses to fishers, FCAs and fisheries enterprises. The AFCC consists of nine representatives of fishers, four academic specialists, and two representatives of public interests. The AFCC makes suggestions and recommendations on resource management plans, on management



and monitoring measures, on provision of fishery rights and licenses, and on demarcation of fishing grounds and aquaculture areas. All kinds of functions vital to fisheries management are implemented by AFCC. In other words, it functions with legislative, administrative, monitoring and surveillance powers.

FCA as a management unit

At the local level, the FCAs play a fundamental role in coastal resource management, coordinating with the prefecture government and the AFCC. Through participation in FCA's membership, fishers are involved in the planning, implementation and evaluation of management measures. Small-scale fishers engaged in coastal fisheries normally join the FCA membership, since the FCA is given a higher priority to fishery rights. The organization and activities of FCA are based on the community. Traditional CBRM has evolved into a FCA-based system at present.

As a management unit, the FCA is required to make rules on regulating fishing activities in its territorial coastal waters, with submission of fishing ground utilization plans. The rules are often attuned to traditional and customary laws. These rules and plans should follow fisheries ordinances and regulations proclaimed by the prefecture. Naturally, the prefecture government and AFCC should approve them.

Internal agreement of FCA

Besides the official rules for exercising fishing rights, members will create internal rules within the FCA, whenever achieving a consensus about how to use common-pool fisheries resources. There are some internal groups of fishers engaged in a particular type of fisheries. These groups often enter into internal and informal agreements over fishing methods employed, fishing seasons and total volume of catch. They try to resolve conflicts with other types of fisheries through negotiation and adjustment. Utilization of fishing grounds may be agreed upon among various groups to avoid conflicts. Such a consensus is normally formed on a voluntary and customary basis within a FCA.

The FCAs organize the decision-making process of fisheries management at the grassroots level. Members participate and then adjust conflicts over utilization of common-pool resources. They are the main management body and serve as the foundation of a participatory approach to implement management measures. They constitute the organization of fishers that represents a fishing community and links it to central and prefecture governments.

3.0 Rights-Based Fisheries Management and Role of FCAs

Classification of marine fisheries

In Japan, marine fisheries are classified into three categories under the Fisheries Laws:

- i) rights-based fisheries (fisheries are undertaken with fishing rights for coastal fisheries);
- ii) licenses-based fisheries (fisheries are undertaken with fishing licenses, mainly for offshore and distant water fisheries); and
- iii) free fisheries (no government permission is required).

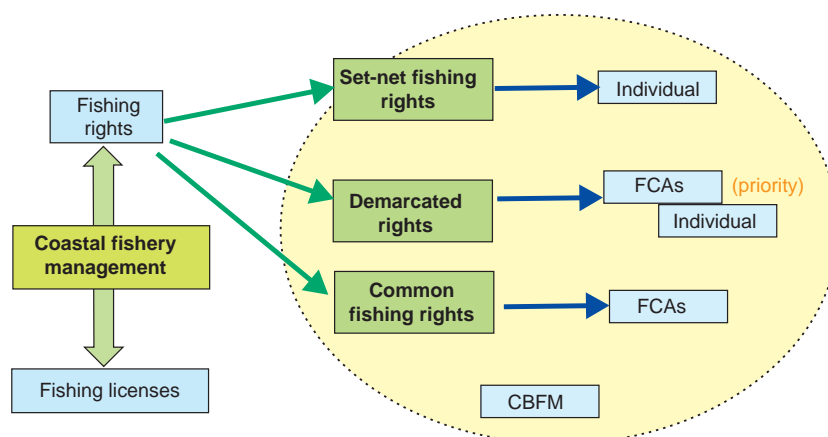
Besides the decentralized mechanism of fisheries management, yet another important component in coastal fisheries management is the system of licensing and fishing rights. Japanese fishing right is a kind of territorial use right in fisheries (TURFs), giving a particular group the right to fish in a well-defined demarcated zone. The prefecture government grants fishing rights to local FCAs and fishers; otherwise, fishers can hardly survive because of severe competition with others. They have the exclusive right to catch target species, but they are in turn responsible for sustainable use of resources.

Rights-based fisheries managed by FCAs

The FCAs play a crucial role in the management of rights-based coastal fisheries (Figure 2). Fishing rights are divided into three types;

- i) set (fixed) net right;
- ii) demarcated right; and
- iii) common fishing right.

Figure 2. Types of fishing rights



i) Set-net right

Any fixed net fishery shall not be operated without fishing rights. It is operated by fixed net, including those specified; over 27 meters deep at the highest tide at the deepest point of the place where the main net is fixed. Small-scale fixed nets are excluded. Target fisheries belong to the large-scale category. Normally, individual fishers own fixed nets.

ii) Demarcated right

Demarcated fishery right is mainly for finfish and shellfish culture (Figure 3). There are three types of culture according to its classification (see Table 2). Most aquaculture businesses belong to Type 1, including oyster, pearl, mother shell of pearl, seaweed, soft seaweed, kelp and fish cage culture. The aquaculture right is issued to individuals, companies and/ or FCAs. In fisheries law, both FCA and individual fishers can apply for grant of demarcated rights. In reality, however, FCA is given a higher priority of demarcated right application over individuals and companies.

This may be because FCA has a mechanism of delivering the granted demarcated rights to its members on an equal basis. It has been long thought that particular aquaculturists should not occupy common fishing grounds. If FCA does not apply for grants, individuals will be able to get demarcated rights within common fishing grounds.

Normally, the prefecture government decides the location of the demarcated zone, the species, the number of cages, the culture method and material, and occasionally marketing through consultation with FCAs and their members. Members who are aquaculturists participate in the decision-making process of demarcated zone management. FCAs monitor and control members' illegal activities and promote the introduction of environment-friendly technologies. The FCA's decisive function of aquaculture management is to rotate fishing ground utilization equally among members.

Type 1	Culture industry operated by submerging stones, tiles, bamboos or trees in demarcated areas.
Type 2	Culture industry operated in demarcated areas surrounded by barriers of soil, stones, bamboos or trees.
Type 3	Culture industry operated in demarcated areas other than those described under Types 1 and 2.

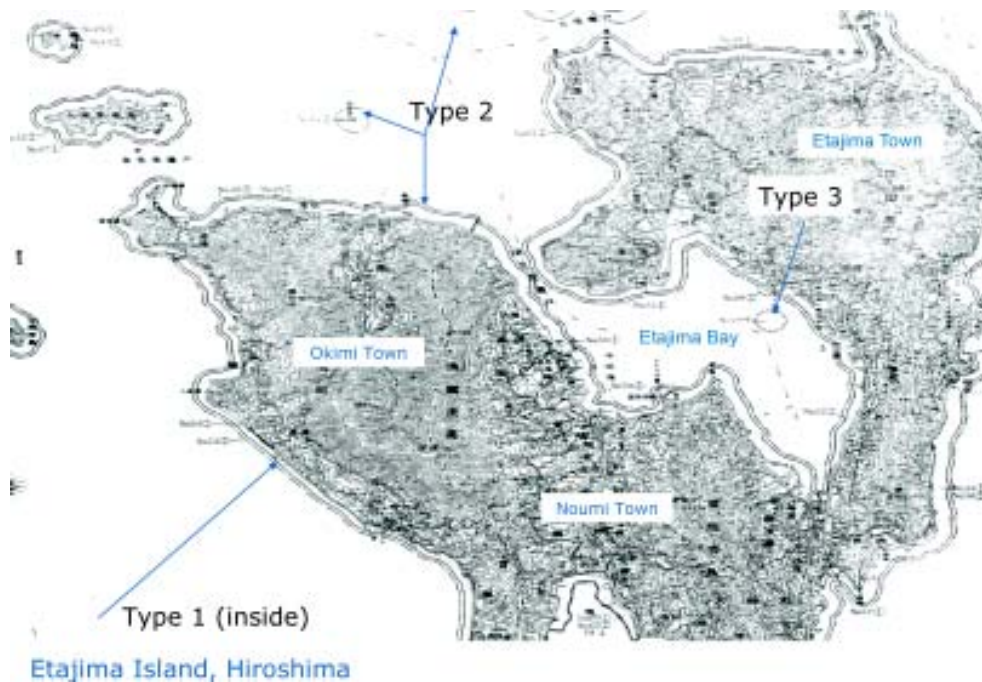
A detailed map of Etajima Island, Japan, highlighting various registered aquaculture zones. The island's topography is shown with contour lines. Several rectangular boxes outline specific cultivation areas, each labeled with a number (e.g., No. 200, No. 201, No. 202) and the type of culture (Oyster or seaweed). Two yellow callout boxes provide additional information: one points to area No. 200, stating "Registered No. type: seaweed", and another points to area No. 201, stating "Registered No. type of culture: Oyster". Labels for "Etajima Town" and "Etajima Island" are placed in the lower central part of the map. Surrounding waters are also marked with "Oyster" cultivation zones.

Common fishing rights are granted only to FCAs for exclusive use of fishing grounds and aquatic resources by their members. Fishers who are FCA members have equal access to commonly owned fishing grounds. There are five types of common fishing rights as set out in Table 3.

Type 1	To gather or take seaweed, shellfish or stationery aquatic animals as designated by the Ministry of Agriculture, Forestry and Fisheries.
Type 2	To operate submerging net gear including pond weir not to be moved and which is other than set net fishery.
Type 3	For beach seine fishery with scare fishes, hand operated trawl fishery by boat, angling by aid of baiting.
Type 4	For wintering mullet fishery or red sea bream fishery with sand lance by boat.
Type 5	In inland water or in waters like lakes as designated by the Ministry of Agriculture, Forestry and Fisheries.



Figure 4. Common fishing rights (Type 1 and 2)



Any coastal community has sea boundaries, as shown in Figure 4. FCAs are responsible for managing their own territorial fishing grounds. A single FCA is granted sole ownership of particular types of fishing rights. Several neighboring FCAs arrive at a consensus and establish agreement on how to use fisheries resources that are commonly owned. They share the resources. Fisher-members are allowed to catch fish within a wider united territory of the FCAs.

Fishing ground management

The FCAs have official rules for exercising fishing rights and informal agreement among resource users' groups. There are usually multi-types of fishing gear employed and a number of fisher groups are involved in various types of fisheries. Conflicts often occur among different groups. However, FCA provides an appropriate system under which these groups may avoid conflict and coordinate different interests.

Figure 5. Fishing grounds management (Inside common fishing right zone)



Figure 5 on pre-page shows that multiple gear are utilized in the same fishing grounds during the same season. It often happens that different fishing gear target the same species. Without any consensus on fishing grounds management, fishers would hardly implement fishing activities. This consensus is normally informal, which often originates from customary laws. Thus, resource users and stakeholders take part in the decision making process of fishing ground management, including deployment of artificial reefs and marine launching. This is a typical CBFM activity.

Double profile of FCA

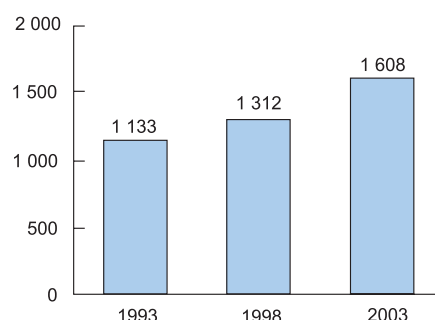
The FCA works as a management unit in coastal fisheries management, through which fishers' participation is increased. With fishing rights to exclusively exploit target species in a well-defined narrow locality, the FCAs control the rights-based fisheries. This is one profile. Yet another profile of the FCA is that of an economic organization whose members may fulfill their various demands by transacting business activities such as supply, marketing and credit services. At this moment, although the number of such multi-purpose FCAs is decreasing, they have so far provided meaningful economic services to members. Such an integrated approach toward sustainable use of coastal resources may reduce catch effort in a narrow fishing ground.

4.0 New Direction of the CBRM Approach

New types of fisheries management organizations

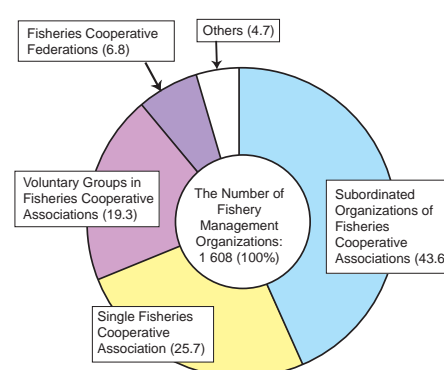
Besides the conventional and formal coordinating organizations such as FCAs, new types of fisheries management organizations (FMOs) have also matured to implement projects on "resource management type fisheries." Having secured partial financial support from the governments, fishers and FCAs have explored new management measures and extended them to other areas. As shown in Figure 6, the number of FMOs rose from 1 133 in 1993 to 1 608 in 2003. Not only conventional types of FMOs such as FCAs and their internal groups, but network-type groups too have implemented projects targeting particular species or specific kinds of fisheries. This means that the social and economic unit of fisheries management may alter its size and components, widening its coverage area and targeting larger groups of resource users. Inter-community based management and networks of FCAs have evolved into a new era of development. The proportion of fishery management organizations by operating bodies is shown in figure 7.

Figure 6. Change in number of Fisheries Management Organizations (FMOs)



The data for 1993 and 1998 were rearranged as the organizations which have a written agreement were surveyed since 2003

Figure 7. Proportion of Fishery Management Organization by Operating Bodies



Links between co-management mechanism and FCAs-based management

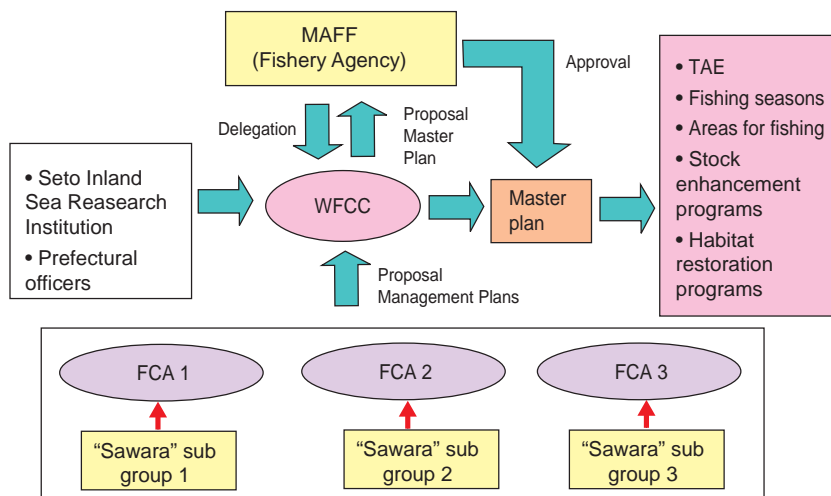
Japan started with a Resource Restoration Plan (RRP) in 2001 to rehabilitate collapsed fisheries resources such as Japanese Spanish Mackerel (*Scomberomorus niphonius*), namely *Sawara* in Japanese. The total catch of this species in the Set Island Sea was more than 6 000 tons at the peak in 1986, and then sharply declined to a few hundred

tons in 1998. This is mainly because of rapidly increasing catch effort with technological advances. *Sawara* is a highly migratory species in the Seto Island Sea, which a large number of fishers in several prefectures catch by using various types of fishing methods. Conventional types of fisheries management can hardly be managed in a responsible way. Neither FCA-based fisheries management nor a provincial-wide management network can effectively regulate fishers' behavior and rehabilitate this collapse of resource. There should be a wider area fisheries management mechanism in order to implement RRP activities.

Figure 8 shows a workable mechanism for the management of migratory species. A WFCC was established, which is regarded as an inter-prefecture institution. The AFCCs at the prefecture levels send their representatives. While coordinating and adjusting conflicts between member-prefectures, the AFCC reduces fishing effort through the establishment of TAE. It determines strict input control measures such as mesh size and closed seasons. Re-stocking is also implemented.

At the grassroots level, FCAs and their networks play significant roles in controlling fishing activities in their immediate fishing grounds. They often adopt their own management measures besides the rules and regulations decided by the AFCC. Moreover, fishers and FCAs increase their effort in stock rehabilitation by releasing juveniles, with financial support from local governments. Prefecture marine launching and hatchery centers assist local rehabilitation activities.

Figure 8. Framework of new management mechanisms for RPP: Case of Japanese Spanish Mackerel in Seto Island Sea



Source: Luis Oliva (2007)

In this mechanism, the FCA-based managements are linked to the co-management framework of resource management, in which local, regional and central levels share responsibility for migratory species.

Characteristics of CBRM

CBRM in Japan has three functions and facets.

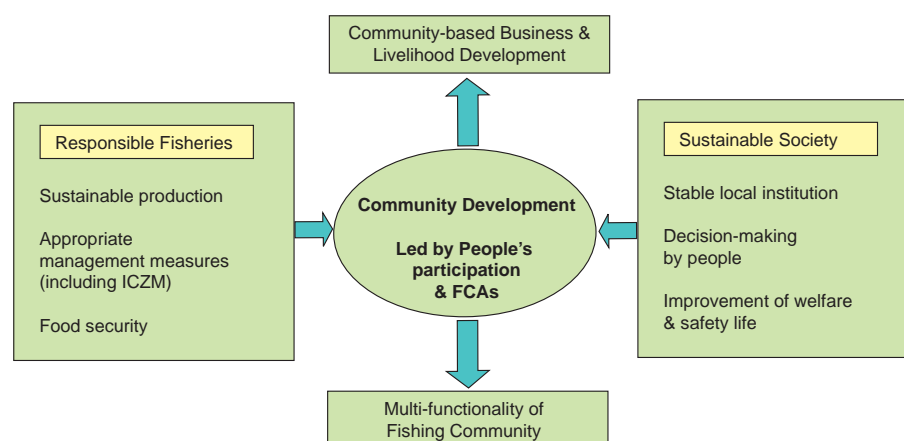
- i) The first is the ecological and conservation aspect of coastal fisheries resources..
- ii) The second is the economic aspect: fishers can maximize their profit by catching particular target species and marketing the catch. Resource management is one of the important tools of lucrative marketing.

- iii) The third aspect is social and cultural. CBRM secures equality and equity among local fishers and people in fishing communities. Its mechanism ensures a process of adjustment to avoid conflicts and enhancement of social unity by achieving a consensus on local rules and on enforcement to maintain them.

In the past, community-based organizations such as FCAs were at the core of community development, as Figure 9 shows. At the moment, however, the fisheries sector, including coastal fisheries, is caught in a sharp downward trend. Ever-increasing imports of fisheries products, and a stagnant fisheries economy, have both hit coastal fisheries.

The number of fishers has fallen sharply, the percentage of aging fishers has been constantly rising, the production structure in coastal fisheries is changing rapidly. The CBRM currently prevailing should reconsider its goals and alter its coverage area. This is one reason why new types of fisheries management organizations have emerged throughout the country.

Figure 9. CBRM for Community Development



5.0 Conclusion

Like any other Asian country, Japan has developed its own community-based models for coastal resource management and socio-economic development. With local indigenous knowledge and experiences on sustainable use of common-pool resources to back them, fishers and local communities have developed customary laws and continuously modified them in tune with changes to the environment and to the resource.

Fishing communities have accumulated fisheries management know-how – relating to organization, rule-making, arbitration, conflict resolution, enforcement, and punishment. Management has been transformed. FCAs and FMOs are at the core of coastal fisheries management. This has helped both resource sustainability and livelihoods.

But even more innovative approaches should be developed to suit domestic concerns and current fisheries realities. This is the lesson from coastal resource management in Japan as well as in other parts of Asia.

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Squid from Aomori Province, Japan.



Annexure 11

Present and future of fisheries co-management in the Philippines – issues and strategies for development

*Uwe Tietze**

Summary

The speaker gave an overview of the importance of coastal zones and resources in the Philippines. He pointed out that two-thirds of all provinces, municipalities and *barangays* as well as two-thirds of the population are located in the coastal zone, which is the base for major industrial, commercial, social and recreational activities. Fisheries and fish farming play a significant role in the economy – they account for 3.7 percent of the GDP and 5 percent of the total labour force of the Philippines.

The speaker went on to highlight the negative impacts of urbanization, industrialization and population increases on coastal and marine resources. These include depletion of resources in municipal waters, the use of destructive aquaculture and fishing methods, pollution and contamination of coastal waters, degradation of coral reefs, mangroves, sea grass beds and other crucial habitats. As a result of these developments, 80 percent of coastal fisherfolk live below the poverty line.

An overview of the constitutional and legal framework of fisheries and coastal resource management in the Philippines followed. The framework includes the 1987 Constitution, the Local Government Code of 1991, the Fisheries Code of 1998, the Agriculture and Fishery Modernization Act of 1997 as well as multilateral agreements.

This was followed by an overview of past and present fisheries and coastal co-management programmes such as the Central Visayas Regional Project; the Fisheries Sector Programme; the Coastal Environment Programme; the Coastal Resources Management Project; the Community-based Coastal Resource Management Project; the Fisheries Resources Management Project and the JICA-funded *Bantay Dagat* Programme.

These programmes have promoted policies and strategies in support of the co-management of fishery resources – such as decentralization of management to municipalities, fishing communities and their organizations; strengthening of enforcement through municipal-based inter-agency law enforcement teams; community-based initiatives to rehabilitate coastal resources and environment; diversification of livelihoods to sources of income other than fisheries; and linking coastal and fishing communities to training, extension, marketing, financing, infrastructure and other services.

Management interventions included the licensing of municipal fishing vessels through municipal fisheries ordinances; establishment and management of marine protected areas through community-based organizations in cooperation with Local Government Units (LGUs); limiting access to fishery resources through community property rights; the use of the Philippine Fisheries Information System for information, education and communication purposes and the involvement of universities and colleges in aquatic resource and social assessments.

The speaker went on to specify criteria for the successful participation of fisherfolk organizations and cooperatives in co-management. These included homogeneity and mass participation; business management skills; democratically elected, controlled, strong and devoted leadership; equitable distribution of benefits among members; multipurpose functions; demand- and performance oriented infrastructure; financial, training and technical support from central and local government agencies; execution

* International Consultant (Small-scale Fisheries Management & Socio-Economics), 6345 Murray Court NW, Olympia, WA, USA 98502.

of government-sponsored coastal and fisheries-related conservation and rehabilitation programs through fisherfolk associations/ cooperatives and the granting of fishing rights through LGUs based on the principle of eligibility and performance.

After highlighting future challenges to community-based fisheries and aquatic resource management in the Philippines, the speaker concluded his presentation by identifying important elements of future co-management of aquatic and coastal resources. These include the strengthening of Fisheries and Aquatic Resource Management Councils (FARMCs) at all levels and integrated management of contiguous water bodies such as bays; the promotion of economically viable and environmentally friendly fishing, fish farming, preservation and processing practices; micro-enterprise development and microfinance/ credit support to livelihood diversification; infrastructure and investment support to fisherfolk organizations and cooperatives; strengthening of fisherfolk organizations/ cooperatives for participation in co-management and improvement of socio-economic status of members; introduction of mutual insurance services; improvement of safety-at-sea programmes and linking fisheries and aquaculture to early warning systems for natural disasters.

1.0 Impact of urbanization, industrialization and population increase on coastal zones and aquatic resources

The Philippines has a coastline of 17 460 km. About two-thirds of all provinces, municipalities and *barangays*, as well as two-thirds of the entire population, are concentrated in the coastal zone of the country.

The coastal zone is also the base for major industrial, commercial, social and recreational activities. Among the economic activities carried out in the coastal zone, the fisheries sector plays an important role. In 2005, the fishery sector contributed Philippine pesos 116 billion or 2.1 percent to the GDP of the Philippines in current prices¹. In 2003, the Philippines ranked 8th among the top fish producing countries in the world with a total production of 4.16 million metric tons of fish, crustaceans, mollusks and aquatic plants like seaweeds.

Employment in fishing and fish farming: 1 614 368 persons are involved in fisheries in municipal waters extending up to 15 km offshore, while 16 497 fishers are engaged in commercial fishing activities in waters beyond 15 km. In addition to those who take part in fishing operations, 226 195 aquaculturists engage in various types of farming of fishes, mollusks, seaweeds, sea cucumbers and other aquatic organisms.

The concentration of the population in the coastal zone and the related urbanization and industrialization had negative impacts on the coastal and aquatic environment, ecology and resources. Pollution and contamination of coastal waters is widespread. Deforestation in watersheds has led to coastal erosion and siltation of coastal streams and waters. Only five percent of coral reef areas in the Philippines are still in an excellent condition. Sixty percent of mangrove areas have been lost over the last four decades. Many sea grass beds, which serve as nursery grounds for many fish species, have disappeared. In many places, destructive aquaculture and fishing methods are being used. Overfishing and depletion of aquatic resources can be observed in most municipal waters.

2.0 Fisheries and coastal management policies: the legal framework²

The national policy and legal framework for coastal management consists of national laws, administrative issuances and international treaties and agreements that define

¹ Philippine Fisheries Profile 2005, BFAR, Manila, Philippines, 2006.

² Muñoz, J.C.: Fisheries and coastal resource management in the Philippines. In: Guidelines on the collection of demographic and socio-economic information on fishing communities for use in coastal and aquatic resource management (FAO Fisheries Technical Paper 439), pp 81-96, FAO, Rome, 2004.

or guide management responsibilities for coastal resources. As a basic service of local government, coastal management incorporates all the local government powers and responsibilities, which include planning, protection, legislation, regulation, revenue generation, enforcement, inter-governmental relations, relations with people and NGOs as well as extension and technological assistance.

At the apex of the hierarchy of laws governing fisheries and coastal management is the 1987 Constitution. The following sections of the Constitution provide general guidance for the management and use of natural resources in the Philippines:

Article II, Sections 15 and 16: The State shall protect and promote the right to health of the people; the State shall protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature.

Article XII, Section 2: The exploration, development, and utilization of natural resources shall be under the full control and supervision of the State. The State shall protect the nation's marine wealth and exclusive economic zone and reserve its use and enjoyment exclusively to Filipino citizens.

Article XIII, Section 7: The State shall protect the rights of subsistence fishers, especially of local communities, to the preferential use of communal marine and fishing resources, both inland and offshore. It shall provide support to such fishers through appropriate technology and research and other services.

Article XIII, Section 16: The right of the people and their organizations to effective and reasonable participation at all levels or to social, political, and economic decision-making shall not be abridged.

The Local Government Code of 1991 (RA 7160)

Coastal resources are important assets that should be managed properly by LGUs and their communities. Thus, the Local Government Code (LGC) of 1991, or Republic Act 7160, was enacted and implemented all over the country. The Code decentralized a considerable number of functions and responsibilities to the LGUs (municipal and provincial). The Code puts the LGUs at the forefront of fisheries management within the 15 km limit of coastal waters. The LGUs implement laws for the majority of activities that influence terrestrial and coastal marine zones. Under the LGC, legislative powers are exercised through their respective local legislative councils.

The execution of the LGC is an event of major significance in local governance in the Philippines. It has tremendously enhanced the governmental and corporate powers of LGUs specifically in two important aspects, *i.e.* political autonomy and decentralization and resource generation and mobilization. The Constitution declares that local autonomy means a "more responsive and accountable local government structure instituted through a system of decentralization." Autonomy, however, is not meant to end the partnership and interdependence between the central government and LGUs; otherwise it might usher in a regime of federalism, which is not the intention of the Constitution. LGUs are subject to regulation, however limited, to enhance self-governance.

The LGC likewise emphasizes the role of LGUs with regard to sharing responsibility with the national government for the management and maintenance of ecological balance within their respective jurisdictions. It is in this context that the meaning of co-management of fisheries and coastal resources is to be interpreted. After all, among government units, it is the LGU that is closest to the people and has the authority to shape and reshape policies on resource utilization. The pertinent provisions of the LGC relate to the following:

- enhancement of the right of the people to a balanced ecology;
- provision of extension and on-site research services and facilities related to agriculture and fishery activities;
- provision of a solid waste disposal system or environmental management system and services and facilities related to general hygiene and sanitation;
- enforcement of forestry laws limited to community-based projects, pollution control laws, small mining laws and other laws on the protection of the environment;
- enactment and enforcement of necessary fishery ordinances and other regulatory measures in coordination with NGOs and people's organizations (POs) in the community;
- forging of joint ventures to facilitate the delivery of certain basic services, capability building and livelihood development.

All ordinances enacted and passed by the LGUs must be in accordance with the national fishery and environmental laws.

The Fisheries Code of 1998 (RA 8550)

The Fisheries Code is an act providing for the development, management and conservation of the fisheries and aquatic resources of the country. This Code is a consolidation and an update of prior laws related to fisheries. Some provisions are new and innovative while others reiterate or improve old ones. The Fisheries Code includes new prohibitions against electro fishing, blast and cyanide fishing, use of fine mesh nets, gathering of corals and use of so called “super” lights. It establishes coastal resource management as the approach for managing coastal and marine resources. The following policies are embodied in the Code:

- Achievement of food security as the overriding consideration in the utilization, management, development, conservation and protection of fisheries resources to provide the food needs of the population. A flexible policy towards the attainment of food security shall be adopted in response to changes in demographic trends of fish consumption, emerging trends in the trade of fish and other aquatic products in domestic and international markets and the law of supply and demand.
- Limitation of access to the fishery and aquatic resources of the Philippines for the exclusive use and enjoyment of Filipino citizens.
- Rational and sustainable development, management and conservation of fishery and aquatic resources in Philippine waters including the Exclusive Economic Zone (EEZ) and in the adjacent high seas, consistent with the primordial objective of maintaining a sound ecological balance and protecting and enhancing the quality of the environment.
- Protection of the rights of fisherfolk, especially of local communities, and giving priority to municipal fisherfolk in the preferential use of municipal waters. Such preferential use shall be based on but not limited to Maximum Sustainable Yield (MSY) or Total Allowable Catch (TAC) on the basis of resource and ecological conditions and shall be consistent with the Philippines' commitments under international treaties and agreements.
- Support to the fishery sector, primarily to municipal fisherfolk including the women and youth, through appropriate technology and research, adequate finance, production assistance, construction of post-harvest facilities, marketing assistance and other services. The protection of municipal fisherfolk against foreign intrusion shall extend to offshore fishing grounds. Fishworkers shall receive a just share for their labour in the utilization of marine and fishery resources.
- Management of fishery and aquatic resources in a manner consistent with the concept of integrated coastal area management in specific natural fishery management areas, appropriately supported by research, technical services and guidance provided by the state.

- Granting the private sector the privilege to utilize fishery resources under the basic concept that the grantee, licensee or permittee thereof shall not only be a privileged beneficiary of the state but also an active participant and partner of the government in the sustainable development, management, conservation and protection of the fishery and aquatic resources of the country.

Some provisions of the Fisheries Code relate to the following:

- enactment of appropriate fishery ordinances in accordance with the national fisheries policy;
- enforcement of all fishery laws, rules and regulations as well as valid fishery ordinances enacted by the municipal council;
- integration of the management of contiguous fishery resources/ areas, which must be treated as a single resource system;
- granting of fishing privileges to duly registered fisherfolk organizations/ cooperatives;
- ensuring that municipal waters are utilized by municipal fisherfolk or organizations/ cooperatives, except when an appropriate fishery ordinance is enacted to allow commercial fishing within the municipal waters in accordance with Section 18 of the Code;
- maintenance of a registry of municipal fisherfolk for monitoring fishing activities and for other related purposes;
- issuance of permits to municipal fisherfolk and organizations/ cooperatives that will be engaged in fish farming and/ or seaweed farming;
- granting of demarcated fishery rights to fishery organizations/ cooperatives for mariculture operation and
- provision of support to municipal fisherfolk through appropriate technology, research, credit, production and marketing assistance and other services.

Recognizing the need to involve LGUs as well as coastal communities in the management of coastal resources, the Fisheries Code supports the creation of Fisheries and Aquatic Resource Management Councils (FARMCs) at the national, regional and local levels. The three levels of the management councils are the National Fisheries and Aquatic Resource Management Council (NFARMC), the Municipality/ City Fisheries and Aquatic Resource Management Council (MFARMC/ CFARMC) and the Integrated Fisheries and Aquatic Resource Management Council (IFARMC).

The Agriculture and Fishery Modernization Act of 1997 (AFMA, RA 8435)

The AFMA adheres to the following principles: (1) poverty alleviation and social equity; (2) food security; (3) rational use of resources; (4) global competitiveness; (5) sustainable development; (6) people empowerment and (7) protection from unfair competition. The objectives of the AFMA are:

- to modernize the agriculture and fisheries sectors by transforming these sectors from a resource-based to a technology-based industry;
- to enhance profits and incomes in the agriculture and fisheries sectors, particularly among small farmers and fisherfolk, by ensuring equitable access to assets, resources and services and promoting higher value crops, value-added processing, agribusiness activities and agro-industrialization;
- to ensure the accessibility, availability and stable supply of food to all at all times;
- to encourage horizontal and vertical integration, consolidation and expansion of agriculture and fisheries activities, groups, functions and other services through the organization of cooperatives, farmers' and fisherfolk's associations, corporations, nucleus estates and consolidated farms and to enable these entities to benefit from economies of scale, afford a stronger negotiating position, pursue more focused, efficient and appropriate research and development efforts, and hire professional managers;



- to promote people empowerment by strengthening POs, cooperatives and NGOs and by establishing and improving mechanisms and processes for their participation in government decision-making and implementation;
- to pursue a market-driven approach to enhance the comparative advantage of our agriculture and fisheries sectors in the world market;
- to promote value-addition in the agriculture and fisheries sectors and the creation of innovative products;
- to further processing in order to minimize the marketing of raw, unfinished or unprocessed products;
- to adopt policies that will promote industry dispersal and rural industrialization by providing incentives to local and foreign investors to establish industries that have linkages to the country's agriculture and fisheries resource base;
- to provide social and economic adjustment measures that increase productivity and improve market efficiency while ensuring the protection and preservation of the environment and equity for small farmers and fisherfolk and
- to improve the quality of life of producers in all sectors.

These policies recognize the importance of fisheries for food security and underscore AFMA's goals for a sustained increase in production in the agricultural and fisheries sectors. AFMA seeks to increase the volume, quality, and value of fisheries production for domestic consumption and export through modernization, increased reliance on advanced technology and a market-based approach while giving due attention to the principles of sustainable development.

3.0 Fisheries and coastal management programs and interventions

Central Visayas Regional Project (CVRP), 1984 to 1990

The CVRP was implemented to establish approaches to natural resource management based on community participation, extending/ adopting project technologies, improving natural resource management and increasing the project participants' incomes. The project introduced innovative measures such as the watershed-based approach (upland to nearshore fisheries and coral reef areas) and community organization as the basis for natural resource management. It made an effort to provide security of tenure for resource users. The project promoted the rehabilitation of coastal resources through the establishment of fish/ marine sanctuaries, deployment of artificial reefs, mangrove forestation and restriction of fisheries exploitation.

High financial and economic returns were reported for the households in the project area. There were also high rates of technology adoption. The project was able to develop a cadre of trained local personnel on community-based natural resource management. Composite law enforcement teams (CLET) were formed to assist in the implementation of rehabilitation efforts. There was active collaboration among the agencies concerned with the project.

While there was a need for external staff and consultants during the project life to assure project sustainability, it was recognized that LGUs and NGOs had to be involved in implementing the CVRP and that the capabilities of the LGUs had to be strengthened. Problems were encountered because there was no legally authorized framework for common property agreement. The need to monitor and document processes was also underscored.

The CVRP experience established that fishing communities could be effective managers of coastal resources when given the opportunity. It was observed that habitat improvement implemented by the coastal community could enhance fishery resources and increase fishers' incomes and that stakeholder control over the resources would result in better utilization of such resources.

Fisheries Sector Program (FSP), 1990 to 1995

The FSP, implemented by the Department of Agriculture (DA) through the Bureau of Fisheries and Aquatic Resources (BFAR), aimed to: (1) regenerate coastal resources, rehabilitate the coastal environment and alleviate poverty among municipal fishers, particularly through diversification of their sources of income; (2) intensify aquaculture production — particularly for the benefit of domestic consumption — within the limits of ecological balance and (3) induce commercial fishing away from overfished nearshore areas into offshore waters. The components of the FSP were fishery resource and ecological assessment, coastal resource management, income diversification, research and extension, law enforcement, credit and infrastructure. The programme was implemented in 12 priority bays for CRM and six priority regions for aquaculture. The 12 bays were Manila Bay, Calauag Bay, San Miguel Bay, Tayabas Bay, Ragay Gulf, Lagonoy Gulf, Sorsogon Bay, Carigara Bay, San Pedro Bay, Ormoc Bay, Sogod Bay and Panguil Bay. The six priority regions were Regions 1, 3, 4, 5, 6 and 9. The program gave wider latitude to LGUs in making institutional and operational arrangements. It laid the groundwork for future resource management projects and programs.

The program reported an increase in the household incomes of local fishing communities attributed to non-fishing livelihood activities. It promoted resource rehabilitation activities such as fish sanctuary establishment and mangrove reforestation, which also served as focal points for community participation.

In line with the provisions of the LGC, fishing ordinances were enacted in order to strengthen the law enforcement capabilities of the LGUs. Local interagency and multisectoral resource management councils (bay management councils) were created in the 12 bays. Fisherfolk organizations and associations were also formed. CRM planning as a basic tool for resource management was adopted by the LGUs. The results of resource and ecological assessments (REAs) conducted in the 12 priority bays provided the scientific basis for formulating bay-wide management plans and for establishing a database. The higher level of awareness and knowledge of resource management enabled key stakeholders to actively participate in resource management activities. This proved to be a viable tool for the sustainability of activities in resource management.

The program sought to institutionalize CRM policy reforms at the local level while also pursuing changes at the national level. It should be noted that from the start, the program pushed for the formulation of a new fisheries code. Integrating various sectors and disciplines into the management framework gave better credence to the overall program and led to the synchronization of related activities into the national programs. However, the credit and alternative livelihood aspects of the program were hampered by difficulties in accessing the credit seed fund, which was channeled to government commercial banks. These banks followed their own lending procedures and this hindered immediate utilization of funds.

Coastal Environment Program (CEP)

The CEP of the Department of Environment and Natural Resources (DENR), which started in 1993, aimed to institutionalize CRM within its organizational structure, based on principles of sustainable development, biodiversity and resource sharing. It also aimed to strengthen the link between the upland ecosystem and the coastal ecosystem under a watershed-based management approach. The CEP was being implemented throughout the country through DENR's regional and provincial activities.

For its success, the CEP was banking on the sharing of responsibilities for the management of natural resources with other stakeholders, especially the local communities and LGUs. At the local level, it worked through a decentralized structure.

Coastal Resource Management Project (CRMP), 1995 to 2004

The CRMP of the DENR sought to improve national policies and laws on CRM and increase awareness of CRM problems and solutions. The project was implemented in six learning sites — Palawan Province, Davao del Sur Province, Olango Island, Cebu Province and Sarangani Province.

The policy component of the CRMP focused on promoting national policies that would improve coastal management throughout the country. The information, education and communication (IEC) component supported all aspects of the project through various IEC activities. Multisectoral collaboration among government agencies, the private sector, civic groups and the government to promote education and awareness on CRM was also encouraged.

The CRMP acquired a “state-of-the-art” knowledge of CRM implementation. Its IEC component actively engaged in awareness and education campaigns. The project was able to integrate CRM into the national policy agenda, as manifested by its active participation in the conference of municipalities. The project also spearheaded the multiagency group that every other year chose the municipalities that had adopted the best CRM practices.

Community-based Coastal Resource Management Project (CBCRMP), 1998 to 2003

The CBCRMP of the Department of Finance was conceived to reduce rural poverty and environmental degradation through support for locally generated and implemented natural resource management projects. These objectives were pursued through: (1) enhancing the capacity of low-income rural LGUs and communities to plan, implement and sustain priority natural resource management projects; (2) strengthening central government systems to transfer finance and environmental technology and improve the implementation of environmental policies and (3) providing resources to LGUs to finance natural resource management projects. The CBCRMP was implemented by the Department of Finance through various partner agencies, *i.e.* DENR, DA, BFAR, DILG (Department of Interior and Local Government)/ LGA (Local Government Academy), BLGF (Bureau of Local Government Finance) and NEDA (National Economic Development Authority).

These partner agencies implemented the project through their existing regional and local staff in areas where sub-projects were being undertaken. The CBCRMP adopted the demand-driven approach. LGUs were encouraged to submit proposals for sub-projects on natural resource management and livelihood development. These sub-projects were prioritized to respond to local situations.

This approach allowed the LGUs to take the driver’s seat in project implementation. Sub-projects are being implemented in Regions 5, 7, 8 and 13. The national and regional agencies together with the LGUs monitored and evaluated the status of the sub-projects.

Fisheries Resource Management Project (FRMP), 1998 to 2007

The FRMP of BFAR addressed two critical issues — fisheries resource depletion and poverty among municipal fisherfolk. The project focused on reversing the trend of fisheries resource depletion by controlling illegal fishing and overfishing. The project adopted a gradual approach that (1) reduced the level of user competition by restricting new entrants to municipal fisheries through fish licensing; (2) reduced fisherfolk’s reliance on fishing by promoting income diversification, which reduced fishing time and changed fisherfolk from full-time to part-time fisherfolk and (3) facilitated the gradual exit from fishery of some fisherfolk, although slowly and in limited numbers, by promoting mariculture and the development of other commercial enterprises in the long-term.



Fishers from Caramay, Palawan.

The project exemplified the government's switch in emphasis from higher capture fisheries production to fisheries resource protection, conservation and sustainable management. It reflected the demand of municipal fisherfolk for public assistance to protect their basic livelihoods and the national and local government's concern over poverty and environmental degradation. The project was based on the foundations laid down by the FSP and the various programs initiated by local communities and LGUs.

The FRMP covered 100 municipalities in 18 bays – Calauag Bay, San Miguel Bay, Tayabas Bay, Ragay Gulf, Lagonoy Gulf, Sorsogon Bay, Carigara Bay, San Pedro Bay, Ormoc Bay, Sogod Bay, Panguil Bay, Honda Bay, Puerto Princesa Bay, Davao Gulf, Lingayen Gulf, Gingoog Bay, Butuan Bay and Sapián Bay. The three components of the project were (1) fisheries resource management, (2) income diversification and (3) capacity-building.

The fisheries resource management component aimed to strengthen fisheries regulations, rationalize the utilization of fisheries resources and rehabilitate damaged habitats. The interrelated elements of this component were data management, CRM planning and implementation, fisheries legislation and regulations, community-based law enforcement and nearshore monitoring, control and surveillance.

The income diversification component promoted income diversification for municipal fisherfolk by organizing self-reliant community groups, promoting microenterprises and supporting mariculture development.

The capacity-building component aimed to strengthen the capacity of executing and implementing agencies at the national, regional and local levels for fisheries resource management in the long-term. To achieve its objectives, the project adopted the two-tiered strategy of (1) providing training courses and seminars to implementers and (2) providing on-site coaching in actual project implementation.

The JICA-funded Bantay Dagat Program

The JICA-funded Bantay Dagat Program aimed to improve, conserve and manage the country's coastal marine fisheries and aquatic resources and to ensure food security and alleviate poverty. The program benefited over 35 000 marginal fishers from the municipal and small-scale commercial fisheries sectors nationwide. The program also helped with the acquisition and distribution of patrol boats and the introduction of innovative and eco-friendly fishing gear, and provided training in fishing technology, resource conservation and enhancement.

4.0 Fisheries management policies and interventions³

Fisheries resource management in the Philippines is sought to be implemented in a holistic manner. The interrelationships and interdependencies of the physical, biological, sociocultural, economic, legal and institutional factors affecting the entire ecosystem are recognized. The role played by coastal communities, government agencies, LGUs, NGOs, POs, FARMCs and other civic organizations is underscored. Various policies have been instituted to attain effective implementation of coastal resource management in the country. Some of the policies relevant to fisheries management are:

- decentralization of management of nearshore fisheries resources to municipalities and local fishing communities;
- strengthening of the enforcement of fisheries laws by organizing municipal-based interagency law enforcement teams composed of representatives from fisherfolk associations, NGOs, LGUs, the Philippine Maritime Police, the Philippine Coast Guard,

³ The policy framework for fishery and coastal resource management in the Philippines is described in: *Training Project for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines, Report of Phase One, ICFO, 200, p.46.*

- the BFAR, the DENR, the private sector and other concerned agencies/ institutions;
- promotion of community-based initiatives to rehabilitate, conserve and protect coastal resources;
- diversification of the sources of income of fisherfolk towards other income opportunities and
- expansion of extension services to form closer linkages between and among the fisherfolk, research institutes and other stakeholders.

Implementation of any single policy and intervention is only possible with the involvement of the coastal community. Often, an intervention serves as focal point for a group activity of the coastal community. Strong and knowledgeable local groups and organizations are needed to ensure the sustainability of the intervention.

Marine protected areas

The importance of coastal and marine resources for sustaining livelihoods is a paramount concern. However, degradation and destruction of these resources continue due to both natural and human-made causes. Several initiatives, especially in the Visayas and Mindanao, focus on the protection and the biodiversity of the marine ecosystem.

To ensure the continued existence of coastal resources for future generations, the government promoted the establishment of marine protected areas (MPAs). MPAs may be fish/ marine sanctuaries, marine reserves, marine parks or mangrove reserves. These are usually “no take” zones or regulated use zones.

The Fisheries Code embodies the establishment of MPAs in municipal waters, where applicable. The MPAs are usually implemented through community-based organizations (CBOs) formed at the *barangay* level. The CBOs are responsible for demarcating the area and enforcing regulations. The CBOs also coordinate management efforts with the municipal and national governments as well as with academic institutions and other partners. A prescribed general procedure in the establishment of MPAs is followed.

After about 20 years of experience and more than 400 MPAs all over the country, there is no consensus about how many MPAs have been successful. The lack of monitoring tools to assess the MPAs, especially at the LGU level, makes it difficult to evaluate the success or failure of MPAs.

Fisheries licensing

The Fisheries Code is very explicit in its provisions on the licensing system. Fisheries licensing is undertaken at two levels, *i.e.* national and local. The national government through BFAR issues licenses to commercial fishing vessels. The LGUs issue licenses to municipal fishing vessels. Licensing at the local level is embodied in the municipal fisheries ordinance (MFO) enacted by the municipal council.

Public consultations were carried out to discuss model municipal fisheries ordinances (MFOs), which were developed by the FRMP to guide LGUs in formulating their own ordinances. The enactment of MFOs will enable LGUs to implement policy reforms on regulating fishing efforts in areas within their jurisdiction. Through the MFOs, the LGUs will also be able to implement the licensing system for municipal fisherfolk.

Limited access fisheries

Traditionally, the country's waters are open to all fisherfolk. There is a perception that anybody can fish in any part of the country. This perception resulted in the overfishing of most bays and gulfs in the Philippines. In recent years, the concept of limited access by various means has been adopted by NGOs advocating community property rights (CPR) as the viable option for coastal resource management that benefits the most

marginalized fisherfolk. CPR places the community within the decision-making process in the implementation of coastal resource management.

Tambuyog, an NGO that advocates CPR, has started CPR projects in Malampaya Sound, Palawan; Pagapas Bay, Batangas; and Orion, Bataan. Tambuyog has also worked with many local NGOs and POs to spread the concept of CPR.

Information, education and communication (IEC)

Comprehensive IEC is a key element for successful community-based coastal resource management. Through comprehensive IEC, the goals, objectives and strategies of resource management are disseminated to all stakeholders, especially the target beneficiaries.

Most coastal communities lack knowledge of marine ecology and environmental conservation and management. Most fisherfolk think that resources are inexhaustible despite decreasing catch from capture fisheries. Existing IEC activities are not sufficient to disseminate marine resource management concepts throughout the country. A broad information and education campaign is needed to ensure effective and wider participation from coastal communities. IEC takes various forms such as print, radio broadcast and audio-visual. Education may be formal or informal. It is common for community-based resource management initiatives to start with a massive IEC campaign at all levels.

Effective IEC goes hand in hand with efficient data gathering, storage, analysis and application. The Philippine Fisheries Information System (PhilFIS) infrastructure is used by the FRMP for its IEC data collection, processing and dissemination activities. The PhilFIS is similarly utilized by NGOs, POs, the academic institutions and government agencies.

Marine and fisheries research

Marine and fisheries research aims to establish an accurate and reliable basis for the sustainable use and management of nearshore marine resources. A scientific basis is required for the rational utilization and management of fisheries resources. It is important, therefore, that data sets are available for the development of practical and technically sound CRM plans to be implemented in specific sites.

The cyclical process of CRM planning starts with gathering available information regarding the resources. Most surveys start with an initial rapid site survey, a more comprehensive survey follows. In both cases, information is collected on the status of the resources as well as on the existing social and institutional make-up of the sites.

The BFAR, working hand-in-hand with a number of state universities and colleges, local government institutions, local and international NGOs, is now conducting a resource and social assessment (RSA) of the bays and gulfs within the FRMP project. Coupled with the RSA is the development of a resource database within the PhilFIS. The CRMP has also initiated a data banking system in its six learning sites.

5.0 Criteria for successful participation of fisherfolk organizations and cooperatives in fisheries and coastal resource management⁴

In order to participate meaningfully and successfully in coastal and aquatic resource management and in FARMCs at various levels, cooperatives and other fisherfolk organizations should meet certain basic criteria, which ensure that they represent a significant number of fishers and fish farmers, that they are capable of furthering the economic and social interests of their membership and that they are organizationally sound and stable.

⁴ Regarding the role of fisheries cooperatives in community-based fisheries management in the Philippines, also refer to: Report on the ICA/ CUP/ BFAR Workshop on Community-Based Fisheries Management through Cooperatives, October 29-31, Ternate, Cavite, Philippines, ICA, CUP, 1997.

First of all, fisherfolk cooperatives should have a homogenous membership, which consists exclusively of fisherfolk and fish farmers and members involved in occupations that are directly related to fisheries and aquaculture. Fisherfolk cooperatives also need to ensure mass participation of fishers and fish farmers in the areas where they are operating and to represent the overwhelming majority of fishers and fish farmers and not just a few or a minority.

As far as organizational criteria are concerned, the leadership of a cooperative should be democratically elected and controlled. It should be strong. It should be devoted to carrying out its mandate. It is also essential that cooperatives acquire business skills, either through the training of members, who are already involved in running small-scale enterprises, or through recruitment of staff with business qualifications and experience or both.

The functions of a cooperative should be multi-purpose and preferably include the supply of production inputs for members, marketing and post-harvest functions and value addition, training, providing credit, microfinance and insurance services, linking members to the services of various local and national government agencies, establishing and maintaining linkages with academic and training institutions, NGOs, private enterprises, civil society and other functions.

A cooperative that performs such multi-purpose functions is well placed to participate successfully in coastal and fisheries management efforts as it is already accustomed to dealing with a variety of stakeholders and partners and to representing the particular interests and concerns of its members.

To participate successfully in community-based fisheries and coastal resource management, cooperatives also require infrastructure, financial training and technical support from national and local government agencies, so that they can carry out their multi-purpose functions successfully. The support to be provided by national and local Government agencies should be performance-oriented and demand driven.

The performance and demand criteria under which the support is to be provided should be jointly elaborated by government agencies and the Cooperative Union of the Philippines and its members. Execution of government-sponsored coastal and fisheries related conservation and rehabilitation programmes should be entrusted to fisheries cooperatives, which are capable of implementing such programmes.

Ultimately, fisheries cooperatives that have demonstrated that they represent a significant number of fishers and fish farmers, that they are capable of furthering the economic and social interests of their membership and that they are organizationally sound and stable, should be granted fishing rights through LGUs in their municipal waters. Community-based fishing rights are a solid foundation, on which fisheries cooperatives and their members can participate in the management and conservation of coastal and aquatic resources.

6.0 Future challenges

There are many future challenges to community-based fisheries and aquatic resource management in the Philippines. These include:

- declining fisheries production and loss of habitat;
- lack of viable alternative livelihood options;
- lack of participation of fishery users at various levels of decision making;
- lack of fishery resource management and enforcement capability of LGUs;
- lack of effective coordination between national and LGUs;
- insufficient budgetary support for co-management functions;

- lack of human resources at the local and national levels;
- absence of clear delineation of boundaries between municipalities;
- lack of harmonization of government policies on development and management;
- lack of coordination and overlap of functions of different agencies and
- continued population growth and pressure.

It is hoped that the ICFO seminar on 'Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines' will address these challenges and identify strategies and measures that can overcome these obstacles and contribute to the conservation and sustainable management of coastal resources in the Philippines.

7.0 Important elements of future co-management of aquatic and coastal resources

Based on past experiences, eight basic elements are identified. These should form part of future strategies and measures to overcome the above challenges and pave the way for sustainable community-based management of aquatic and coastal resources in the Philippines.

These elements include the following⁵:

1. strengthening of FRMCs at all levels and integrated management of contiguous water bodies such as bays;
2. promotion of economically viable and environmentally friendly fishing, fish farming, preservation and processing practices;
3. micro-enterprise development and microfinance/ credit support to livelihood diversification;
4. infrastructure and investment support to fisherfolk organizations and cooperatives;
5. strengthening of fisherfolk organizations and cooperatives for participation in co-management and improvement of the socio-economic status of members;
6. introduction and expansion of mutual insurance services;
7. improvement of safety-at-sea programmes and regulations and
8. linking fisheries and aquaculture to early warning systems for natural disasters.



⁵ Regarding the future of fishery resources management in the Philippines, refer also to: Training Project for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines, Report of Phase Two, ICFO, 2006, p.92.



Annexure 12

Key Elements in the Promotion of Fisheries Co-management in the Philippines: Experiences of the Fisheries Resource Management Project

Jessica C Muñoz*

Summary

The presentation commenced with an overview of the rationale and goals of the Fisheries Resource Management Project (FRMP). It was pointed out that the FRMP addressed two critical issues, *i.e.* fisheries resources depletion and persistent poverty among municipal fisherfolk. The overall long-term goals of the program were sustainable development and poverty reduction. The primary goal of the FRMP was to reverse fisheries resource depletion, a secondary goal to promote alternative employment.

The speaker pointed out that the FRMP covered new areas, which had not been covered by previous projects, *i.e.* Lingayen Gulf, Sapien Bay, Butuan Bay, Gingoog Bay, Honda Bay, Puerto Princesa Bay and Davao Gulf. In addition, the FRMP also worked in bays and gulfs where previous projects had operated. The presentation went on to describe the various components of the FRMP, *i.e.* use of the Philippines Fisheries Information and Geographic System; resource and social assessment; information, education and communication; coastal resource management planning and implementation, community organizing, promotion of micro-enterprises, mariculture development, training and on-site-coaching, consulting services and project management.

The speaker explained that the implementation arrangements of the FRMP include the project management office at the headquarters of the Bureau of Fisheries and Aquatic Resources (BFAR), project implementation units at BFAR regional offices, fisheries management units at Local Government Units (LGUs), FARMCs, peoples' organizations (POs), coastal communities, research institutions, NGOs and the private sector.

The speaker went on to elaborate on national policies on coastal and fisheries management. These included the Executive Order No 533 of 6 June 2006, which adopted integrated coastal management as a national strategy, and the so called *Ginintuang Masagaang Ani* for Fisheries Programmes (2005-2010), which provides national direction and the framework for sustainable utilization, development, conservation and management of the fisheries sector of the Philippines.

The presentation continued with an overview of specific interventions and activities carried out in the framework of the FRMP. This included the construction of watchtowers and training centres by LGUs, publication of newsletters by NGOs and LGUs, resource and social assessments, capacity-building measures and the formation of fisheries law enforcement and coastal watch teams and introduction of municipal licensing systems. The speaker also highlighted partnerships in advocacy with the private sector involving companies like San Miguel, United Robina, Filipinas Shell and Petron, which donated Philippine Pesos (P) 400 000 for FRMP-CRM activities in Davao Gulf.

In terms of income diversification, large-scale production of cassava, peanut, corn and coffee were highlighted as successes, as also the participation of women in livelihood projects. Examples were provided of resource rehabilitation projects for the establishment of fish sanctuaries and marine reserves and riverbank bio-engineering. The presentation concluded by highlighting major future challenges to sustainable coastal and fisheries management, *i.e.* the lack of capable manpower, appropriate budgets, continued support from LGUs and lack of a functional organizational structure to continue and sustain activities undertaken by the FRMP.

* Project Director, Fisheries Resource Management Project, 2/F, Estuar Building, 880 Quezon Avenue, 1103, Quezon City, Philippines.

1.0 Project rationale

The widespread destructive fishing and overfishing in municipal waters have threatened the sustainability of the resource base and the basic livelihoods of municipal fisherfolk. Since poverty among the fisherfolk is directly related to overfishing and resource depletion, it is necessary to address these issues simultaneously. The Project will set up fisheries resource management systems on the one hand; it will also establish savings-based and self-reliant community groups, promote micro-enterprises and support mariculture development, on the other. It is envisaged that overfishing will be reduced, fish habitats rehabilitated and destructive fishing activities controlled through these interventions.

2.0 Project objective and scope

The long-term goals of the Project are to achieve sustainable development of the fisheries sector and reduce poverty among municipal fisherfolk. The primary objective is to reverse the trend of fisheries resource depletion in municipal waters through the following:

- Establishment and implementation of comprehensive fisheries management systems to control overfishing and destructive fishing activities, and rationalize the utilization of resources;
- Pilot-testing of different approaches of developing alternative/ supplemental livelihoods to facilitate the gradual exit of municipal fishers from capture fishing and enhance their income-generating capabilities; and
- Strengthening of institutional capabilities of agencies involved in fisheries resource management, particularly the BFAR, LGUs, fisherfolk associations and cooperatives, and the Fisheries and Aquatic Resource Management Councils (FARMCs).

3.0 Project components

The Project comprises three components, namely (i) fisheries resource management, (ii) income diversification and (iii) capacity building.

(i) Fisheries Resource Management

This component aims to strengthen fisheries regulations, rationalize the utilization of fisheries resources, and rehabilitate damaged fish habitats. It aims to rationalize the utilization of fisheries resources through the following sub-components: (i) Philippine Fisheries Information System (PhilFIS), (ii) Coastal Resources Planning and Implementation, (iii) Fisheries Legislation and Regulation, (iv) Community-based Law Enforcement, and (v) Regional coordination through Monitoring, Control and Surveillance (MCS).

(ii) Income Diversification

This component is envisaged to provide municipal fisherfolk with supplementary income and reduce their reliance on fishing. It involves three inter-related activities: community organizing, promotion of micro-enterprises and support for mariculture development. This component consists of three major activities:

- Social preparation to organize fishers and coastal communities into self-reliant groups, associations, or cooperatives capable of mobilizing savings to finance micro- and small-scale enterprises;
- Preparation of fisher groups, associations or cooperatives for employment opportunities and businesses outside capture fisheries, where applicable; and
- Establishment of mariculture in selected and appropriate project sites with the aim of generating non-fishing employment.

(iii) Capacity-Building

The objective of this component is to (i) strengthen the capacity of the Executing Agency and Implementing Agency (EA/ IA) in Project implementation and (ii) build up the capacities of government agencies at the national, regional and local levels for fisheries resource management in the long-term. Training courses and seminars and on-site coaching will be provided to the implementers. Institutional assessments were done for the national and local implementers. The assessment was the basis for training and institutional development. This component used the following approaches:

- Use of Participatory Coastal Resource Assessment (PCRA) in organization of the community, fisheries resource management and micro-enterprise development;
- Partnerships with LGUs and NGOs to organize the community to implement fisheries resource management and micro-enterprise development; and
- Enhancement of the capability of the national agencies, LGUs, NGOs, people's organizations and coastal communities.

Geographically, the Project covers 18 priority bays, namely: Lingayen Gulf, Calauag Bay, Tayabas Bay, Ragay Gulf, San Miguel Bay, Lagonoy Gulf, Sorsogon Bay, Puerto Princesa Bay, Honda Bay, Sapián Bay, San Pedro Bay, Carigara Bay, Ormoc Bay, Sogod Bay, Davao Gulf, Panguil Bay, Gingoog Bay and Butuan Bay. The 18 bays cover 100 municipalities and 1 063 coastal *barangays*.

4.0 Assessment of Project benefits

The FRMP's approach to sustainable fisheries management, given the present state of coastal resources, includes the rehabilitation of damaged habitats. Resource enhancement projects (REPs) have been established and maintained in all of the 18 bays/ gulfs. These REPs consist of fish sanctuaries, mangrove reforestation and river rehabilitation projects. Management arrangements for these projects have been extensively discussed with the communities concerned and approved by their respective LGUs.

Post-project monitoring of project activities reported increase in fish catch in several project sites. Current average catch per trip is 2-5 kg – as compared to 1-2 kg prior to the establishment of the fish sanctuaries. In other areas, increase in catches outside the protected areas has been more pronounced; in Region 4-B (*Barangay* Binduyan in Honda Bay), 28 percent of the respondents now report an average catch of up to 10 kg per fishing trip. The same is true for 21 percent of respondents in Region 11, 20 percent in Region 5, 16 percent in Region 4-A and, 14 percent in Region 8. Using just 5 kg as the present average daily catch, estimated income of fishermen (at 15 fishing days at 5 kg/ trip and P50/ kg) is P 3 750/ month after the REP establishment, up from the estimated P 1 500 (15 fishing days x 2kg/ trip x P50/ kg) before the establishment of the REPs.

Fishermen in surrounding communities could also feel the spillover effects of these REPs. In the case of Honda Bay, average fish catch of fishermen in *barangays* surrounding the REPs improved their catch by 50 percent from 3 kg to 6 kg. The results are encouraging, given that the sanctuaries are relatively new. They also provide concrete evidence that protected areas, if managed properly, can indeed restore the fish productivity of near-shore waters.

Harnessing the cooperation of fisherfolk to the Project's goals and objectives is an essential component of FRMP. The FRMP design calls for the participation of selected NGOs to undertake community organization (CO) in 100 municipalities throughout the 18 priority bays covered by the project. The FRMP engaged the services of NGOs to organize fisherfolk into self-reliant groups and strengthen their involvement in community-based CRM and self-sustaining and savings-based micro-enterprises.



The 100 participating municipalities were grouped into 42 clusters of municipalities to facilitate community-organizing work. Benefits from CO work include increased stakeholder participation in CRM activities such as law enforcement and the establishment of REPs, and the formation of POs that focus on self-sustaining livelihood activities and community strengthening. A total of 15 096 fisherfolk have been organized to date with an estimated P 12 599 903 in savings mobilized.

PO-based livelihood activities are being implemented in the project areas. A total of 108 livelihood projects amounting to P 23.6 million were facilitated under the Project covering almost 3 300 beneficiaries. The activities most commonly pursued by POs were seaweed culture, milkfish cage culture, grouper cage culture, aqua-silviculture, fish processing and mud crab fattening/ pen culture of crabs. Please see table below.

FRMP Livelihood Projects

Type of Livelihood Project	No. of Projects	%	No. of Beneficiaries	%	Amount (Php M)	%	Average Cost/ Project (Php)
Seaweed culture/ Nursery	24	22	711	22	4.92	21	205 000
Cage culture of milkfish	17	16	376	11	5.16	22	304 000
Cage culture of grouper	15	14	286	9	3.66	16	244 000
Aqua-silviculture	11	10	491	15	3.32	14	301 000
Fish processing	9	8	249	8	1.3	6	145 000
Mudcrab fattening/ Pen culture of crabs	8	7	160	8	1.12	0.22	140 000
Others	24	22	1 024	31	4.1	17	171 000
Total	108		3 297		23.58		218 000

A majority of the projects are in their first cycle. Of projects that have completed one cycle, seaweed culture showed the most promising financial return at 39 percent, followed by cage culture of grouper with 30 percent.

Stock enhancement of top shell (*Trochus niloticus*), a seriously threatened invertebrate, has been initiated for the FRMP fish sanctuary sites in Puerto Princesa City. Top Shell is a source of classy buttons for expensive garments in the international market. It had been indiscriminately harvested in many parts of the country. Potential returns from top shell are estimated at P 175 000/ ton (P 35/ shell x 5 pieces/ kg x 1 ton). Under the management scheme drawn in partnership with the community and LGUs, only top shells found outside the protected area can be harvested to allow breeding stocks inside the sanctuary to breed and continue seeding surrounding areas.

Four livelihood projects are also being pursued in the area. These projects are seaweed farming, milkfish pen culture, *bangus* fry collection/ trading, and fresh fish trading.

In a survey of fish sanctuaries (FS) and mangrove rehabilitation projects undertaken in the 18 bays/ gulfs of the Project during the first semester of 2003, some positive outcomes were reported – increases in fish size, the reappearance of commercially important fish species *e.g.* grouper (*lapu-lapu*) and improvement in live coral cover.

A notable benefit of sanctuaries and reserves is that fish population structures are protected. Adults, sub-adults, and juveniles of different species are generally present and can breed and grow undisturbed. In heavily exploited and damaged areas, growth and/ or recruitment overfishing occur, threatening stocks of commercially important species. Breeders of target species are caught before they can reproduce and enhance recruitment while immature, small-sized fish are extracted before they have a chance

to mature. Fishers interviewed reported that prior to the FS, large-sized fish had become uncommon in their fishing areas and that their normal catch consisted of small fish or non-target species. Through the protection of juvenile fish in “nursery areas,” more fish are able to reach mature sizes and produce recruits that disperse to unprotected or exploited areas.

Around 415 or 31 percent of the respondents reported an increase in sizes of fish caught *i.e.* from immature fish to larger-sized fish of the same species that apparently command better market prices.

Areas where this was reported include Anda, Pangasinan (64% of fishers), Batan, Aklan (93%), Leyte (27%) and Tomas Oppus, Southern Leyte (28%), as well as two municipalities in Davao Gulf, *viz.* Kaputian (37%) and Samal (21%).

Another indication of recovery is the reappearance of commercially important fish stocks that have disappeared due to heavy extraction. These are the so-called target species that fishers look for because of their high commercial value. Around 25 percent of the total respondents or 337 have reported that they now catch fish species that have previously disappeared. This is apparent in Region 11 (33% of respondents), Region 8 (28%), and Region 4-A (25%).

Region	Bay/ Gulf	Fish species that have reappeared after establishment of sanctuaries
1	Lingayen Gulf	Bawo, Caballas, Maskad, Pingaw, Sapsap, Sugpo.
4-A	Calauag, Tayabas, Ragay	Alumahan, Anchovy, Baghak, Bakagan, Baliwis, Bangus, Bariles, Bisugo, Buglawan, Ginto-ginto, Ilak, Kalapato, Katyoyot, Malaway, Manabon, Murang Ungos, Pak-an, Pakoy, Pampano, Sapsap, Saramulyete, Sigapo, Tamban, Tulingan.
4-B	Honda, Puerto Princesa	Anchovy, Hasa-hasa, Maya-maya, Pusit, Roundscad, Suwahan, Talakitok, Tili, Tulingan.
5	Lagonoy Gulf	Alatan, Damos, Golden Fish, Grouper, Lison, Manites, Matang Baka, Maya-maya, Pagi, Talakitok, Tiki, Tulingan.
8	Carigara, San Pedro, Sogod	Agawas, Amag-amag, Baghak, Bakagan, Bangus, Bariles, Barracuda, Bawo, Buktot, Cuttlefish, Damos, Diwit-diwit, Flying Fish, Goat fish, Ilak, Indangan, Kabasi, Lambarok, Lambiyaw, Lomod, Magtigi, Malapinya, Malasugi, Mo-ong, Mullet, Pagi, Parotpot, Parrot fish, Pating, Patokon, Pusit, Roundscad, Sahoy, Samaral, Sebo, Siga-siga, Subid-subid, Suga, Suwahan, Tagbao, Tamban, Tangigui, Tapisok, Terapon, Tulingan, Wapay.
11	Davao Gulf	Bariles, Grouper, Ilak, Matang Baka, Maya-maya, Mo-ong, Roundscad, Talakitok, Tamban, Tulingan.

Underwater surveys of fish sanctuaries and artificial reefs in San Miguel Bay, Ragay Gulf, Catanduanes in Region 5 and Sapien Bay in Region 6 were conducted. It was seen that an artificial reef and fish sanctuary/ marine reserve in Ragay Gulf had the same coral colonies growing undisturbed over time.

One of the innovations being pursued under FRMP is the integration of CRM planning in coastal areas with environmental protection in upland areas. Under this approach, land and water use plans upstream will be made compatible with coastal land and water use downstream. Aim: to control land-based pollution and siltation that impact on near-shore fish habitats. This innovative approach is being pilot-tested in Puerto Princesa City on the basis of previous experience of implementing resource management projects where multi-sectoral agencies are involved and the city government is strongly committed to environmental protection and natural resource management. The integrated coastal resource management activities in Puerto Princesa City are being implemented in Honda Bay and Puerto Princesa Bay.

The CRM activities to be pursued in Puerto Princesa City are contained and spelled out in the Honda and Puerto Princesa Baywide Management Plans, which have been drafted and submitted to the city government for approval. REPs in the river system and in the coastal waters of Honda and Puerto Princesa Bays are being actively pursued. One of the identified priorities is the rehabilitation of watershed areas of the city, namely the Irawan watershed area and the Magarwak watershed area, which are alternative source of water for Puerto Princesa City. Upland areas planted under the project total 107 hectares. Furthermore, riverbank are rehabilitated in Puerto Princesa City under the project now stands at 1 604 meters.

The riverbank rehabilitation activities have been replicated in Region 12 (Panguil Bay) and Region 13 (Butuan Bay) where four river bio-engineering projects were undertaken. In Region 12, the two sites in Sta. Cruz and Butadon Rivers in Kapatagan, Lanao del Norte that were severely damaged by heavy flooding last year were rehabilitated using a new design to prevent further damage. In Region 13, the projects in the Cabadbaran and Agusan rivers showed good growth despite strong river currents. There is also high acceptance of the projects by the surrounding communities. Two other sites in Buenavista and Nasipit are being considered by the LGUs.

For the city's coastal areas, nipa/ pandan plantation has been undertaken in two hectares. Meanwhile, 16 ha of mangrove have been planted. Further, to facilitate the reforestation efforts of the city, the FRMP assists the Magarwak Upland Nursery Project and the San Jose Mangrove Nursery Project. This Project presently provides part of the city's seedling requirements for its other rehabilitation projects.

Stock enhancement of top shell (*Trochus niloticus*), a commercially valuable invertebrate threatened with over harvesting, has been initiated for the FRMP fish sanctuary site in Puerto Princesa City. Under the project, hatchery-produced juveniles are transplanted to a fish sanctuary in Honda Bay to allow them to grow, mature and re-seed adjacent areas.

The CRM process basically consists of the following steps: (i) data banking, (ii) preparation of an environmental profile, (iii) CRM planning, (iv) CRM plan implementation and (v) monitoring and evaluation. Under the Project, the overall CRM implementation is placed in the hands of the community and the concerned LGUs, consistent with what has been mandated under Republic Act No. 8550, the Philippine Fisheries Code. The BFAR through the regional offices and the partner LGUs spearheaded the completion of 100 Municipal Coastal Environmental Profiles (MCEP). The MCEP is a summary of baseline information relevant to the planning and management of municipal fisheries and coastal zone. Information gathered included: (i) fisheries resources being exploited and related socio-economic concerns, (ii) coastal habitats or resources (*e.g.* mangroves, coral reefs, sea grasses) and habitat characteristics (*e.g.* water quality) that affect the productivity of fishery resources and (iii) socio-economic/ development activities. The geographical position and boundaries of the municipal coastal zone were defined in the profile as well as the total area of coastal zone, marine water area and coastal land area. The MCEP is a vital source of information in the formulation of *barangay* and municipal CRM plans.

The municipal CRM plan defines and delineates the coastal area being managed; describes the problems and issues that beset coastal fisheries; describes the strategies and tools for addressing these problems and issues; describes the human and financial requirements; and presents a realistic time-frame to undertake the identified activities. It is basically a road map, which guides stakeholders in implementing management strategies that they have collectively defined and formulated. The CRM plan should consider ecological, economic, social and political factors. It should be examined in terms of its implementability (enforceability, administrative simplicity, administrative



cost, equity, flexibility, level of participation, dislocation effect, and corruptibility), impacts (biological, socio-economic and institutional) and limitations.

Under FRMP, Resource and Social Assessments (RSAs) are conducted in priority bays to determine the status of fisheries resources and establish benchmark data on the socio-economic profiles of coastal communities and to ensure that CRM activities to be implemented will be in accordance with scientifically gathered data. The CRM plans will undergo refinement as information comes in from the RSA studies conducted by contracted research institutions. RSAs have been conducted in the seven new bays and four old Fisheries Sector Program (FSP) bays while contracting is in progress in seven other bays. Assessments for Ormoc, San Pedro and Sogod Bays have been completed and the revised final reports for Ormoc and Sogod Bays have been submitted.

The PhilFIS is a network of distributed fisheries information systems designed to facilitate the collection, processing and timely delivery of relevant, accurate and reliable fisheries data and information. The information includes assessment of production statistics, fishing effort, fish stocks, habitat and environmental conditions, fishing technologies and socio-economic conditions of fishing communities. This information is expected to improve planning and management, decision-making and resource management in support to research, extension and industry.

The PhilFIS has already been deployed in 89 municipalities from nine regions. A series of training sessions leading to actual deployment (Phase IV training) have been conducted in all FRMP regions except Region 9 for BFAR staff, FMUs and LGUs, which are expected to operate the system at the regional and municipal levels. Time-series land use and coastal habitat GIS-based maps were produced and distributed to FRMP, ROs and municipalities. Resource maps and Bantay-Baybay maps were also processed, updated, produced, and distributed. The Information and Communications Technology (ICT) infrastructure for eight regions has initially been established to support major operations of PhilFIS. Internet service for the entire agency is now available and is expected to enhance interactive communication and improve timely delivery of data and information.

The fisherfolk registration database has already been deployed in more than 80 municipalities in compliance with Article 1, Section 19 of RA 8550. Additional reports have been designed, developed and implemented, such as the following:

- Summary of Registered Fisherfolk per *Barangay*/ Municipality/ Province/ Region;
- Summary of Gear Deployment per *Barangay*/ Municipality/ Province/ Region;
- Summary of Vessels Used per *Barangay*/ Municipality/ Province/ Region; and
- Summary of Landed Catch per *Barangay*/ Municipality/ Province/ Region.

Systems development for the Geographic Information System (GIS) has reached 90 percent. Map layers have been updated on the basis of inputs from the ROs and LGUs. The municipal base maps of Lingayen Gulf and Pangasinan Bay have been updated to include the comments of BFAR and participating municipalities. Resource maps of Lingayen Gulf, Honda Bay, Ragay Gulf, Lagonoy Gulf, Sorsogon Bay, and Sapi Bay are being enhanced with additional data. These data include the coordinates of landmarks, e.g., location of municipal hall, *barangay* center, fish landing sites, mangrove rehabilitation projects and fish sanctuaries.

The project has completed map plotting and deployment to BFAR regional offices and municipalities. The map atlas comprises 11 map layer themes for the entire 18 bays. The new map layer, which will be added to the Map DB, is the resource map of all FRMP designated bays. The resource map data plots for FRMP municipalities will indicate the location of municipal and *barangay* halls, fish sanctuaries, mangrove

reforestation, riverbank rehabilitation projects, alternative livelihood and other resource enhancement projects introduced by FRMP. Maps showing the location of coral reefs in all 18 FRMP bays were also created and presented to the Department of Tourism in a consultative meeting.

Maps for the pilot testing of the training module of *Bantay-Baybay* or COASTWATCH system for the municipality of Carigara were developed. The map, with a grid size of 1 km by 1 km, shows the land and water boundary of each municipality.

On fisheries licensing: requirements analysis, systems design, development, testing, and implementation of the Municipal Fisheries Licensing System (MFLS) were completed with training conducted on MFLS in Regions 4A, 5, 10, and 11. MFLS is a composite of five modules namely: Fisher Registration, Fisher Licensing, Vessels, Gear Licensing and Violations.

The system will allow LGUs to generate reports of registered/ licensed fishers, vessels, and gear. Linkages of the Fisherfolk Database and MFLS have already been put in place. Fisherfolk registration has become a primary requirement for the issuance of fishers' licenses. 218 participants comprising 87 LGUs, 44 Municipal Agriculturists and Agriculture Technicians and 51 BFAR Regional Office staff and other participants attended the training.

Fisheries law enforcement was pursued under the project simultaneous with CRM activities. A total of 103 patrol boats has been procured and distributed under the project. The procurement of telecommunications equipment that consists of an integrated voice and data communications network is being implemented. A total of 89 Fisheries Law Enforcement Teams (FLETs) has been organized. These measures have had impact: there are reports of decrease in illegal fishing activities, particularly in Quezon Province.

The Capacity-Building Component, which aimed to strengthen the institutions responsible for fisheries resource management through human resources development (HRD), conducted various training courses for the implementers. A total of about 226 training batches attended by an estimated 8 000 participants have been conducted, starting June 1999 up to the present. The training activities covered Participatory Coastal Resource Assessment; Coastal Resource Management Planning; Resource Enhancement Project; Information, Education and Communication (IEC); Fisheries Law Enforcement; Legislation and Regulation; Philippine Fisheries Information System; Resource and Social Assessment; Community Organizing; Micro-enterprise; Mariculture; Monitoring and Evaluation; Financial Management; and Strengthening of Project Implementers. These training courses have enhanced the capabilities of the municipalities to implement fisheries resource management in a community-based and participatory manner. Fishermen comprised 50 percent of the training beneficiaries. Other training participants came from the LGUs, BFAR Regional Offices, non-government organizations, youth and others.

The BFAR as the executing agency commenced implementation of the National Level Training Operational Plan during the last quarter of fiscal year 2001. To date, 61 long-term and short-term courses had been availed of. Of these, one was for overseas graduate studies, nine for local master studies, 48 were for short-term domestic training and three for overseas short-term training. The post-graduate studies pursued by BFAR employees are as follows: (i) Master of Science in Marine Studies at the University of Brisbane in Brisbane, Australia - one, (ii) Master in Development Management at the Asian Institute of Management (AIM) – five and (iii) Master of Science in Coastal Resource Management at the Silliman University - two. The short-term domestic training attended by BFAR employees related to Program and Project Development and Management, Development Management, Information Technology and Aquaculture

Technology. A course on Community-Based Coastal Resource Management also conducted at AIM was attended mostly by LGUs. The overseas training included Molluscan Health Management in Canada, Fisheries Database Systems Development in New Caledonia and Veterinary Biologics Training Program in the USA.

5.0 LGU Counterpart Contribution

The total counterpart share of the participating municipalities to the project is estimated at P227 million or an average share per municipality per year of P1.02 million. For the period 1999-2003, actual LGU contribution to the project averaged P901 456; P992 309; P1 004 077; and P1 257 765, respectively. Direct expenditures of the municipalities comprised salaries and incentives of LGU personnel particularly of FLET and *Bantay Baybay* members and personnel maintaining the patrol boats; IEC training, special events, contests, etc. and reproduction of IEC materials; traveling expenses; gasoline, spare parts and supplies (e.g. life jacket, binoculars, tools) for the patrol boats; labor expenses for the REPs; repair and maintenance of vehicles; supplies and materials; communication expenses; materials for mariculture and micro-enterprise projects; capital outlay for some municipalities (e.g. handheld radios, patrol bancas; and transportation expenses).

In particular, municipalities who have already procured their counterpart patrol boats include Agdangan, Calauag, Padre Burgos, Pitogo, Quezon, San Francisco, Sariaya, and Tagkawayan in Quezon in Region 4; Bacacay, Caramoan, Del Gallego, Lagonoy, Magallanes, Pasacao, and Ragay in Region 5 and Gingoog City and Talisayan, Misamis Oriental in Region 10.

The FRMP was envisaged to establish and implement a set of fisheries resource management systems comprising coastal resource management planning and implementation, data management, legislation and regulations including licensing, and community-based law enforcement. The LGUs are the main recipient for these systems for they are responsible under the Fisheries Code for managing our country's municipal waters.

The FRMP was designed to be highly participatory, involving all types of stakeholders, particularly the fisherfolk in the decision making process. The LGU counterparting and capacity-building of field partners are also innovative project features designed to develop a strong sense of accountability and ownership that will help sustain the many initiatives and investments established in the communities after FRMP. Mechanism and strategies have been put in place so that the major activities under the project will be sustained at national and local levels.





Annexure 13

Fisheries Management Study Trip to Japan: Notes on Experiences and Learnings

Sandra Victoria R Arcamo*

Summary

The speaker gave an overview of the findings of a study trip to Japan in September 2006. A group of fisheries administrators and cooperative executives from the Philippines visited Japan during the second phase of the IFCO-sponsored Project. The group observed fisheries management policies and practices and drew conclusions for fisheries resource management and empowerment of fisheries cooperatives in the Philippines.

The study group visited the Central Government Fisheries Agency of Japan, the Prefectural Government of Okinawa, the National Federation of the Fisheries Cooperative Association (FCA), local FCAs, the Tokyo Central Wholesale Fish Market at Tsukiji, a local wholesale fish market at Naha as well as FCAs and their local markets.

Ms Arcamo discussed the geography and economy of Japan and profiled the fisheries sector. She gave an idea of the legal framework and organizational structure of fishery resource management in Japan. She described the institutions concerned with fishery resources management.

The speaker said that overfishing, loss of marine habitats and an aging fisher population were major issues in Japanese fisheries. These and other issues were being addressed by Fisheries Resource Management (FRM) strategies. Examples: Limiting fishing effort by laying down the total allowable catch; and resource recovery programmes.

The speaker went on to summarize the effectiveness of FRM in Japan. This was achieved through legally recognized traditional systems of sea tenure, protection of small-scale fishers, involving them in resource management policies, homogeneity and social equity of fishers comprising FCAs, economically viable and sustainable fishing and fish farming operations, and administrative feasibility of management arrangements and measures.

The study group observed that scientific information on fish stocks was effectively used for fisheries management in Japan, that self-regulation had helped reduce management cost, that competition between fishers had been brought down and that FCAs had established an efficient marketing system for member-fishers.

The speaker then discussed the applicability of the Japanese experience to conditions prevailing in the Philippines. A number of constraints were highlighted — the lack of good governance and leadership, non-conducive values and attitudes of fishers (and other users of aquatic and coastal resources), lack of initiatives from fishers on resource management, limitations of money and technology available for community-based fisheries management.

The speaker concluded her presentation by highlighting opportunities that exist for applying to the Philippines, Japanese experiences in community-based fisheries management. The Fisheries Code of 1998 was cited, also the devolution of authority to local governments and the establishment of Fisheries Aquatic Resources Management Councils (FARMCs). These could provide a sound legal and institutional framework for community-based fisheries management in the Philippines.

Better information on the status of fish stocks in the Exclusive Economic Zone (EEZ) of the Philippines; greater cooperation between management authorities and research institutions; the expansion and growth of fisheries cooperatives – these factors would also improve Community-based Fisheries Management (CBFM).

* Chief, Fisheries Resource Management Division, Bureau of Fisheries and Aquatic Resources, 3rd Floor, Philippine Coconut Authority Building, Diliman, Quezon City, Philippines.

1.0 Background

A group of 10 persons – representatives of the Bureau of Fisheries and Aquatic Resources (BFAR), the Cooperative Union of the Philippines (CUP), and fisheries cooperatives of Palawan and Davao City – visited Tokyo and Okinawa, Japan from 10-19 September 2006. The visit was primarily an exposure to the Japanese FRM system. It was hoped that group members would acquire a deeper understanding of the Japanese FRM System, and pick up ideas that could be applied to Philippine FRM policies and programs, also to empower Philippine fisheries cooperatives.

While in Tokyo, the group visited the Ministry of Agriculture Forestry and Fisheries or MAFF (Central Government Fisheries Agency), the International Cooperatives of Fisheries Organizations or ICFO (National Federation of Fisheries Cooperative Associations), and the Tokyo Central Wholesale Fish Market at Tsukiji. Thereafter, the group flew to Okinawa to visit the Prefecture Government of Okinawa, local FCAs and their local markets, and the local wholesale fish market at Naha.

2.0 Introduction

An island nation in East Asia, Japan is located in the North Pacific Ocean off the coast of the Asian continent with a land size of 378 000 sq km. It is composed of four large main islands that comprise 95 percent of its territory and 3 000 smaller islands that comprise the remaining 5 percent. It has 29 750 km of irregular coastline and an EEZ of 4.5 million sq km.

The coastline of Japan is economically important, as this is where hundreds of towns and villages with strong traditions of fishing, whaling and aquaculture are located, as well as several major international ports and huge industrial complexes. On the other hand, most of Japan's urban centers are located on or near the coast. In many urban-industrial areas, the coastline has been extended by reclamation projects to create new land for sprawling factories, oil storage tanks, expanded harbor facilities, airports and other uses.

Fisheries play a vital role in food security in Japan. Total production volume in 2003 was 6 083 kilotons. Details by category are as follows:

- 2 543 kilotons through offshore fisheries (tapped by medium-sized vessels)
- 1 577 kilotons through coastal fisheries (accessed by small boats, set nets)
- 1 361 kilotons through marine aquaculture (species such as oysters, scallops, seaweed, yellowtail, sea bream)
- 602 kilotons through far seas fisheries (exploited by large vessels outside of Japan)

Coastal fishing by small boats, set nets, or aquaculture contributes about one-third of the industry's total production, while offshore fishing from medium-sized boats accounts for more than half of the total. Deep-sea fishing by large vessels operating far from Japan makes up the remainder. There are 6 300 fishing communities and 230 000 fishermen, 85 percent of whom live in coastal areas.

Presently, seafood sufficiency is estimated at 54-55 percent. The government hopes to raise this figure to 65 percent by 2012. However, this is going to be a challenge as fishing communities are located in geographically disadvantaged areas. Further, new entrants into the fishing sector are few; elderly fishers outnumber the youth. The younger generation is inclined to join professions other than fishing. Currently, fish stocks are declining due to overfishing of spawners and juveniles, and habitat destruction, particularly of sea grass beds and tidal flats. And large fishing vessels operating in distant fishing grounds are being hamstrung by international regulations getting tighter.

Fish ranks second only to rice as a staple in the Japanese diet. Japan's fishing fleet provides most of the fish consumed domestically. But fish imports exceed exports because of rising demand and falling catches.

3.0 Fisheries Resource Management in Japan

Legal Framework

The basic FRM system was developed several hundred years ago, during the reign of the military shogun Tokugawa Ieyasu in the early 17th century. In order to assure a steady supply of high-quality protein for his growing city, the shogun established a series of officially recognized fishing villages around the shores of northern Tokyo Bay. In return for supplying a portion of the catch to the shogun's castle, each village was granted exclusive rights to the resources in the waters immediately adjacent to the community. Several communities shared access to deeper waters further from the shore.

The tradition of exclusive inshore rights for fishing communities during the Tokugawa period has come to be known as that of exclusive common rights. Coastal fishing communities maintained an autonomous character and thus had their own rules on the use of common-property resources. The exclusive community-based rights in in-shore waters; and the shared rights in offshore waters, are two major features of the FRM system of this period that has been handed down to generations till today.

The Meiji Fisheries Law of 1901 was Japan's first legal document that institutionalized its fisheries management system. It was an advancement of the feudal system. The law made a distinction between fishing rights and fishing licenses. Fishing rights were granted for harvest of demersal species and for the use of small trap nets and other fixed gear. Fishing licenses were granted for harvest of migratory species using active gear. The formation of fishing associations was encouraged in each fishing village. Fishing rights were granted only to these associations. Fishing licenses, on the other hand, were granted to individuals or companies either by the MAFF or the prefecture.

The Meiji Fisheries Law of 1901 was amended with the Fisheries Law of 1949. The latter law provides the legal framework under which fisheries regulations can be established by a combination of prefecture government, FCA and special fisheries regulatory commissions. A major feature of this latter law is decentralization of management responsibility. While the national government directly manages large-scale and international fisheries, responsibility for medium and small-scale fisheries is delegated to the prefecture government.

Likewise, while the prefecture government directly regulates mobile fisheries, responsibility for stationary gear and sedentary resources is delegated to the FCA. Moreover, Regional Fisheries Coordination Committees (RFCC) are established. They play vital roles in the decision-making process and in the formulation of management options. Members of the RFCC are chosen by the national government from among representatives of offshore fishermen and fishery experts.

FRM Structure

Coastal fishing communities of Japan are autonomous in the sense that they have their own rules on the use of common-property resources. These communities are well-established fishing villages with various mutual assistance groups and village-level organizations. It is a social structure that relies on kinship, friendship, mutual help and obligation. This traditional community structure became the foundation of fisheries cooperatives. The FCAs came to be gradually recognized as the management group for such rights. These associations began to represent the village in terms of resource management. The FCAs were formally established on the basis of the FCA Law of 1948.



*Seafood for auction (top) and at the retail stores (bottom).
Middle: Participants during Phase Two study visit in Japan.*

The fishers actively and fully take part in fisheries resource management efforts with their self-imposed rules that are fine-tuned so as to meet their needs. This system ensures high compliance within an FCA. Apart from FRM, the FCAs are multi-purpose in their businesses/ activities and provide various services for members. The organizational structure of FCAs is three-tiered: the national, prefecture and local levels. The National Federation of Fisheries Cooperative Associations (JF Zengyoren or Japan's Fisheries Group) represents the national level, the Prefecture Federation of FCAs (Ken-gyoren) the prefecture level and the different FCAs and their fisher members the local level. Fishers at the local level belong almost 100 percent to the FCAs.

Fishing Rights

The Fisheries Law adopts three categories: free fisheries, license fisheries and fishing right fisheries. No government permission is required in free fisheries. On the other hand, a license from either the prefecture or national government is necessary to participate in license fisheries. Finally, fishing rights are issued by the prefecture government for harvesting of sedentary species, for users of trap nets and other fixed gear and for coastal aquaculture.

Fishing rights are likened to a property right that is an entitlement to operate fisheries. It is deemed a real right commensurate to that granted on a land area. However, the holders of fishing rights are prohibited from indulging in free transactions *e.g.* to lease or to mortgage. There are also other prohibitions as required by Sea-Area Fishery Coordination Committee of the Inland Water Fishing Ground Management Committee. The fishing right types are as follows:

1. *set net (duration 5 years): fixed gear at a place of over 27 meters in depth e.g. yellowtail set net, salmon set net.*
2. *aquaculture right (duration 5 years or 10 years): example aquaculture of laver, oyster culture by using spat collectors, fish culture in pens, aquaculture of *Panaeus japonicus* in enclosures, hard clam culture by spreading baby clams on the sea bottom.*
3. *common fishing right (duration 10 years): this refers to fisheries of common use in specified waters, e.g. the capture of abalones, top shells and sea urchins, as well as the small set net fishery, fixed gillnet fishery and inland water fisheries.*

FRM Strategies

Japan has been trying to restore its resources by limiting fishing efforts under the fishing license system, and by utilizing the Total Allowable Catch (TAC) and the Total Allowable Effort (TAE) systems. The TAC system is designed to control fishing by limiting catches to pre-fixed TAC ceilings for stocks that are caught in large numbers or command a high economic value or are low in numbers and are subject to urgent conservation curbs. On the other hand, the TAE system is designed to control fishing by limiting fishing efforts to pre-fixed TAE ceilings on the number of operation days multiplied by the number of fishing boats and so forth.

In addition, Japan has embarked on Resource Recovery Plans (RRPs). Comprehensive resource recovery measures are implemented for fish species that have been declining and ought to recover. The measures include reduction of fishing effort through release of seedlings and conservation of the environment of fishing grounds. National or local governments formulate these plans depending on the scope of the targeted waters.

FRM Effectiveness

The FRM system of Japan is effective in the sense that the practice began in the feudal period and continues today. This traditional system of sea tenures was legally recognized through the Meiji Fisheries Law as amended by the Fisheries Law. The institutionalization of this system provided strong protection to small-scale coastal fishers. The culture of the Japanese is such that there is respect for the traditional

local resource management system and the norms embodied in it. Moreover, fisher members take part in the exercise of fisheries resource management.

The FCAs subsist on account of several factors – profitability, administrative feasibility, straightforward enforcement and regulation being inexpensive. However, fisheries management ought to be holistic, based on the ecosystem as a whole. What's being done now is to emphasize conservation only for some species that are considered commercially important. Coordination is needed among many diverse user groups, each of which attempts to maximize its own share of the resource, a practice that leads to overfishing.

Social sanction may be effective within a close-knit village. But take resources like shellfish, “recreational” collection of shellfish is the norm, what happens is poaching of shellfish from a neighbouring village.

4.0 Observations

FRM in Japan is quite extensive, as demonstrated by the strong political will at all levels, from the national down to the prefecture governments and the active participation of ZENGYOREN, KEN-GYOREN and the FCAs.

The role of the FCAs in the FRM system is very impressive. They engage in resource management and conservation, ensure compliance of rules and regulations, anti-pollution activities, etc. Likewise, they enjoy strong lobbying power and are active in many areas – credit, supply, marketing. They operate their fish markets in landing areas and engage in joint marketing business.

At the outset, substantial information is available on commercially important fish stocks to assist the Fisheries Agency and the FCAs in coming up with appropriate management options. The FCAs practice self-regulation, thereby cutting on economic costs. Excessive competition is also reduced to a minimum since everybody gets a fair share of the economic benefits that accrue from the fisheries.

The implementation of RRP to address declining resources due to overfishing is significant. These plans are formulated on the basis of extensive studies on the status of the resources and of actual fishery operations and after thorough consultation with fishers. In addition, information culled from a centralized auction market of fishery and other products is used to determine the productivity of fishing grounds. FRM strategies instituted under the RRP have generated positive results.

5.0 Applicability to the Philippines

Replication of Japan's FRM in the Philippines would depend on leadership and governance, values and attitudes, besides finance and technology. Political will at all levels of governance would make a big difference to the implementation of FRM. Though some changes have been seen in the last decade, a lot more is required to improve good governance relative to FRM in the Philippine setting. Discipline and industry among fishers is essential for developmental effort. The common good should be placed first and foremost, before individual interest. This is easier said than done in an environment where poverty is still prominent and appropriate technology is still deficient.

Nevertheless, the FRM system of Japan may be relevant and applicable to the Philippines after modifications in terms of culture, systems and laws. The Philippine Fisheries Code of 1998 presents robust opportunities for sustainable fisheries. It comprises the country's primary legislation for fisheries and aquatic resources. It allocates jurisdictional responsibilities over fisheries between the national government and the cities and municipalities, through the legal definition of municipal waters extending from the shoreline up to a maximum of 15 kilometers offshore. It also includes

practically all fisheries violations existing in Philippine law and consolidates them in a chapter on prohibitions and penalties.

The Code has devolved extensive fisheries management powers specifically to cities and municipalities. Within the 15-kilometer municipal waters, they exercise general jurisdiction over fisheries, which includes management power through the enactment of ordinances and law enforcement, imposition of license fees, charges and rentals, closed seasons, and the designation of fish reserves, refuges and sanctuaries.

The Fisheries Code also mandates extensive consultation and cooperation between the local government units (LGUs) and the national government, with recommendations from the former being essential for certain actions of the latter. This applies particularly to setting catch limits; designation of reserves for special or limited use; educational, research or special management purposes; and limitation or prohibition of fishery activities in overfished areas.

To support LGUs in the management of fishery resources, FARMCs are being created in all cities and municipalities abutting municipal waters. FARMCs are basically multi-sectoral councils with advisory and recommendatory functions, providing assistance to national or LGUs in matters such as fishery development planning, enactment of ordinances, management and enforcement. They serve as the main sounding board for the local governments in matters of fishery management.

Moreover, the government collaborates closely with academic/ research institutions on management of fisheries resources. Currently, some information on the status of fish stocks is available to policy-makers and resource managers to come up with appropriate management options.

The performance of registered fisheries cooperatives in the Philippines today is very poor, because they lack income or a profitable business. They are in dire need of substantial intervention from the government and NGOs. They also need legislative support and policy advocacy to establish an environment conducive for the growth of fisheries cooperatives into viable and strong socio-economic organizations.

In conclusion, fishers and the communities can indeed play a vital role in carrying out FRM, in Japan or in the Philippines. The success of FRM is conditioned by several factors. A strong political will. Autonomy for stakeholders. Democratic mechanisms. Monitoring, intervention and support by a government authority.

Fishing harbour at Nago FCA, Okinawa Province.





Annexure 14

The FISH Project: Status as of Year-End 2006

Gerenimo T Silvestre¹

Summary

The presentation² commenced with an overview of the goals and objectives of the project. The overall goal is to bring about a 10 percent increase in abundance of fish stocks in four targeted areas in the Philippines. The tasks to be carried out by the project include local and national capacity-building through involvement of local stakeholders in eco-based fisheries management and planning, and implementation of fisheries management tools and mechanisms; national policy framework development and constituency building through multimedia education campaigns targeting different stakeholder groups and the use of broadcast and print media to raise awareness on the impacts of overfishing.

Public-private sector partnerships will be created to expand the constituency for sustainable fisheries management. The speaker went on to explain the key thrusts of the project for 2007, which include:

- Mainstream municipal coastal resources management (CRM) programs within the context of eco-tourism.
- Operationalize existing marine protected areas (MPAs) including the design of a network.

Other thrusts during 2007 will be:

- Formulate and implement a plan to address illegal fishing activities.
- Establish a siganid management regime.
- Operationalize registration and licensing of fishing vessels.
- Complete an inter-Local Government Unit (LGU) fisheries management plan, which will also address zonation issues.

The speaker pointed out that the project will also help to establish catch and effort monitoring systems at all levels and will use the registration system for fishing vessels for fisheries management purposes. Other thrusts of the project in 2007 include the strengthening of community-based marine protected area enforcement groups and the establishment of new MPAs.

The speaker concluded his presentation with a detailed description of the work plan of the project.

1.0 Background and Project Summary

The Fisheries Improved for Sustainable Harvest (FISH) Project is a 7-year (2003-2010) technical assistance project consisting of a 5-year base period and a 2-year extension period, funded by the United States Agency for International Development (USAID). The Project is implemented in partnership with the Department of Agriculture's Bureau of Fisheries and Aquatic Resources (DA-BFAR), national government agencies, LGUs, non-government organizations, and other assisting organizations. Tetra Tech EM Inc. (Tetra Tech) is the FISH Project's prime contractor and is supported by a technical team of project staff and sub-contractors.

The FISH Project provides training and technical assistance that will address key fisheries management issues and will support national and local activities to achieve an expected result of 10 percent increase in fish stocks in four focal areas by 2010 (Figure ES-1). The implementation of the project is guided by the FISH Project results framework, which forms part of the basis in measuring the project's performance in carrying out its work plan activities.

¹ Chief of Project, The Fisheries Improved for Sustainable Harvest Project, 18/F OMM Citra Building, San Niguel Avenue, Ortigas Centre, Pasig City 1603, Philippines.

² The paper was prented by Dr Romeo Cabungcal (picture opposite page)

This 2006 annual performance report covers the period from January 1, 2006 through December 31, 2006 and gives a snapshot of key accomplishments during the third year implementation period as described below in Table ES-1.

Table ES - 1. Results Framework for the FISH Project

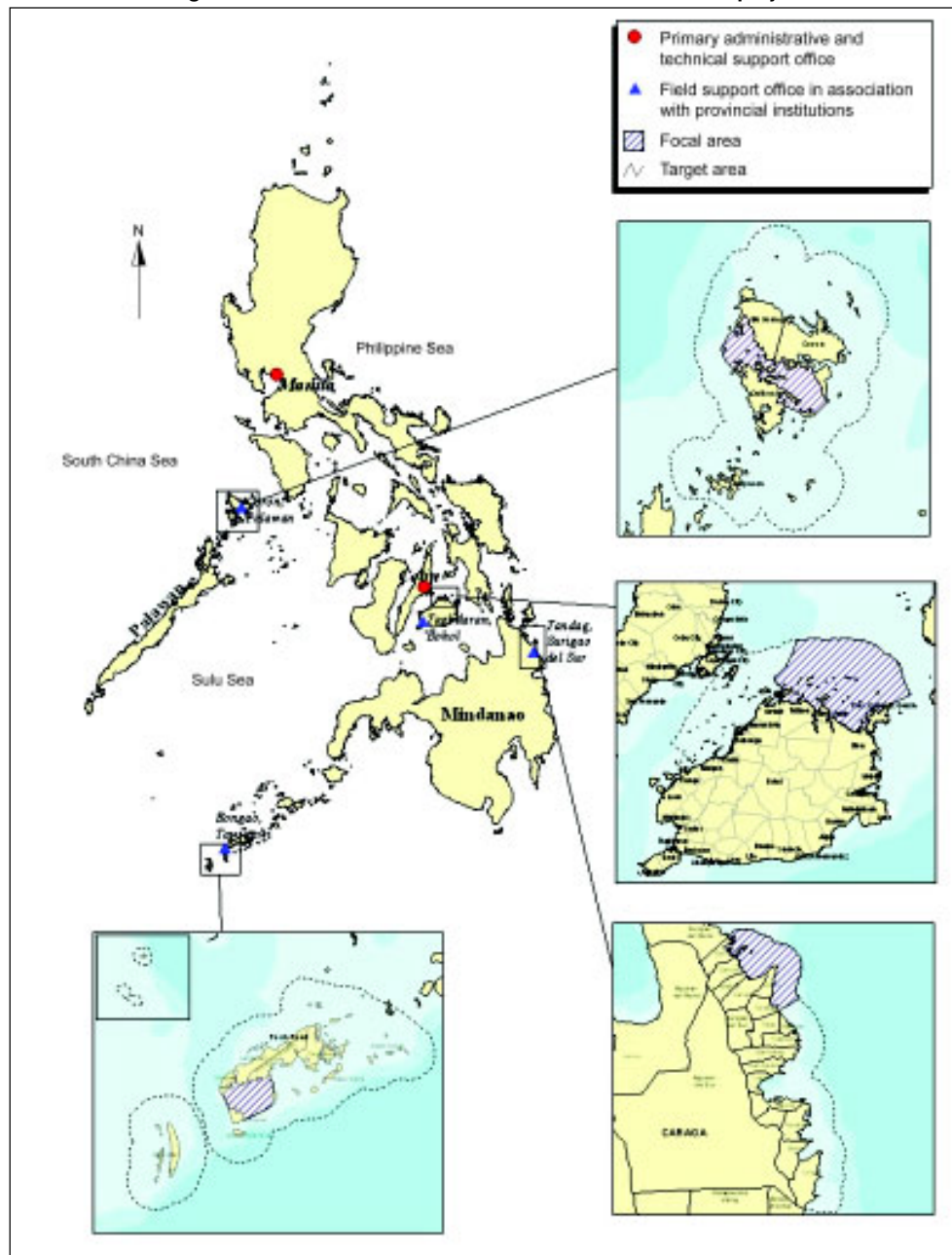
Result	Indicators	
Strategic Objective 4: Productive and life sustaining natural resources protected through improved management and enforcement		
FISH Project Result: Marine fish stocks increased by 10 percent (over 2004 baseline levels) in focal areas by the year 2010	PR 1	Abundance of selected fisheries resources in focal areas (% change in catch per unit effort (CPUE) compared to baseline based on fishery-independent methods)
	PR 2	Catch rate of selected fisheries in focal areas (Average % change in CPUE compared to baseline based on fishery-dependent methods)
	PR 3	Reef fish biomass inside and adjacent to selected MPAs in focal areas (% change in biomass/ 500 m ² compared to baseline)
	PR 4	Reef fish species richness inside and adjacent to selected MPAs in focal areas (% increase in no. of species/ 500 m ² compared to baseline)
	PR 5	Benthic condition inside and adjacent to selected MPAs in focal areas (% change living coral cover compared to baseline)
Intermediate Result 1: National and local capacity increased for fisheries management in four target areas	IR1.1	Municipal fishers and crafts operating in target areas registered and licensed (No. of LGUs adopting registration and licensing system)
	IR1.2	Law enforcement units, prosecutors and judiciary trained and/ or assisted in fisheries law enforcement (No. of coastal law enforcement units established and/ or improved and functional)
	IR1.3	Effort restrictions introduced in focal areas (No. of effort restrictions introduced)
	IR1.4	MPAs established and/ or improved to protect critical habitats, migration routes and spawning areas and functional in focal areas (No. of MPAs and hectares at MPA rating level 2)
	IR1.5	LGUs in focal areas adopting CRM (No. of municipalities achieving basic requirements of CRM level 1 benchmarks)
	IR1.6	Inter-LGU and inter-agency collaborative agreements, local policy instruments and ecosystem-based fisheries management plans adopted by concerned stakeholders for fisheries management (No. of agreements/ plans signed or adopted among relevant stakeholders)
	IR1.7	Reproductive health/ population programs implemented and/ or improved in each focal areas (No. of <i>barangays</i> integrating reproductive health/ population management)
Intermediate Result 2: National policy framework developed supporting sustainable fisheries	IR2.1	National fisheries policies supporting sustainable fisheries (e.g. FAOs, MTDP, action agendas for international agreements) (No. of national policy instruments developed, reviewed or revised with FISH Project inputs)
Intermediate Result 3: Constituency of informed, disciplined and cooperative stakeholders developed and engaged in fisheries management	IR3.1	Public-private partnerships supporting fisheries management, social infrastructure, population programs, and socio-economic development (No. of public-private partnerships)
	IR3.2	Dissemination and utilization of fisheries management information materials, training modules, policy studies, and project lessons (No. of information materials distributed and training/ forum conducted)

2.0 Progress Toward FISH Project Results

The FISH Project is an initiative of USAID to contribute to the improvement of the natural biodiversity under the new USAID framework.

The FISH Project Result (FPR) “Marine fish stocks increased by 10 percent (over 2004 baseline levels) in focal areas by the year 2010” is measured primarily using the five project results (PR) indicators, which are biophysical in character. This will be accomplished through the facilitation and implementation of mutually reinforcing project interventions designed to address key fisheries management issues, also tracked using the intermediate results (IR) indicators (Table ES-1).

Figure ES-1. Focal areas and office locations of the FISH project

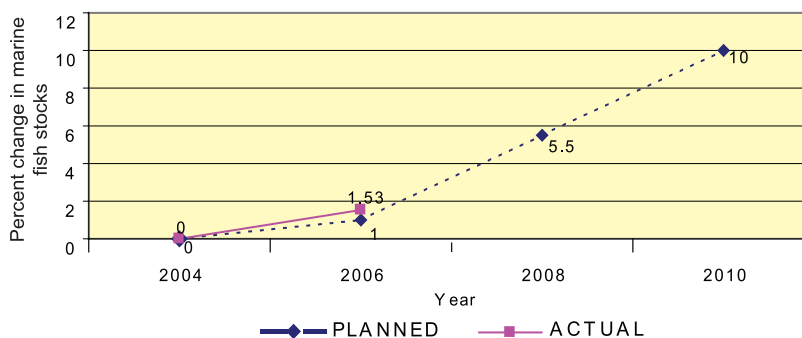




Over the life of the project (LOP), targets are set for both PRs and IRs on a yearly basis. The figures in succeeding pages show the accomplishment of the project's progress for the 2006 implementation period *vis-à-vis* planned targets as set out in the Performance Monitoring Plan (25-FISH-2006) and the Life of Project Work Plan (11-FISH/2004).

The results of the FISH project objective will be measured in terms of change in the marine fish stocks from 2004 to 2010 expressed as FPR. The single measure of the 10 percent increment will be based on three Project Results or PRs: abundance of selected fisheries resources based on fishery-independent method; catch rates of selected fisheries based on fishery-dependent method; and reef fish biomass within and adjacent to the sanctuary (FISH Doc. No-16/2005).

Figure ES-2. Percent change in marine fish stocks compared to 2004 baseline



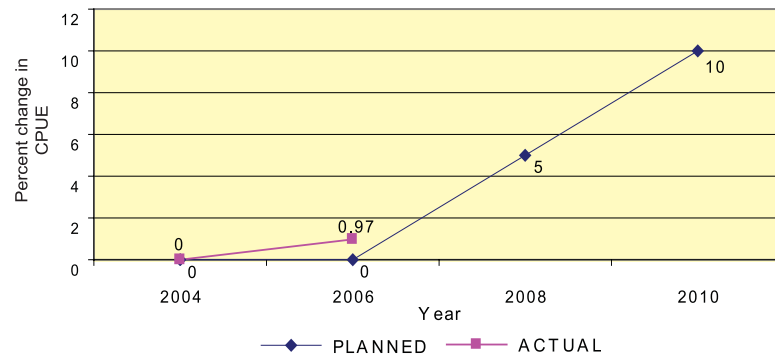
The overall FISH Project performance in 2006 showed an increase of 1.53 percent of fish stocks compared to the baseline levels in 2004. One of the factors that contributed to the increase is the increase of reef fish biomass in a number of MPA as well as the increase in catch rates based on the fishery-dependent method. Based on the disaggregated data, the results showed that the project needs to strengthen its efforts against illegal fishing such as Danish seine, as gains from the MPAs and other management measures have seemingly benefited the fishery. There is, however, a strong indication that small-scale fishermen such as hook and line fishers have increased their catch compared to previous years.

PR-1: Abundance of selected fisheries resources in focal areas – This PR is measured through test fishing using methods employing selected fishing gear used in the focal area. The measurement of this PR is distinguished by being independent of the actual fishing activities in the area. This is measured as the weighted average of catch per unit effort of fishing gear used during the test fishing with the number of replicates used as the weighing factor.

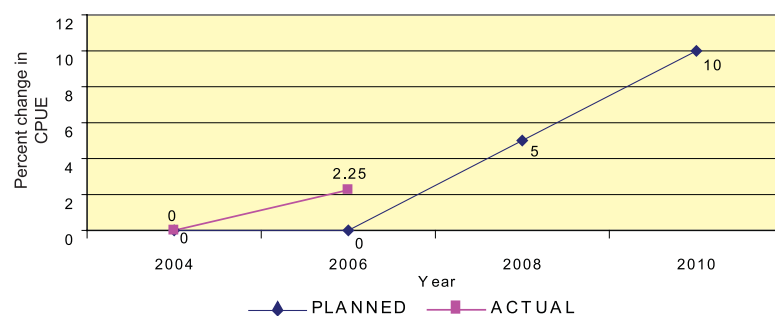
The results of the 2006 monitoring event showed overall increments mainly due to increases in the catch of experimental trawl and fish traps in Danajon Bank and bottom-set longline and bottom-set gillnet in Lanuza Bay, indicating increasing trends of fish stocks being exploited by this gear. They outweighed the decrease in the catch by other gear used in the fisheries-independent surveys; hence the overall estimated resultant increment (Figure ES-3).

PR-2: Catch rate of selected fisheries in focal areas – This project result is measured through catch-and-effort monitoring of commonly used fishing gear in the focal area. This PR is measured as change in the CPUE of various fishing gear used during catch-and-effort monitoring with the number of samples taken as the weighing factor.

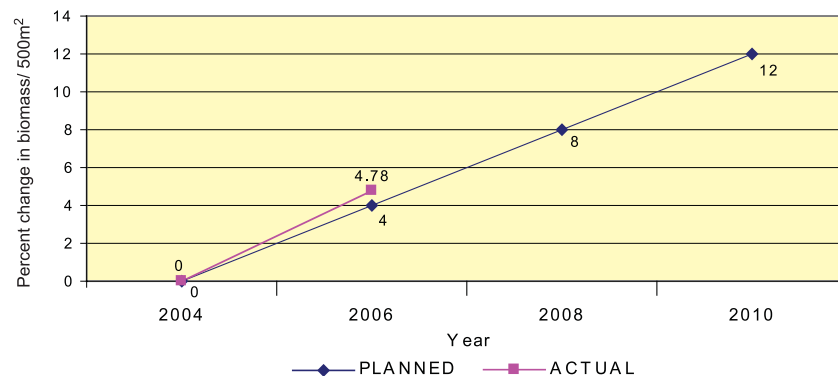
The results of the monitoring event in 2006 indicated an overall increment primarily brought about by overall resultant increases in catch rates of fishing gear monitored in Danajon Bank, Lanuza Bay, and Tawi-Tawi Bay. The weighted average for all the focal

Figure ES-3. Percent change in abundance of selected fisheries resources in focal area compared to 2004 baseline based on fishery-independent method

areas was positive despite more fishing gear registering declines than those with increasing catch rates. This shows that increases, whenever they occur, have larger magnitudes. Increments were usually common among hook and lines and surface gillnets. There is a general decline among bottom-set gear such as gillnets and longlines. This more or less confirms observations from the fisheries-independent surveys.

Figure ES-4. Percent change in catch rate of selected fisheries in focal areas compared to 2004 baseline based on fishery-independent methods

PR-3: Reef fish biomass inside and adjacent to selected MPAs in focal areas – This project result is measured through fish visual census inside and adjacent to selected MPAs in the focal area. The result of the 2006 monitoring showed that there is an increase in biomass in 45 percent of the total MPA cover in the focal areas (289 hectares) of the 12 MPAs. This indicates that the process of reef ecosystem recovery is well underway. The 4.78 percent increase in biomass (Figure ES-5) can be attributed

Figure ES-5. Percent change in biomass inside and adjacent to selected MPAs in focal areas compared to 2004 baseline

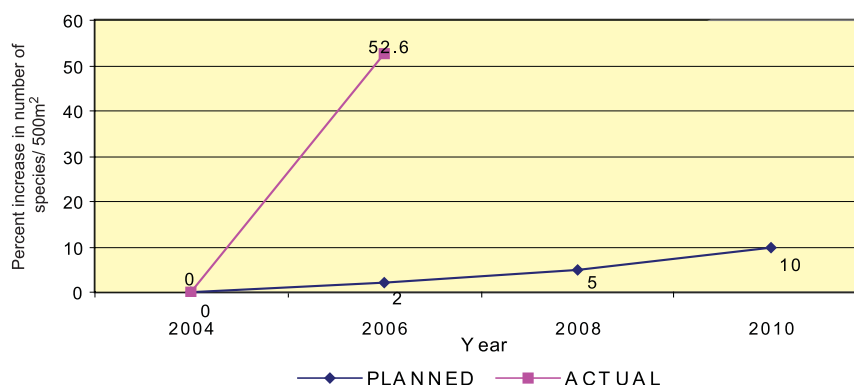
to the ingress of larger species of fish that take shelter in the MPAs and other species that have been attracted to increased food supply, suggesting that healthier and more diverse reefs are emerging.

Overall, this result mirrors the diminishing ecological disturbances in the MPAs, as a result of increased vigilance and protection. The organization of MPA Special Enforcement Teams and the logistical support provided to the MPA Management Councils through the FISH Project's Special Activity Fund (SAF) facility has greatly enhanced MPA law enforcement and surveillance.

PR-4: Reef fish species richness inside and adjacent to selected MPAs in focal areas – This project result is not part of the equation of determining the FPR but is nevertheless being measured, since species richness is a supporting indicator to the overall FISH project result. It reflects improvement of biodiversity, ecosystem integrity, and sustainability of biomass buildup.

The results of the 2006 monitoring showed improvement in reef fish species, known to be one of the earliest signs of coral reef recovery and manifested in the change in the number of species encountered in the MPAs in 2006 as compared to baseline (Figure ES-6). Increasing species diversity is a vivid outcome of a growing coral reef community and an improving food web. However, the emergence of new fish recruits into MPAs may not be a sole function of the reefs in the MPAs itself but may also indicate improvement in fishing effort management and law enforcement activities in the coastal waters contiguous to the MPAs, enabling movement of non-resident and nocturnal species into the MPAs.

Figure ES-6. Percent increase of reef fish species, richness inside and adjacent to selected MPAs in focal areas compared to 2004 baseline



PR-5: Benthic condition inside and adjacent to selected MPAs in focal areas – This project result is not a factor in determining the FPR but is nevertheless being measured, as the benthic condition is a supporting indicator to the overall FISH project result which reflects ecosystem integrity and sustainability of biomass buildup. This is measured along a standard transect using the point-intercept method.

During the 2006 monitoring event, live coral cover increased in three of 12 MPAs within the FISH focal areas (Figure ES-7). The significant increase in coral cover in the Danajon Bank MPAs can be attributed to improved capability and competency of MPA management groups and LGUs, as well as an advancing popular advocacy for MPA integrity brought about by intensive Information, Education and Communication (IEC) campaigns. The live coral reef declines in 9 other MPAs indicate the need for sustained technical assistance to improve MPA management and protection. This is especially so in the MPAs that have been newly established in focal areas where implementation of CRM is relatively new.

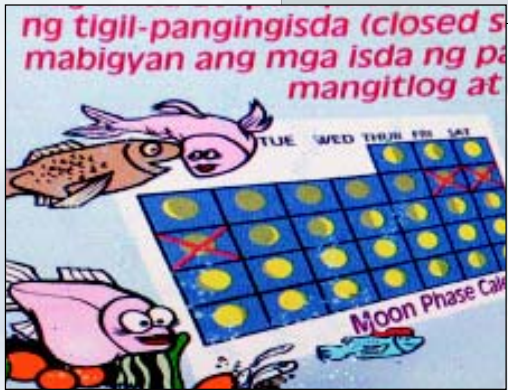
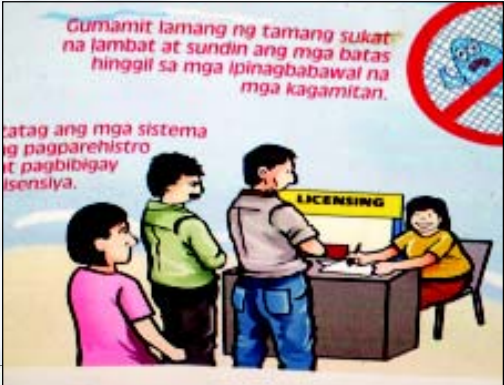
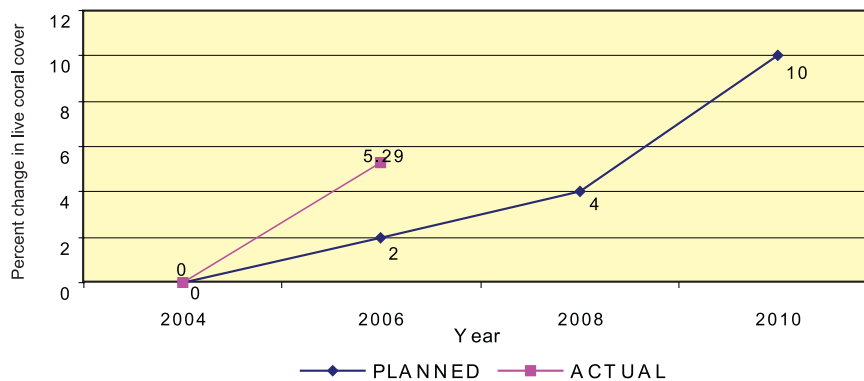


Figure ES-7. Percent change of benthic condition inside and adjacent to selected MPAs in focal areas compared to 2004 baseline



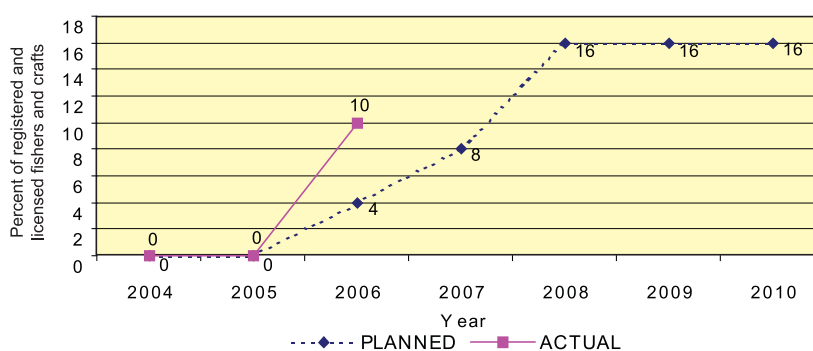
IR 1: National and local capacity increased for fisheries management in four focal areas – The Capacity-Building Task is composed of seven indicators that illustrate increases in capacity for fisheries management in focal areas:

- 1.1 Municipal fishers and crafts operating in target areas registered and licensed.
- 1.2 Coastal law units established and operational.
- 1.3 Fishing effort restrictions introduced.
- 1.4 Marine protected areas established and functional.
- 1.5 Local government units adopting CRM.
- 1.6 Inter-LGU/ inter-agency collaborative agreements/ plans adopted.
- 1.7 Reproductive health program implemented.

These indicators are characterized by a combination of control (IRs 1.1-1.3), growth (IR 1.4) and maintenance (IRs 1.5-1.7) mechanisms of fisheries management and would enable the project to achieve the goal of increasing the marine fish stocks in the focal areas.

The key activities in 2006 provided the foundation for the implementation of the fisheries management program in focal area municipalities. Building on the fisheries management actions undertaken in the past 2 years, the project pursued the formulation and adoption of municipal CRM plans and continuously provided technical assistance and training in fisheries registration and licensing, coastal law enforcement, fishing effort restriction, and MPA establishment and management.

Figure ES-8. Percent of municipal fishers and crafts operating in focal areas registered and licensed

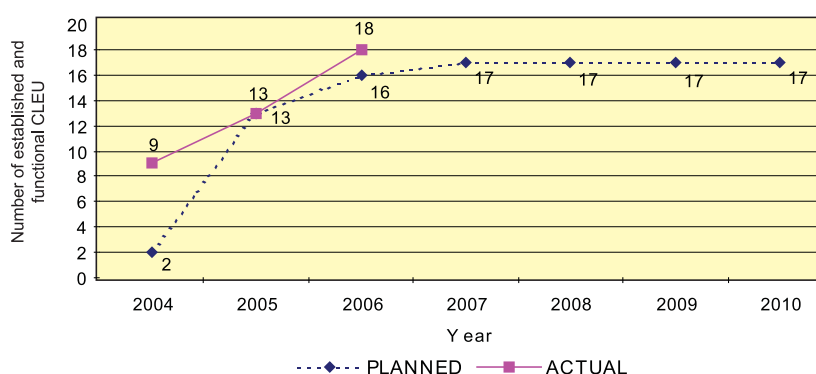


IR 1.1: Municipal fishers and crafts operating in target areas registered and licensed –

The progress on the fisheries registration and licensing took off from the earlier initiatives such as the policy study on registration and licensing and the issuance of EO 305 and its implementing rules. Training and follow-up activities were conducted in 2006, leading to the establishment of registration and licensing programs in 10 municipalities in Calamianes, Surigao del Sur, and Tawi-Tawi (Figure ES-8). The installation of this system has led to increase in revenues of some municipalities, notably in Bohol and Tawi-Tawi. The next challenge under this intervention is how to utilize the system in municipal fisheries management. This will be addressed in succeeding years of project implementation.

IR 1.2: Law enforcement units established and functional – The role of coastal law enforcement has become more pronounced as project implementation progresses. Thus, the project builds on its gains in the previous years and continues to strengthen law enforcement teams at all levels to provide enough muscle to the seemingly formidable task of enforcing fishery laws. In 2006, additional five law enforcement units were made operational bringing a total of 18 units overall (Figure ES-9). Two of these units are inter-LGU or provincial levels.

Figure ES-9. Number of coastal law enforcement units established and functional

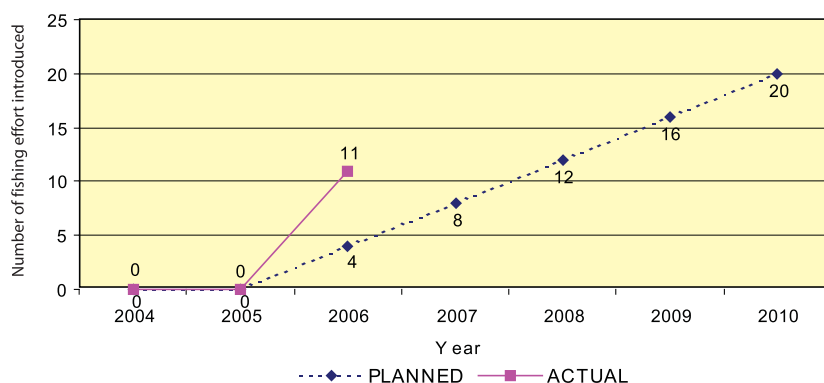


These municipality-based enforcement teams have been legitimized with their own budget allocation for its regular activities and assets acquisition. These teams have also been regularly undertaking seaborne patrols based on its respective operations plan that was formulated with the project's assistance. Continuing organizational development interventions were also conducted by way of facilitating operations planning, post-operations assessment, conduct of regular meetings and training new members of community-based law enforcement teams. In 2006, training and organization of special enforcement teams and a community-based unit was also pursued to guard specific management interventions such as MPAs.

IR 1.3: Fishing effort restrictions introduced in focal areas – Fishing effort restriction and rationalization is considered key to achieving the project results of increasing fish stocks in the focal areas. In 2006, the project facilitated the enactment and implementation of ordinances that established closed seasons for siganid, banned the catching and selling of gravid blue crabs, banned the use of compressors in fishing, banned the use of fine mesh nets and closed seasons for groupers. To date, 11 fishing effort measures have been put in place, 3 of which are in Calamianes, 2 in Tawi-Tawi, and 6 in Danajon (Figure ES-10). These control measures are believed to have directly contributed to the increment in fish stocks in the focal areas.

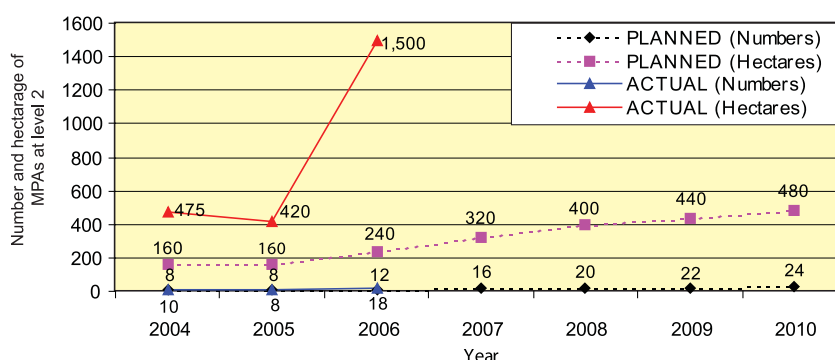
IR 1.4: MPAs established at rating level 2 – MPA is one of the key interventions of the project to improve biomass. To date, a total of 47 MPAs have been assisted by the

Figure ES-10. Number of fishing effort restrictions introduced



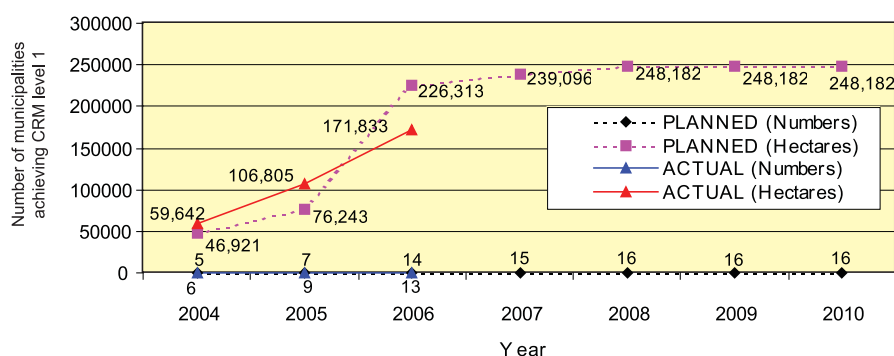
project in four focal areas directly and indirectly; 25 of these (6 in Calamianes, 9 in Bohol, 7 in Surigao, and 3 in Tawi-Tawi) were established in 2004, a few months upon project commencement in 2003. In 2006, five MPAs were formally established and eight others were in various phases of development. To date, the project has directly established a total of 18 MPAs equivalent to 1 500 hectares at rating level 2 (Figure ES-11). The following is the breakdown: 4 in Calamianes; 4 in Danajon; 7 in Surigao and 3 in Tawi-Tawi. These MPAs are directly contributing to the increase in biomass leading to the increase of fish stocks in the focal areas.

Figure ES-11. Number and area of MPAs at rating level 2



IR 1.5 Local government units in focal areas adopting CRM – The project continues to work with LGUs in establishing the fisheries management program. Over the last three years, 13 LGUs (6 in Lanuza bay area, 4 in Danajon Bank, and 3 in Tawi-Tawi) have accomplished Level 1 benchmarks (Figure ES-12). These LGUs have adopted

Figure ES-12. Number of municipalities achieving basic requirements of CRM level 1 benchmarks

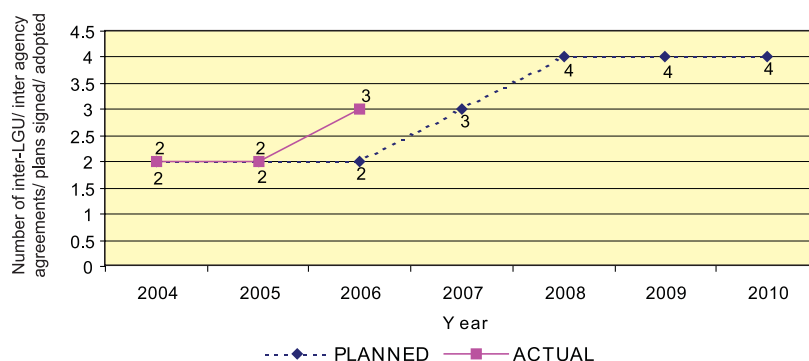




CRM by way of allocating regular CRM budgets, adopting CRM plans and implementing these plans with local stakeholders. In the case of the Lanuza Bay municipalities, their fisheries management plans were mainstreamed in their annual investment program. This municipality-based program is supported by appropriate ordinances that supported its implementation. Meanwhile, the LGUs in Calamianes are expected to complete CRM adoption in 2007.

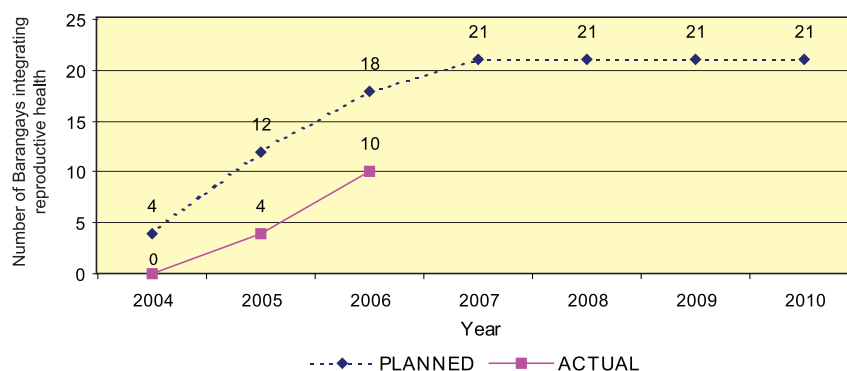
IR 1.6: Inter-LGU and inter-agency collaborative agreements/ plans signed or adopted – The project's thrust in forging inter-LGU arrangement is geared towards establishing a governance mechanism for ecosystem-based fisheries management. To date, three inter-LGU arrangements were continuously supported and strengthened by way of training and organizational development (Figure ES-13). These are the following: Coastal Law Enforcement Council (CLEC2) in Danajon area; the Lanuza Bay Development Alliance (LBDA) in Surigao del Sur; and Provincial Coastal Law Enforcement Team (PCLET) in Tawi-Tawi.

Figure ES-13. Number of Inter-LGU/ Inter-Agency/ Agreements/ Plans signed or adopted



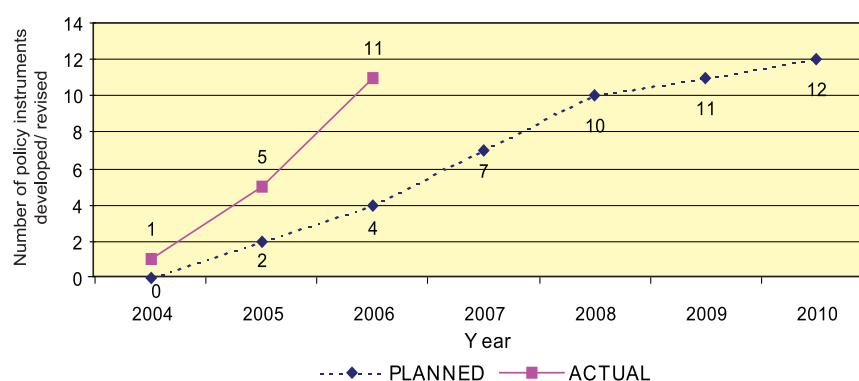
IR 1.7: Reproductive health/ population program implemented and/ or improved in each focal area – The reproductive health component commenced its field activities in 2005. By end of 2006, all the ten *barangays* in four municipalities targeted by the project have mainstreamed reproductive health programs into its respective *Barangay Development Plan (BDP)* (Figure ES-14). These included two *barangays* in Talibon, Bohol; two *barangays* in Cantilan, Surigao del Sur; three *barangays* in Bongao, Tawi-Tawi, and another three *barangays* in Coron, Palawan.

Figure ES-14. Number of Inter-LGU/ Inter-Agency/ Agreements/ Plans signed or adopted



IR 2: National policy framework developed supporting sustainable fisheries – The results of the project's National Policy Task are measured by the number of policy instruments that are developed, revised, and adopted over the life of project. In 2006, the policy component continued providing support for policy enhancements and completed its work in CNFIDP. Building on the accomplishments in 2005, an additional six policy instruments (Figure ES-15) were drafted and in the process of adoption and expected to aid the focal area municipalities in its implementation of key fisheries management interventions. These are: (1) CNFIDP-Municipal and Commercial sub-sector; (2) CNFIDP-Aquaculture; (3) CNFIDP-Post Harvest; (4) CNFIDP- Institutional Development; (5) First round of amendatory bills to RA 8550; and (6) Implementing Rules and Regulations on MMAA 86.

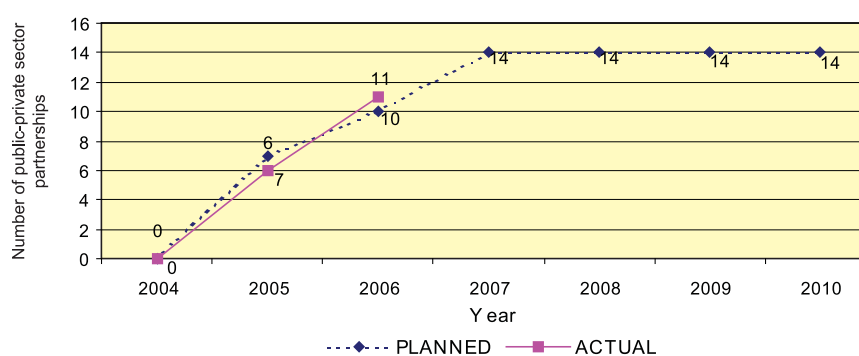
Figure ES -15. Number of policy instruments developed or revised with FISH project inputs



IR 3: Constituency of informed, disciplined, and cooperative stakeholders developed and engaged in fisheries management – There are two indicators that comprise the Constituency-Building Task of the project: (1) public-private partnerships supporting fisheries management and other related activities and (2) dissemination and utilization of fisheries management information materials and training modules.

IR 3.1: Public-private partnerships supporting fisheries management – In 2006, the project initiated building linkages with private sector and NGO partners to leverage implementation of the SAF. To date, 11 private sector partners (2 in Calamianes, 2 in Danajon, 4 in Surigao, and 3 in Tawi-Tawi) have been tapped to work with the project in the areas of coastal and fishery law enforcement, and MPA capacity-building and management including provision of small infrastructure and community organizing (Figure ES-16). All these partners were engaged utilizing the SAF, which require a substantial amount of counterpart funding from these partners. In 2006, the project

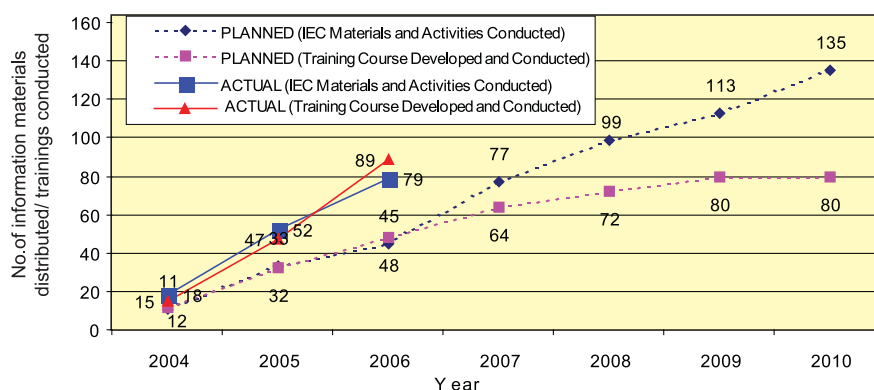
Figure ES-16. Number of public-private sector partnerships established



has also solicited corporate sponsorships for the Talibon interpretive center and airing of project-produced documentary series.

IR 3.2: Dissemination and utilization of fisheries management information materials, and training modules – The project has undertaken substantial efforts in 2006 under this component. The project conducted 79 various IEC activities and developed and distributed information materials (27 of these were undertaken in 2006) and conducted a total of 89 training activities and workshops (42 of these were conducted in 2006) (Figure ES-17). These IEC activities range from production of posters and leaflets in the vernacular, radio plugs, DVD production, exposure trips and launching of high-impact activities on special events such as Month of the Ocean and Fish Conservation Week. Training activities conducted in 2006 included planning, law enforcement, MPA management, species-specific management and organizational development trainings.

Figure ES-17. Number of public-private sector partnerships established



3.0 Progress of Key Implementation Activities

The implementation activities in 2006 centered on establishment and operationalization of the project's main handles to improve marine fish stocks. These are MPA establishment and management, fishing effort rationalization, registration and licensing and law enforcement. Parallel to these, the project worked with LGU stakeholders to incorporate these interventions into the coastal and fisheries management program of each municipality.

The following summarizes the highlights of the accomplishments in 2006.

Key Accomplishments in Focal Area Implementation

- During the first half of 2006, the project endeavored to complete the fisheries profiling activities. The Danaojon profile has been completed in the second quarter while the others are undergoing intensive technical and editorial review.
- The conduct of CRM planning workshops and formation of Technical Working Groups (TWGs) were undertaken in 2006 both at the municipal and inter-LGU levels. At the municipal level, the project pursued CRM planning. During the second quarter, four municipalities in Danaojon and three municipalities in Tawi-Tawi completed the drafting of its municipal CRM plans. Ordinances and resolutions adopting these plans were passed in the third quarter and fourth quarter for Danaojon and Tawi-Tawi, respectively. In Calamianes, *barangay* CRM planning activities were conducted in the second half of the year to ensure that the municipal CRM plans would be anchored with community-level inputs.
- At the inter-LGU level, LGU TWGs in Calamianes were mobilized to work on the formulation of the Calamian-wide fisheries management plan. A similar initiative was



conducted in Surigao and Danajon with its respective TWGs to draft an inter-LGU fisheries management plan. To date draft plans in these 3 sites have been completed, and due to be adopted by participating LGUs. Meanwhile, an inter-LGU team for catch-and-effort monitoring in Danajon was organized in the fourth quarter to initiate monitoring of fish catches in the area as part of the fisheries management plan.

- The implementation of fishing effort restriction measures was intensified in 2006. In Danajon the ordinances pertaining to the closed season for signanid and gravid blue crab was approved in the first quarter and its full implementation ensued for the rest of 2006. In Surigao, preparatory activities such as seagrass mapping, community consultations and training on the proposed closed season for siganid were also undertaken in 2006. To date, the draft ordinance has been reviewed for final adoption and eventual implementation of the measure. In Tawi-Tawi, initial preparatory work was undertaken in the fourth quarter to implement a community-based management of tropical abalone population in Panglima Sugala. In Calamianes, a provincial ordinance declaring a 4-month closed season for the collection of grouper has been enacted in the second quarter of 2006. Implementation is held in abeyance pending the issuance of guidelines. A ban on compressor fishing is another measure being pursued by a number of municipalities in Calamianes, Surigao and Tawi-Tawi.
- In 2006, the project initiated the implementation of the fisheries registration and licensing system. The focal area municipalities were in different stages of implementation following orientation workshops conducted in the first half of 2006. In Danajon, implementation of registration and licensing was pursued generating substantial revenues for the municipalities of Bien Unido and Talibon. In Calamianes, Surigao and Tawi-Tawi, municipal LGUs have initiated the enactment or review of existing ordinances that incorporate the recommendations of the FISH project. During the second half of the year, the project organized admeasurements training, and MARINA certified selected LGU personnel as admeasurers in accordance with the provisions of EO 305.
- The implementation of the MPA program in all focal areas has intensified through the SAF facility. In Calamianes, Danajon, Surigao, and Tawi-Tawi, support to the priority MPAs were augmented with the provision of guardhouses, patrol boats and other law enforcement assets necessary for daily surveillance of the MPA, besides the technical support that is continuously provided to MPA managers and LGUs. Other existing MPAs in these three focal areas were continuously provided with technical support in terms of site identification, planning, community organizing, legislation and monitoring. New MPAs that will comprise the network in each focal area were also identified during the monitoring events conducted in the second and third quarters of 2006 with inputs from the hydrodynamic and larval dispersal studies conducted earlier. These MPAs are now in various stages in the establishment process and due to be completed in 2007.
- The establishment and operationalization of enforcement units also gained significant strides. During the first quarter, the law enforcement program mainly focused on conducting different phases of training and organizational development for the coastal law enforcement teams at various levels. In Calamianes, Danajon, and Surigao, efforts were focused on training and organizing the Special Enforcement Teams at the community level to strengthen their capacity to guard the established MPAs. In Danajon, law enforcement support has been expanded to all the CLEC2 member municipalities where training was conducted for all their enforcement teams to capacitate and strengthen skills in fisheries law enforcement. In Tawi-Tawi, training on basic coastal law enforcement and organizational development of provincial and municipal law enforcement teams were conducted. During the second half of the year, the program focused on assisting law enforcement units to draft operations plan for Danajon and Tawi-Tawi in collaboration with the police authorities. Establishment of linkages with provincial, regional, and national law enforcement agencies continued as part of the overarching strategy.

- The project through the PATH Foundation pursued the implementation of the reproductive health component in 10 *barangays*. During the second quarter, a USAID team visited three *barangays* in Calamianes to assess the progress of implementation. In Surigao, training on Youth Sea Camp integrating reproductive health and coastal resources management was conducted. To date, ten *barangays* in four focal areas have completed the formulation of *barangay* development plans (BDP) integrating therein the reproductive health program.

Key Accomplishments in Field Support and National Implementation

IEC and Training Support

- The project under the aegis of SAF facility continued to engage local NGOs and POs in 2006 generating substantial private sector counterpart funding. During the second quarter of 2006, a partnership was forged with the Educational Television Knowledge Channel Inc. and the government-owned National Television Network (NBN) to broadcast over cable and public television, respectively, the FISH Project-produced video documentary series, “Under construction: The making of a coast-wise nation.” A similar initiative was pursued in the fourth quarter, which included partnership arrangements with Mackmayer Printers for the large-scale printing requirements of the Talibon Interpretive Center; with Destinations Media Inc. for the coverage, production, and broadcast of BFAR-7’s Fish Conservation Week; and with business sector support to provide free painting materials in the rendering of mural art painting in Danajon.
- The preparation for the operation of the Fisheries and Coastal Resource Management Interpretive Center in the Municipality of Talibon was initiated in 2006. During the first quarter, discussions and agreements on information requirements for a story development workshop and for exhibit materials development including the 3D modeling of Danajon Bank and miniature gear, were conducted. In the second half of the year, the project conducted a number of activities, which comprised: (a) participatory 3D modeling workshop; (b) participatory story-telling workshop; (c) completion of the floor plan layout and text of the exhibit panels and (d) production of miniature fishing gear for the exhibits.
- IEC support to focal areas continued in conjunction with the priority activities undertaken in each project site for the entirety of 2006. Studies and production of posters, radio-plugs, billboards, exhibit materials and other IEC resources were developed in support to registration and licensing, MPAs, closed season for siganid and gravid blue crabs and general themes on over fishing. In addition, IEC support was intensified during special events such as Month of the Ocean in May, International Coastal Cleanup in September, Fish Conservation Week in October and other local celebrations. In Tawi-Tawi, the project assisted in the formulation and declaration of *FATWA* for Marine Environmental Protection, a way of incorporating religious perspective in resource management practices. In Calamianes, a local movement called *Tangay Y Ang Laud Calamianes* was conceptualized to build champions among local residents.
- The project spearheaded the development, packaging and facilitation of training modules and capacity-building programs in support to local and national implementation. In 2006, the following training activities were undertaken: municipal and inter-LGU fisheries resource management planning; basic coastal law enforcement and operations planning; study tour of successful areas by Tawi-Tawi MPA managers and LGU officials of Surigao and Calamianes; organizational development for POs; MPA management planning; special enforcement team training; and fisheries registration and licensing.

Special Performance Incentives Activity (Special Activities Fund)

- Implementation of projects approved in 2005 was in full swing during this period. A total of 12 SAF projects were simultaneously carried out in four focal areas supporting

key project components such as law enforcement, MPA establishment, IEC, and institutional strengthening. During the third quarter, the project awarded three new grant agreements to APRDCI and CMPC both in Surigao, and TMRDFI in Tawi-Tawi. Also in the same period, the project completed implementation of 4 grant agreements implemented by ELAC in Bohol, Hayuma Foundation in Calamianes, Project Seahorse in Bohol and SCIPG in Tawi-Tawi. A new batch of MPA project proposals were also reviewed during the second half of the year.

National Policy Implementation

- The national policy implementation primarily focused on finalizing the CNFIDP in 2006 following the recommendations forwarded by BFAR in late 2005. During the first quarter, the project reviewed the draft CNFIDP document mainly on the situational analysis and key interventions on municipal fisheries, commercial fisheries and aquaculture, post-harvest, and institutional development. The final draft was completed in the third quarter and submitted to BFAR for its adoption and eventual implementation.
- Another aspect that the policy component pursued in 2006 was the analysis and enhancement of fisheries policies. These included the work with NSAP-NFRDI in analyzing and evaluating NSAP data to inform effort management in Camotes Sea; follow-up work on the draft municipal and commercial licensing FAOs earlier submitted for approval; completion of draft document of priority amendments to RA 8550; and provision of assistance in the EO 305 implementation in FISH Project focal site. The project also worked with key institutions including LMP, the inter-agency TWG, and ARMM to replicate implementation of EO 305.

Key Accomplishments in Project Management and Performance Monitoring

- One of the key activities under this component was the conduct of a monitoring event for 2006. The project facilitated the hiring of sub-contractors for the activity during the first quarter and mobilized the monitoring teams. Data collection in Danajon and Calamianes was completed in the second quarter and Surigao and Tawi-Tawi in the third quarter. The bi-annual monitoring event coincided with the project's mid-term evaluation in the third quarter. The results of the monitoring event were included in the mid-term evaluation report.
- During the third quarter, the project also hosted the 2nd Consultative Group (CG) meeting conducted in Bohol. The CG was briefed on project performance, planned activities and project implementation concerns including enhancement of coordination among participating agencies. Hence, in the fourth quarter, the project formed and convened the National Technical Working Group, a coordinating body that will craft and recommend project implementation thrusts and direction.





Annexure 15

Ensuring Responsible Fisheries: Monitoring, Control and Surveillance, and Co-Management

Joaquin Cortez*

Summary

Why it is imperative to ensure responsible fisheries in the Philippines? The speaker said a recent study found that the Philippines is the global epicentre of marine biodiversity with approximately 950 commercial species of fish and 561 coral species, some of which face extinction on account of destructive fishing methods, runoff caused by deforestation, poor land use practices and other causes. The speaker concluded that diverse biological resources combined with the geo-physical, demographic and linguistic structure made a strong case for ensuring that responsible community-based fisheries be the primary guiding principle in the development of fisheries and related resources in the Philippines.

The presentation discussed the monitoring and surveillance systems that would suit the needs of both responsible fisheries and co-management. A three-pronged strategy was proposed. (1) Adopt the Ecosystem-based Community-centred Organization and Management (ECSOM) approach. (2) Accord to island communities, property or tenurial rights over the fisheries and aquatic resources on which they rely for incomes, food and nutrition. (3) Prevent illegal, unreported and unregulated (IUU) fishing in Philippines territorial waters, Exclusive Economic Zone (EEZ) and its adjacent high seas that would compromise the integrity and productivity of the world's epicentre of marine biodiversity.

An example of the second strategy was the *Bantay Dagat* Programme, a joint effort of the National Agriculture and Fisheries Council (NAFC) and the Bureau of Fisheries and Aquatic Resources (BFAR) to conserve and manage the country's aquatic resources, ensure food security and alleviate poverty in coastal communities with funding support from JICA. The speaker pointed out that while Local Government Units (LGUs) have powers to enforce all fishery laws, rules and regulations as well as valid fisheries ordinances in municipal waters, national law enforcement agencies such as the Philippines National Police (PNP) Marine Group and the Philippines Coast Guard (PCG) also share jurisdiction over the enforcement of fishery and environmental laws in municipal waters. The Philippine National Police is responsible for all police functions and the Coast Guard is responsible for safety of life at sea and protection of the marine environment. One of the components of the *Bantay Dagat* programme is to provide patrol boats, communication and other equipment to LGUs in areas where illegal fishing was rampant.

The speaker concluded with an overview of the application and results of Monitoring, Control and Surveillance (MCS) and Vessel Monitoring System (VMS) systems in Philippine waters. It was pointed out that BFAR was looking forward towards the establishment of a VMS linking satellite to ground stations and transmitters. It was mentioned that in many countries, VMS systems have been introduced and greatly increased the potential efficiency of MCS. For a developing country like the Philippines, VMS makes MCS measures more effective and possibly less costly when applied to national and foreign fishing vessels licensed to fish in the EEZ.

* Fishery Planning Officer, Fisheries and Aquaculture Department, Food and Agriculture Organization of the United Nations, Rome, Italy.

I have structured my presentation to answer three main questions, which are as follows:

1. Why is it imperative to ensure responsible fisheries in the Philippines?
2. Why co-management as the preferred approach to fisheries management?
3. What MCS system would be appropriate to address the objectives and issues as discussed in points 1 (responsible fisheries) and 2 (co-management)?

1.0 Why is it imperative to ensure responsible fisheries in the Philippines?

The Philippines is one of the few nations that, in its entirety, is both a hotspot and a mega-diversity country. With its more than 7 100 islands (of which 700 are inhabited by humans), the Philippines covers 297 179 km² and lies along the equator, between 5°N and 21°N. The archipelago stretches over 1 810 km from north to south, and measures 1 104 km at its widest point. Northern Luzon is only 241 km from Taiwan (with which it shares some floristic affinities). The islands off southwestern Palawan are only 40 km from Borneo and share floristic affinities with both the Philippines and Borneo in the Sundaland Hotspot, and strong faunal affinities with the Sunda Shelf (Esselstyn *et al.*).

The archipelago was formed from a series of isolated fragments that have long and complex geological histories, dating back 50 million years. With at least 17 active volcanoes, the Philippine islands are part of the “Ring of Fire” of the Pacific Basin, extending from Indonesia to Japan and eastern Russia, and around the western edge of both American continents.

And in this connection, scientists have long known that the area encompassing Indonesia, Malaysia and the Philippines is rich in marine biodiversity with the Philippines having the richest concentration of marine life on the entire planet. Understanding the natural forces, such as lithospheric plate movements, prevailing currents, and the geography and geology of the area that contributed to the evolution of the biodiversity in the Philippines, poses some very interesting questions about the origins of marine life in the world’s oceans. Perhaps the Philippines holds the key to unraveling mysteries about how marine biodiversity patterns change through space and time.

The Philippines is therefore at the global epicenter of marine biodiversity (Carpenter and Springer, 2005), with approximately 950 (commercial) species of fish and 561 species of corals. Species that Carpenter helped catalogue in the waters of the Philippine Islands include seaweeds, corals, bivalves, gastopods, cephalopods, stomatopods, shrimps, lobsters, crabs, sea cucumbers, sharks, rays, chimaeras, bony fishes, estuarine crocodiles, sea turtles, sea snakes and marine mammals. The study also found that this center of marine biodiversity has a comparatively high number of species that are found only in the Philippines, where threat of extinction is real, including for those species that have yet to be discovered by scientists.

A number of destructive fishing practices like dynamite and cyanide fishing, including deforestation¹ and poor land use currently pose a serious and imminent threat to this epicenter of marine biodiversity. The runoff from deforestation and poor land use goes into rivers and out to the sea, covering entire swatches of coral growth with sediments that are detrimental to their survival.

¹ As late as 1945, as much as 60 – 65 percent of the Philippines was covered with old-growth forest, but the rate of logging accelerated quickly after World War II, with old-growth forest cover dropping to 55 percent in 1950, 30 percent by about 1975, and 20 percent by 1988. Recently, lumber exports have declined drastically (by 90 percent in the last 20 years), but this is principally because there is virtually nothing left to export. However, the prospect of a major increase in mining is now an imminent threat. In 1997, regions where mining applications took place covered over 25 percent of the land area of the country, and included over 50 percent of the remaining primary forest. This is substantiated by the fact that only about 6 – 7 percent of the original old-growth, closed-canopy forest remains, and far less in the lowland regions where an estimated 3 percent remains (Environmental Science for Social Change, 1999). Unquestionably, the most damaging practice has been the extensive commercial logging (both legal and illegal) that has taken place in the past.

At a lecture at the FAO in Rome late last year, Dr Carpenter said that the Philippine Islands are the marine counterpart to the Amazon rainforest in terms of concentrated biodiversity. Unfortunately, the Philippines shares something in common with the Amazon: many of its inhabitants are threatened with local extinction due to uncontrolled deforestation, soil erosion, air and water pollution, coral reef degradation and destructive fishing techniques. The mudslides that buried alive entire coastal villages indicate the interdependence and interconnectedness of island-based marine and terrestrial ecosystems particularly in archipelagic settings like the Philippines.

The 700 islands with human settlements are home to a current population estimated at 85 million, constituting some 17 million households living in habitats that range from coastal fishing villages, lowland river valleys, and alluvial plains to rolling lands and steep mountain ranges, and in sprawling metropolitan centers.

Some 30 percent of these households are located in highly urbanized metropolitan centers while two-thirds of Philippine households – which include fisherfolk, rice, corn and coconut farmers, small traders, artisans and service people, landowners and proprietors in the lesser cities, including a small minority of tribal people in small, largely self-sufficient and subsistence communities on remote islands and highlands of the country – live in commercializing agrarian societies. Combined, these agrarian and tribal settlements encompass some 11 or 12 million families living in some 225 watershed communities. Furthermore, the country has approximately 87 dialects, each implying its own sub-culture.

The geo-physical, demographic and linguistic structure that constitutes the Philippines in combination with its diverse biological resources make a strong case for ensuring that responsible community-based fisheries be the primary guiding principle in the development of fisheries and related resources.

2.0 Why co-management as the preferred approach to fisheries management?

Community-Based Marine Resource Management Systems and Co-Management

There has been considerable theoretical advance during the last 20 years in the study of community-based management systems and co-management, based on case studies mostly not of fishing communities. Together, these advances suggest a large array of research topics on institutional arrangements concerning community-based marine resource management systems, especially on co-management. The research topics on the factors that favor co-management suggested below have been developed from many sources, but particularly from Pinkerton (1989).

(1) What are the preconditions? (a) Real/ imagined crises (*e.g.*, stock depletion); (b) Willingness of fishers to contribute; (c) Opportunity for negotiation of simple and expandable co-management experiment.

(2) What are the best mechanisms and conditions? (a) Agreement formalized, legal and multi-year; (b) Community share in extra wealth generated; (c) Conservation/ enhancement of resource furthers conservation and/ or enhancement of local culture; (d) Where communities can enlist external (non-governmental) supporters and external discussion forums are available.

(3) What is the appropriate geographical scale? (a) They are most easily implemented or reinforced in small areas with clearly defined physical boundaries (*e.g.*, reefs, embayments), or where resource is relatively sessile or fixed (*e.g.*, shellfish). However, Pastoral (1987) and Zerner (1989a, 1989b) demonstrate cases from the high seas of the Philippines and Indonesia, respectively; (b) Number of fishers and/ or communities small enough for effective communication, or where well-organized sub-groups (village, kin, gear, etc.) exist; (c) Size of government correspondingly small and local or regional.



A sample of the seafood biodiversity of the Philippines.

(4) What kinds of social groups are “pre-adapted” to co-management?

(a) Homogenous ones, since success depends on acceptance by local fishers of the rules, generally as part of their socialization process, and their maintenance and enforcement on local norms (like peer group pressure). In groups where strong socio-economic and similar cleavages occur, or where rapidly changing demographic patterns like growth or in- and out-migration exist, systems tend to collapse; (b) Existence of cohesive social system based on kinship, ethnicity, homogeneous gear type, among others; (c) Where a group can define its boundaries, so membership is clear and allocations and regulations can be effectively applied and enforced.

(5) What is the likely nature of the new relationships created by co-management?

(a) Co-operation among individual fishers and local fishers' groups in planning for stock conservation and enhancement; (b) Commitment among local fishers to share costs and benefits of efforts (*i.e.*, perception of fishers move from those of individual predators or profit maximizers to collective managers); (c) Increased motivation in conflict resolution to negotiate equitably shared access; (d) Enhanced position of fishers to more equal negotiating relationship with other aquatic resource users; (e) Heightened degree of organization and mutual commitment, enabling fishers to have a more equal bargaining relationship with fish buyers; (f) Increased willingness among fishers and government to share data and to collectively reach a more complete understanding of the resource; (g) Greater trust between fishers and government, greater sense of control among fishers, and reduction of the motivation to invest in competitive gear; (h) Trust between fishers and government permits development and implementation of enforcement regimes perceived by fishers as appropriate and legitimate; and (i) Trust between government and fishers makes the former more willing to allow fishers to assume a range of self-management responsibilities.

Legal Bases for Co-Management

Three key Philippine laws – the 1991 Local Government Code (LGC), the 1997 Agriculture and Fisheries Modernization Act, and the 1998 Fisheries Code – shape fisheries policy today. They also delineate the roles and functions of government agencies dealing with marine resources including fisheries *i.e.*, BFAR, the Department of Environment and Natural Resources (DENR), and municipal governments (Cruz-Trinidad, 1998; Eisma and others, 2005; White and Vogt, 2001).

After the passage of LGC in 1991, the management of coastal areas has since been decentralized to municipal government levels. Today, LGUs *a.k.a.* municipal governments, have jurisdiction and authority over the management and allocation of marine resources in municipal waters from its shoreline extending to 15 kilometers offshore. Commercial fishing vessels greater than 3 gross tonnes are supposed to fish outside municipal waters (unless they have municipal government approval to enter the 10–15 kilometer zone). Municipal governments likewise have regulatory control over artisanal and commercial fisheries determined by vessel size *i.e.* defined in terms of gross tonnage.

The LGC became the legal and institutional instrument that transformed fisheries management from a centralized top-down approach to community-based co-managed fisheries. The following are examples of the fisheries licensing system on which an innovative MCS system is being developed (Source: DENR-BFAR-DILG, 2001):

- **Registration of fishers:** The Fisheries Code of 1998 requires that all eligible fishers be registered. Lists of registered fishers are compiled at each village (*barangay*) level and endorsed by their respective Fisheries and Aquatic Resources Management Councils (FARMCs) and *Barangay* Captains. However, the actual registration of municipal fishers cannot really be enforced because many of the LGUs currently do not have either the capacity or will to do so (personal comment from Felipe Nava, Municipal Mayor, Jordan, Guimaras; Maria Canlas, Economic Researcher, Mariveles Municipality, Bataan).

- **Issuance of license and permits to fishers and fish workers:** Licensing is based on the fishers' registry. Prior to obtaining a license or permit, a fisher must first be registered by providing the following information: personal data, license category, name of home port, port of landing, fishing zone, license fee amount, receipt number, date issued, expiry date, etc. Companies may also apply for licenses, permitting the company to take part in various fishery-related business activities, although unlicensed individuals in their employ cannot take part in fishing operations. For vessels, the owner of a vessel need not be licensed, but the operator must be. This form is only operational in Fisheries Resource Management Project (FRMP) sites.
- **Issuance of license and permits to vessels:** Information included on the fishing vessel licensing form includes vessel name, proprietorship, personal data of the owner, home port, port of landing, fishing zone, gross registered tonnage, net registered tonnage, license category, etc. This form is only operational in FRMP sites.
- **Taxation, lease, or rental fees:** The LGUs can determine license fees of fishery activities in municipal waters in consultation with the FARMCs. The latter may recommend the appropriate license fee to be imposed. However, to date the experience with license fees for small-scale fishers in municipal waters remain arbitrary and limited (DENR-BFAR-DILG, 2001).

Total Allowable Catch (TAC) as stipulated in the Fisheries Code should not exceed Maximum Sustainable Yield (MSY). However, this cannot be strictly observed since MSY cannot be established for many species; and monitoring TACs or MSYs require good catch statistics and knowledge about the catch of individual fishers – for which information is not available.

The devolution of management authority to LGUs and the formation of FARMCs became the basis for co-management. These resulted in creating more than 800 autonomous entities directly in-charge of fisheries management.

Technical assistance agencies and donor agencies wishing to assist LGUs and FARMCs develop their co-management capabilities must do so by considering the particular socio-political, historical, and socio-economic context of communities they intend to assist. Careless exportation of generic management models will only lead to major management failures.

3.0 What MCS system would be appropriate to address the objectives and issues as discussed in points 1 (responsible fisheries) and 2 (co-management)?

Protecting the fishery resources of the Philippines requires a three-pronged strategy. Given the biodiversity of its 7 100 island ecosystems, on both micro and macro scales, the first strategy is to consider adopting the ECSOM in the 700 islands inhabited by human settlements. The well-being of these island ecosystems contributes and sustains the overall mega-diversity of the country.

The second strategy is to accord to island communities the property or tenurial rights and their consequent obligations over fisheries and aquatic resources on which they rely on for incomes, livelihoods, food and nutrition.

The third strategy seeks to prevent illegal, unreported and IUU in Philippine territorial waters, EEZ and its adjacent high seas that would compromise the integrity and productivity of the world's epicenter of marine biodiversity.

Strategy 1. Ecosystem-based Community-centered Sustainable Organization and Management

As an archipelagic state with over 2.2 million km² of highly productive seas, the Philippines is fortunate to have vast fishery resources at its disposal. Its unique marine environment is located at the heart of an island nation of 85 million people, 70 percent of whom live in clusters of villages, market towns and small cities on some 225 watershed territories. Each village is shaped like a cone with some 250 000 ha of municipal waters and 100 000 ha of land divided into five or six pedo-ecological types:

- i) built-up areas in the form of larger towns, small cities, town centers and small villages;
- ii) coastal beaches with sea grass and mangrove swamps;
- iii) alluvial plains;
- iv) mid-level, rolling dry land on warm upland zones;
- v) higher elevation combinations of grass lands; and in some cases
- vi) second generation, residual and virgin rain forests.

River systems originating from the highlands fan into tributaries of lowland catchment areas, draining down to municipal waters and stretching out towards the country's extended national jurisdiction and the adjacent high seas. Because the ecological stakes are global, it is no longer possible to defend marine biodiversity without addressing the more complex and integral problem of sustainable development in the 7 100 island ecosystems.

Coastal communities are ideal for developing strategies that would provide guidelines for setting up appropriate institutional mechanisms to implement the ecosystem approach. The latter would highlight the inter-connectedness of the different "levels" and areas of resource management. For example, it would be possible to establish that what goes on in the uplands (*e.g.*, bad forestry, mining and farming practices) affects inshore fisheries. This would demonstrate that every kind of natural resource utilization (forestry, mining, agriculture, fisheries) is inter-connected and must be considered in connection with other human activities.

To sum up, the ecological conditions of the Philippine archipelago would be ideal to apply the ECSOM approach that could serve as a viable institutional mechanism for implementing the ecosystem approach at local levels.

Under the ECSOM approach, the community is the unit of organization, and its net income and net worth are the dominant measures of economic performance. It focuses on addressing constraints at the local level, like: i) weaknesses in local management; ii) lack of information on local resources, environment and human systems; iii) lack of local monitoring systems; iv) lack of knowledge about the geographical space (energy and nutritional flows, vertical and horizontal linkages, etc.); v) lack of awareness about issues concerning the social capital bases (*e.g.* skills and technology, general knowledge, access to essential development inputs).

The watershed community is the ideal unit to sustain marine biodiversity and the livelihoods it sustains. An average of 50 000 households in 100 *barangays* comprise such a community within a watershed area. The adoption of an ECSOM approach in such communities would bring self-reliance and sustainable development within half a generation – 15 years consisting of five three-year planning-implementation periods (synchronized with the three-year terms of local government elective officials).

Empowering the communities means organizing the stakeholders into clusters of five to 20 households per cluster. Every cluster, and groups of clusters at *purok*, *sitio*, *poblacion*, municipal, and community levels, will select leaders who will be trained and educated systematically according to a rigorous program to be the "collective bargaining agents" of their respective stakeholders following the *Sogo Shosha* model.



The Local Government Code (Republic Act No. 7160, 1991) provides for devolution of authority of local governments in fisheries management, and clearly states that the municipality has the exclusive authority to grant fishery privileges and impose fees, etc. without approval from any national agency. Such privileges cover fish, corals, shellfish beds, milkfish fry and the issuance of licenses for fishing vessels of 3 gross tons or less. The LGUs are also authorised to penalise violations of the fishery law, and to enforce laws and regulations relating to pollution control and the protection of the environment.

The FARMCs form the basis for fisheries co-management in the Philippines. They provide the framework for the various stakeholders to participate in policy formulation, planning and implementation of fisheries programmes (Grutas, 2003). FARMCs were created in 1995 through Executive Order No. 240 and amended through the Philippine Fisheries Code of 1998 (Republic Act No. 8550, 1998) and Fisheries Administrative Order No. 196 (January 2000) in order to enable fisher folk to take an active role in the development, management and conservation of local fisheries resources.

Each FARMC is a multi-sectoral body of fisherfolk representatives from municipal and commercial fisheries, 'fish workers' (casual or long-term employee in the fishing industry), representatives from NGOs and the private sector, representatives from the LGU (planning and development officer, chairperson of the Agriculture and Fisheries Committee of the *Sangguniang Bayan* (municipal legislative body) and a representative from the DA/ BFAR (Felsing *et al.*, 2003). These councils also provide a venue to raise fishery related issues, discuss problems and recommend solutions that could eventually be adapted into legislative agenda (Felsing *et al.*, 2003).

An authentic sustainable development program must be designed as a consolidation of sustainable development programs at the level of coherent communities, where responsibilities are clearly defined at each level of organization, managers are trained to implement programs, and accounting systems monitor the performance of managers.

This implies that the role of manager needs to be exercised in the community. What are the implications of that role? It assumes the community to be an 'organization' of particular characteristics. The community system combines the ecological system and the human community, habitat and colony. Thus, the choice of the appropriate unit of organization must integrate its stakeholders, its structure and its stock of resources. The community is an organism subsisting in a territorial habitat on which it has fashioned a life -support system. It has a territory, a natural resource endowment and a working economy that together define both its needs and its capacity to supply them.

The tenet for authentic sustainable development programs should be that local communities assume the role of managers, systematically seeking to integrate ecological elements into organizational structures and behavior. Environmental costs must be "internalized" , rather than be regarded as "externalities." In this context, "community" comes to mean "ecosystem" such that it is considered as an integral part of a habitat shared with other living species.

Strategy 2. *Bantay Dagat* Program

The *Bantay Dagat* Program is a joint project of the NAFC and the BFAR. Its object is to conserve and manage the country's aquatic resources, ensure food security and alleviate poverty in coastal communities that depend on fishing and the utilization of other aquatic resources for a living. Funding came from JICA through the RP-Japan Increase Food Production Program.

While LGUs have the powers to enforce all fishery laws, rules and regulations, as well as valid fishery ordinances in municipal waters, national law enforcement agencies such as the Philippine National Police Marine Group and the Philippine Coast Guard

share jurisdiction over the enforcement of fishery and environmental laws within municipal waters. The Philippine National Police Marine Group is responsible for all police functions over Philippine territorial waters and rivers, coastal areas from the shoreline to 1 mile inland to include ports and harbors and small islands of 2 miles in length or diameter with less than 1 000 population (Republic Act 6975). The Philippine Coast Guard is primarily responsible for the promotion of safety of life at sea and the protection of the marine environment (DENR-BFAR-DILG, 2001).

One of the components of the *Bantay Dagat* Program is the provision of patrol boats, communication and other equipment to local government units, which have sole jurisdiction over municipal waters under the present laws. BFAR, PCG and PNP-Marine Group help LGUs attain the objectives of responsible fisheries through the provision of MCS and enforcement.

A total of 93 *Bantay Dagat* patrol boats is deployed to different LGUs nationwide, specifically in areas where illegal fishing is rampant. The deployment of a patrol boat is covered by a memorandum of agreement between the respective LGU and BFAR with the understanding that the boat shall be used solely for anti-illegal fishing operations. However, BFAR retains the right to pull out any of the patrol vessels from an LGU if misused and/ or not properly maintained.

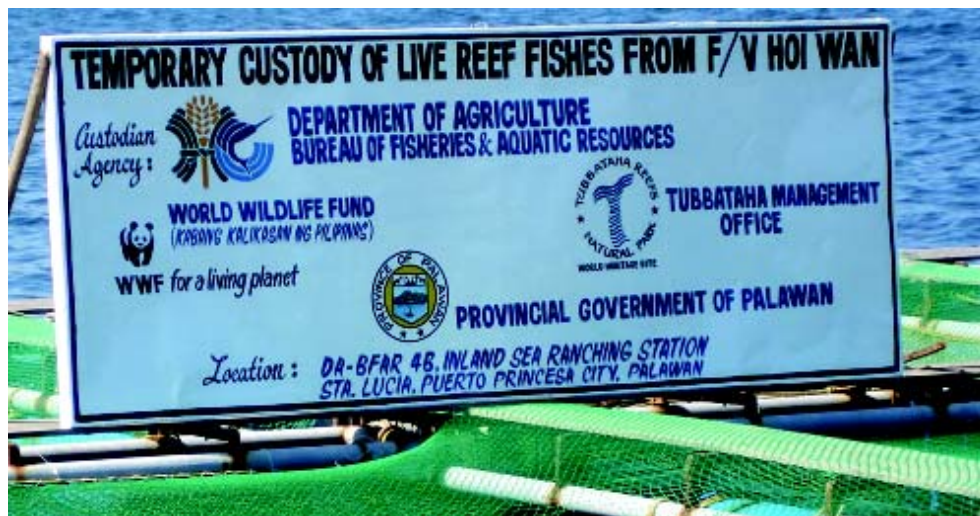
Strategy 3. Application of MCS and VMS to prevent IUU in Philippine territorial waters, its EEZ and its adjacent high seas that would compromise the integrity and productivity of the world's epicenter of marine biodiversity.

Pursuant to Section 14 of RA 8550, the Department of Agriculture (DA), through the BFAR, is mandated to establish a MCS System at the national and regional levels. Section 65 of the same law empowers BFAR to "establish a corps of specialists in collaborating with the Department of National Defense, Department of Interior and Local Government, Department of Foreign Affairs for the efficient monitoring, control and surveillance of fishing activities within Philippine territorial waters and provide the necessary facilities, equipment and training thereof."

December 12, 2003 marked the beginning of Philippine fishery law enforcement with the launching of 14 newly acquired MCS Vessels from Spain. The DA through the BFAR also established a central MCS station at its fishing harbor complex in Navotas which now serves as command center for MCS activities. It operates a database computer system that helps in the tracking of all vessels and provides the necessary coordination to facilitate the effective and more cost-effective law enforcement operations. A total of 232 apprehensions of both local and foreign fishing vessels were made and recorded by MCS Patrol Vessels conducting seaborne operations in the different regions of the archipelago since 2004. The MCS station in Navotas is also equipped with the necessary diagnostic equipment for detection of illegally-caught fish.

Early last year, the joint operatives of the BFAR, the Philippine Coast Guard and the Philippine Maritime Police using BFAR's MCS patrol vessels made a total of six major poaching apprehensions. In April/ May 2006, five Taiwanese fishing vessels were caught poaching off the waters of Cagayan and Isabela provinces and were detained on grounds of illegal fishing under Section 87 of RA 8550.

In June 2006 a Chinese vessel with eight Chinese fishermen was also apprehended in Mangsee, Balabac island in Palawan for violation of environmental laws and poaching. The vessel yielded three live 6-ft whales and 26 dead sea turtles. To date, BFAR had acquired a total of 14 units of state-of-the-art high speed MCS patrol vessels (10 units 30-meter, other units 11-meter long) used in patrolling the high seas and areas beyond the 15-kilometer municipal waters. The joint team of the PCG, Philippine Maritime Police and BFAR operates the MCS vessels.



The BFAR is looking towards the establishment of a VMS linking satellite to ground stations and transmitters. VMS has greatly increased the potential efficiency of MCS. In the last few years several countries have introduced VMS which enable the activities of fishing vessels to be monitored and makes it mandatory for such vessels to actively report on catches to the fisheries management authority.

For developing countries like the Philippines lacking in financial and physical resources to support an effective conventional MCS capability, VMS makes MCS measures more effective and possibly less costly.

Coastal States, applying VMS to national and foreign fishing vessels licensed to fish in their EEZs, can monitor the activities of such vessels very effectively and economically, thereby increasing the effectiveness of their MCS. On the other hand, the implementation of VMS by Flag States, for vessels authorized to fish on the high seas, is the most effective means of ensuring that vessels flying their flag do not conduct unauthorized fishing within areas under the national jurisdiction of other States. This will make the operations of fishing vessels in Philippine territorial waters and its EEZ more efficient, thus, significantly reducing poaching which annually accounts for more than P2 billion worth of losses in fish resources.

In this connection, a Second Global Fisheries Enforcement Training Conference will be held in Trondheim Norway from August 7-11, 2008. Sponsors will include Norway, the European Commission, the International MCS Network and possibly others. A group of fisheries MCS specialists is planning the programme. Both developing and developed countries will be participating. It is aimed at the operational level – it is not for negotiation or policy determination but attendance from multiple disciplines is being encouraged.



Annexure 16

Field Visit to Barangay Caramay, Roxas, Palawan

A field trip was organised on 14 February 2007 to the Maliliit Na Mangingisda Ng Caramay Producers Cooperative (MMCP) located at Barangay Caramay, Roxas, Palawan. The visit enabled the Seminar participants to witness the activities of the Cooperative Society and also gain experience from the pioneering programmes being implemented by the Cooperative in the coastal waters of their municipality. The following account provides a brief description of the Cooperative Society, its office-bearers, their activities and their financial status.

Brief history

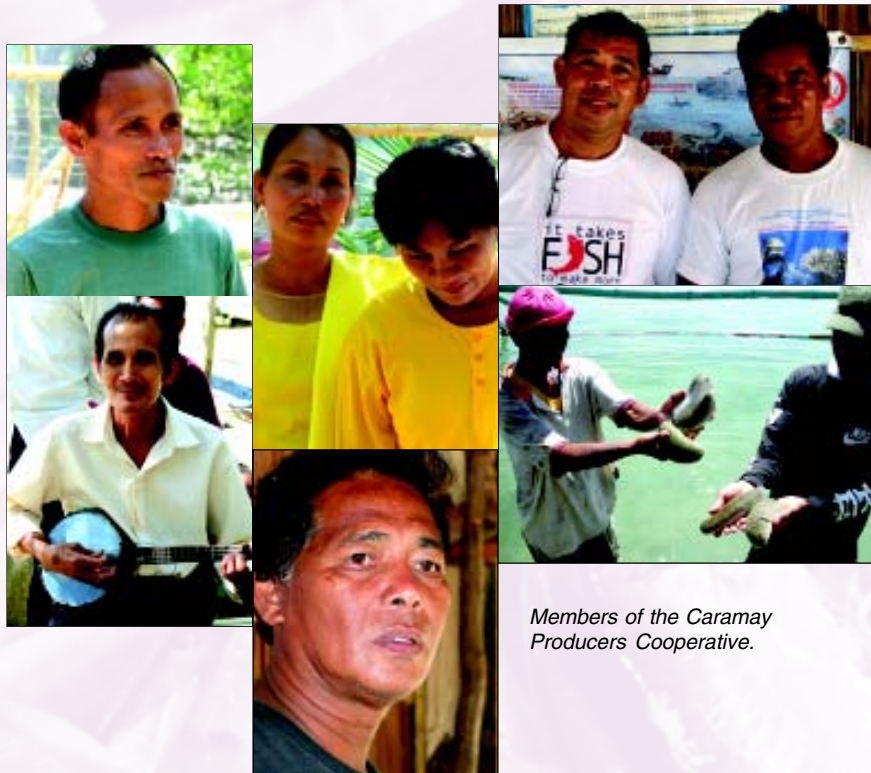
The MMCP was organized in 1998 by the HARIBON Palawan, an NGO that aims to reverse the destruction of Palawan's natural resources by implementing integrated development programs. The Mission of the MMCP is to undertake conservation-oriented programs and enable sustainable livelihoods to support the requirements of present and future generations and better the socio-economic conditions of the members. The Cooperative has been an active partner of HARIBON Palawan and Local Government Unit (from the Barangay to the Provincial level) in the coastal resource management program in Roxas, Palawan.

MMCP structure and office-bearers

The MMCP has 102 members, 70 percent of the members are full- time fishers and 30 percent, part-time fishers. Mr Rodolfo Derecho and Mr Agustin Balmonte are the Chairman and Vice-chairman respectively of the Board of the MMCP. The other office bearers:

Ramon Llavan	- Member
Mendrado Capuno	- Member
Alfredo Cacatian	- Member
Danilo Badenas	- Member
Artemio Sócrates	- Member
Joel Valdez	- Manager
Clarence Fabregas	- Bookkeeper
Gladys Danggan	- Bookkeeper
Silvano Arzaga Jr	- Treasurer
Analyn Badilla	- Board Secretary





Members of the Caramay Producers Cooperative.



Sample of the activities undertaken by the Cooperative.



Seminar participants at Caramay.



The activities

The MMCPC is currently implementing the Community-based Marine Sanctuary and Livelihood Support Project (CBMSLSP) in Caramay, Roxas, Palawan. The Project is funded by the United Nations Development Programme/ Royale Netherlands Embassy (UNDP/RNE/Small Grant Project). The engagement with the UNDP/ RNE Small Grant Program stemmed from the special award “Panibagong Pamaraan” given to the Cooperative in 2004.

The Cooperative conducts many activities¹. These include (i) eco-tourism (development and distribution of information, education and communication brochures, enhancement of eco-tourism package, networking and linkage building, providing service to clients and promotion activities), (ii) mariculture and seaweed farming (grouper farming, sea cucumber culture, monitoring and evaluation of the activities and marketing), (iii) management of a 50 hectare marine sanctuary (installation of sanctuary guards, patrolling and law enforcement), (iv) value-added fish products such as fish paste, (v) Micro-finance (loan assistance to members and non-members) and (vi) rice trading. Capital for the mariculture projects is derived from the internal resource mobilization of its members including share capital payment.

The financial status

The present financial status of the Cooperative is as follows:

Sl. No.	Activity	Amount (in Pesos)
1.0	Paid up capital per member	500.00
2.0	Subscribed capital	2 000.00
3.0	Authorized capital	8 000.00
4.0	Total capital build up of the Cooperative	150 000.00
5.0	Income from the micro-lending activity (per month)	40 – 60 000.00



¹ The details on some of the activities carried out by the Cooperative are available in: Training Project for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines. Report of Phase One, ICFO, 2006, p.46.



Annexure 17

Group Discussion - Group A

Policy and Legal Support to Coastal Resources Management

Members: Michael de Guzman, Chairperson; Filipina Gojar, Rapporteur; Joaquin Cortez, Adviser; Felix Borja; Renato Fernandez; Jezreel Marquez; Raul Quijano; Karen Sabuga-A; Socorro Tan; Santiago Monzaga; Joel Valdez.

Issues/ what is lacking?	What needs to be done in terms of policy changes?	What needs to be done in terms of management and legal measures?	By whom?
Management of municipal waters and their resources.	Devolution of powers to cooperatives and community fishers.	Enactment of municipal and provincial resolutions, ordinances and other relevant laws, devolving powers to cooperatives and community fishers.	LGUs and Provincial Governments.
Encroachment of commercial fishing vessels in municipal waters.	Involvement of cooperatives and community fishers in establishing perimeter markers in the 15 km municipal coastal zone.	Innovative use of different forms of "payao" or fish attracting devices as markers, monitoring, control and surveillance by cooperatives/ community fishers (e.g. deputation of fish wardens by bonafide members of the community).	BFAR, LGUs, PNP Marine Group.
Licensing and registration of fisher folk, fishing vessels and gear.	Involvement of cooperatives and community fishers in the issuance of licenses and registration of fisher folk fishing vessels and gear (e.g. colour coding system)	Develop capabilities within communities for resources assessment using indigenous/ local knowledge with support from research and extension institutions	LGUs
Coordination among agencies (government agencies and NGOs) in CRM.	Review of mandates of different agencies involved in CRM; upgrading of BFAR from a line bureau to a Department of Fisheries.	Strengthening inter-agency networking and coordination to avoid overlapping of CRMP.	BFAR, DENR, Academic institutions, NGOs, POs, LGUs, PCDC.
Alternative livelihoods, appropriate education and marketing system.	Develop sustainable community-based market economy.	Creation of alternative livelihoods, innovative education and collateralization of sustainability as a form of community credit.	LGUs, NGOs, DA, CDA, DEPED, CHED, DOLE.





Group Discussion - Group B

Sustainable Use of Coastal Resources and their Management

Members: Romeo, Cabungcal, Chairperson; Bernardo, Desabelle, Rapporteur; Sandra Victoria, Arcamo, Adviser; Rudolfo Derecho; Leonardo Cuaresma, Antonieto Montallana, Ariston Joven, Henry Mania; Raymundo Omiple; Job Peralta; Abdulkarim Nasil; Tiburcio Seno; Lemuel Tampos.

<i>What is lacking?</i>	<i>What needs to be done?</i>
Operation and maintenance of fish sanctuaries.	<ul style="list-style-type: none"> • Imposition of user fees. • Institutionalization within LGU (assure budget allocation).
MPAs.	<ul style="list-style-type: none"> • Increase areas for fish sanctuaries/ MPAs.
Solid waste disposal system.	<ul style="list-style-type: none"> • Develop/ establish waste material recovery facilities. • Segregation of waste and its proper disposal.
Effluents from industries/ mining plants.	<ul style="list-style-type: none"> • Close coordination between LGU and DENR (clean and green units, EIA). • Consultation with FARMCs/ FAs/ Fisheries cooperatives.
Determination of carrying capacity of marine areas.	<ul style="list-style-type: none"> • Practice responsible aquaculture.
Enforcement of Fisheries Law.	<ul style="list-style-type: none"> • Enactment of Basic Municipal Fisheries Ordinances (with budget allocation). • Organization of federated FAs/ cooperatives/ <i>bantay-dagat</i>.
FRM capacity of FARMCs	<ul style="list-style-type: none"> • Capacitate FARMCs on FRM to enable them to fulfill their advisory functions.
Alternative livelihood for fisherfolk.	<ul style="list-style-type: none"> • Alternative fishing areas away from the municipal waters. • Mechanisms to finance provision of fishing vessels to access deeper areas. • Big-small brothers scheme (established coops to adopt). • CUP and CDA to facilitate the big-small brothers scheme. • Identify land-based livelihood for fishers.
Proper disbursement of taxes exacted from use of marine resources.	<ul style="list-style-type: none"> • Establish system to ensure that taxes to be exacted from fisheries sector are funneled back to the fisheries sector.
Savings and insurance mobilization program.	<ul style="list-style-type: none"> • Strengthening of coops/ associations on financial management and capacity to source funds (grants).
Zonation of municipal waters.	<ul style="list-style-type: none"> • Enact ordinances for marine and water use plan.
Delineation and delimitation of municipal water boundaries.	<ul style="list-style-type: none"> • Facilitate consultations to delineate and delimit municipal water boundaries (LGUs, BFAR, DENR-NAMRIA).
Preserve forest cover and enhance watershed management.	<ul style="list-style-type: none"> • Conduct massive tree planting activities. • Intensify Sloping Agricultural Land Technology. • Improvement of watershed management.
Fisherfolk settlement.	<ul style="list-style-type: none"> • Resettlement of fisherfolk away from the shoreline. • Enforce land-use plan.
Farm to market link.	<ul style="list-style-type: none"> • Establishment of fish landing centers/ fish markets and facilitate their operated by fisheries co-operatives. • Establish ice plants and cold storages. • Modernize existing ice plant and cold storage facilities. • Promote scientific post-harvest techniques that will cater to both domestic and international markets. • Improve product development and marketing techniques. • Entrepreneurship development among fisheries coops/ association members.



Group Discussion - Group C

Role of Institutions in Coastal Resources Management

Members: Antonio de Vera, Chairperson; Johnny Agustin, Rapporteur; Yugraj Singh Yadava, Adviser; Edmund Arca; Lyn Cabungcal; Emiliano Camba; Gloria Diaz; Lourdes Ferido; Walter Icalla; Caroline Lagazo; Arnel Santiago; Connie Sariago; Bonifacio Tobias; Isagani Valerio.

Institution	Key Roles and Functions	Linkage/ Network Organization	Gaps/ issues/ Problems	Recommendations
BFAR	<ul style="list-style-type: none"> Policy Resource Management Institutional Development Linkages 	LGUs, DENR, DOST, PNP, NGOs, POs, Fishery Industry, Stakeholders, International organizations.	The Fisheries sector is not given the attention it deserves; minimal budget for programmes; inadequate manpower to implement mandates as per RA8550.	Creation of Department of Fisheries
DEPED/ TESDA/ CHED	<ul style="list-style-type: none"> Elementary, Secondary, Post Secondary and Tertiary Education Promotion and awareness on aspects such as fishery loans and enforcement.		Lack of awareness on proper coastal resources utilization.	Inclusion of topics such as conservation of coastal resources and agri-business management in curriculum and budget allocation for this purpose.
CDA	Regulatory agency		Lack of personnel budget to supervise cooperatives.	Strengthen promotion and development of cooperation.
GFI's	Extension of financial Assistance to cooperatives/ fishermen organizations.		Difficulty in complying with loan requirements.	Simplify criteria for accreditation of bank assisted cooperatives.
DENR	Enforcement of fishery laws limited to community-based fishery projects, pollution control law, small-scale mining law and other laws on the protection of the environment.		High fees and slow releases of ECC.	Faster processing.
DOST-PCAMRD	Provide technical assistance through intervention of new technology.	International funding Agency.	Lack of PCAMRD staff at the regional level.	Additional staff is required.
PCG/ PNP	<ul style="list-style-type: none"> Security To help implement Fishery Laws in co-ordination with FARMCs. Provides support for MCS activities offshore when available. 	FARMC/ <i>Bantay Dagat</i>	Violations within the ranks of PNP.	Documentation and report of violations to proper authorities Regional Director/ NAPOLCOM.



Institution	Key Roles and Functions	Linkage/ Network Organization	Gaps/ Issues/ Problems	Recommendations
DOT	Development, Conservation and Promotion of local tourist areas.	Provincial Tourism Office.		Promotion of fisher folk organizations.
OPAG/ MAO	<ul style="list-style-type: none"> Provide technical assistance in aquaculture, post-harvest, coastal resources management, etc. Provide analysis on red tide monitoring and management. Capacity building for fisherfolk associations, fisheries cooperatives, FARMCs 	BFAR, DENR, DILG, DOTC, OPA(LGU), BRGY, Municipal Government, NGO's	<ul style="list-style-type: none"> Lack of manpower to implement the programmes. Insufficient funds to implement the programme activities. 	<ul style="list-style-type: none"> Provision of adequate funds. Creation of provincial fishery office at the LGU level as well as municipal fishery office. LGU must create additional position to carry out the programme. Office of the local chief executives.
PCDO	<ul style="list-style-type: none"> Conducts skill trainings seminar Provides financial assistance to registered cooperatives. 	Municipal Cooperative Development Council, Primary and Secondary coops, Academe, NGO's/ PO's banks dealing with coops, national and local government offices.	Limited resources (funds, technical assistance, references, manuals, technical know-how on CRM).	<ul style="list-style-type: none"> Provide trainers training on CRM. Provide references manual. BFAR
SK	Share the responsibility in the management and maintenance of ecological balance within their territorial jurisdiction.	FARMC's	Poor leadership among SK officials.	<ul style="list-style-type: none"> Conduct awareness programs on environmental issues.
FARMC's	<ul style="list-style-type: none"> Assist in the preparation of MFO development plan. Assist in the implementation of fishery law and regulation. Advice fishery matter and local development councils. To strengthen, implement programs on FARMC matter. 	OPA, MAFC, DA-BFAR, NFAMC, ICFO-MAFF of Japan	<ul style="list-style-type: none"> Not a priority development project of some local official. Lack of financial support. There are still illegal fisher folk. Poor implementation because officers are not aware of their roles. 	<ul style="list-style-type: none"> FARMC must be active in their roles. Active local participation of municipal FARMC to local chief executive. Mayor should strongly support fishery activities. Provision of social benefits like insurance, medical and hospitalization to FARMC's and other fishery law enforcement people.



Seminar participants in Group Discussion.

Institution	Key Roles and Functions	Linkage/ Network Organization	Gaps/ Issues/ Problems	Recommendations
Community organization.	<ul style="list-style-type: none"> Assist in the actualization of the whole CRM cycle itself from the data banking stage to monitoring and evaluation. Assist in viable alternative livelihood for the coastal community. Act as a catalyst in learning process. 	LGU, OPAG.	<ul style="list-style-type: none"> Lack of sufficient funds. Community leaders may be too timid or shy to approach other people like higher local government officials. 	
Religious Organization.	<ul style="list-style-type: none"> Active participation on moral values among fisher folks and concerned individual. Motivate people to change their moral values, belief and behaviour in ways that are more compatible with sustainable use of resources. 	LGU		<ul style="list-style-type: none"> More LGU support. Churches.
PCU	<ul style="list-style-type: none"> Capability building/ training of primary and secondary coops. 	Coop Unions and federations.	<ul style="list-style-type: none"> Coops do not remit CETF. Coops who are not members of the union. 	<ul style="list-style-type: none"> Strengthening of the union.
Federations/ Unions.	<ul style="list-style-type: none"> Organizational management. 	CUP	<ul style="list-style-type: none"> Low compliance to statutory requirements. Poor management. No link with primaries. Inefficient implementation of coop laws. 	
State Universities and Colleges	Extension and on site research services and facilities related to agriculture and fishery activities.	CHED, BFAR, DENR.		



Group Discussion - Group D

Livelihoods, Security Nets and Human Resources Development in Coastal Resources Management

Members: Renato Broqueza, Chairman; Antonio Agustin, Rapporteur; Uwe Tietze, Adviser; Yolanda Alvarez; Jean Calo; Henry Jarabejo; Nancy Marquez; Lino Obana; Luisito Quitalig; Ramon Santillan; Romulo Seda; Norriam Suaib; Theresita Tatoy; Edgardo Gamolo.

Issue	What is lacking?	What needs to be done?	By whom?
Alternative livelihoods and other income generating projects.	Viable alternative livelihood activities, micro-enterprises and products.	Preparation of feasibility studies and business plans for fisheries related (aquaculture, value addition, trading) and non-fisheries livelihood activities covering marketing, organizational, technological and financial aspects. Livelihood and micro-enterprises to be identified and promoted locally should include aquaculture activities such as oyster and green mussel culture, seaweed culture, poly-culture of mud crab and grouper, grouper culture in cages, culture of milkfish and siganids in cages, crab fattening; live fish exportation project; artificial coral, shell decors and handicraft; bottled pickled sea weeds; rock salt and iodized salt making, eco-tourism project (Bakawan Project); bartering business project (sea products to flowers and vegetables in Baguio); pearl farming; green mussel craklets and value adding, fish processing and preservation activities such shrimp paste production, bagoong, dried tahong and fishes and fish sauce production. Milkfish deboning, bottling of sardines; fish vending and live grouper and crab trading activities as well as non-fisheries livelihood activities such as coco fiber processing for geo-textile business projects; white coconut meat project; water transport system, medical services; vinegar making; village bakeries; pottery and ceramics making; sandal making; banana plantation, cassava/ corn/ peanut/ coffee production; hog fattening, cassava/corn/peanut trading, poultry farming and other activities. Establishment and maintenance of data base on co-operative products, micro-enterprises and services by local cooperatives and CUP.	LGUs, CDA, CUP, NGAs such as DA/ BFAR, DTI, DOST, TLRC and other appropriate government agencies, GFIs such as LBP, PNB, cooperative banks and other banking institutions.
	Sustainable pollution free coastal waters to be used for small-scale coastal aquaculture.	Strict enforcement of anti-pollution laws by DENR and LGUs and other concerned agencies to stop further degradation of the coastal resources and improve water quality so that coastal aquaculture can be undertaken.	DENR, BFAR, Philippines Navy, Coast Guard, LGUs, NGOs, civil society, academic institutions.
	Infrastructure in support of micro-enterprises in coastal villages.	Provision of infrastructure in coastal villages such as storage facilities, road infrastructure, solid waste disposal facilities, reliable electricity supply (and or generators), hygienic fish landing sites and markets, etc. for management by cooperatives.	DPWH, LGUs and other concerned agencies.

Issue	What is lacking?	What needs to be done?	By whom?
	Capability of cooperatives to assist members in implementing livelihood and micro-enterprise projects.	Training of members of co-operatives on skills development and technical know-how, values formation, financial management, leadership and organizational management.	CUP, PCU, CDA academic institutions.
	Efficient financial management and bookkeeping practices.	<ul style="list-style-type: none"> Establishment of efficient recording, accounting and auditing systems. Ensuring that proper checks and balances are in place. Ensuring transparency and consultations with members with regard to the use of funds. 	CUP, PCU, CDA accredited PICPA members.
	Knowledge of markets, marketing and products.	<ul style="list-style-type: none"> Conduct of thorough market study before implementation of livelihood activity. Continuous improvement of product quality to make products competitive. Establishing linkages and networking with institutional buyers, NGAs and private groups that can provide critical marketing support. Expansion of markets for products through value adding and processing. Contract growing as an alternative to ensure markets. Pilot project on E-commerce for marketing of cooperative products. 	DTI, Federations and Unions of Cooperatives, INFOFISH, LGUs.
	Monitoring of livelihood activities	Active involvement of cooperative members in monitoring their own projects through maintaining financial and other records and conduct of business clinic.	CUP, DTI, Primary Cooperatives and LGUs.
	Institutional support from agencies such as LGUs, BFAR, NGOs, DTI and others .	Coaching and technical support for livelihood activities to be provided by LGUs, BFAR and others.	CUP, local unions/ federations.
	Micro-finance and credit support.	<ul style="list-style-type: none"> Improvement of awareness of cooperative members of the services being offered by other financial institutions such as QUEDANCOR, the National Livelihood Support Fund, LBP and other financial institutions. Maintenance of financial records by co-operative members of the business activities as well as savings, which can improve their credit rating. 	CUP, QUEDANCOR Co-op. Federations, GFIs.
	Balance of population growth pressure in coastal areas keeping in view the carrying capacity of coastal environment and ecology.	Raising of awareness to restrict and balance growth of human population and development in coastal zones within the carrying capacity of the coastal zone, both in terms of ecological and socio-economic sustainability of livelihoods in coastal zones.	POPCOM, LGUs, DOH, BFAR.
Gender in CRM	Adequate participation of women in CRM activities of cooperatives and in FARMCs.	<ul style="list-style-type: none"> Training programmes for women of cooperatives in CRM. Incentives and encouragement for women to participate in CRM and represent cooperatives in FARMCs at all levels. 	LGUs, PFWC, Womens Foundation, NEDA, CUP and academic institutions, KALIPI, RIC, DSWD.
Training and extension.	Adequate training of co-operative members on alternative livelihood activities, CRM,	<ul style="list-style-type: none"> Establishing linkages with local academic and training institutions, LGU's, BFAR, NGA's, NGOs and private sector and civil society organizations that can provide training 	CUP, Local Cooperative Unions, Academe, TESDA, DTI, DOST. NGO and other

Issue	What is lacking?	What needs to be done?	By whom?
	social security, safety and health. Difficulty of getting people to join/ participate in trainings. Adequate training resources.	and extension services. <ul style="list-style-type: none"> All training and extension activities to cater to women as well and to their specific needs. Continuous training and upgrading of technical and entrepreneurial skills of cooperative members in the field of fisheries, aquaculture, fish processing and marketing and non-fisheries micro-enterprises. 	government and non-government training institutions.
		<ul style="list-style-type: none"> Training programmes on safety-at-sea issues. Training and awareness programmes for cooperative members on CRM, conservation and rehabilitation of the coastal and aquatic environment and on role of LGUs, NGAs and peoples organizations. Training programmes on family and occupational health and hygiene, including reproductive health and family planning. Conduct of Techno-Livelihood caravan and promotion of "Coopreneurship" 	
Social security nets for fishers.	Sufficient accident and life insurance coverage.	<ul style="list-style-type: none"> Awareness and training programmes for members of cooperatives on the need for and benefit of insurance cover and on existing insurance programmes. Lobbying government to contribute to insurance programmes through sharing of insurance premiums, providing/ participating in reinsurance facilities or other means. Preparation and distribution of primer on safety-at-sea by BFAR, LGUs/ FARMCs for small-scale fishers. Introduction/ issuance of safety education certification to be linked to licensing of fishing vessels by LGUs and BFAR. Involvement of family members of fishers in the promotion and monitoring on safety-at-sea measures. Incorporation of safety-at-sea in school curricula. 	PHILAC, CISP and other Cooperative and non-Cooperative Insurance Companies, BFAR, LGUs, FARMCs.
	Insurance for fishing, fish culture assets and equipment and for fish farming.	<ul style="list-style-type: none"> Information of members of cooperatives on existing insurance programmes. Lobbying government to contribute to insurance programmes through sharing of insurance premiums, providing/ participating in reinsurance. 	
Safety and health of fishers.	Safety-at-sea regulations, knowledge and equipment.	<ul style="list-style-type: none"> Linking of cooperatives with LGUs and concerned NGAs in the formulation and introduction of local safety-at-sea regulations including standards of vessel construction and use. Assistance for fishers and their co-operatives in the procurement of safety-at-sea equipment such as life vests and rafts, navigational equipment, radios, etc. 	PNP, Coast Guard, LGUs, DOH.
	Protection against impact of natural disasters. Adequate health and housing facilities.	<ul style="list-style-type: none"> Linking coastal villages, the fisheries and aquaculture sector and coastal cooperatives to early warning systems against natural disasters. Provision of more durable and secured housing units to fisheries cooperative members. 	DENR, DPWH, NHA, NDCC, DSWD, DOH, LGUs and other concerned agencies.



Annexure 18

Closing Speech

Masaaki Sato
Secretary, ICFO

Participants, observers, speakers, friends, dear cooperators, ladies and gentlemen, we have come to the end of the Phase Three of the Training Project for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines.

Before anything else, on behalf of ICFO, I would like to thank you all for making this Seminar such a memorable one. Your active participation made the Seminar all the more meaningful, and I believe that the intent and objective of Phase Three has successfully met the expectations.

The recommendations that were adopted are the expression of our consolidated efforts in pursuit of the purpose of the Training Project. I hope that they are translated into action by cooperation between government agencies headed by the Bureau of Fisheries and Aquatic Resources (BFAR) and the cooperative sector represented by the Cooperative Union of the Philippines (CUP). I would like to see to it in the future that the fishing industry of the Philippines would develop along the lines of the recommendations adopted by the Seminar.

Let me express my gratitude to Hon Governor of Palawan, Joel T Reyes, Hon Vice-Governor of Palawan, David M Ponce de Leon and Hon City Mayor of Puerto Princesa Edward S Hagedorn for their whole-hearted cooperation and hospitality to make the Seminar a memorable one. Also, I would like to express my thanks on behalf of ICFO to all the invited speakers both from abroad and from within the Philippines.

I would like to particularly thank the cooperation extended from the BFAR, without which it would not have been possible for ICFO to successfully implement the Community-based Fisheries Management Training Project all through from Phase One to Phase Three.

The dedication of officers of the host organization of the Seminar, namely, the CUP, has been the essential element in bringing together all the resources to the implementation of the Project.

Let me convey my sincere thanks to Attorney Toribio Quiwag, Chairman of CUP, Mr Felix Borja, Secretary General of CUP, Ms Nancy Marquez, Administration and Finance Officer and Chairperson of Philippine Federation of Women in Cooperatives and all the other staff of CUP, for their cooperation in the preparation and implementation of the Seminar.

As I spoke while conveying the message of Mr Shoji Uemura, Chairman of ICFO, during the opening ceremony, why don't we seek to become great teachers who can inspire fishers and the people in the Philippines and contribute to the development of fisheries of this beautiful country – the Philippines.

Congratulations on the successful conclusion of this Seminar!

Thank you very much.



Annexure 19

Closing Speech

Yugraj Singh Yadava

Director, BOBP-IGO

*L*adies and Gentlemen!

On behalf of my fellow advisors and observers, Dr Uwe Tietze, Mr Jaocuin Cortez, Professor Masahiro Yamao, Mr Yukio Suzuki and Mr Hideo Ishida, I would like to thank the Ministry of Agriculture, Forestry and Fisheries and the International Cooperative Fisheries Organization (ICFO) for bringing us to your beautiful country. Since the 8th of February when we arrived in Manila, we have enjoyed every bit and moment of our stay in the Philippines.

At Palawan, we have met 49 very active, energetic and beautiful ladies and handsome gentlemen and all of them are the vehicles of change that we look forward from this Seminar.

A very interesting point to be made here is the excellent representation of women in the Seminar, which is rarely seen in other seminars. Out of 49 participants, there are 14 women, which is about 30 percent of the total participants. The participants have come from different parts of the Philippines, some traveling very long distances. The fact that you all have left your family and near and dear ones to come to Palawan for achieving a noble cause is in itself a great achievement. We wish you all the best for your safe return to your family and friends.

On behalf of the advisors, I would also like to place on record our deep sense of appreciation to the Hon Vice-Governor of Palawan, Mr David Ponce De Leon for interacting with us in the opening Session and also for inviting us to the Palawan Provincial Board and for formally handing over the two important Ordinances enacted by the Provincial Government. We must also place on record our gratitude to the Hon Governor of Palawan, Mr Joel T Reyes, who despite his extremely busy schedule came to the hotel to meet us. We shall always cherish this gesture of the Hon Governor. We would also like to thank the Mayor of Palawan, Mr Edward S Hegedorn for inviting the participants to the Mayor's Night at the Hotel. I would also like to place on record our thanks to the Palawan Press for interacting with us and for the media coverage provided to the Seminar.

Coming back to the Seminar, we had very productive technical sessions and equally productive and enlightening field trips to the Caramay Small-Fishermen Cooperative. I had the opportunity of visiting the Cooperative in July 2006, when we came for the Phase One Programme to the Philippines. My impressions of the wonderful work done by the Caramay Cooperative have been further strengthened by this visit. I think the Caramay Cooperative should be showcased as a success story for replication not only in the Philippines but also in other countries with similar settings.

In conclusion, I would like to say that the excellent momentum achieved through this training Project funded by the Government of Japan and implemented by the ICFO and the Cooperative Union of the Philippines, should be further accelerated and made a nation-wide movement. On behalf of the advisors, I would like to state that we would be ever-ready to provide technical assistance and support to your efforts in promoting community-based fisheries resource management by coastal small-scale fishers in the Philippines.

Thank you and wish you all the best!



Annexure 20

Closing Speech

Edgardo T Gamolo
Vice-Chair for Mindanao, CUP

*M*r Yukio Suzuki, Deputy Director for International Cooperation Division, International Affairs Department of the Ministry of Agriculture, Forestry and Fisheries (MAFF), Government of Japan; Mr Masaaki Sato, Secretary of the International Cooperative Fisheries Organization (ICFO), International Cooperative Alliance; Dr Yugraj Singh Yadava, Director of the Bay of Bengal Programme Inter-Governmental Organization, Chennai, India; Dr Uwe Tietze, Fisheries Expert and Mr Joaquin Cortez, Fishery Planning Officer of the UN Food and Agriculture Organization, Rome.

Our partners from the Bureau of Fisheries and Aquatic Resources; Mr Felix A Borja, Dr Luisito Quitlig and Ms Nancy F Marquez of the Cooperative Union of the Philippines (CUP), and the participants of this Seminar.

I would like to thank the officials of the MAFF, government of Japan and the officers of the ICFO for choosing my country as the focus of the Project on 'Promotion of Community-based Fishery Resource Management by Coastal Small-Scale Fishers in the Philippines' and for selecting the CUP as the major partner in the implementation of this Project.

The Seminar that has just concluded constitutes the third phase of the Project. In this activity, we learned that Philippines is a hotspot in biodiversity since it possesses spectacular marine resources. We also learned that our country is one of the 17 nations that hold about 67 percent of the world's biological resources.

However, it is a paradox and very unfortunate that our fishermen, despite these heavenly blessings, still live below subsistence level. In fact, they are among the country's poorest individuals. It is poverty in the midst of plenty!

Another sad reality is that our marine wealth, like many other resources that are needed to sustain life, is dissipated relentlessly. Thousands of species are now extinct. The culprit is no other than the animal called MAN. Someday we will wake up to find out that our prized tuna or grouper is no longer in our seas. This is not a threat. Truly, this will happen... if our governments and their citizens do not act. The time to act is NOW and it should be fast and decisive.

This Seminar is very timely. We hope the lessons we learned from it will be put to action. I surmise that so much knowledge has been learned and so much skill has been acquired. What is needed now is action.

My gratitude also goes to our presenters. You have done a great job in explaining to participants the state of our country's marine resources and the approaches that we will adopt to arrest their dissipation and eventually conserve them.

I thank the staff of the CUP led by Mr Borja and Ms Marquez for effectively facilitating the Seminar's activities and for being very responsive to the needs and desires of the participants.

Also in order is my very special thanks and commendation to the organizers of this Seminar for including participant from my island Mindanao.

Finally, I would like to thank you all for cooperating with me in my role as master of ceremonies and moderator of different sessions. Your active participation and observance of house rules made my job a lot easier.

God bless.



Annexure 21

Closing Speech

Socorro S Tan

Chairperson, Palawan Cooperative Union

*M*r Yukio Suzuki, Deputy Director for International Cooperation Division, International Affairs Department of the Ministry of Agriculture, Forestry and Fisheries, Government of Japan; Mr Masaaki Sato, Secretary of the International Cooperative Fisheries Organization, International Cooperative Alliance; Dr Yugraj Singh Yadava, Director, Bay of Bengal Programme Inter-Governmental Organization, Chennai, India; Dr Uwe Tietze, Fishery Expert; Mr Joaquin Cortez, Fishery Planning Officer of the UN Food and Agriculture Organization, Rome; Mr Felix A Borja, the Secretary General of the Cooperative Union of the Philippines (CUP); Ms Nancy F Marquez, Chairperson of the Philippine Federation of Women in Cooperatives, the CUP staff, fellow participants, good afternoon.

It is my pleasure and honor to speak before you on behalf of the participants. Of paramount importance is our expression of gratitude to our resource persons and the government of Japan and to CUP for their efforts in making this Seminar possible.

The knowledge we have got has given us more enthusiasm to do the best we can in any manner possible to manage our coastal resources. What Mr Cortez shared with us was very revealing. Yes, we know how rich the Philippines is in terms of marine resources, but for the first time we were able to confirm that our country indeed is richly blessed for being the richest in marine bio-diversity in this planet. This is a revelation that also confronts us with a very strong challenge to undertake our responsibility. Palawan is surely a major contributor, being the source of 60-70 percent of fish supply in Manila. Our field trip to Caramay was also an eye opener. Most of what we learned from the lectures was seen in actual practice.

Let me tell you all that Palawan is noted for a certain kind of condition that afflicts people coming to the place. It is called "come back come back" syndrome. It means they feel the urge to always come back to Palawan. I hope you will be among those desiring to come back, as we Palaweños wait to welcome you.

Thank you and goodbye!



Annexure 22

Closing Speech

Felix A Borja
Secretary-General, CUP

Let me first congratulate the participants for their enthusiastic and active participation in this Seminar on 'Community-Based Fishery Resource Management by Coastal Small-scale Fishers in the Philippines' and sincerely thank our Resource Persons for their splendid and inspiring presentations; the International Cooperative Fisheries Organization (ICFO) for choosing the Philippines to be the first country to be assisted under the Project of ICFO and the Ministry of Agriculture, Forestry and Fisheries (MAFF) of the Government of Japan; the Local Government of Palawan for making our stay fruitful and pleasant; and the Palawan Cooperative Union for laying the groundwork for this Seminar in Palawan.

The real success of the Seminar will be on how the participants and the representatives of the agencies and organizations involved can translate the knowledge and experiences gained from the four-day Seminar into concrete programs and activities that will contribute to effective and sustainable fisheries resource management in the Philippines.

Our counterparts from the Bureau of Fisheries and Aquatic Resources (BFAR) will be playing a very significant role in this endeavor, especially in harnessing government support in providing the necessary infrastructure and other forms of assistance to the small-scale fishers in coastal communities and their cooperatives.

The Cooperative Union of the Philippines (CUP) for its part shall undertake strong advocacy of the resolutions and recommendations arrived at during the Seminar. With your support, all of these can be a reality in the immediate future. We shall pursue the strengthening of fishery cooperatives and the organization of new ones to reach out to our small-scale fishers who need our assistance in breaking away from the bondage of poverty and hopelessness.

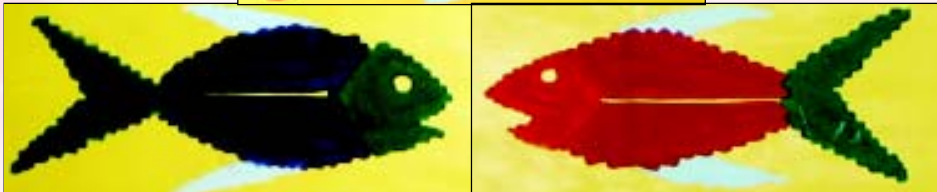
The proposal to upgrade the BFAR to a Department of Fisheries and Aquatic Resources is a step in the right direction, considering the enormous marine and aquatic resources that need protection, conservation and, in many areas, rehabilitation, to ensure food security to present and future generations.

Let me, on behalf of the CUP, thank the City Government of Palawan, the Honorable City Mayor, Edward S Hagedorn for the cultural presentation, and for ensuring us a safe and pleasant stay in Puerto Princesa City.

Lastly, let me express our deep appreciation and gratitude to Mr Shoji Uemura, chairman of ICFO, and president of JF ZENGYOREN (National Federation of Fisheries Cooperative Associations of Japan) who is ably represented here by a friend of CUP, the indefatigable and efficient Secretary of ICFO, Mr Masaaki Sato, and most especially to Ms Ryuko Inoue, Director of International Cooperation Division, International Affairs Department, Minister's Secretariat, MAFF, government of Japan, who is very well represented here by Mr Yukio Suzuki, her deputy Director for International Affairs.

This is not the end, it is the beginning of a lifelong commitment to uplifting lives of our small-scale fishers through cooperatives.

Godspeed and a safe and pleasant trip home to our loved ones!



Annexure 23

Abbreviations and acronyms

AFCC	Area Fisheries Coordinating Committee
AIM	Asian Institute of Management
ARMM	Autonomous Region in Muslim Mindanao
APRDCI	Advocates for Policy Reform and Development of Caraga Inc.
BFAR	Bureau of Fisheries and Aquatic Resources
BOBP-IGO	Bay of Bengal Programme Inter-Governmental Organisation
CBCRM	Community-based Coastal Resources Management
CDA	Co-operative Development Authority
CETF	Co-operative Education Training Fund
CHED	Commission on Higher Education
CISP	Co-operative Insurance System of the Philippines
CLEC	Coastal Law Enforcement Council
CLET	Coastal Law Enforcement Team
CM	Co-management
CMPC	Co-operative Member Protection Committee
CMPC	Capiz Multi Purpose Co-operative
CNFIDP	Comprehensive National Fisheries Industry Development Plan
CO	Community Organization
CRM	Coastal Resources Management
CRMP	Coastal Resources Management Program
CUP	Cooperative Union of the Philippines
DA	Department of Agriculture
DBP	Development Bank of the Philippines
DENR	Department of Environment and Natural Resources
DEPED	Department of Education
DOH	Department of Health
DOLE	Department of Labour and Employment
DOST	Department of Science and Technology
DOT	Department of Tourism
DPWH	Department of Public Works and Highways
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
ECC	Environment Clearance Certificate
EEZ	Exclusive Economic Zone
EIA	Environment Impact Assessment
ELAC	Environmental Legal Assistance Centre
FA	Fisheries Association
FARMC	Fisheries and Aquatic Resource Management Council
FCA	Fisheries Co-operative Association

FLET	Fisheries Law Enforcement Team
FMO	Fisheries Management Organization
FPC	Fishery Policy Council
FRM	Fisheries Resource Management
FSP	Fisheries Sector Program
FS	Fish Sanctuary
GFI	Government Financial Institution
ICFO	International Cooperative Fisheries Organization
ICT	Information and Communication Technology
IEC	Information, Education and Communication
INFOFISH	Inter-governmental Organization for Marketing Information and Technical Advisory Services for Fishery Products in the Asian and Pacific Region
JF-ZENGYOREN	National Federation of Fisheries Co-operative Associations
JICA	Japan International Co-operative Agency
<i>Kalipi</i>	<i>Katipunang Nq Liping Pilipina</i> (National Organization of Filipino Women)
LBP	Land Bank of the Philippines
LGU	Local Government Unit
LMP	League of Municipalities of the Philippines
MAFC	Municipal Agriculture and Fisheries Council
MAFF	Ministry of Agriculture, Forestry and Fisheries
MAO	Municipal Agriculture Office
MCS	Monitoring, Control and Surveillance
MCEP	Municipal Coastal Environmental Profiles
MFLS	Municipal Fisheries Licensing System
MMPCPC	<i>Maliliit Na Mangingisda Ng Caramay Producers Co-operative</i>
MPA	Marine Protected Area
MTDP	Medium Term Development Plan
NAMRIA	National Mapping and Resource Information Authority
NAPOLCOM	National Police Commission
NDCC	National Disaster Coordination Council
NEDA	National Economic and Development Authority
NAFC	National Agriculture and Fisheries Council
NGA	National Government Agency
NHA	National Housing Authority
NSAP	National Stock Assessment Program
OPAG	Office of Provincial Agriculture
PCDC	Provincial Cooperative Development Council
PCDO	Provincial Cooperative Development Office
PCG	Philippine Coast Guard
PCMRD	Philippine Council for Aquatic and Marine Research Development
PCRA	Participatory Coastal Resource Assessment
PCU	Provincial Cooperative Union

PFWC	Philippines Federation of Women Cooperatives
PHILAC	Philippine Integrated Labor Assistance Corporation
PICPA	Philippine Institute of Certified Public Accountants
PNB	Philippines National Bank
PNP	Philippines National Police
PO	People's Organization
POPCOM	Population Commission
QUEDANCOR	Quedan and Rural Credit Guarantee Corporation
REP	Resource Enhancement Project
RFCC	Regional Fisheries Co-ordination Committee
RIC	Rural Improvement Club
RRP	Resource Recovery Plan
RSA	Resource and Social Assessments
SAF	Special Activity Fund
SCIPG	Supreme Council for Islamic Preaching and Guidance
SK	<i>Sanggunian Kabataan</i>
TAC	Total Allowable Catch
TAE	Total Allowable Effort
TESDA	Technical Education and Skills Development Authority
TLRC	Technological Livelihood and Resource Center
TURFs	Territorial Use Rights in Fisheries
TWG	Technical Working Group
VMS	Vessel Monitoring System
WAFCC	Wide-area Fisheries Co-ordination Committee

