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

Report of Phase Two

(04-14 November 2009)

International Cooperative Fisheries Organization
of the International Cooperative Alliance &
National Federation of Indonesian Fishermen's
Cooperative Societies

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

Report of Phase Two
(04-14 November 2009)

International Cooperative Fisheries Organization of the International Cooperative Alliance & National Federation of Indonesian Fishermen's Cooperative Societies

The designations employed and the presentation of material in this Report do not imply the expression of any opinion whatsoever on the part of the International Cooperative Fisheries Organization (ICFO) of the International Cooperative Alliance concerning the legal status of any country, territory, state or area or its authorities or concerning the delimitation of its frontiers or boundaries. Opinion expressed in this Report are those of the authors and do not imply any opinion or whatsoever on the part of ICFO.

Report prepared by

Yugraj Singh Yadava
Rajdeep Mukherjee
Bay of Bengal Programme
Inter-Governmental Organisation

Masaaki Sato
International Cooperative Fisheries Organization

Photographs

Y S Yadava
M Sato

Layout Design and Graphics

S Jayaraj and **Y S Yadava**
Bay of Bengal Programme
Inter-Governmental Organisation

For bibliographic purposes this document should be cited as Training Project for Promotion of Community - based Fishery Resource Management by Coastal Small - scale Fishers in Indonesia, Report of Phase Two (04-14 November 2009), International Cooperative Fisheries Organization of the International Cooperative Alliance & National Federation of Indonesian Fishermen's Cooperative Societies, 2009, Pages 144.

Copies of Phase Two 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 101-8503
Tel: + 81 3 3294 – 9617; Fax: + 81 3 3294 – 3347
Email: kokusai-sato@r6.dion.ne.jp

Printed at Nagaraj & Co. Pvt. Ltd., Chennai 600 096, Tamil Nadu, India

Preface

The International Cooperative Fisheries Organization (ICFO) of the International Cooperative Alliance (ICA) implemented the Phase Two activity *i.e.,* Fisheries Resource Management Study Visit to Japan under the "Training Project for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in Asia – 2009" during the period 04-14 November 2009. The Ministry of Agriculture, Forestry and Fisheries (MAFF), Government of Japan funded this Project and on behalf of ICFO I would like express my heart-felt gratitude to MAFF, Government of Japan.

The "Training Project for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in Asia" was initiated in the Japanese Fiscal Year (JFY) 2006 and consists of Three Phases (Phase I: Dispatching of Experts to the selected country; Phase II: Fisheries Resource Management Study Visit to Japan; and Phase III: Seminar in the selected country). So far, the Project has been implemented in the Philippines (JFY 2006), Thailand (JFY 2007) and Vietnam (JFY 2008). In JFY 2009, the Project is being implemented in Indonesia and Phase One activities under the Project were completed in Indonesia in October 2009.

The Study Visit under Phase Two activities was conducted in Tokyo and Aomori Prefecture (04-14 November 2009). Six participants from Indonesia and two advisors (one each from India and Japan) took part in the Programme. I would like to express my thanks to all the resource persons and the organizations/ institutions who cooperated with the successful implementation of the Study Visit to Japan.

I would particularly like to thank the following:

– Mr Hiroyuki MORIMOTO, Director, The Central Wholesale Market of Tokyo Metropolitan Government at Tsukiji, Tokyo;
– The Central Wholesale Market of Tokyo Metropolitan Government at Tsukiji, Tokyo;
– Mr Masahito SUNEYA, Director, International Cooperation Division, International Affairs Department, Minister's Secretariat, MAFF, Government of Japan;
– Mr Yuichi NAKAMURA, Deputy Director, International Cooperation Division, International Affairs Department, Minister's Secretariat, MAFF, Government of Japan;
– Mr Shuji YAMADA, Director General, Fishery Agency, MAFF, Government of Japan;
– Mr Shoji UEMURA, President, Aomori Prefectural Federation of Fisheries Cooperative Associations, Aomori City, Aomori Prefecture, Japan (also former Chairman of ICFO from 1992 to 2007);
– Mr Masaaki KOIDE, Senior Managing Director, Aomori Prefectural Federation of Fisheries Cooperative Associations, Aomori City, Aomori Prefecture, Japan;
– Mr Gizou NISHIZAKI, President, Shin Fukaura Machi Fisheries Cooperative Association, Fukaura Machi (Fukaura Town), Nishi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Shuichi ONO, Vice-President, Shin Fukaura Machi Fisheries Cooperative Association, Fukaura Machi (Fukaura Town), Nishi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Hiroaki FUKUDA, Chief of all Divisions, Shin Fukaura Machi Fisheries Cooperative Association, Fukaura Machi (Fukaura Town), Nishi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Morio TAKARADA, Director, Fisheries Promotion Division, Agriculture, Forestry and Fisheries Department, Aomori Prefectural Government, Aomori City, Aomori Prefecture, Japan;

– Mr Mitsuo HAYASHI, Director, Aomori-Ken Kanko Renmei (Aomori Prefectural Tourism Association), Aomori City, Aomori Prefecture, Japan;
– Mr Masayoshi KON, Director, the Central Wholesale Market of Aomori City, Aomori City, Aomori Prefecture, Japan;
– Mr Toshiaki KOUSAKA, Director, the Central Wholesale Market Division, Fisheries Promotion Division, Agriculture, Forestry and Fisheries Department, Aomori Prefectural Government, Aomori City, Aomori Prefecture, Japan;
– Mr Yuichi OUSAKA, Mayor, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Toshihiro UCHIYAMA, Director, Industry Promotion Division, Hiranai Machi Office (Hiranai Town Office), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Hiroaki MITSUYA, President, Hiranai Machi Fisheries Cooperative Association, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Mitsuo TAKAHASHI, Director, Hiranai Scallop Processing Plant of Aomori Prefectural Federation of Fisheries Cooperative Associations, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Ryuichi NOTOYA, Director, "HOTATE HIROBA (Scallop Plaza)", Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Zenji TARAKITA, Director, Fisheries Research Institute, Local Independent Administrative Institution, Aomori Prefectural Industrial Technology Research Center, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan; and
– Dr Yoshinobu KOSAKA, Head, Planning and Management, Fisheries Research Institute, Local Independent Administrative Institution, Aomori Prefectural Industrial Technology Research Center, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan.

The Study Visit to Japan would not have been successful without the cooperation and active participation of the advisors and experts who delivered lectures and guided the trainees during their visit to different organizations/ institutions/ locales in Tokyo and Aomori Prefecture.

In this regard I would also like to thank the following:

– Dr Yugraj Singh YADAVA, Director, Bay of Bengal Programme Inter-Governmental Organization (BOBP-IGO), Chennai, India;
– Ms Ritsuko YONEDA, Deputy Director, Legal and Planning Section, Resources Management Division, Fishery Agency, Ministry of Agriculture, Forestry and Fisheries, Government of Japan, Tokyo, Japan;
– Mr Michael Louis CLARK, Mansfield Fellow, the Maureen and Mike Mansfield Foundation, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, United States Department of Commerce, Washington DC, USA;
– Mr Masaaki SATO, Secretary, International Cooperative Fisheries Organization of the International Cooperative Alliance, Tokyo, Japan;
– Mr Jun MACHIBA, Deputy General Manager, Fishery Policy Department, National Federation of Fisheries Cooperative Associations, Tokyo, Japan;
– Dr Jun-ichiro OKAMOTO, Professor, Marine Bio-resource Management Strategy, Faculty of Fisheries Sciences, Hokkaido University, Hakodate City, Hokkaido, Japan;
– Mr Akira ABURANO, Fisheries Expert, Fish Farming and Resource Management Group, Fisheries Promotion Division, Agriculture, Forestry and Fisheries Department, Aomori Prefectural Government, Aomori City, Aomori Prefecture, Japan;

– Mr Masanori KUMAKI, Manager, Guidance Division, Guidance Department, Aomori Prefectural Federation of Fisheries Cooperative Associations, Aomori City, Aomori Prefecture, Japan;
– Mr Atsushi KAMEDA, Assistant Chief, Scallop Aquaculture Promotion Section, Industry Promotion Division, Hiranai Machi Office (Hiranai Town Office), Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Shoji UEMURA, President, Aomori Prefectural Federation of Fisheries Cooperative Associations, Aomori City, Aomori Prefecture, Japan (and also the former President of Hiranai Machi FCA);
– Mr Yoshinori KABUTOMORI, Manager, Fisheries Resource Management Division, Fisheries Research Institute, Local Independent Administrative Institution, Aomori Prefectural Industrial Technology Research Center, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan; and
– Mr Naoyuki TAO, Advisor, Fisheries Co-operative Association Management Center Co. Ltd., Tokyo, Japan.

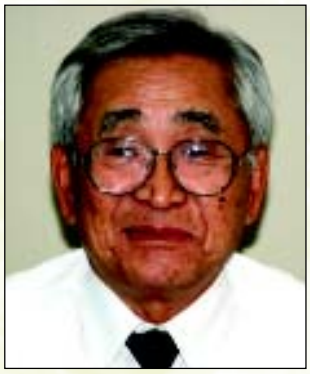
I hope that the Phase Two Study Visit to Japan was useful for the distinguished trainees from Indonesia and the experience gained during the visit would be shared with other participants in the Phase Three Seminar that would be held in Indonesia in early 2010. I also hope that the lessons learnt from the Japanese experience in managing coastal small-scale fisheries would be useful in promoting sustainable coastal fisheries management in similar settings in Indonesia.

Dr Yugraj Singh Yadava, Director, BOBP-IGO has been the main advisor of this Project right from JFY 2006 and I would like to once again thank him for his whole-hearted cooperation and guidance. I would also like to reiterate my thanks to MAFF, Government of Japan for the financial support. I also take this opportunity to wish all success for the Phase Three activities in Indonesia.

Ikuhiro Hattori
Chairman
International Cooperative Fisheries Organization
of the International Cooperative Alliance

15 November 2009

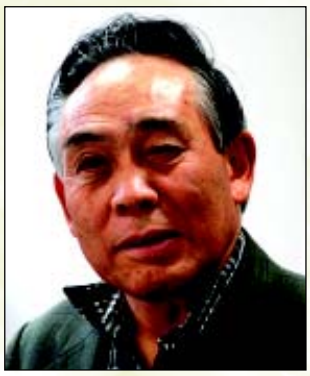


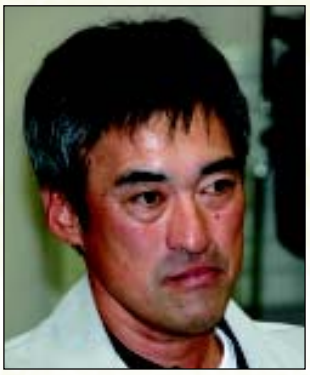




Acknowledgements

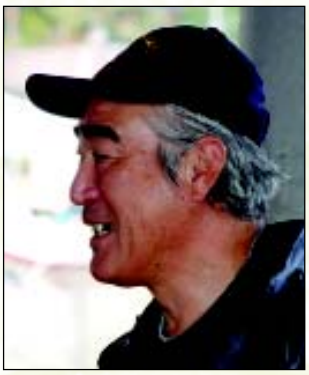
The cooperation and assistance received from the following organizations/ agencies/ individuals in successful completion of Phase Two activities of the "Training Project for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in Indonesia" is deeply acknowledged:

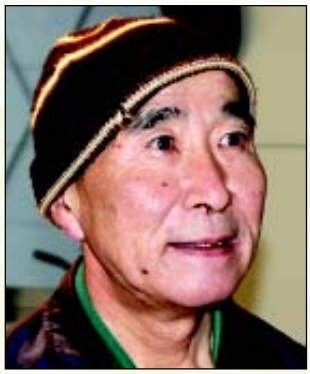
- Ministry of Agriculture, Forestry and Fisheries (MAFF), Government of Tokyo, Japan;
- National Federation of Fisheries Cooperative Associations of Japan (JF-Zengyoren), Tokyo, Japan;
- The Central Wholesale Market of Tokyo Metropolitan Government at Tsukiji, Tokyo;
- Mr Masahito SUNEYA, Director, International Cooperation Division, International Affairs Department, Minister's Secretariat, MAFF, Government of Japan;
- Mr Yuichi NAKAMURA, Deputy Director, International Cooperation Division, International Affairs Department, Minister's Secretariat, MAFF, Government of Japan;
- Mr Shuji YAMADA, Director General, Fishery Agency, MAFF, Government of Japan, Tokyo, Japan;
- Dr Yugraj Singh Yadava, Director, Bay of Bengal Programme Inter-Governmental Organisation, Chennai, India;
- Ms Ritsuko YONEDA, Deputy Director, Legal and Planning Section, Resources Management Division, Fishery Agency, MAFF, Government of Japan, Tokyo, Japan
- Mr Michael Louis CLARK, Mansfield Fellow, the Maureen and Mike Mansfield Foundation, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, United States Department of Commerce, Washington DC, USA,
- Mr Masaaki SATO, Secretary, International Co-operative Fisheries Organization of the International Co-operative Alliance, Tokyo, Japan;
- Mr Jun MACHIBA, Deputy General Manager, Fishery Policy Department, JF-ZENGYOREN, Tokyo, Japan;
- Dr Jun-ichiro OKAMOTO, Professor, Marine Bio-resource Management Strategy, Faculty of Fisheries Sciences, Hokkaido University, Hakodate City, Hokkaido, Japan;
- Mr Akira ABURANO, Fisheries Expert, Fish Farming and Resource Management Group, Fisheries Promotion Division, Agriculture, Forestry and Fisheries Department, Aomori Prefectural Government, Aomori City, Aomori Prefecture, Japan;
- Mr Shoji UEMURA, President, Aomori Prefectural Federation of Fisheries Cooperative Associations, Aomori City, Aomori Prefecture (JF-Aomori Ken-Gyoren), Japan (and also the former Chairman of ICFO from 1992 to 2007 and President of Hiranai Machi FCA);
- Mr Masanori KUMAKI, Manager, Guidance Division, Guidance Department, JF-Aomori Ken-Gyoren, Aomori City, Aomori Prefecture, Japan;
- Mr Atsushi KAMEDA, Assistant Chief, Scallop Aquaculture Promotion Section, Industry Promotion Division, Hiranai Machi Office (Hiranai Town Office), Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
- Mr Yoshinori KABUTOMORI, Manager, Fisheries Resource Management Division, Fisheries Research Institute (FRI), Local Independent Administrative Institution, Aomori Prefectural Industrial Technology Research Center, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
- Mr Naoyuki TAO, Advisor, Fisheries Co-operative Association Management Center Co. Ltd., Tokyo, Japan;






– Mr Masaaki KOIDE, Senior Managing Director, JF-Aomori Ken-Gyoren, Aomori City, Aomori Prefecture, Japan;
– Mr Masamitsu EBINA, General Manager, General Affairs Department, JF-Aomori Ken-Gyoren, Aomori City, Aomori Prefecture, Japan;
– Ms Hideko SASAKI, Secretary to the President, JF-Aomori Ken-Gyoren, Aomori City, Aomori Prefecture, Japan;
– Mr Tatsuya TAKEBAYASHI, Guidance Division, Guidance Department, JF-Aomori Ken-Gyoren, Aomori City, Aomori Prefecture, Japan;
– Mr Gizou NISHIZAKI, President, Shin Fukaura Machi Fisheries Cooperative Association, Fukaura Machi (Fukaura Town), Nishi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr. Shuichi ONO, Vice-President, Shin Fukaura Machi Fisheries Cooperative Association, Fukaura Machi (Fukaura Town), Nishi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Tetsuo ITO, Board Member, Oseto Area Branch, Shin Fukaura Machi Fisheries Cooperative Association, Fukaura Machi (Fukaura Town), Nishi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Kiyonori YAMAZAKI, Board Member, Oseto Area Branch, Shin Fukaura Machi Fisheries Cooperative Association, Fukaura Machi (Fukaura Town), Nishi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Kiyokatsu SUGINOMORI, Auditor, Oseto Area Branch, Shin Fukaura Machi Fisheries Cooperative Association, Fukaura Machi (Fukaura Town), Nishi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Hiroaki FUKUDA, Chief of all Divisions, Shin Fukaura Machi Fisheries Cooperative Association, Fukaura Machi (Fukaura Town), Nishi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Morio TAKARADA, Director, Fisheries Promotion Division, Agriculture, Forestry and Fisheries Department, Aomori Prefectural Government, Aomori City, Aomori Prefecture, Japan;
– Mr Kyosei NORO, Manager, Planning and Extension Group, Fisheries Promotion Division, Agriculture, Forestry and Fisheries Department, Aomori Prefectural Government, Aomori City, Aomori Prefecture, Japan;
– Mr Mitsuo HAYASHI, Director, Aomori-ken Kanko Renmei (Aomori Prefectural Tourism Association), Aomori City, Aomori Prefecture, Japan;
– Mr Kenichi IGARASHI, Chief, General Affairs Section, Aomori-ken Kanko Renmei (Aomori Prefectural Tourism Association), Aomori City, Aomori Prefecture, Japan;
– Mr Masayoshi KON, Director, the Central Wholesale Market of Aomori City, Aomori City, Aomori Prefecture, Japan;
– Mr Seigou YOKOYAMA, Expert, Management Division, the Central Wholesale Market of Aomori City, Aomori City, Aomori Prefecture, Japan;
– Mr Ryuichi WATANABE, Chief, Management & Operation Team, Management Division, the Central Wholesale Market of Aomori City, Aomori City, Aomori Prefecture, Japan;
– Mr Ryoichi SHIOYA, Executive Senior Managing Director, Aomori Chuosuisan Co. Ltd. (dealing with wholesale business of marine products at the Central Wholesale Market of Aomori City), Aomori City, Aomori Prefecture, Japan;
– Mr Masakazu MIYAKE, Senior Vice-President, Aomorigyorui Co. Ltd. (dealing with wholesale business of marine products at the Central Wholesale Market of Aomori City), Aomori City, Aomori Prefecture, Japan;
– Mr Toshiaki KOUSAKA, Director, the Central Wholesale Market Division, Fisheries Promotion Division, Agriculture, Forestry and Fisheries Department, Aomori Prefectural Government, Aomori City, Aomori Prefecture, Japan;





– Ms Ayako KIMURA, Clerical Expert, Management Division, the Central Wholesale Market of Aomori City, Aomori City, Aomori Prefecture, Japan;
– Mr Yuichi OUSAKA, Mayor, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Toshihiro UCHIYAMA, Director, Industry Promotion Division, Hiranai Machi Office (Hiranai Town Office), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Hiroaki MITSUYA, President, Hiranai Machi Fisheries Cooperative Association, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Motokatsu SUTOU, General Manager, Hiranai Machi Fisheries Cooperative Association, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Teruo GOTO, Manager, General Affairs Department, Hiranai Machi Fisheries Cooperative Association, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Mitsuo TAKAHASHI, Director, Hiranai Scallop Processing Plant of Aomori Prefectural Federation of Fisheries Cooperative Associations, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Ryuichi NOTOYA, Director, “HOTATE HIROBA (Scallop Plaza)”, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan;
– Mr Zenji TARAKITA, Director, FRI, Local Independent Administrative Institution, Aomori Prefectural Industrial Technology Research Center, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan; and
– Dr Yoshinobu KOSAKA, Head, Planning and Management, FRI, Local Independent Administrative Institution, Aomori Prefectural Industrial Technology Research Center, Hiranai Machi (Hiranai Town), Higashi Tsugaru-Gun, Aomori Prefecture, Japan.

Contents

1.0 Introduction

1.1 Background

The Training Project for 'Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in Indonesia' is being implemented in three phases.

During Phase One, two experts (Dr Yugraj Singh Yadava, Director, Bay of Bengal Programme Inter-Governmental Organisation and Mr Masaaki Sato, Secretary, International Fisheries Cooperative Organization) visited Indonesia from 1-8 October 2009. The experts undertook detailed field trips and held discussions/ meetings with the concerned officials of the Ministry of Marine Affairs and Fisheries, Government of Indonesia; the National Federation of Fishermen Cooperative Societies (Induk Koperasi Perikanan Indonesia- IKPI); Indonesian Cooperative Management Institute (Institut Manjemen Koperasi Indonesia- IKOPIN); Indonesian Fisheries Society (Masyarakat Perikanan Nusantara- MPN); Provincial Federation of Village Unit Fisheries Cooperatives of East Java; Kud Minas of East Java, etc. The expert mission also met with a large number of coastal fishers, their associations and other stakeholders engaged in coastal marine fisheries. The Phase One visit was also utilised to prepare for Phase Two of the Project.

The objective of Phase Two "Study-cum-Training Visit to Japan" is to expose Indonesian participants to fisheries resource management system in Japan through field trips to fish markets, fish landing centers and the academia, as well as meetings and discussions with officials of the Central Government (Ministry of Agriculture, Forestry and Fisheries - Fishery Agency), the Prefectural Government; and Fisheries Cooperative Associations (FCAs).

The study visit is meant to help participants understand Japan's framework of community-based fisheries resource management, co-management and FCAs in day-to-day management of the coastal fisheries resource. This understanding and exposure, it is hoped, will help the participants in formulating policies and programs concerning fisheries resource management in Indonesia.

Since fisheries cooperatives play a vital role in fisheries resource management in Japan, lessons and learnings through exposure to them should help participants in the task of strengthening and empowering fisheries cooperatives in Indonesia.

The objective of the Phase Two is also to prepare for the Project Seminar (Phase Three), scheduled during early March 2010 in Jakarta, Indonesia.

1.2 List of Participants and Advisors

The Study-cum-Training visit was attended by six participants, representing the National Federation of Fishermen Cooperative Societies; Faculty of Fisheries and Marine Sciences, Bogor Agricultural University, Bogor; Provincial Federation of Fisheries Cooperatives of East Java, Moluccas and West Borneo; and Blanbangan Fisheries Cooperative of Banyuwangi, East Java.

Annexure 1 gives a list of participants and advisors with their contact details.

1.3 Itinerary

The itinerary of the Indonesian team in Japan was very busy. The team met officials of the Central Government; visited wholesale and retail fish markets in Tokyo and Aomori; met representatives of the Aomori Prefectural Government and the Aomori Prefecture Federation of Fisheries Cooperative Associations; visited Shin Fukaura Machi FCA and their Fishing Harbour, Hiranai Machi FCA and their Scallop Processing Plant and the scallop aquaculture facility. The team also visited Prefectural Industrial Training Research Center and the Scallop Plaza (*Hotate Hiroba*). Besides field visits, the itinerary also included a series of lectures, which were delivered both in Tokyo and in Aomori Prefecture.

Annexure 2 gives the itinerary.

Front row (L to R): Mr Wibisino Wiyono, Mr Ikuhiro Hattori,
Mr Yuichi Nakamura, Dr Yugraj Singh Yadava.
Rear row (L to R): Mr Natalis Wahyu Dismianto, Mr Asansyah Salimun Norman,
Mr Johozoa Ronald Tanamal, Dr Mulyono Sumitro Baskoro,
Mr Untung Samudra, Mr Masaaki Sato, Mr Jun Machiba.

2.0 Report

The following account provides a day-to-day description of the program followed by the six Indonesian participants under the Phase Two Study Visit to Japan, which took place from 4-14 November 2009.

2.1 Day One (4 November 2009)

The six Indonesian participants arrived in Tokyo on the early morning of 4 November 2009 from Jakarta. Before checking in the hotel, the participants visited Asakusa Sensoji Temple, Edo Tokyo Museum and Tokyo Tower. One advisor (Dr Yugraj Singh Yadava, Director, Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO), Chennai, India, arrived in the evening from Chennai. Soon after the arrival of the advisor, an orientation meeting was arranged in 'Chakura Coffee Shop' of Grand Central Hotel, where all the participants and the advisors were lodged.

2.2 Day Two (5 November 2009)

Day Two began with an early morning visit to the Tokyo Metropolitan Central Wholesale Market located at Tsukiji. The participants reached Tsukiji at 0600 hrs and were guided by Mr Ihei Sugita, Staff of the Central Wholesale Market. Mr Michael Louis Clarke, Mansfield Fellow (The Maureen and Mike Mansfield Foundation) and currently attached to the Fishery Agency, Ministry of Agriculture, Forestry and Fisheries (MAFF), Government of Japan also joined the participants in their visit to Tsukiji market. The fish and fish products sections of the market were buzzing with activities and the participants were fascinated by the manner in which large quantities of fresh fish and fish products were handled by the operators in the market.

Tokyo Metropolitan area has 11 wholesale markets, of which three deal with fish and fishery products. The wholesale market at Tsukiji is the largest wholesale fish market among the three, both in terms of quantity traded and value. The Tsukiji market was opened in February 1935 and would soon be completing its 75th anniversary- diamond jubilee. Tsukiji wholesale market has a prominent position among the wholesale markets in Japan and its rates normally set the trend elsewhere in Japan. It was informed by Mr Sugita that a new market with much larger facilities was being constructed at Toyosu and by 2014 the wholesale market at Tsukiji would be located at the new site.

Presently, the fish and fish products section of Tsukiji handles approximately 2 070 tons of fishery product per day valued at approximately 1 740 million Yen. The market receives large quantities of fresh and preserved fish and fish products from almost all corners of Japan and also from various parts of the world. Tuna is the most prized commodity in the market and attracts the maximum attention from the buyers. The market boasts of excellent hygiene and sanitation levels. A Sanitation Inspection Station is located in the premises, which undertakes routine checks on goods and also provides guidance to the operators on hygiene and sanitation standards. The fish section of Tsukiji market has three main operators- the wholesalers, intermediate wholesalers and authorized buyers. All the three categories of operators are approved by designated authorities and function under a set of rules and regulations. The auction process is highly systematic and ensures a fair and transparent process. A detailed note on the Tokyo Metropolitan Central Wholesale Market is in Annexure 3.

The opening ceremony of the Training Project for Community-based Fishery Resource Management by Coastal Small-scale Fishers in Indonesia took place in Meeting Room

No 5 (6th Floor) of the Cooperative Building, which houses the JF-ZENGYOREN. The ceremony started at 1100 hrs with the opening speech of Mr Ikuhiro Hattori, Chairman, ICFO and President JF-ZENGYOREN.


水産経済新聞

Press coverage of the Study Visit by The Suisan-Keizai

At the outset Mr Hattori extended a warm welcome to all the participants and the advisors and expressed his deep sympathies to the people of Indonesia for the serious damage to lives and property caused in Padan on 30th September 2009. He prayed for the early recovery of those who had been injured in the earthquake. Mr Hattori hoped that the Training Project had so far progressed smoothly with the active participation of the participants and the advisors.

Mr Hattori said that since the late 1980s, JF-ZENGYOREN has been actively promoting community-based fisheries resource management. He said that the well-being of fishers and related stakeholders is dependent on sound fisheries resource management practices and in this sense he hoped that the ICFO Training Project could contribute to the fisheries resource management efforts in Indonesia.

Briefly introducing JF-ZENGYOREN, also known as the National Federation of Fisheries Cooperative Associations of Japan, Mr Hattori said that we represent the interest of coastal small-scale fishers in Japan and we are engaged in many activities such as supply of fuel and other fishing material, marketing business and also lobbying for the benefit of our fisher members. One of the important outcomes of our lobbying was the special budgetary appropriation by the Government of Japan to fisheries cooperative sector, which has been heavily suffering from high fuel cost brought about by the worldwide crude oil price hike.

Mr Hattori emphasized on the importance of fisheries management and hoped that the participants would make much use of this opportunity to learn and share experiences for development of fisheries sector in their beautiful country- Indonesia. He thanked the MAFF, Government of Japan for their financial contribution. He also thanked Dr Yugraj Singh Yadava, Director, BOBP-IGO for his continuous association with the Training Project right from the beginning and for his contributions to the success of the Project. The full text of Mr Hattori's speech is in Annexure 4.

Mr Yuichi Nakamura, Deputy Director, International Cooperation Division, International Affairs Department, Minister's Secretariat, MAFF speaking on behalf of his Ministry extended a warm welcome to the participants and the advisors. He said that during this Training Course, the participants will be exposed to many new activities related to fisheries resource management and hoped that this new knowledge would help them in day-to-day fisheries related work and also be of immense use in developing Indonesian fisheries on sustainable basis. Mr Nakamura said that as in-charge of this Training Program in MAFF, he would like to extend his deep appreciation to the resources persons, namely Dr Yugraj Singh Yadava, Professor Jun-ichiro Okamoto, Professor, Faculty of Fisheries, Hokkaido University, Hakodate, Japan and Mr Masaaki Sato, Secretary, ICFO.

Mr Nakamura hoped that this Training Program would build long-lasting relationship between Indonesia and Japan and requested all participants to remain in touch with each other after this course, as this would facilitate exchange of ideas and further mutual cooperation. Mr Nakamura's speech is in Annexure 5.

Dr Yugraj Singh Yadava, main advisor to the Training Project in his speech expressed satisfaction on the outcomes of the MAFF-funded Training Project. He thanked MAFF and ICFO for his engagement as the main advisor to the Project and hoped that the countries participating in the Project would immensely benefit from the Study Visit to

Japan. Dr Yadava also gave a brief description of the Phase One activities carried out by the two member expert mission (Mr Masaaki Sato and Dr Y S Yadava) to Indonesia from 1-8 October 2009 in cooperation with the National Federation of Indonesian Fishermen's Cooperative Societies, acting as the partner organization for the Training Project in Indonesia.

After conclusion of the opening ceremony, a group photograph of the participants, advisors and guests was taken. On behalf of the participants, Mr Wibisino Wiyono, President, National Federation of Indonesian Fishermen's Cooperative Societies (Induk Koperasi Perikanan Indonesia or IKPI) presented mementoes to Mr Hattori and Mr Nakamura.

Following the opening ceremony, Dr Yugraj Singh Yadava made the first presentation, which covered the report of Phase One Mission to Indonesia carried out during early October 2009.

Dr Yadava said that Indonesia is the largest archipelago in the world and is well recognized for its unity in diversity *'Bhinneka Tunggal Ika'*. He said that Indonesia is also a rapidly growing economy, and is popularly referred to as the New Asian Tiger. The country has adopted *Reformasi* (Indonesian for "Reform") since 1998, allowing decentralization and new economic policies, which facilitate the rapid growth of the economy. The fisheries sector, which is a major pillar of the economy, is a source of living for over 5 million people. The current level of fisheries production is around 8 million tons. The capture fishery contributes about 5 million tons and culture fisheries contribute the balance 3 million tons. However, the capture fisheries, in both marine and inland waters, are under threat. Marine fisheries are nearing its potential while the inland fisheries are threatened by rapid urbanization. In case of aquaculture, there is a large scope of expansion as resources suitable for aquaculture are only partially utilized. However, such expansion needs to be done carefully.

Dr Yadava said that *reformasi* promoted sustainable utilization of resources by involving community in the governance process. The traditional community-based mechanisms of fisheries in Indonesia have shown inspiring results in fisheries resource management. Now, such measures have legal sanctions, which would facilitate integration of community in fisheries management voluntarily.

Explaining the background of cooperative movement in Indonesia, Dr Yadava said that the origin of cooperatives dates back to the period of freedom struggle in Indonesia. Post-independence (1950s) cooperatives acted as a tool to promote policies and programmes of the government. The sector has undergone through many changes. Presently, Law of the Republic of Indonesia No. 25 of the year 1992 concerning cooperatives is the basic law of the sector. Under this law a cooperative society has the objectives to improve members' welfare and to participate in developing the national economic system. In this regard Dr Yadava also explained the roles played by DEKOPIN (or *Dewan Koperasi Indonesia*), *Induk Koperasi Perikanan Indonesia* (IKPI) or National Federation of Indonesian Fishermen's Cooperatives Societies; PUSKUD MINA/ Pus*at Koperasi Perikanan a*nd *KUD Mina Koperasi Perikanan (Villag*e Unit Fisheries Cooperative) – the cooperative organisations from highest national level to village level. Dr Yadava said that cooperatives in Indonesia are playing versatile role. However, they need to define their core strength and bring professionalism. He hoped that such measures would generate surplus in the cooperatives and prepare them for new challenges in the era of decentralized community-driven governance.

In the afternoon, the participants visited MAFF where they were received by Mr Yuichi Nakamura and taken to meeting room (Chuo Kenshushitsu) on the 4th Floor of the MAFF Headquarters. At the beginning, the participants were shown video films, which depicted various aspects of marine fisheries and aquaculture in Japan and fisheries policy of Japan with focus on contributions of fisheries to national food and nutritional security. The video presentations were appreciated by the trainees as they provided a good overview of the fisheries sector of Japan.

The video presentations were followed by the second lecture of the day, which was delivered by Ms Ritsuko Yoneda, Deputy Director (Legal and Planning Section), Resource Management Division, Fishery Agency, MAFF in association with Mr Michael Louis Clark. The first part of the presentation was made by Mr Clark. Mr Clark said that the UN Convention on the Law of the Sea (UNCLOS) was ratified by Japan on 20 June 1996. Presently, the Exclusive Economic Zone (EEZ) of Japan is the 6th largest in the world (4.5 million sq. km) and is 12 times greater than its land area. The present Japanese laws concerning the EEZ and the continental shelf,' execution of sovereign fishing rights within the EEZ and the conservation and management of living marine resources have strong bearing with the UNCLOS. Japan has concluded fisheries agreements with China and Korea that permit access between the EEZ of the three nations. Mr Clarke said that fishing has been a way of life in Japan for centuries and 95 percent of the Japanese fishers fish within 5 km of the coastline. The importance of small-scale and artisanal fishers is still alive in Japan and Japanese fishers target mostly the domestic markets.

Ms Ritsuko Yoneda (above)
Mr Michael Louis Clarke (below)

In the second part of the presentation, Ms Yoneda focused on the fishery resources and their management in the seas surrounding Japan. She said that the waters surrounding Japan are some of the most productive waters in the world, sustaining coastal, offshore and deep-sea fisheries. In the coastal waters, the fishing vessels are mostly small-scale and family-operated. A wide-array of inputs and other technical controls are deployed to manage coastal fisheries in Japan. These include TAC (Total Allowable Catch) management, Resource Recovery Plans (RRPs), stock enhancement and controls on vessel numbers and sizes and net-mesh size regulations. Various fin and shell fish species are subjected to the above-referred management plans. She further said that the TAC was introduced in 1997 and certain economically valuable species with large catch volumes were managed using this procedure. Similarly RRPs were introduced in 2001and presently 65 RRPs at national and prefectural levels are in operation. In conclusion, Ms Yoneda said that accurate resource assessment is the key to effective fishery management and it is critical for fishers and their cooperatives and the national and prefectural governments to understand their roles and work together for effective management and sustainable use of fisheries resources.

At the conclusion of the first day's activities, a welcome party was hosted by JF-ZENGYOREN at 'Mangetsu' a Japanese soba noodle restaurant close to Kanda city Railway Station. Besides the participants and the advisors, Mr Jun Machiba, Deputy General Manager, Fishery Policy Department, JF-ZENGYOREN and Mr Michael Louis Clarke attended the welcome party. The participants, advisors and the guests thoroughly enjoyed the party.

2.3 Day Three (6 November 2009)

The day three programme began in meeting room No 4 (6th Floor) of the Cooperative Building with the lecture of Mr Masaaki Sato on 'Fisheries management development in Japan – Why community-based fisheries management has well-developed in Japan?' Mr Sato said that on many occasions, the emergence of community-based fishery resource management system (CBFRM) in Japan is attributed to the fishing right system during the feudal era. However, this was only half-true. In reality, the elements of democracy in fisheries management were brought in during the post World War II developments in Japan. Persuaded by the Allied Forces, the then Japanese government introduced major changes in agriculture and fisheries sectors. In fisheries sector, the changes included a complete reformulation of the fisheries law to incorporate fishers into fisheries management by giving specific fishing rights. This reformulation was effective enough to address the needs of small-scale fisheries in the country. Further, the nature of rights also encouraged the fishers to come together for extracting full benefits from the resources.

Mr Sato further explained that this organization of fishers was carried out in a democratic manner through setting up of Fishermen Cooperative Association (FCAs), which brought strength to the system as also transparency in conduct of business and decisions. He said that today the FCAs are wholly controlled by fishers, who pursue their livelihoods without any governmental interference and the decisions of the FCAs once accepted are fully complied. "In essence, the lesson learned from Japan is that an enabling legal instrument backed by economic incentives can bring the fishers together to manage their resources in a responsible manner", said Mr Sato. The full text of Mr Sato's paper is placed in Annexure 6.

In the next presentation, Mr Jun Machiba, Deputy General Manager, JF-ZENGYOREN said that Japan's fishery is generally classified into three categories: coastal, offshore and distant water fisheries. Almost all coastal fishers are members of FCA. The FCA network is a three-tier structure spread at local level, prefectural level and national level. The FCAs carry out credit, supply, marketing and processing businesses, as well as guidance (non-economic) activities. This intensive penetration of FCAs in Japanese fisheries sector can be thought as the corner stone of the voluntary CBFRM movement. The concept of CBFRM was coined in Japan in 1977 by the Japanese Society of Fisheries Economics. Thereafter, the National Fishermen's Congress held in 1979, in which FCA presidents from across the country took part, adopted a resolution, declaring that FCAs shall "take a transfer course to community-based fisheries resource management". The circumstances that led to this decision include decline of Japanese distant water fishery pursuant to the UNCLOS and declaration of 200 nautical miles EEZ by the coastal nations. At the same time the FCAs also felt the need for conserving domestic resources against increasing fishing effort.

Mr Machiba said that the FCAs used various paths to contribute to resource management or for promoting Fisheries Resource Management Organizations (FRMOs). The frequently traveled road was the setting up of FRMOs by gear specific organizations and by youth groups of FCAs. In the next instance, about 29 percent of FCAs were playing the role of FRMOs and in many cases the FCA members independently formed FRMOs to address the issues of their fishery. He said that the FCAs are integral part of local culture and act as the liaison between fishers, general public and government. In course of time FCAs have also become the most trusted organization to implement both resource management and welfare activities of the prefectural and national governments.

Explaining some of the activities of the FCAs, Mr Machiba said that within FCAs 'common interest groups' are often formed to attend to specific activities. In some cases 'women groups' are also formed to serve their interests. The salaries for the

Participants at JF-ZENGYOREN and MAFF Headquarters, Tokyo

Mr Natalis Wahyu Dismianto

Mr Wibisono Wiyono

Dr Mulyono Sumitro Baskoro

Mr Johozoa Ronald Tanamal

Mr Asnansyah Salimun Norman

Mr Untung Samudra

Phase Two participants

FCA staff come out of the businesses of the FCAs and also from their contributions – the prefectural or national governments do not pay for their salaries. Fishers have also created a fund for RRPs using the 'Beneficiary-pays-principle'. On most occasions, the juveniles for stock enhancement are also produced using fisher's own money.

In the afternoon session video films were shown. In the first film, stock enhancement of 'Hata-hata' or sailfin sandfish *(Astoscopus japonicas)* was shown. The major distribution area of Hata-hata is the Sea of Japan and Northern part of Pacific Ocean side up to Alaska. Hata-hata grows up to 22 cm in size. Hata hata is caught by both trawl nets and set net fishery and often conflicts take place between the two gear types. The annual production of Hata-hata in Akita Prefecture reached 20 000 metric tons in peak year, but declined to as low as 71 tons. Keeping in view its depletion, stock enhancement is carried out in Akita Prefecture and satisfactory results are now seen.

In conclusion, Mr Machiba also made a presentation on the outline of FCAs in Japan. He said that the FCAs in Japan as they are today were established based on the Fisheries Cooperative Association Law (FCA Law) of 1948 (Law No. 242 of 15 December, 1948). The FCAs are multi-purpose in businesses/ activities, and provide various services to their members. The organizational structure of the JF Group [= Fisheries Cooperative Associations and their Federations Group, often referred to as JF (Japan's Fisheries)] has a three-tiered structure. JF-ZENGYOREN has been promoting FCA amalgamation since 1967 giving various incentives to stabilize the business and increase the returns. The full text of Mr Machiba's two presentations is placed in Annexures 7 & 8.

2.4 Day Four (7 November 2009)

On day four, the participants and advisors reviewed the activities undertaken during the first three days of their Study Visit in Japan. After the review, discussions were held on the proposed structure and format of the Phase Three Seminar that would be organized in Jakarta in early 2010. It was suggested that the Seminar should be organized in early March 2010 at a venue to be finalized by the IKPI. The other arrangements for the Seminar were also discussed and agreed.

The afternoon session was kept free for the participants to prepare for their travel to Aomori Prefecture on the next day.

2.5 Day Five (8 November 2009)

On the morning of day five, the participants and advisors left for Aomori by JAL flight 1203, leaving Haneda airport (Tokyo) at 1002 hrs and reaching Aomori at 1100 hrs. At Aomori, the team was received by Mr Masaaki Koide, Senior Managing Director of Aomori-Ken Gyoren and Mr Masamitsu Ebina, General Manager, General Affairs Department of Aomori-Ken Gyoren. Dr Jun-Ichiro Okamoto, Professor, Faculty of Fisheries, Hokkaido University, Hakodate and advisor to the Training Project also joined the team at Aomori airport.

Aomori City

After finishing an early lunch at the Aomori airport restaurant (Hiba), the team left for Shin Fukaura Machi Fisheries Cooperative

Association (Shin Fukaura FCA) located at Nishi Tsugaru-Gun, Aomori Prefecture. En-route, the participants and other team members made a brief halt at 'Ekinomichi Morita Earth Top' an assemblage of shops selling local products such as fruits and vegetables and handicrafts. The team enjoyed the delicious apples sold at the shops.

At Shin Fukaura FCA, Mr Gizou Nishizaki, President of the FCA gave a lecture on "Outline of Shin Fukaura Machi FCA with particular emphasis on promotion of Community-based Fisheries Resource Management". Mr Nishizaki said that the FCA was established on 1st January, 2008 as a result of amalgamation of the Oodose FCA; Henashi FCA; and Iwasaki Mura FCA. Currently, the FCA has 681 members and major business activities of the FCA are insurance (life and general), supply of fisheries inputs and marketing. In resource management, the FCA is taking measures to enhance the resource by releasing/ stocking of juveniles of some commercially important fish species such as 'Hirame'. However, the FCA is suffering from conflicts between coastal fishers and offshore fishers who have opposite interests. It needs support from the government to address such conflicts. Other office bearers and board members of the FCA were also present during the lecture. The full text of Mr Nishizaki's is in Annexure 9.

The participants and the advisors returned to Hotel Gran Mer, Nishi Tsugaru-Gun, Aomori Prefecture, where the night halt was made.

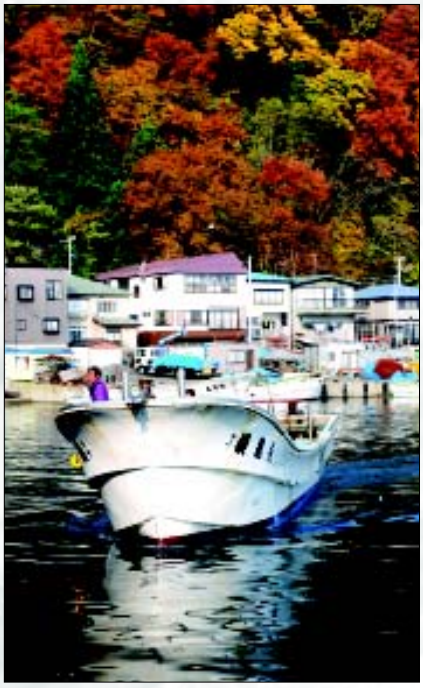
2.6 Day Six (9 November 2009)

On day six, an early morning visit was made to 'Oodose Wholesale Fish Market' located in Nishi Tsugaru-Gun, Aomori Prefecture. The market is operated by Shin Fukaura FCA. Mr Hiraoki Fukuda, Chief of all Divisions, Shin Fukaura FCA guided the participants through the market and explained the activities undertaken at the market. The market was established on 25 April 1949 and handles about 24 commercially important fish species. In the year 2008 (January - December), the market handled about 1.6 million metric tons of fish worth 58.14 million Yen.

On the return journey from Oodose Wholesale Fish Market to Aomori-Ken Gyoren, halt was made at 'Ikayaki Mura' where local products were being sold. Enroute, the participants also saw giant jelly fishes washed ashore at 'Senjo Iwa' and salmon run in 'Akaishi River' from Motoi Bashi (Bridge).

Mr Masaaki Sato (L) and Mr Shoji Uemura (R)

Mr Shoji Uemura, President, Aomori Prefectural Federation of Fisheries Cooperative Associations (Aomori- Ken Gyoren) and the former Chairman of ICFO and President of JF-ZENGYOREN welcomed the participants and also hosted the lunch. In his welcome speech, Mr Uemura said that he and his colleagues in the Ken Gyoren were honoured by the visit of the participants and the advisors and hoped that the Study Visit to Aomori Prefecture would be useful. Mr Uemura recalled that the present Training Project was initiated by the ICFO during his tenure as chairman of the Organization and he was happy to note that Indonesia has also been included in the Project.



Participants at Aomori Prefecture

Lecture in progress at Aomori-Ken Gyoren

Mr Uemura said that we in the fishery sector have many common problems, some created by ourselves and some by others. Resource degradation and other environmental issues including the likely impacts of global warming are becoming major challenges before us and they need to be addressed on priority basis. In Japan, in recent years the damages caused by the giant jelly fish *(Nemolilema nomurai)* are becoming acute and fishers are suffering from this.

Concluding his speech, Mr Uemura said that as President of Aomori-Ken Gyoren, he h*as* ensured that the Study Visit to Aomori be as productive as possible. He said that Aomori Prefecture is not only famous for its hot springs, good food and drinks but also for its friendly and good-hearted people and requested the participants to enjoy their stay in Aomori and take back beautiful memories of this Prefecture. He hoped that the Training Project will be able to contribute to the sustainable development of fisheries in Indonesia. Mr Uemura's welcome speech is placed in Annexure 10.

The first lecture in the afternoon was made by Dr Okamoto. In his presentation entitled, "Improvement of fisher's livelihoods and resource management by fisher groups", Dr Okomoto said that fisheries resource management is necessary for securing fishers' livelihoods. He gave a chronological description of the establishment of fisheries laws and fisher associations in Japan from 1886 onwards. Dr Okamoto also described the fisheries cooperative movement in Hokkaido in the 1930s, which led to many landmark developments in Japan, including revisions in the fisheries laws, establishment of Central bank for industrial cooperative associations and later joint marketing by the FCAs.

Dr Okamoto said that presently the FCAs are moving towards Ecosystem Approach to Fisheries Management and in this direction they are engaging themselves in reducing effort, applying TAC to many commercially important fish species, enforcing area and seasonal closures, rehabilitating the habitat and the environment and enhancing the resource through stocking of seed of important fin and shell fish species. Some successful examples in this regard are the conservation and construction of mud flats (tideland) in coastal areas in Hokkaido and rehabilitation of beds of seaweeds and sea grasses in Okayama and Kochi Prefectures.

In the concluding part of his presentation, Dr Okamoto outlined the challenges before the FCAs in Japan, which include (i) poor supply business mainly due to larger quantities of fish imports, (ii) lack of borrowing capacity from public institutions, especially for small-scale fishers and (iii) improvements in the financing activities, although the repayment is also slow at time.

Mr Akira Aburano, Fisheries Expert, Fish Farming and Resource Management Group, Fisheries Promotion Section, Aomori Prefectural Government, Aomori made the next presentation on "Present status of fisheries of Aomori Prefecture and the framework for fisheries resource management in the Prefecture". Detailing the location of Aomori Prefecture in Japan, Mr Aburano said that the Prefecture is located in northernmost area of Honshu Island. It is surrounded by the Sea of Japan to the west, Tsugaru Strait to the north and Pacific Ocean to the east. To its center-north, lies the Mutsu Bay. The fishing grounds of Aomori Prefecture are highly productive due to interplay of several warm and cold sea currents. The major production in the Prefecture are scallops (100 000 tons), Japanese common squid (80 000 tons) and mackerel (50 000 tons) in terms of quantity. In terms of value, squid (16 billion Yen) fetches the highest value followed by scallops and sea cucumber. Japanese common squid are mainly caught by jigging method.

There are two types of Fisheries Resource Recovery Plans (FRRP) practiced in the Prefecture: 'Wide Area FRRP' - prepared by the Fishery Agency and the 'Prefectural Area FRRP' prepared by the Prefectural government, said Mr Aburano. The activities carried out under FRRP include gear regulation, stock enhancement and controlling of fishing effort, all on voluntary basis. These FRRPs are successful in stabilizing the fisheries of Usumebaru or rockfish, Ikanago (Sand lance) and Hirame (Bastard halibut) – the 'Aomori Prefecture's fish'. The peak production of Hirame in Aomori Prefecture was 1 807 tons in 2000 and after that the fishery declined. After adapting the FRRP, the fishery is recovering and the production in 2008 reached 1 176 tons. The full text of Mr Aburano's presentation is in Annexure 11.

In the next presentation, Mr Masanori Kumaki, Chief of the Guidance Division, Aomori-Ken Gyoren explained the organization and activities of the Ken Gyoren with particular reference to promotion on CBFRM. Mr Kumaki said that the Ken Gyoren was established on 26 September 1949. Presently, the Ken Gyoren has four departments: (i) Business Department; (ii) Factories Department (Processing and Sales Outlet Department); (iii) Guidance Department; and (iv) General Affairs Department. As of 31 March, 2009, the organization had 54 member FCAs. The total number of member-fishers belonging to FCAs in Aomori Prefecture is 14 000.

Mr Kumaki said that Aomori-Ken Gyoren is promoting CBFRM in the Prefecture. The Ken Gyoren undertakes various activities pertaining to fisheries policy, environmental conservation of fishing grounds, capacity building and revitalizing fishing communities, etc. With regard to CBFRM activities, the Ken Gyoren undertook resource management of 'Hirame (Bastard Halibut)' from 1989 onwards. This activity was initiated under the Resource Management Policy of the Prefectural government's subsidized Coastal Area Stock Enhancement Program and the Wide Area Migratory Stock Management Program. Currently, the 'Multi-species Stock Management Program' is being promoted by the Ken Gyoren, said Mr Kumaki. As a result, catches of Hirame as well as 'Mizudako (Octopus- *Paroctopus dofleini*) have increased and stabilized, which has helped create awareness amongst fishers on the importance of stock management.

On the environmental issue, Mr Kumaki said that giant jelly fishes are entering the nets and destroying them. As a result the harvested fishes escape causing loss to the fishers. To offset such losses, fishers need compensation. He also referred to the conflicts between coastal and offshore fishers. Mr Kumaki's presentation is placed in Annexure 12.

Mr Yuta Nagano, Journalist from the Economics Division (Editor's Department) of the To-O-Nippo Sha (The Deep North-east Daily Co. Ltd.) covered the meeting in Aomori-Ken Gyoren. After the conclusion of the lectures, the participants and the advisors visited the Aomori Prefectural Sightseeing Spots and Products PR Building (ASPAM). They later travelled to Hiranai city. The night halt was made in Hotel Asamushi Onsen (Kaisenkaku) in Aomori-Ken.

Mr Yuta Nagano

2.7 Day Seven (10 November 2009)

On the early morning of day seven, the team visited Aomori City Central Wholesale Market. Mr Masayoshi Kon, Director of the Market received the team and made a brief presentation on the history of the Wholesale Market and provided details on the sales procedure and other activities at the Market. He said that the Aomori City Central Wholesale Market deals with fish, vegetables, fruits and flowers. The market was initially established in the year 1900 and the fish wholesale business started from 16 October 1947. On 9 October 1972, the establishment of the Central Wholesale Market of Aomori City was approved by the MAFF. The Market has two wholesalers operating with the approval of the Minister of MAFF and 19 intermediate wholesalers and 112 authorized buyers operating with the approval of the Mayor of Aomori City. As on 31 March 2009, 336 registered purchasers were permitted to operate in the market.

Thereafter, Mr Seigou Yokoyama, Chief of Management Section guided the team to various sections of the Market. Mr Yokoyama said that the fish and fish products section of the Market operated for 275 days in the year 2008 and dealt with 48 645 619 kg of fish valued at 3 077 million Yen. The cold storage and freezing facility started in 2003. In this Market, 68 percent of fish and fish products come from local sources and the balance 32 percent is of foreign origin. Out of the total value of fresh tunas dealt in this Market, big eye tuna accounts for 50 percent of the total value (this is equivalent to 360 million Yen) and some big eye tunas are imported from Indonesia. Shrimps also come from Indonesia. Like Tsukiji Wholesale Market in Tokyo, the Aomori City Central Wholesale Market was also an excellent example of cleanliness and conduct of orderly business.

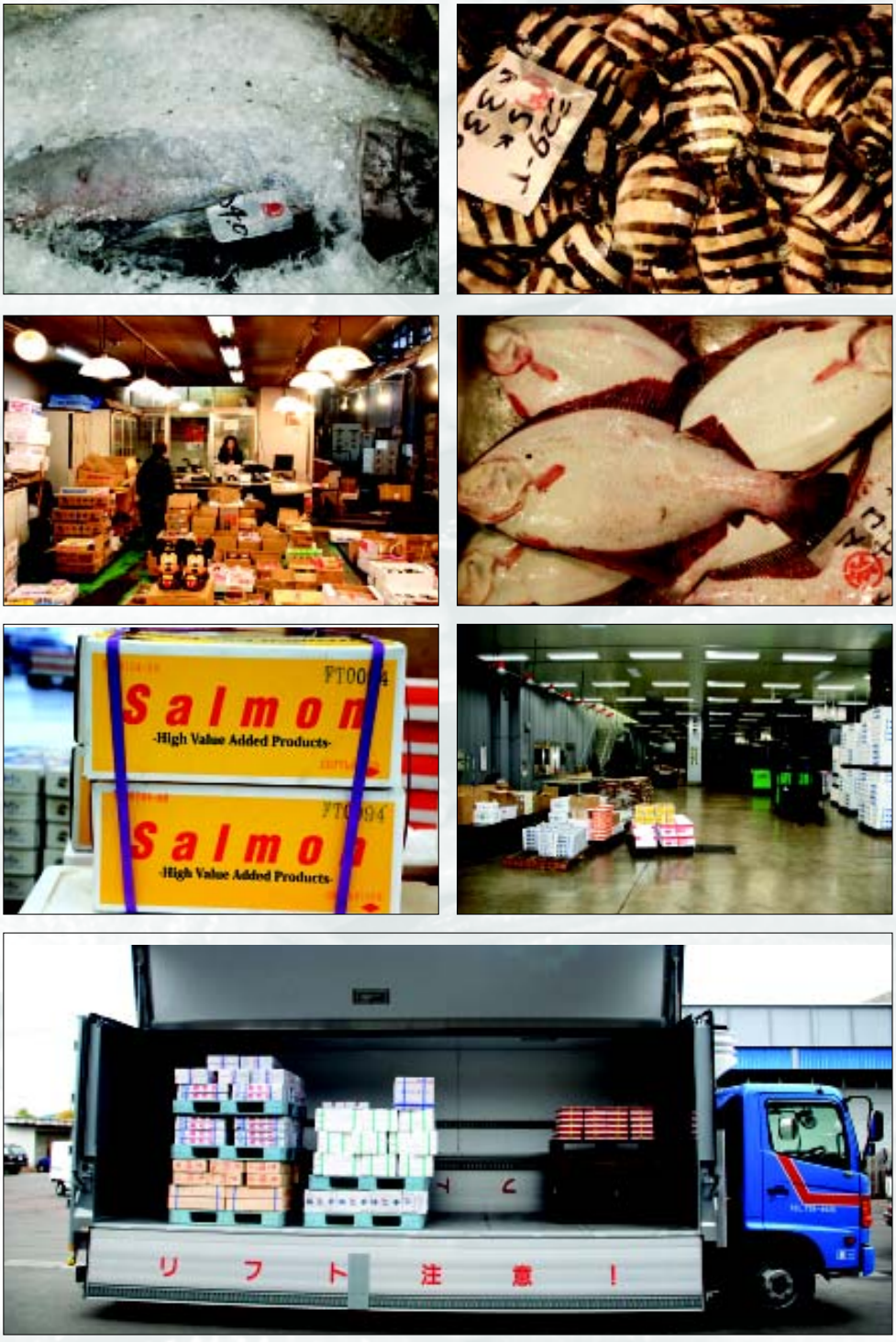
Participants and advisors with Mayor of Hirani Town

After visit to the Aomori City Wholesale Market, the team visited the Hiranai Town Municipality office and made a courtesy call on the Town Mayor, Mr Yuichi Osaka. This was followed by a presentation made by Mr Atsushi Kameda, Assistant Chief-in-charge of Scallop Aquaculture Promotion Section of the Industry Promotion Section in Hiranai Town municipality office. Mr Kameda's presentation dealt with the local government's support to the efforts of FCA's in promotion of CBFRM. He said that against a total population of 13 000 of Hiranai town, 1 906 people are engaged in the primary industry. Fishers are mostly engaged in scallop farming and farmers in rice farming. Scallops and apple are the hallmark of this Prefecture.





Participants at the Aomori City Central Wholesale Market



Activities at the Aomori City Central Wholesale Market

Mr Kameda said that Hiranai is also the birth place of scallop farming in Japan. Red, blue and black species of sea cucumber are produced in this Prefecture and they are exported to China in the form of salted or dried scallops. Hiranai Fisheries Study Group is very active in studying sea cucumber and financial assistance is also provided for conducting such studies. There is also a seasonal closure for harvesting of sea cucumbers. Mutsu Bay is like a closed bay and once polluted, it is likely to affect the fisheries resources. Therefore, to reduce the impact of pollution a waste disposal facility is set up in Hiranai. Mr Kameda also detailed the support provided to the fisheries sector by the Town Municipality.

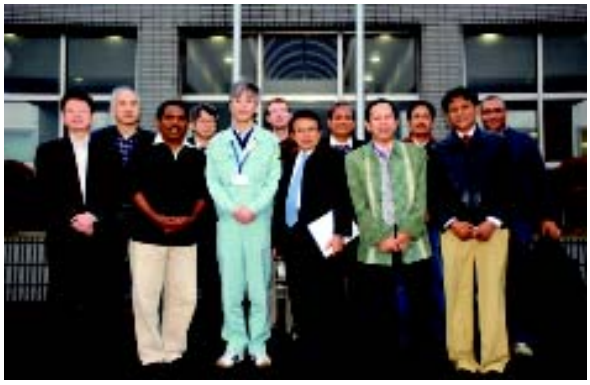
Mr Atsushi Kameda

After visit to the Town Municipality, the team proceeded to Hiranai Port, where some participants and advisors boarded a marine rescue boat to witness scallop farming in the coastal waters. However, due to inclement weather and rough sea, the trip had to be aborted and the participants returned. Following this, the team visited the Hiranai Scallop Processing Plant of Aomori-Ken Gyoren. After a brief explanation of the facilities in the Plant by Mr Mitsuo Takahashi, Director of HACCP, the team was taken to the Plant where they witnessed processing of scallops. The plant has most modern facilities to ensure that are products are of high quality. Sterilized sea water is used in the Plant, as this retains the natural taste/ flavor of the scallops. The waste products from the Plant are processed into clean products using disinfectants and the sea water is also treated before it is released back to the sea.

The next scheduled visit to Hiranai Machi FCA was cancelled due to inclement weather. However, Mr Shoji Uemura, who was also the President of the FCA, gave a brief account of the activities of the Hiranai Machi FCA during the bus journey from the Scallop Processing Plant to Natsudomari Golf Links, where Mr Uemura had arranged lunch for the participants.

Mr Uemura said that Hiranani Machi FCA was established in 1970 by amalgamation by 6 FCAs in Hiranani Machi area. During its establishment in 1970 the FCA has 1 235 members and was one of the largest FCA in Japan. Presently, the number of member-fishers is 943, of which full-fledged members are 794. The FCA has control over a coastline of 48 km facilitated with 13 ports and a common fishing right area of 3 million square meters. Under the fisheries resource management activities, the FCA has started a waste disposal facility and also an environmental cleaning movement. It carries out stock enhancement for salmon, joint management of sea cucumber and has introduced optimum scallop culture density. It also participates in planting of trees in the forest and land areas in cooperation with the forest cooperatives.

The full text of the lecture prepared by Mr Motokatsu Sutou, Chief of Staff, Hiranai Machi FCA is placed as Annexure 13.



Participants with Mr Kabutomori at the Research Centre

Post-lunch, the team travelled to Aomori Prefectural Industrial Technology Research Center, where Mr Yoshinori Kabutomori, Manager of Fisheries Resources Management Division gave a lecture on the organization and activities of the research Centre with particular reference to resource management. Mr Kabutomori said that recently research institutes were merged with fisheries as one of the divisions of the Institute. Under Fisheries Division, there are two Institutes, one for freshwater and the other for marine. The Institute has a staff of 42, of which 32 are regular and the remaining temporary. The Institute also has 3 research vessels with a vessel staff of vessel staff of 31, thus making the total staff strength of 73. The Institute is working in many areas and in resource management it is presently targeting three species – hirame, octopus spp. and rock fish sp.

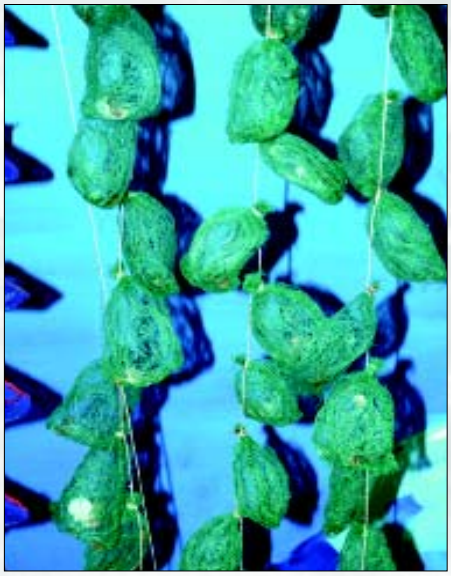
After visit to the Research Institute, the participants visited the 'Hotate Hiroba' or Scallop Plaza, an excellent awareness centre with marketing outlet dedicated to scallops. Mr Ryuichi Notoya, Director of the Plaza guided the participants and explained various facets of the life cycle, farming and processing of scallops in Aomori Prefecture. The Plaza has excellent display material, which makes the explanations very clear and interesting. In the evening, the Aomori-Ken Gyoren organized a farewell dinner for the visitors, which was enjoyed by all the participants.

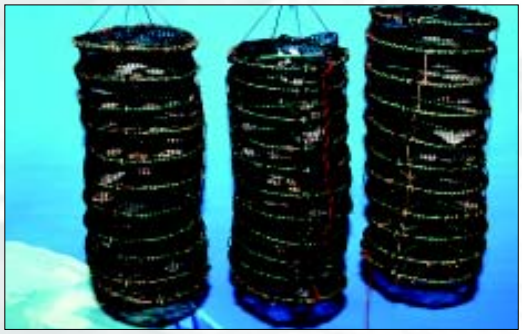
2.8 Day Eight (11 November 2009)

On day eight, the participants left Aomori at 0950 by JAL flight 1202 and arrived at Haneda airport (Tokyo) at 1105 hrs. In the afternoon the final lecture of the Study Visit was made by Mr Naoyuki Tao, Adviser, FCA Management Center Co. Ltd., Tokyo. Mr Tao in his presentation said that at the outset fishers must understand that the FCA is their own organization and not a government entity. Fishers must attend the meetings of the cooperative and exercise their rights in making decisions. Mr Tao further said that it is necessary for a fisher's cooperative to have at least three management bodies in order to ensure that the cooperative functions as an effective economic entity. These bodies are General Meeting – comprising all members of the cooperative; Board of Directors – the management body which has the power to administer the cooperative and is held responsible for what they have decided and Board of Auditors – to maintain transparency in the transactions. Further it is necessary for even a smallest size FCA to employ at least a general manager and a chief accountant in order to ensure that the businesses are operated in a smooth manner. It is also important that the cooperative retain and invest its surplus as it will help the growth of the cooperatives. The full text of Mr Tao's paper is placed in Annexure 14. After the presentation of Mr Tao's lecture, Dr Okamoto, advisor, returned to Hakodate.

2.9 Day Nine (12 November 2009)

On day nine, the participants and the advisors met in meeting room No 5 (6th floor) of the Cooperative building and discussed their experiences of the field visit undertaken in Aomori Prefecture. The participants and advisors also discussed and finalized the arrangements for Phase Three Seminar in Jakarta, Indonesia to be held from 2-5 March 2010. The program of the Phase Three Seminar is placed in Annexure 15.





Displays at 'Hotate Hiroba' or the Scallop Plaza

The participants and advisors also completed the Evaluation Form provided by MAFF for commenting on the Training Project. At the conclusion of the Program, an informal farewell dinner was organized at the Korean Restaurant, Chegoya (Ground floor, Tokyo Royal Plaza, 1-18-11 Uhikanda, Chiyoda-Ku). The participants fondly recollected the new experiences gained during the Study Visit and hoped that the lessons learned would be put to practice in Indonesia. They also expressed sincere thanks to MAFF, ICFO and the advisors of the Training Project.

2.10 Day Ten (13 November 2009)

On day 10, the six participants returned to Jakarta, Indonesia by flight SQ 637 leaving Narita airport at 1130 hrs. Mr Naoyuki Tao, advisor also left for Sapporo by flight ADO 11 leaving Haneda airport at 0645 hrs. During the day Dr Yugraj Singh Yadava, and Mr Masaaki Sato discussed the preparation of Phase Two Report and other matters concerning implementation of the Phase Three Seminar in Indonesia.

2.11 Day Eleven (14 November 2009)

Dr Yugraj Singh Yadava, advisor returned to Chennai, India by flight TG 641 leaving Narita airport at 1045 hrs.

3.0 Preparations for Phase Three

The Training Project on 'Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in Indonesia has been implemented by the International Cooperative Fisheries Organization (ICFO) of the International Cooperative Alliance in association with the National Federation of Fishermen's Cooperative Societies (*Induk Koperasi Perikanan Indonesia* – IKPI), Indonesia. The purpose of the Training Project in Indonesia is to promote community-based fisheries resource management by small-scale fishers engaged in coastal fisheries and by their organization (fisheries cooperatives), strength their activities and help contribute to ensuring sustainable production, creation of employment opportunities and poverty alleviation.

The Phase One and Phase Two of the Project were implemented in October 2009 and November 2009 in Indonesia and Japan respectively. The purpose of Phase Three is to hold a Seminar on 'Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fisheries in Indonesia' and to study possible approaches for promotion of community-based fishery resource management, including considerations on appropriate legal and/ or institutional systems and measures. It is aimed at helping build fishers' and their cooperative capacity for the purpose in cooperation with the government, or in other words, promotion of co-management. The Phase Three will also take stock of the information and experiences of the first two Phases of the Project.

The ICFO is the organizer and sponsor of the Seminar. The host organization of the Seminar is the IKPI. The Seminar will be held from 2 - 5 March 2010 in the Mercure Convention Center- Ancol of the Hotel Mercure located at Jalan Pantai Indah Taman Impian Jaya Ancol, 14430, Jakarta, Indonesia; Tel**:**(+62)21/6406000, Fax**:** (+62)21/ 6406123; Website: www.mercure.com.

About 50 participants shall be invited to attend to attend the Seminar and shall include directors, managers and employees of fisheries cooperative societies; member fishers of fisheries cooperative societies; people involved in production, processing and distribution/marketing of fishery products, and representative of national/local governments, research institutes, universities, etc who are interested in fisheries resource management and/or management of fisheries cooperatives. The Seminar will include invited lectures, group discussion and a field trip to site of fisheries interest. The output of the Seminar will include a set of recommendations. The draft program of the Seminar is given in Annexure 15.

Annexure 1

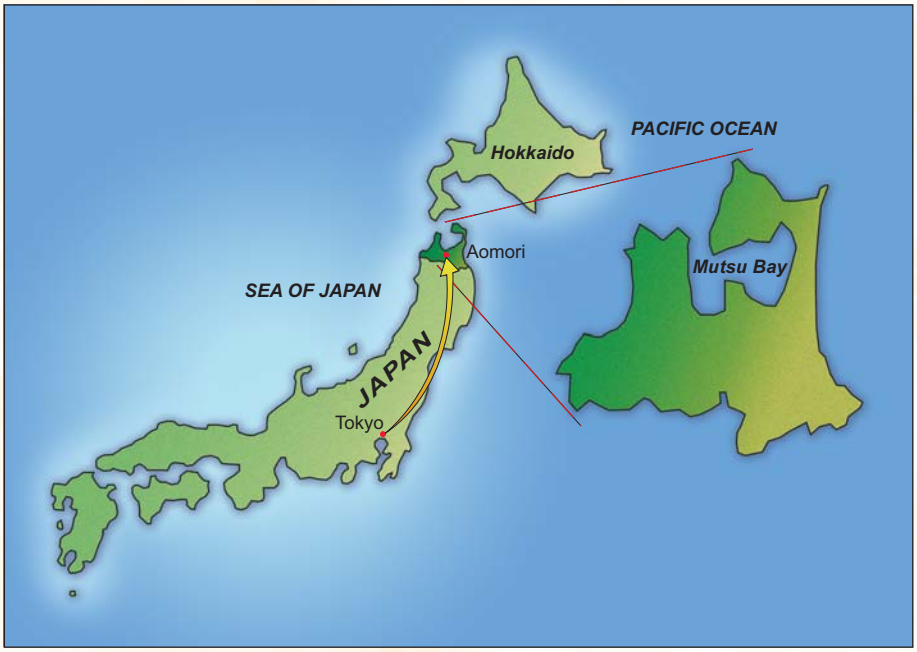
List of Participants and Advisors

No	Name	Position/ Organization	Tel/ Fax/ Mobile/ Email
1.0	**Wibisono Wiyono** 	***President*** Induk Koperasi Perikanan Indonesia (IKPI) (National Federation of Indonesian Fishermen's Cooperative Societies) Jl. Ir. H. Juanda No. 2 Jakarta 10120 Indonesia	*Tel: + 62 (21) 345 1118 (Office) Fax: + 62 (21) 380 6177 Mobile: + 62 (811) 911 458 E-mail: ikpi@indosat.net.id; wibisakana@yahoo.co.id*
2.0	**Mulyono Sumitro Baskoro** 	***Professor*** Faculty of Fisheries and Marine Science, Bogor Agricultural University Kampus IPB Dramaga Bogor 16680 Indonesia	*Tel: + 62 (251) 862 2935 (Office) Fax: + 62 (251) 842 1732 Mobile: + 62 (812) 839 0013 E-mail: iwashi_maguro@yahoo.com*
3.0	**Natalis Wahyu Dismianto** 	***Director*** PUSKUD MINA JAWA TIMUR (Provincial Federation of Fisheries Cooperatives of East Java) Juanda Business Centre Block B/15, Juanda, Sidoarjo Indonesia	*Tel & Fax: + 62 (31) 854 7518 (Office) Mobile: + 62 (81) 2304 4344 E-mail: nataliswdsby@yahoo.com*
4.0	**Johozoa Ronald Tanamal** 	***Secretary*** PUSKUD MINA SIWA LIMA MALUKU (Provincial Federation of Fisheries Cooperatives of Moluccas) Jalan Yos Sudarso Ambon Indonesia	*Tel: + 62 (813) 4300 7147 Fax: + 62 (813) 4300 7147 E-mail: ana_ambon@yahoo.co.id*
5.0	**Asnansyah Salimun Norman** 	***Vice-President*** PUSKUD MINA BAHARI KALIMANTAN BARAT (Provincial Federation of Fisheries Cooperatives of West Borneo) Jl. Gajahmada Komp Pasar Plamboyan Pontianak West Kalimantan, Indonesia	*Tel & Fax: + 62 (561) 768 138 (Office) Mobile: + 62 (812) 5699964 E-mail: perencana_kalbar@yahoo.com*
6.0	**Untung Samudra** 	***Vice-President*** KUD MINA BLANBANGAN BANYUWANGI, JAWA TIMUR (Blanbangan Fisheries Cooperative of Banyuwangi, East Java) Jl. Pelabuhan No: 1 Muncar Banyuwangi, East Java Indonesia	*Tel: + 62 (333) 59 3194 (Office) Fax: + 62 (333) 59 3640 Mobile: + 62 (081) 2304 4344*






No	Name	Position/ Organization	Tel/ Fax/ Mobile/ Email
7.0	**Yugraj Singh Yadava** 	***Director*** Bay of Bengal Programme Inter-Governmental Organisation 91 St. Mary's Road Abhiramapuram Chennai 600 018 India	*Tel: + 91 (44) 2493 6188;* *Fax: + 91 (44) 2493 6102* *Mobile: + 98410 42235* *E-mail:* *yugraj.yadava@bobpigo.org*
8.0	**Jun-ichiro Okamoto** 	***Professor*** Marine Bio-Resource Management Strategy, Faculty of Fisheries Hokkaido University 3-1- Minato-Cho Hakodate Hokkaido Japan 041-8611	*Tel: + 81 (138) 40 5522;* *Fax: + 81 (138) 40 5522* *Mobile: + 81 (90) 84535554* *E-mail:* *jokamoto@fish.hokudai.ac.jp*
9.0	**Masaaki Sato** 	***Secretary*** International Cooperative Fisheries Organization (ICFO) of the International Cooperative Alliance c/o Fishery Policy Department National Federation of Fisheries Cooperative Associations (JF-ZENGYOREN) 7th Floor, Coop. Bldg., 1-1-12 Uchikanda, Chiyoda-Ku Tokyo, Japan 101 8503	*Tel: + 81 3 3294 9617;* *Fax: + 81 3 3294 3347* *Mobile: + 81 (0) 80 2045 1938* *E-mail:* *kokusai-sato@r6.dion.ne.jp*


PACIFIC OCEAN
Hokkaido
Aomori
Mutsu Bay
SEA OF JAPAN
JAPAN
Tokyo

Not to scale

Annexure 2

Actually Followed Itinerary

Date/ Month	Itinerary
November 3 (Tuesday)	
19:05	Participants leave Jakarta by SQ 963
21:40	Arrive at Singapore
23:45	Leave Singapore by SQ 638
November 4 (Wednesday)	
07:15	Participants arrive at Narita International Airport
08:20	Received by Mr Masaaki SATO, Secretary, ICFO and leave for Tokyo city by chartered bus
09:30 - 15:30	Sightseeing to the following places: - *Asakusa Sensoji Temple* - *Edo Tokyo Museum* - *Tokyo Tower*
16:00	Arrival at Grand Central Hotel and check- in
16:00 - 19:00	- Free time
16:15	Dr Yugraj Singh Yadava, Director, Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO) and main advisor to the Training Project arrives at Narita International Airport by TG 676 from Bangkok
16:45 - 18:40	Received by Mr Masaaki SATO, Secretary, ICFO and leave for Tokyo by train
18:45	Check-in at Grand Central Hotel
	Venue: 'Chakura' (Coffee shop) at Grand Central Hotel, Tokyo
19:00 - 19:30	Orientation of Phase Two
19:30	Dinner
	Hotel: Grand Central Hotel, Tokyo
November 5 (Thursday)	
05:30 - 08:30	Visit to Tokyo Metropolitan Government Central Wholesale Market at Tsukiji
11:00 - 11:25	**Opening Ceremony**
	Venue: Meeting Room No 5 (6th Floor), Cooperative Building, Tokyo
	a) Opening Speech by Mr Ikuhiro HATTORI, Chairperson, ICFO
	b) Speech by Mr Yuichi NAKAMURA, Deputy Director, International Cooperation Division, Ministry of Agriculture, Forestry and Fisheries (MAFF), Government of Japan
	c) Speech by Dr Yugraj Singh Yadava, Director, BOBP-IGO
	d) Group Photograph
	Lectures:
11:25 - 12:10	1) Phase One Report of the Training Project for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in Indonesia – 2009 by Dr Yugraj Singh Yadava, Director, BOBP-IGO, Chennai, India
12:10 - 12:40	- ***Lunch (including praying time)***
12:40 - 16:30	Visit to MAFF, Government of Japan
	Venue: Meeting Room (Chuo Kenshushitsu), 4th Floor, MAFF, Tokyo
13:30 - 14:40	Video presentation on 'Japanese Agriculture, Forestry and Fisheries' and on 'Japan's Fishery Policies' by Mr Yuichi NAKAMURA, Deputy Director, International Cooperation Division, MAFF
14:40 - 16:30	2) Fisheries Resource Management System in Japan by Ms Ritsuko YONEDA, Deputy Director (Legal and Planning Section), Resource Management Division, Fishery Agency, MAFF and Mr Michael Louis Clark, Mansfield Fellow, The Maureen and Mike Mansfield Foundation

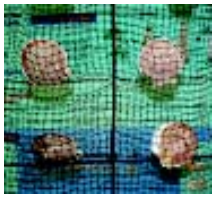
Date/ Month	Itinerary
18:30 - 20:30	- Welcome Party (Venue: Second floor of 'Mangetsu', a Japanese soba noodle restaurant) ***Hotel: Grand Central Hotel, Tokyo***
November 6 (Friday)	Venue: Meeting Room No 4 (6th Floor), Cooperative Building, Tokyo
10:00 - 11:00	3) Fisheries Management Developed in Japan – Why community-based fishery management has well developed in Japan by Mr Masaaki SATO, Secretary, ICFO
11:00 - 12:30	4) Promotion of community-based fisheries resources management movement in Japan by Mr Jun MACHIBA, Deputy General Manager, Fishery Policy Department, JF-ZENGYOREN, Tokyo
12:30 - 13:30	- ***Lunch (includes praying time)***
13:30 - 16:00	- Video presentation on resource recovery efforts on Hata-hata (Sandfish) in Akita Prefecture, Japan ***Hotel: Grand Central Hotel, Tokyo***
November 7 (Saturday)	Venue: 'Chakura' (Coffee shop) at Hotel Grand Central, Tokyo
09:20 - 10:20	Wrap-up meeting for the activities completed so far and planning for the field visit to Aomori Prefecture and consolidation of notes.
10:20	Free ***Hotel: Grand Central Hotel, Tokyo***
November 8 (Sunday)	
10:02	Leave Tokyo (Haneda airport) by JAL 1203
11:00	Arrival at Aomori airport
11:10 - 12:10	Lunch (includes praying time)
12:10 - 13:00	Leave Aomori airport by chartered bus and arrive at "Ekinomichi Morita Earth Top"
13:00 - 13:35	Rest
13:35 - 14:00	Travel to Shin Fukaura Machi Fisheries Cooperative Association
14:00 - 15:45	5) Outline of the organization and activities of Shin Fukaura Machi FCA with particular reference to promotion of CBFRM by Mr Gizou NISHIZAKI, President, Shin Fukaura Machi FCA
15:55 - 16:25	Leave Shin Fukaura Machi FCA and arrive/ check in at Hotel
18:00 - 20:00	Dinner at Hana-No-Ma, second floor of Hotel Gran Mer ***Hotel: Gran Mer***
November 9 (Monday)	
08:30 - 09:45	Visit 'Oodose Fish Wholesale Market'
09:45 - 12:30	Travel to Suisan Building in Aomori. En-route visit 'Ikayaki Mura a local products shop'; observe giant jelly fish at 'Senjo Iwa' and watch salmon run from the bridge at Motoi Bashi over Akaishi Gawa (Akaisi River)
12:30 - 13:30	Lunch and meeting with Mr Shoji Uemura, President of Aomori-Ken Gyoren, and former chairman of ICFO and President of JF-ZENGYOREN Venue: Meeting Room of Aomori-Ken Gyoren, 3rd Floor, Aomori-Ken Suisan Bldg. (Fishery Organizations Bldg. of Aomori Prefecture)", Aomori City
13:30 - 15:00	6) Improvement of fishers' livelihoods and resource management by fishers groups by Dr Jun-ichiro OKAMOTO, Faculty of Fisheries, Hokkaido University, Hakodate, Japan
15:00 - 15:20	7) Present state of fisheries of Aomori Prefecture, and the framework for fisheries resource management of the Prefecture by Mr Akira ABURANO, Fisheries Expert, Fish Farming and Resource Management Group, Fisheries Promotion Section, Aomori Prefectural Government, Aomori, Japan
15:20 - 16:00	8) Organization and activities of Aomori-Ken-Gyoren with particular emphasis to promotion of CBFRM by Mr Masanori KUMAKI, Chief of Guidance Section, Aomori-Ken Gyoren

Date/ Month	Itinerary
16:00 - 16:30	Visit to Aomori- Ken Suisan Bldg. and "ASPAM (Aomori Prefectural Sightseeing Spots and Products PR Building) ***Hotel: Asamushi Onsen "Kaisen Kaku", Asamushi***
November 10 (Tuesday)	
05:30 - 08:30	Visit Aomori City Central Wholesale Market
09:20 - 10:00	Visit Hiranai Town Municipality Office and pay courtesy call on the Mayor of Hiranai, Mr Yuichi OSAKA
10:00 - 10:40	9) How local government provides support to the efforts of FCA's promotion in CBFRM by Mr Atsushi KAMEDA, Assistant Chief in-charge of Scallop Aquaculture Promotion Section, Industry Promotion Section, Hiranai Town Municipality Office
10:40 - 11:00	Visit scallop farming facility in the sea (trip cut short due to inclement weather and rough sea)
11:15 - 11:55	Visit Hiranai Fish Processing Plant of Aomori-Ken Gyoren
11:55 - 12:35	Leave for Natsudomari Golf Links
	10) Outline of the organization and activities of Hiranai Machi FCA with particular emphasis to promotion of CBFRM by Mr Motokatsu SUTOU, Chief of Staff, Hiranai Machi FCA. *Note: The planned lecture (No 10) at Hiranai Machi FCA was cancelled due to inclement weather. Mr Shoji Uemura, former chairman of Hiranai Machi FCA made a brief presentation on the FCA during the travel to Natsudomari Golf Links.*
12:35 - 13:30	- ***Lunch at Natsudomari Golf Links***
13:30 - 15:10	Visit Fisheries Research Institute 11) Organization and activities of Aomori Prefectural Industrial Technology Research Center, with particular reference to research on CBFRM by Mr Yoshinori KABUTOMORI, Manager of Fisheries Resources Management Division
15:10 - 16:30	Visit 'Hotate Hiroba (Scallop Plaza)' ***Hotel: Asamushi Onsen "Kaisen Kaku", Asamushi***
November 11 (Wednesday)	
09:50	Leave Aomori airport by JAL 1202
11:05	Arrive at Haneda airport
12:30	Arrive at Grand Central Hotel, Tokyo
	Venue: Meeting Room No 5 (6th Floor), Cooperative Bldg.
14:00 - 16:20	12) Essential factors required for empowerment and strengthening of FCA's businesses and their management by Mr Naoyuki TAO, Advisor, FCA Management Center Co. Ltd., Tokyo, Japan *Note: Professor Okamoto leave for Hakodate, Hokkaido by JAL 1167 at 17:30 hrs.*
16:20 - 18:00	Evaluation and report preparation ***Hotel: Grand Central Hotel, Tokyo***
November 12 (Thursday)	Venue: Meeting Room No 5 (6th Floor), Cooperative Bldg.
09:00 - 14:00	Discussion, evaluation, report preparation and planning for Phase Three
18:00 - 20:30	Farewell Party (Venue: 'Chegoya', Kanda Tsukasa-Cho) ***Hotel: Grand Central Hotel, Tokyo***
November 13 (Friday)	
05:00	Mr N Tao leaves for Sappro by ADO 11 (Air Do 11) leaving Haneda at 06:45
11:30	Trainees leave Narita International Airport by SQ 637

Date/ Month	Itinerary
19:25	Arrival at Jakarta *Note: Dr Yugraj Singh Yadava and Mr Masaaki SATO prepare for the Phase Three Seminar in Jakarta in early March 2010.* ***Hotel: Grand Central Hotel, Tokyo***
November 14 (Saturday) 10:45 23:00	 Dr Y S Yadava, advisor leaves Narita International Airport by TG 641 Arrival at Chennai

Information on Hotels

Place	Hotels
Tokyo	**Grand Central Hotel** 2-2 Kanda Tsukasa-Cho, Chiyoda-Ku Tokyo 101-0048 Japan *Tel: + 81 (0) 3 3256 3211* *Fax: + 81 (0) 3 3256 3210* *E-mail: gch@pelican.co.jp* *Home page: http://www.pelican.co.jp/grandcentralhotel/eng/index.html*
Aomori Prefecture	
Ajigasawa	**Hotel Grand Mer** 1 Banchi Naruto, Ooaza Maito, Ajigasawa-Cho Nishi Tsugaru Gun, Aomori-Ken Japan 038 2761 *Tel: + 81 (0) 173 72 8111* *Fax: + 81 (0) 173 72 9111* *E-mail: grandmer@sugisawa.co.jp* *Home page: http://www.sugisawa.co.jp*
Asamushi	**Asamushi Onsen 'Kaisen Kaku'** 31, Aza Uhuisu Dani, Asamushi, Aomori-Shi Aomori-Ken Japan 039 3501 *Tel: + 81 (0) 17 752 4411* *Fax: + 81 (0) 17 752 3314* *E-mail: nanbuya@infoaomori.ne.jp* *Home page: http://www.kaisenkaku.com*



Tokyo Metropolitan Central Wholesale Market at Tsukiji

Annexure 3

Outline of the Tokyo Metropolitan Cental Wholesale Market at Tsukiji

Established on 11 February, 1935, the Tokyo Metropolitan Central Wholesale Market at Tsukiji (TWM) is now nearing its 75th year. Tokyo metropolitan area has 11 wholesale markets, of which three deal with fish and fishery products. The TWM is the largest wholesale fish market among the three, both in terms of quantity traded and value. It is also the largest wholesale market in the world in terms of volume of trade for fish and fishery products. The domain of the TWM is not limited to metropolitan city area of Tokyo but extends to the neighboring Prefectures of Tokyo in the Kanto region.

In fisheries trade, the TWM plays a lead role in Japan and other wholesale markets in the country often quote and/or refer to the prices of the products at the TWM. However, the market will soon move to Toyosu area, where a much larger facility is under construction. This move is based on the 7th Tokyo Metropolitan Government Wholesale Markets Development Plan and the new facilities are expected to be completed by December 2014. The facility in Toyosu is expected to be approximately 1.5 times larger than the present infrastructure at Tsukiji.

The TWM has three sections and as of 1st April 2009 it employed 90 staff and 2 directors to look after the management of the market. About 42 000 persons visits and transact in TWM per day. According to a study conducted in November, 2002, approximately 19 000 vehicles enters TWM per day. Details of the statistics on the facilities and activities at the TWM are shown in Table 1.

The TWM deals with approximately 480 kinds of fishery products at the fishery products division and handles approximately 2 070 ton/ day of fish products daily, which are valued at 1 740 million Yen. The TWM has good facilities for cold storage with a total fish holding capacity of 26 400 metric tons for fishery products. Besides, 1 200 metric tons is available for vegetables and fruits. Table 2 provides the breakup of the cold storage facility within the premise of the TWM.

Working of TWM

The starting time of auction at the TWM is generally fixed, though it can be changed by season. Table 3 gives a picture of the starting time of auction for different varieties of fishes. The TWM has four types of operators namely, (i) wholesalers, (ii) intermediate wholesalers, (iii) authorized buyers and (iv) other allied traders.

Wholesalers: These operators belong to those companies which have permission from the Minister of Agriculture, Forestry and Fisheries to operate wholesale business within the premise of the TWM. They sell goods (fishes, veetables and fruits) consigned from shippers (such as cooperatives) or those goods that they bought from shippers to intermediate wholesalers or authorized buyers by auction or bargaining.

There are 7 wholesalers at the Fishery Products Division. They are the Shuo Gyorui Co Ltd; the Daito Gyorui Co Ltd; the Touto Suisan Co Ltd; the Tsukiji Uoichiba Co Ltd (commonly known as 'Touichi'; the Dai-Ichi Suisan Co Ltd; the Marusen Chiyoda Suisan Co Ltd and the Sougou Shikuhin Co Ltd. One of the qualifications of the wholesalers is that each of them has to keep a balance of more than 3 days worth of traded value. The wholesalers sell the goods by auction. Their commission is fixed by municipal ordinance at 5.5 percent of the wholesale price for fishery products. In order to prevent any inconveniences such as default of payment, the wholesaler companies are required to pay the following

amount of guarantee money to Tokyo Metropolitan government in accordance with the annual sales amount of respective companies:

Sales per year (billion yen)	5	5-10	10-20	20-30	30-40	40-50	50-70	70-100	> 100
Guarantee deposit (million yen)	30	66	150	270	360	450	600	750	1200

Intermediate wholesalers: Apart from wholesalers, there are 758 intermediate wholesalers in fishery products division at Tsukiji. The intermediate wholesalers hold permission from the Governor of Tokyo to operate in the market. They have their small shops in the intermediate wholesalers shop area within the premise of the TWM. After purchase of the products from the wholesalers, they display the products in their shops and sell them to retailers including restaurants, etc. One unit area of the intermediate wholesaler's shop is approximately 7 square meters. The TWM can accommodate 1 650 such shops. However, since there are some companies those own two or three units, the total number of intermediate wholesalers at Tsukiji market as of June 2009 is 866.

Authorized buyers: The authorized buyers are generally retailers, processors, and supermarkets; those buy products in large quantity and are specially approved by the Governor of Tokyo. They can buy goods both from the wholesaler and intermediate wholesalers. In fishery products division of TWM, there are 327 authorized buyers.

Other allied traders

Other allied traders (companies) include those that are engaged in supporting activities necessary for ensuring that the TWM works smoothly. These include support business for distribution of fresh food, daily necessities, restaurants and companies that provide other services such as banks, barber shops, etc.

The total quantity and value of transactions of fish and fish products at the TWM during 2004-2008 are given in Tables 4 & 5. The volume of annual transactions (value and quantity) of each of the seven wholesale companies at the TWM for the fiscal year 2008 (April 2008- March, 2009) is given in Table 6.

An example of payment procedure

Assuming Chuo Gyorui Co Ltd (wholesaler) has sold 100 kg of mackerel consigned by Sato Fisheries Cooperative Association (Sato FCA) to Gloria Diaz Co. Ltd. through an intermediate wholesaler, Wibisono Wiyono Co. Ltd. on Thursday 5 October, 2009 at the price of 1 000 Yen/ kg. The total amount of sales becomes 100 000 Yen (= 100 kg multiplied by 1000 Yen/kg).

In this case, Sato FCA sends an invoice of 100 000 Yen to Chuo Gyorui Co. Ltd within a day after the transaction. Chuo Gyorui pays 100 000 Yen to Sato FCA within 3 days after the transaction. The bank charges for remittance is borne by Chuo Gyorui Co. Ltd.. Thereafter, Chuo Gyorui Co. Ltd will send an invoice of 105 500 Yen (5 500 Yen being the commission of Chuo Gyorui) to Wibisono Wiyono Co. Ltd. within a day after the transaction. It may sometimes take 2 days before Wibisono Wiyono Co. Ltd. receives the invoice. Wibisono Wiyono Co. Ltd can pay Chuo Gyorui 105 500 Yen within a month (30 days) after the transaction. The bank charge is borne by Wibisono Wiyono Co. Ltd.

The system also has an early payment incentive rebate system where if the buyer (Wibisono Wiyono Co. Ltd) pays the money to Chuo Gyorui within 5 days of transaction, they will get a refund of 5/1000 (= 0.005 %) of the total amount of 100 000 Yen, namely 500 Yen as "payment incentive rebate money". Similarly, if Wibisono Wiyono Co. Ltd. pays it within 16 days after the transaction, they will get a refund of 2.5/1 000 (= .0025%) of the total amount of transaction, namely 250 Yen. Generally, at Tsukiji, payment by intermediate wholesalers is done within 30 days after the transaction.

Table 1: Facilities and activities at the Tokyo Metropolitan Government's Central Wholesale Market at Tsukiji

No	Item	Contents	
1	Average amount of transactionsper day in the year of 2008	(1) fishery products 1) Quantity 2) Value	2 070 ton 1 740 million Yen
		2) Vegetables and Fruits 1) Quarterly 2) Value	1 202 ton 320 million Yen
2	Number of persons entering the Central Wholesale Market at Tsukiji per day (=result of survey implemented during 28-29 November 2002)	41,964 persons per day Of which – Employees working within the central wholesale market - Stock purchasers etc	 14 089 27 875
3	Number of vehicles entering the Central Wholesale Market at Tsukiji per day (= result of survey implemented during 28-29 November 2002)	18,565 vehicles per day Of which 1) Large trucks (larger than 5 ton in carrying capacity 2) Medium size trucks (2 to 5 ton in carrying capacity) 3) Small trucks (less than 2 ton in carrying capacity) 4) Light cans and passenger cars 5) Light vehicles 6) Bus 7) Taxi 8) Motor bicycle In addition to the above, there are 1,970 bicycles, 6,152 turret trucks. (A turret truck is a motor cart (three wheeler) with a round wheel on top of its engine. It can be turned round to any direction. The engine is covered by a turret shaped cover. It is driven by one man, carrying fishes etc on the cart behind which is approximately 60-70 cm in width by 2 m in length) and 660 small non-powered cart (two wheeler). However, these are not counted in the total number of vehicles here	 984 5 073 1 847 1 970 1 970 123 236 3 334
4	No. of turret trucks as at the end of FY 2008	(1) Fishery Products Division: Of the total 2 248, 1 395 (62% are electric driven turret trucks (2) Vegetables & Fruits Division: Of the total of 414 141 (34%) are electric driven turret trucks	2 248 414
5	Waste materials discharged per day (in the year of 2008)	(1) Fishery Products Division Total Of which - Combustibles - Non-combustibles - Polysteyrene (2) Vegetables & Fruits Division total Of which - Combustibles - Non-combustibles Note: As regards polystyrene, its weight is that of weighed after it has been melted	55 ton/day 26 ton/day 19 ton/day 10 ton/day 8 ton/day 7 ton/day 1 ton/day

No	Item	Contents	
6	Quantity of water used per day in 2008	Approximately 8,100 cubic meters per day Of which - Tap Water - Filtered sea water Note: The Central Wholesale Market at Tsukiji has a sea water fast-filtering/sterilizing/setting. Facility with 4.800 cubic meters per day of cleaned sea water production ability. By using the cleaned sea water, the floor of the wholesale market is cleaned everyday.	 5 000 cubic m/day 3 100 cubic m/day
7	Electric power used per day in 2008	About 140,948 Kilo Watt-Hour per day	
8	Pier	Length Width Since the Central Wholesale Market at Tsukiji is located at the estuary of Sumida River, fishing vessels of 50 to 300 gross ton size can berth and unload their catch. In 2008, a total of 325 vessels used the pier, and the quantity dealt with by these vessels was equivalent to about 0.3% of the total	426 m 18m
9	Ice-making facility	Ice making ability Of which - Crushed ice (by automatic crushed ice making machine) - Block ice Note: There are 3 automatic crushed ice making machines at the central Wholesale market at Tsukiji. Block ice is produced by 3 cold storage facilities of private companies within the Central Wholesale Market at Tsukiji	290 ton/day 120 ton/day 170 ton/day
10	Electric power facilities	Electric power permitted to be used by contract Of which A: Special electric power of high voltage by season B: Special electric of high voltage by season (= used for cold storage etc) - Electric transformer facilities	11 808 kw 10 558 kw 1 250 kw 41
11	Telephones	Operating room Number of extension line	1 1 501 lines
12	Water supply/discharge facilities and sanitary facilities	- Length of supply water pipe (of more than 75 mm in diameter) - Pumps - Length of discharge water pipe (of more than 150mm in diameter - Discharge water (drainage) pumps - Toilet Note: Waste water is temporarily stored in 2 tanks (one with 3,000 cubic meters in capacity and the other 800 cubic meters) within the premise. After waste materials etc are remove, the water is discharged out to public sewage system	8 500 m 45 23 400 m 71 266 places
13	Elevators (owned by Tokyo Metropolitan government)	- Elevators for workers and visitors - Elevators for cargos	7 22

No	Item	Contents	
14	Number of visitors in the year of 2008	- Number of visitors formally registered by Tokyo Metropolitan government	10 546 persons
		Of which - Foreigners	1 025
		- Japanese citizen	7 985
		- Elementary school pupils	1 537
15	Incidents recorded in the year 2008	A: Things found and reported - Goods	579 times
		- Cash	88 times (1 964 000 Yen in Total)
		B: Damages etc suffered and reported - Goods	70 times (Damages suffered: 1 787 000 Yen in total)
			1 time (30 000 Yen in total)
		C: Things lost and reported - Goods	184 times
		- Cash	59 times (total: 2 747 000 Yen)
		D: Traffic accidents - Non-human	242 times
		- Human (which has caused casualities)	164 times
16	Income in the year of 2008	A: Income from Use of Facilities	2 536 494 000 Yen
		B: Income from commission charged in proportion to amount of sales	1 459 229 000 Yen
		Of Which	
		a. From – Wholesalers dealing with fishery products	1 180 390 000 Yen
		- wholesalers dealing with vegetables and Fruits	212 734 000 Yen
		b. From intermediate wholesalers who deal with	
		- Fishery products	32 132 000 Yen
		- Vegetables and Fruits	28 475 000 Yen
		c. From allied traders	5 497 000 Yen

Table 2: Details of cold storage facility in TWM

Name of Company which owns cold storage within the TWM	Holding capacity in metric ton (Approx)
Fishery Products Cold Storage	2 600
Salted and Dried Fishery Products Cold Storage	1 000
Vegetables and Fruits Cold Storage	1 100
Cold storage of Asahi Reizo Kogyo Co. Ltd	4 000
Cold Stroage of Maruha Buturyu Net Co. Ltd	2 300
Cold Storage of Touto Suisan Co. Ltd	4 400
Freezing Storage of Chuo Reito Co. Ltd	4 700
Cold Storage of Tsikiji Uoichiba Co. Ltd	4 400
Cold Storage of Tokyo Uoichiba Oroshi Coop	3 000
Total	**27 500**

Table 3: Starting time of auction and/or bargaining of fishes (fishery products) at TWM

Product	Time to start (in hours)	
	Auction	Bargaining
"Oomono" = big fishes such as tunas, marlins etc	0530	-
Fresh fishes	0440	0100
Live fishes	0520	0000
Shrimp and prawns	0520	0000
Sea urchins	0500	0000
"Enkan" = dried and/or salted fishes, such as salted salmon "tarako (salted Alaska Polloci roe), "kazunoko (salted) herring roe" etc	0540	0230
"Aimono" = 'half dried butterflies"	-	0300

Table 4: Total Quantity of transactions of fish and fish products at the Wholesale Market at Tsukiji during 2004-2008

Unit: ton

Year	2004		2005		2006		2007		2008	
No. of days operated	279		274		274		273		274	
Total quantity dealt with by 11 Wholesale Markets in Tokyo (A)	657 976	-	653 385	-	632 087	-	622 123	-	617 207	-
Of which quantity dealt with at the wholesale Market at Tsukiji (B)	604 646	100%	586 313	100%	572 617	100%	567 914	100%	567 162	100%
Fresh fishes	160 202	26.5%	164 990	28.1%	161 079	28.1%	167 567	29.5%	166 393	29.3%
Live fishes	13 936	2.3%	14 071	2.4%	12 551	2.2%	12 793	2.3%	13 146	2.3%
Shellfishes	42 196	7.0%	38 082	6.5%	36 885	6.4%	35 726	6.3%	35 428	6.2%
Frozen fishes	156 184	25.8%	144 673	24.7%	143 474	25.1%	139 244	24.5%	137 908	24.3%
Fresh water fishes	2 108	0.3%	2 015	0.3%	1 860	0.3%	1 851	0.3%	1 653	0.3%
Seaweed	9 104	1.5%	9 232	1.6%	8 673	1.5%	7 822	1.4%	7 431	1.3%
Processed fish products	220 917	36.5%	213 250	36.4%	208 095	36.3%	202 920	35.7%	205 202	36.2%
Average quantity of transaction per day	2 167	-	2 140	-	2 090	-	2 080	-	2 070	-
(B)/(A) x 100 = %	89.4%	-	89.7%	-	-90.6%	-	91.3%	-	91.9%	-
Comparative % as against the year 2004	100.0%	-	97.0%	-	-94.7%	-	93.9%	-	93.8%	-

Table 5: Total Value of Transactions of fish and fish products at the Wholesale Market at Tsukiji during 2004-2008

Year	2004		2005		2006		2007		2008	
No of days operated	279		274		274		273		274	
Total value dealt with by 11 Wholesale Markets in Tokyo (A)	549 461	-	534 076	-	539 856	-	532 933	-	520 866	
Of which total value dealt with at the Wholesale Market at Tsukiji	493 398	100%	480 423	100%	489 842	100%	487 338	100%	477 551	100%
Fresh fishes	138 960	28.2%	137 542	28.6%	142 774	29.1%	146 212	30.0%	145 013	30.4%
Live fishes	17 849	3.6%	17 853	3.7%	18 261	3.7%	17 620	3.6%	17 028	3.6%
Shell fishes	37 001	7.5%	36 590	7.6%	36 734	7.5%	35 618	7.3%	34 876	7.5%
Frozen fishes	144 768	29.3%	136 874	28.%	142 639	29.1%	140 989	28.9%	135 646	28.4%
Freshwater fishes	2 576	0.5%	2 541	0.5%	2 516	0.5%	2 468	0.5%	2 431	0.5%
Seaweed	3 592	0.7%	3 511	0.7%	3 317	0.7%	2 948	0.6%	2 966	0.6%
Processed fish products	148 652	30.1%	145 512	30.3%	143 601	29.3%	141 464	20.0%	139 590	28.2%
Average quantity of transaction per day	1 768	-	1 753	-	1 788	-	1 785	-	1 743	-
(B)/(A) x 100 = %	89.8%	-	90.0%	-	90.7%	-	91.4%	-	91.7%	
Comparative % as against the year	100.0%	-	97.4%	-	99.3%	-	98.8%	-	96.8%	-

Table 6: Annual quantity and value of fish and fishery products transacted by seven wholesale companies allowed to operate within the premises of TWM in FY 2008 (April, 2008-March, 2009) and in FY 2006 (April, 2006 - March, 2007)

Quantity in kg and value in Yen

Name of wholesale company	2008		2006	
	Quantity	Value	Quantity	Value
Chuo Gyorui Co. Ltd	108 539 345	105 506 933 834	111 814 873	111 113 205 953
Daito Gyorui Co. Ltd	111 632 500	97 006 463 323	121 795 870	106 326 712 414
Touto Suisan Col Ltd	92 314 452	90 998 076 933	101 021 179	101 318 098 385
Tsukiji Uoichiba Co Ltd Commonly known as "Touichi")	97 304 930	75 365 846 690	96 866 018	75 821 772 257
Dai-Ichi Suisan Co. Ltd	55 426 248	45 689 466 300	55 416 813	44 279 055 357
Marusen Chiyoda Suisan Co. Ltd	90 913 165	44 649 272 740	79 048 452	43 886 070 039
Sougou Shikuhin Co Ltd	7 106 502	7 668 156 903	6 654 026	7 097 036 005
Total	563 323 142	466 884 216 723	52 617 231	489 841 410
Number of days the Market was open	273	273	274	274
Average transaction per day at the wholesale market at Tsukiji	2 063 000	1 710 000 000	2 090 000	1 788 000 000

Note: The annual transaction of fish and fishery products dealt with at the TWM per day, on average, in calendar year 2008 (January - December, 2008) was 2 070 ton (1 740 million Yen).

Annexure 4

Speech of Mr Ikuhiro Hattori, President of JF-Zengyoren and Chairman, ICFO

Good morning gentlemen! I am Hattori, president of JF-ZENGYOREN and chairman of ICFO.

Mr Ikuhiro Hattori

At the outset, I would like to warmly welcome all of you to ZENGYOREN. I hope that the Training Project has so far been implemented smoothly with your active participation. I was informed that a severe earthquake occurred in Padan, Indonesia on 30th September 2009, causing serious damage to lives and property in the area. I would like to extend my deepest sympathy to the people of Indonesia and pray for the early recovery of those who have been injured due to the earthquake.

As you all might be aware, the JF-ZENGYOREN has been actively promoting community-based fisheries resource management since the late 1980s. Introduction of the United Nations Convention on the Law of the Sea (UNCLOS) and the subsequent establishment of Territorial Waters and 200 nautical mile Exclusive Economic Zones by various countries triggered this movement and has since been supported by the Government of Japan and the fisheries cooperative sector. We in JF-ZENGYOREN are continuing such efforts, since it is necessary to manage coastal as well as offshore resources in accordance with the objectives of the UNCLOS, and related domestic laws of Japan.

As you know, this Training Project is funded by the Ministry of Agriculture, Forestry and Fisheries (MAFF), Government of Japan. Therefore, I would like to take this opportunity to express ICFO's thanks to MAFF for their financial contribution.

Dr Yugraj Singh Yadava, Director, Bay of Bengal Programme Inter-Governmental Organisation (BOBP-IGO) has been associated with this Project right from the beginning and has been one of our main strengths in the Project. On this occasion, I would also like to thank him profusely for his contributions to the success of the Project.

Let me also use this opportunity to briefly introduce JF-ZENGYOREN, which is also known as the National Federation of Fisheries Cooperative Associations of Japan. We represent the interest of coastal small-scale fishers in Japan and are engaged in many activities such as the supply of fuel and other fishing material, marketing business, and also lobbying for the benefit of our fisher members. Our other important activities include educational programs, public relations, etc.

One of the important outcomes of our lobbying was the special budgetary appropriation by the Government of Japan to fisheries cooperative sector, which has been heavily suffering from the high fuel cost brought about by the worldwide crude oil price hike.

I would also like to share with you that on 30th September 2009, the JF Group organized the 29th "YUTAKANA UMIZUKURI TAIKAI" in Tokyo. This event was organized to raise awareness on the importance of fisheries and one of our objectives was to confirm our commitment towards sustainable development of fisheries and ensure responsible use of the resources so that they are also available for posterity.

I feel that fisheries resource management is a fairly important theme and I hope that you make much us of this opportunity to learn and share experiences for development of fisheries sector in your beautiful country.

The season in Japan is now moving from autumn to winter. Therefore, please take care of your health and enjoy both the training course and your stay. I hope that the Phase Two Study Visit Program will be successful with your active participation and you will return home with many good memories.

Thank you very much!

Annexure 5

Speech of Mr Yuichi Nakamura, Deputy Director, International Cooperation Division, International Affairs Department, Minister's Secretariat, Ministry of Agriculture, Forestry and Fisheries, Government of Japan.

Dr Yugraj Singh Yadava, Director, Bay of Bengal Programme Inter-Governmental Organisation; Mr Wibisino Wiyono, President, National Federation of Fishermen Cooperative Societies of Indonesia; Mr Ikuhiro Hattori, Chairman, International Cooperative Fisheries Organization and President of JF-ZENGYOREN; distinguished participants; ladies and gentlemen.

Mr Yuichi Nakamura

On behalf of the Ministry of Agriculture, Forestry and Fisheries (MAFF), Government of Japan, I would like to extend a very hearty welcome to all the participants from Indonesia.

During this Training Course, you will be exposed to many new activities related to fisheries resource management. I am sure that this new knowledge will help you in your day-to-day fisheries related work and also be of immense use in developing Indonesian fisheries on sustainable basis.

As in-charge of this Training Program in MAFF, I would like to extend my deep appreciation to the resources persons, namely Dr Yadava, Professor Jun-ichiro Okamoto and Mr Masaaki Sato.

The climate in this part of the year in Japan is a bit harsh and I would request you all to pay attention to your health.

Finally, I hope this Training Program would build long-lasting relationship between Indonesia and Japan. I would also like to request you all to remain in touch with each other after this course, as this would facilitate exchange of ideas and facilitate mutual cooperation.

Thank you for your kind attention!

Annexure 6

Development of fisheries management system in Japan – Why community-based fishery management has well developed in Japan[1]

1.0 Introduction

Fishery management in Japan has been developed in two ways. One is the "community-based fishery management system (CBFM)", developed with the initiative of fishers and practiced in the coastal small-scale fishery. The other is the "total allowable catch system", which has been developed based on the United Nations (UN) Law of the Sea and is mainly applied to migratory species such as Saury pike, Alaska pollack, Horse mackerel, Pilchard, Mackerels and Tanner crab. The present paper describes how the CBFM system has developed in the coastal small-scale fishery-the mainstay of Japanese fishery.

Japan entered World War II under the monarchy. However, by 1945 when the Allied Forces occupied Japan, they promoted governance system based on democratic practices. During the occupation period (1945-52), Japan radically changed from monarchy to democratic governance. Persuaded by the Allied Forces, the Japanese Government during this period launched land reforms eradicating landless peasantry in the country. However, the necessity for land reforms was also discussed even during the pre-war days, when there was no political and methodological difficulty in implementing land reforms in Japan.

The fisheries sector came up next for reforms. However, neither the Allied Forces nor the Japanese Government had any idea on how to initiate reforms in the fisheries sector. In this regard, Mr Takashi Hisamune and his colleagues provided the initial guidance that paved the way for the reforms. Mr Hisamune's guiding philosophy was that the fishery law must benefit fishers, who are actually engaged in the coastal small-scale fishery. He applied this philosophy to build a consensus amongst the Allied Forces, political parties and fisher organizations. Finally, after many twist and turns, the new fishery law was approved by the National Assembly in October 1949.

Mr Takashi Hisamune

2.0 Reasons for the democratization of Japanese fishery

For democratization of Japanese fishery, the following points were taken into account:

- ***Features of Japanese coastal fishery:*** Japan is located in a temperate zone with Kuroshio (a warm current running up from the area of equator), and Oyashio (a cold current running down from the North Pacific Ocean). Resultantly, coastal waters of Japan are rich in fishery resources and species diversity. Due to the Japanese dietary preferences, a large variety of fin and shell fishes and aquatic plants are harvested. Thus, in one coastal fishing area, there may be variety of fisheries using different gear aiming at different species. However, lack of systematic uses of these different fisheries resources in the past led to over fishing and conflicts among the fishers at sea.
- ***The 1901 Fishery Law and Fishery Society:*** The first Fisheries Law of Japan was enacted in 1901. The Law, with reference to the traditional fishing practices in the past, defined fishing rights in four different types and these fishing rights

[1] *Masaaki Sato, National Federation of Fisheries Cooperative Associations, (JF -ZENGYOREN), 1-1-12 Ichikanda, Chiyoda-Ku, Tokyo, Japan 1010-8503(Email: kokusai-sato@r6.dion.ne.jp).*

were allocated to fishery societies (80% of total) or to individual fishers (20 % of total). The fishing rights had a validity of 10 or 20 years. In addition, with the development of new types of coastal fisheries after 1901, new fishing rights were also granted to the societies as per their request. In 1910, with the introduction of offshore trawl fishery, a fishing license system was added to the 1901 Fishery Law. The fishing license was issued to individual fisher or company, limiting the number of fishing licenses, the size of fishing boat and gear in use, fishing area, fishing season, etc. These provisions of the 1901 Fishery Law acted as an incentive for the fishers to organize fishery societies (FSs), which later developed into Fishery Cooperative Associations (FCAs).

- ***Contradictions and conflicts in use of fishing rights:*** Out of the four types of fishing rights in the 1901 Fishery Law, an exclusive fishing right was granted to the FS over an entire sea area to fish for both migratory and sedentary resources. However, with the progress of time, migratory fishery resources disappeared due to oceanographic changes or other reasons. This made it meaningless to keep them in the fishing right. In contrast, sedentary resources such as abalone, lobster, etc had remained unchanged. However, their exploitation was monopolized by few people in the community. Therefore, the democratic redistribution of such sedentary resources to actual fishers became necessary.
- ***Motorization of coastal fishing boats***: Motorization of coastal small boats began in the latter half of the 1920s. By 1930 the majority of small fishing boats had already been mechanized, resulting in increased pressure on the coastal resources and severe conflicts among fisher groups. Toward the end of World War II, the number of trawlers increased further aggravating over fishing and severe conflicts with coastal fishers. Thus, after the War, one of the major problems in the marine fisheries sector in Japan was to rebuild the resources and to increase the productivity of coastal fishers.
- ***The Kanich Nomura initiative:*** To reduce conflicts among fishers, harmonize resource use and improve the productivity of fishers, Mr Kanichi Nomura, the then chief for coastal fishery at the Ministry of Agriculture and Forestry proposed and tried to establish a fishery coordination committee in 1935 with the participation of fishers. However, he achieved little success due to intensification of the World War II.

3.0 The 1949 Fishery Law and the Fishery Coordination Committee

3.1 The Fishery Law of 1949

In the backdrop of the developments as mentioned above, the Fishery Law of 1901was thoroughly redrafted with the efforts of Mr Takashi Hisamune, who was a lawyer and the Chief of the Planning Division of the Bureau of Fishery, Ministry of Agriculture and Forestry from 1947 to 1950. In redrafting the law, he tried to make it as democratic as possible and crystallized his ideas for establishment of a Fishery Coordination Committee, which was earlier proposed by Mr Nomura. Thus, the first article of the Fishery Law of 1949 states:

> *The Fishery Law defines the basic system with regard to the fishery production such as fishing right and fishing license.*
>
> *(1) increasing the fishery productivity by systematic use of all fishery resources available in a sea area on the basis of a plan, which is drawn through the performance of a fishery coordination committee, which is represented mainly by fishers and employed fishers, and*
>
> *(2) democratization of a fishery.*

The 1949 Fishery Law is composed of nine chapters with 138 Articles. However, the core of the law was the establishment of a fishery coordination committee to make democratic and optimum use of fishery resources.

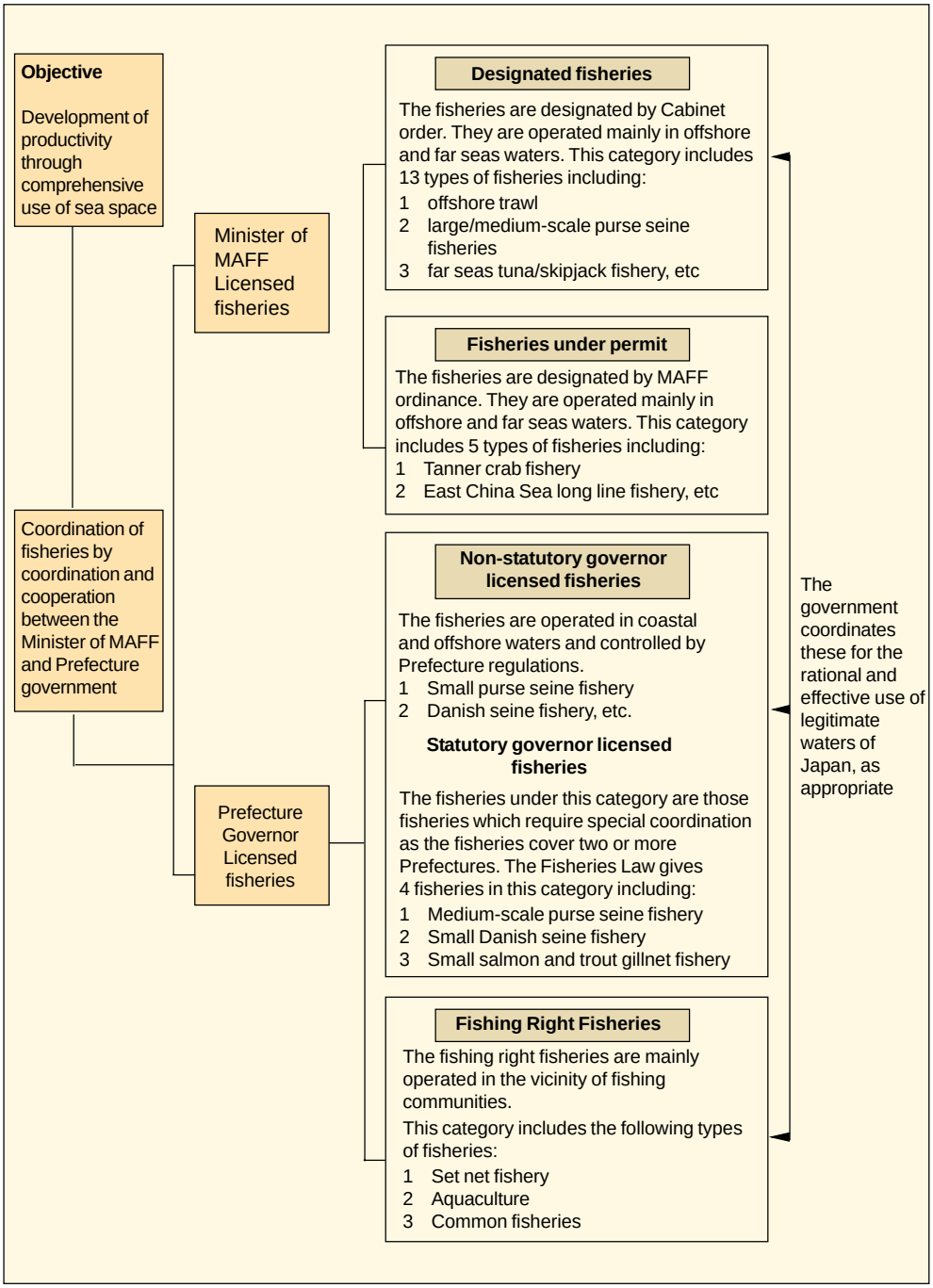
The implementation of the Law was also facilitated by Mr Hisamune through a manual entitled “Fishery Reform”, which provided article by article explanation of the new Fishery Law. This manual was distributed to all concerned persons at the national, prefecture, municipal and even fishery cooperative level. The 780 pages long manual is the proof of eagerness of Mr Hisamune for optimum and democratic use of fishing area and fishery resources among fishers. Looking at the “Compendium of Fishery Laws” , which contains not only fishery law but also fishery cooperative law, fishing harbor law, fishing boat law, fishery resources conservation law, fishery insurance law, etc., readers may well understand the process through which fishery laws were developed in Japan to stabilize the sector (Box 1 on page 50).

Role of the Fishery Coordination Committee

Administratively, Japan is divided into 47 Prefectures. A Fishery Coordination Committee (FCC) is established for each Prefecture. As seen in Figure 1, the FCC is a legal organization, whose establishment is based on the 1949 Fishery Law. The FCC is located between a Prefecture government and fishers with the following functions:

- An important thing to note from Figure 1 (on page 51) is that the FCC is independent of the Prefecture government and works on behalf of the fishers.
- The role of FCC is to formulate “a Plan to make systematic use of all fishery resources available in a sea area right off a Prefecture on behalf of fishers, taking into account the conservation of fishery resources”. Fishing rights and fishing licenses are used as the tool for establishment of the Plan.
- According to the Fishery Law, the FCC is allowed to issue order(s) to fishers concerned when required for management of the fishery, including regulation of fishing operations. This may happen after the government issues fishing rights and licenses.
- In principle, an FCC is established for each Prefecture sea area with fifteen (15) members, of which nine are elected from the fishers. Of the remaining six, four are men of learning and experience, who are acquainted with fishery and fishery resources in the sea area and two represent public interest and

Box 1. The system of Japan's Fisheries Law



are nominated by the Prefecture governor.

- For the formulation of the Plan, the FCC organizes public hearing(s). Based on the Plan determined by the FCC, the Prefecture governor issues fishing rights and licenses.
- The FCC is a permanent organization, and amends or adjusts the Plan in accordance with natural change(s) in the type and size of fishery resources in its sea area. This is done particularly at the time of the renewal of fishing right and fishing license, which is done at an interval of 5 or 10 years.

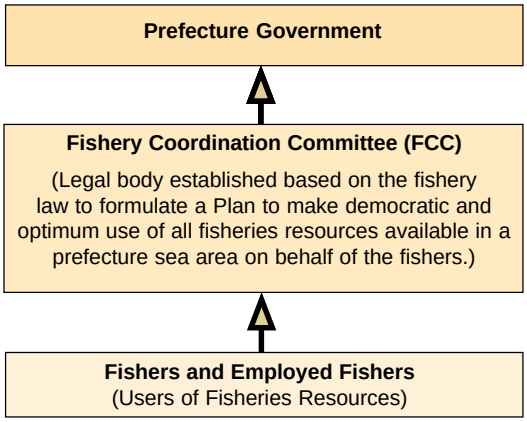


Figure 1: The location of a Fisheries Coordination Committee

Note 1: *In addition to a FCC at Prefecture level, another FCC with more or less similar functions is established at the regional level also to deal with the fisheries resources shared by fishers from two or more neighboring Prefectures. Apart from these FCCs, there is a national council, which examines the size and operational conditions of industrial fisheries, as specified by the Minister in-charge of fisheries. These are distant water fisheries operating in high seas and those, which operate in sea areas off several neighboring Prefectures. The members of the council are appointed by the Minister concerned.*

Note 2: *All fishing rights granted based on the 1901 Fishery Law became invalid when the new Fishery Law came into operation on March 1, 1950. The first election of the members of the FCC took place on August 15, 1950 and the actual activity of the FCC started in the fall of 1950. To compensate the abolishment of old fishing rights, the government paid a sum of 18 billion Yen to all the owners of fishing rights granted based on the 1901 Fishery Law by means of "bond" payable in twenty five years. Later the bonds were cashed and well utilized for the economic rehabilitation of FCAs.*

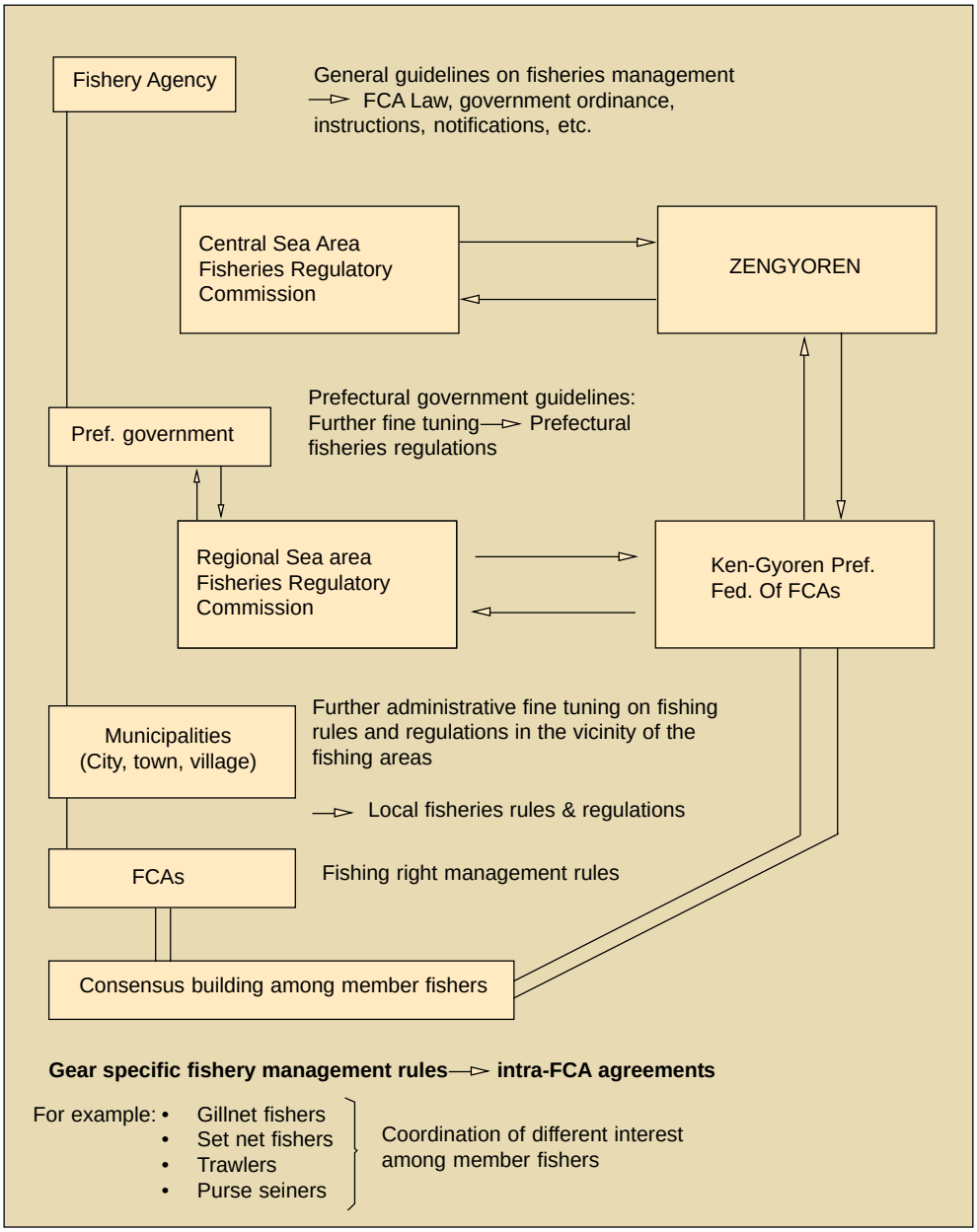
3. 2 Tools used for the establishments of the Plan

For the establishment of the Plan at Prefecture level, fishing rights and fishing licenses are used as tools.

(A) Fishing rights system: With a few exceptions, fishing right is granted by a Prefecture governor to FCAs (Box 2 on page 52). There are three types of fishing right as follows:

- ***Common fishing right:*** This fishing right, commonly granted to every FCA, covers the coastal sea area right off the entire coast of a FCA. The distance from the coast covered by the common fishing right varies as per the availability of resources and gear. The right is valid for sedentary resources such as abalone, turban shell, lobster, scallop, sea weeds and non-mobile gear such as set gill net, boat and beach seines, portable trap and small set net. The right is valid for 10 years. Unlike the exclusive fishing right

Box 2. Fishing Right – How it is granted and managed



in the 1901 Fishery Law, migratory resources were excluded from the common fishing right.

- ***Aquaculture right:*** This right is established for a sea area, which is suitable for aquaculture. Such sea areas are mostly found within the sea area of the common fishing right. The validity is for 5 years.
- ***Right for large set nets:*** This right permits setting up of a large set net with a depth of 27 meter and above and aims at catching migratory fishes. A sea area allowing setting of the large set net is specified on a map. The validity is 5 years.

(B) Fishing License system: Fishing license system is established in fisheries, which are in need of restricting the number of fishing units/ boats, the size of fishing boat, fishing area, fishing season, etc. The license is issued to an individual, either fisherman or fishing company. There are two types of fishing licenses:

- ***Fishing license issued by Prefecture governor:*** The license is issued to the owner of fishing boat, who operates his fishery within the Prefecture sea area. The validity is for 5 years.
- ***Fishing license issued by the Minister responsible for fishery:*** The license is issued to the owner of fishing boat, who operates his fishery in a sea area of two neighboring Prefectures or more, high seas or the EEZ of foreign countries with which Japan has a fishing access agreement.[2]

4.0 Effects of the Plan formed by FCC

(A) The Plan provided an ideal circumstance to fishers to create CBFM: Fishing rights granted and fishing licenses issued based on the Plan drawn by the FCC brought about an ideal situation for fishers to create their own CBFM. Such a situation was further supported by the following facts:

- Fishing rights granted based on the 1901 Fishery Law with reference to traditional customs had already been nullified.
- Fisher organizations such as FCA, which could be responsible for CBFM, were available.

(B) Organization responsible for CBFM: The term, FMO (Fishery Management Organization) is used for a fisher organization responsible for CBFM. According to the Fishery Censuses, the total number of FMOs throughout the country in 1952 was 359, which increased to 1 339 in 1988, 1 524 in 1993 and 1 734 in 1998. With this increase in number of FMOs, practically each FCA has an FMO. There are different types of FMOs in terms of organizational structure. Out of 1 734 FMOs developed in 1998, 460 FMOs (27% of the total) were a single FCA itself, 106 FMOs (6%) were established comprising two or more neighboring FCAs, 742 FMOs (43%) were fisher groups formed within an FCA. In addition, there were 90 FMOs (5%) that belonged to other categories. An FCA normally established several fisher groups according to type of fishing gear employed or species being fished. Thus, nearly a half of the FMOs are fisher groups, which have been established within an FCA. It is important to note that these FMOs appeared only after 1950, when the present Fishery Law was enacted.

(C) Fishery management adopted in the CBFM: The fisheries management practices adopted in the CBFM vary from very simple to sophisticated ones, as per the need and ideas of the fishers. According to the 1949 Fishery Law, a Prefecture government establishes a fisheries regulation, *e.g.*, by specifying the minimum size of fish to be caught for a certain species (say 15 cm in length). However, it often happens

[2] *For further detail of fishing right and license, the readers may wish to refer to the author's paper entitled "Development of a Community-Based Fishery Management System in Japan", Marine Resources Economics, Volume 10, 21-34.*

that fishers adopt a higher minimum size for their area (say 20 cm). When lobster set gill net is one of the components of a common fishing right to a FCA, the FCA may restrict the number of fishing units by issuing licenses to avoid over fishing. In the case of scallop fishery, a fishing area is split into two or three sub-areas, and fishing is allowed by annual rotation, resulting in better harvest in terms of both size and quantity. The enlargement of the mesh size of a set gill net will lower catch in quantity. However, as the unit price will increase with the larger size of fish caught, the income of fisherman will be more than compensated for the reduced quantity.

Fishing operations without established rules lead to over fishing, wasteful operational cost and over supply of fish, contributing to reduced incomes. To overcome such situations, some fisheries have developed 'pool systems', usually under the leadership of an experienced fisher. The leader decides the fishing days when the fishers can go out for fishing. The size of catch may vary among fishing boats, but the sale and operational expenses of each boat is pooled. Finally, the profits are equally distributed to all fishers engaged in that fishery. Catch limit system has also been developed where the Prefecture Fishery Experimental Station is capable of providing the size of MSY to fishers. In addition, fishing moratorium is implemented at the Prefecture level for depleted fisheries until the stocks provide signs of recovery.

(D) Resources Enhancement: In recent years, with the enhancement of marine ranching, an FMO, which cover the entire coast of a Prefecture, is being developed in several Prefectures. An FMO, which has been developed for the entire coast of Fukushima Prefecture for increased production of Bastard halibut (Hirame), is a typical example. An FMO, which was developed in Akita Prefecture for the recovery of sand fish resources (Hatahata) is another case, where the Prefecture Federation took an initiative with the corporation of its member FCAs.

(E) Compliance: Since CBFM practices in Japan have been developed with the idea and initiative of fishers, there are no issues regarding compliance. Further, the government does not interfere in any CBFM program, either at the Central government or Prefecture government levels.

(F) Campaign on Resources Management Fishery: It may be worthwhile to mention here that after the establishment of the 200 nautical miles EEZ, Professors Yutaka Hirasawa and Akira Hasegawa of the Tokyo University of Fishery conducted a nation-wide campaign to encourage fishers to develop self managed "Resources Management Fishery", which is a synonym of the CBFM. Thus, the term "Resources Management Fishery" is also commonly used whenever fishery management is discussed in Japan.

5.0 Conclusion

In 1950 when the present Fishery Law was implemented, it was not visualized that the law would be so effective in the development of the CBFM. In many countries, the governments try to enforce fishery management plans established by them. In such situations, fishers mostly oppose the plan leading to conflicts and other issues. Therefore, it may be worthwhile to consider establishing an organization like a fishery coordination committee between the resources manager and fishers, as has been developed in Japan.

References

1. **Hasegawa Akira, Miyazawa Haruhiko and Yamamoto Tadashi, 1992:** An Overview of Japanese Fisheries Management System Developed under the Initiative of Fishers. Proceedings of Japan International Fishery Research Society (JIFRS), International Institute of Fishery Economics and Trade (IIFET) and National Federation of Fishery Cooperation Association (Zengyoren) Symposium on Fishery Management, 107- 126, 1992.

2. **Hisamune, Takashi, et al, 1950:** Fishery Reform: Article by Article Explanation of Fishery Law (in Japanese), Nihon Keizai Shinbun- Sha (Daily Economics Press), 1-781, April, 1950.
3. **Nomura, Kanichi, 1935:** Fishing Village Planning, (Lecture material in Japanese), 1935.
4. **Okamoto, Nobuo, 1984:** History of Japanese Fishery (in Japanese), Suisan-sha Press, October 1984.
5. **Yamamoto, Tadashi, 1995:** Development of Community-Based Fishery Management System in Japan, Marine Resources Economics, Volume 10, 21 – 34, 1995.
6. **Yamamoto, Tadashi, 1997:** Community-Based Fishery Management System under Limited Entry. Proceedings of the Regional Workshop on Coastal Fisheries Management Based on Southeast Experiences, Southeast Asia Fisheries Development Center (SEAFDEC), Thailand 267-278, 1997.




The PR poster for promotion of CBFRM – The seas are the banks. Fishers are the deposits to the banks.

Annexure 7

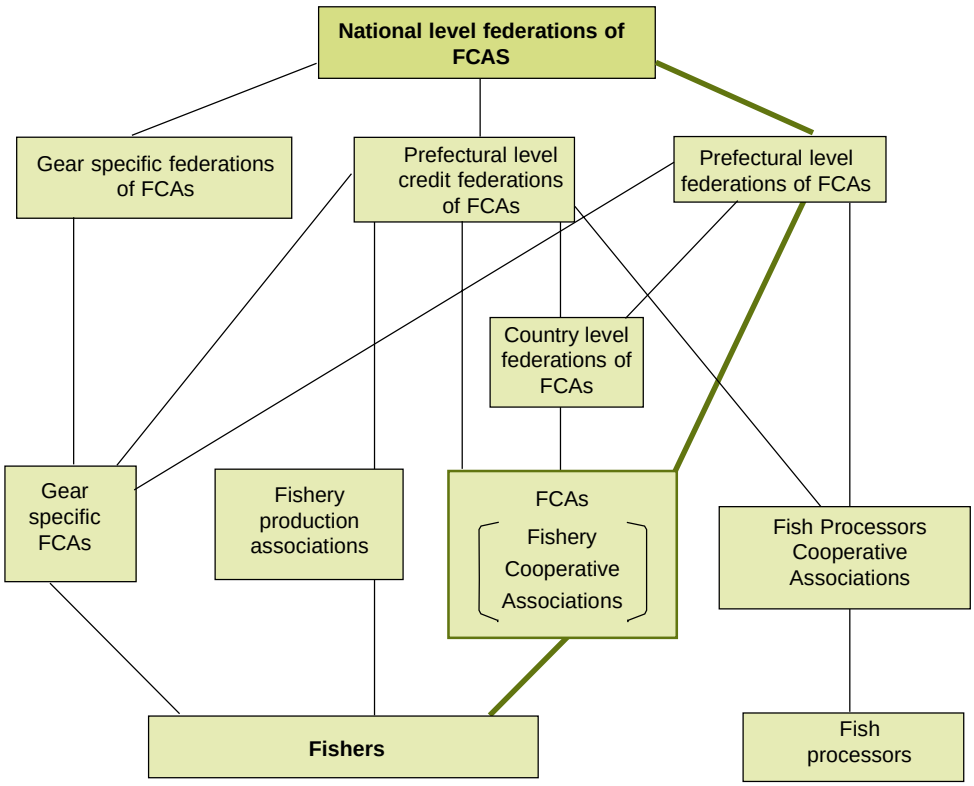
Promotion of Community-based Fisheries Resource Management Movement in Japan[1]

1.0 Organizational structure of Fisheries Cooperatives in Japan

Coastal Area Fisheries Cooperative Associations (FCAs): Fisheries Cooperative Associations (FCAs) are established almost all along the coastal areas and/or fishing communities of Japan: On an average more than one FCA exists per municipality (city, town and village level). In Japan, FCAs have a three-tier structure (Figure 1) namely, FCAs at local level, Prefectural Federations of FCAs at Prefectural (= provincial) level, and a National Federation of FCAs at the national level. This three tier FCA system is referred to as "FCA network structure". The FCAs employ staff and through their activities, which include credit, supply, marketing, and processing businesses, as well as of guidance (=non-economic), contribute to the well-being of member-fishers.

Japan's fishery is generally classified into three categories: coastal, offshore and distant water fisheries. Almost all coastal fishers are members of FCAs. This high degree of membership is attributable to the "Common Fishing Right", that is granted to the FCAs by Prefectural governors to manage the resources within the common fishing right zone, and allow their member-fishers to work within the zone. The high membership percentage of fishers in the FCAs is important in that it helps effectively disseminate information to FCA members and implement guidance activities in wider area in a smooth way. This development also makes the basis of voluntary, community-based fisheries resource management (CBFRM) movement in Japan.

Figure. 1 Organizational Structure of Fishery Cooperatives Network in Japan



[1] *Jun Machiba, National Federation of Fisheries Cooperative Associations (JF ZENGYOREN), 1-1-12 Ichikanda, Chiyoda-Ku, Tokyo, Japan 1010-8503.*

During the years 1988 to 2006, the number of FCAs[2] has declined from 1 987 to 938 (Table 1). While amalgamation of the FCAs is the main reason for this decline, it is seen that fishers are also moving out of the sector. The total number of workers engaged in the primary industry (=agriculture, forestry and fisheries) account for 5.5 percent of the total number of workers in Japan and this figure is declining over time. At the same time, aging of primary industry sector workers has become pronounced (Table 2).

Table 1: Development of FCAs in Japan, 1988-2006

	1988	1993	1998	2006
FCAs	1 987	1 866	1 745	938
Regular members of FCAs	354 960	316 850	285 743	194 712
Board members of FCAs	22 424	19 649	18 070	9 725
Employees of FCAs	19 685	18 471	16 837	12 087

Source: Statistics of FCAs, Zengyoren
Notes: 1) FCAs refer to coastal area FCAs; 2) regular member means that he/ she has voting right; 3) board members in this table include both full time board members and part time board members.

Table 2: Age composition of fishers (male) engaged in coastal fisheries

Age group/ Years	Number of Fishers			
	1988	1993	1998	2003
15-24	9 266	5 685	3 729	3 470
25-39	35 545	25 168	18 160	13 663
40-59	97 180	75 606	56 448	46 972
60 +	63 565	76 630	80 616	75 949

Source: Fishery Census, Ministry of Agriculture, Forestry and Fisheries

Table 3: Average number of employees per FCA by business division

Year	Total	Administration	Credit	Supply	Marketing	Ice-making	Guidance
1992	9.74	1.14	1.88	1.20	2.04	0.97	0.52
1998	9.65	1.17	1.83	1.23	2.12	1.00	0.54
2006	12.90	2.00	0.95	1.50	3.05	1.01	0.88

Source: Statistics on FCA's Zengyoren

Board members are the executive members elected from the FCA members. They conduct and manage the FCA businesses. However, it should be noted that non-FCA members may be elected as board member as well (as men of learning who have management expertise). FCAs employ their staff to work in various business activities. In 2006, the average number of employees per FCA was about 13 (Tables 1 & 3). Guidance division had 0.88 people per FCA, meaning that on an average the number of staff working at guidance division was less than one person. It may be noted that the guidance division staff is indispensable for the work of promoting CBFM.

Prefectural Federations of FCAs: In Japan, there are 39 Prefectures, which face the seas, and in each of these Prefectures FCAs have established their Prefectural Federations of FCAs. These Prefectural Federations of FCAs are engaged in both business and non-business (guidance) activities. Separate from this, at Prefectural level, credit business is implemented by Prefectural Credit Federations of FCAs and mutual insurance business (life insurance, fire insurance, automobile insurance, pension) is conducted by Prefectural Fishery Cooperative Mutual Insurance offices.

[2] *In this paper, unless mentioned otherwise, FCAs refer to coastal area FCAs*

Guidance activities of Prefectural Federations of FCAs are implemented by having close contacts and collaboration with the competent administrative authorities such as the Prefectural government offices.

National Federation of Fisheries Cooperative Association: The Prefectural Federations of FCAs and the Prefectural Credit Federations of FCAs mentioned above have established National Federation of Fisheries Cooperative Associations (or known as 'Zengyoren' in Japanese). Zengyoren is engaged in various activities such as guidance and supply of information to Prefectural Federations of FCAs. Lobbying is also one of the important functions of the Zengyoren in which requests of FCAs are put forward to the Parliament members and government agencies for support. Further, it also engages in activities which relate to international issues, etc.

2. 0 Resource management activities of FCAs in Japan

2.1 Advent of 200 nautical mile era: Historically in Japan, fishery resource conservation measures have been implemented at fishing community level. Fishers apply their voluntary resource conservation rules and regulations to ensure that the resources would not be depleted. This tradition has been passed on from one generation to the other.

Post World War II (from about 1960s onward), Japan expanded its fishing areas from coastal to offshore waters and from offshore to distant waters. As the fishing areas expanded, production too increased. However, pursuant to the declaration of 200 nautical mile Exclusive Economic Zone (EEZ) by the USA in 1997, other countries followed suit and established their EEZ. Such declarations made it difficult for Japan to secure access to the distant water (foreign) fishing grounds. Resultantly, the fishing fleet structure and its associated fishing industry structure went through drastic changes. The changes can be gauged by comparing production of fisheries by category, *i.e*., by coastal fisheries, offshore fisheries and distant water fisheries, during the years 1975 to 1998 (Table 4).

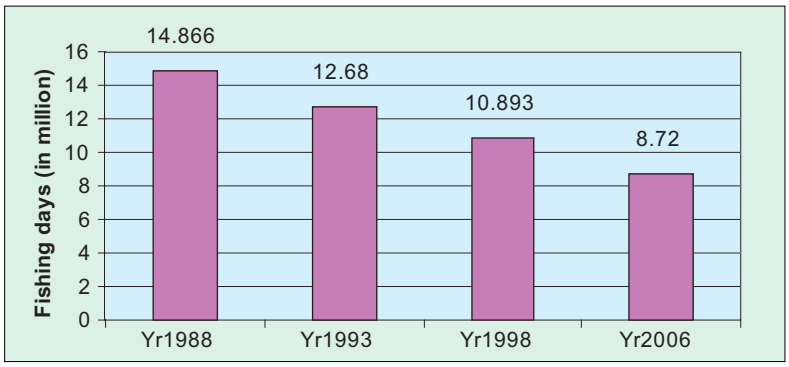
During the period, not only the distant water fisheries production sharply decreased, but the production of offshore fisheries also declined mainly due to the depletion of sardine stocks around Japanese waters. While production from coastal fisheries has leveled off, production from mariculture has greatly increased. As a result, relative importance of mariculture and coastal fisheries has increased in recent years.

Table 4: Changes in Japanese fishery before and after the begining of 200 mile EEZ era

Sectors	Production (in 1000 tonnes)		
	1975	1998	2006
Marine fisheries production	10 545	6 542	5 652
Distant water fisheries	3 168	809	518
Offshore fisheries	4 469	2 924	2500
Coastal fisheries	2 708	2 809	2634
Mariculture (included in coastal fisheries)	(26%) (773)	(43%) (1227)	(47%) (1 183)
Sectors	**Value (in million yen)**		
Marine fisheries production	1 776 700	1 884 300	1528 000
Coastal fisheries	766 800	1 153 80	974 000
(Mariculture (included in coastal fisheries)	(43%) 122 700	(61%) 546 400	(64%) 525 000

NB. The total quantity of marine fisheries production in 1975 includes weight of whales.

2.2 Changes in fishing effort, etc: During these years, there have been many changes: number of fishers has decreased; aging of fishers has become increasingly alarming; number of fishing days has decreased (Figure 2) and import of fish and fishery products has increased affecting domestic fish prices. Further, fishing vessels now operate with high-powered engines (Table 5), and the number of gear in use has also substantially increased. All these factors have contributes to increase in operational expenses, adversely affecting the management of coastal fisheries.



Source: Fisheries Economic Survey, Ministry of Agriculture, Forestry and Fisheries

Figure 2: Decreasing number of fishing days in Japan

Table 5: Fishing effort dynamics of Japan, 1970-2005

Parameters	1970	1975	1980	1985	1990	1995
GT of fishing vessel/FMU (GT)	2.0	2.3	2.7	2.8	2.7	2.8
Engine horse power/FMU (PS)	12	18	25	32	38	47
Depreciation rate (%)	19	18	23	29	32	-
Production (Kg)	9 696	9 423	9 605	9 574	9 673	8 927
Total No. of FMU	142 795	140 990	138 820	132 595	123 829	111 075

Source: Fisheries Economic Survey, Ministry of Agriculture, Forestry and Fisheries
N.B. FMU: Fishery Management Unit; Depreciation rate: Percentage of depreciation as against total expenses

3.0 Beginning of CBFRM movement in Japan

It was in 1977 that the Japanese Society of Fisheries Economics, cognizant of the changes taking place in the fisheries sector, first used the terminology "community-based fisheries resource management" in its Journal. Thereafter, the National Fishermen's Congress held in 1979, in which FCA presidents from across the country took part, adopted a resolution, declaring that FCAs shall take a transfer course to CBFRM. The resolution declared that efforts shall be made to ensure maximum utilization of fisheries resources in the waters around Japan on the basis of rational and scientific resource management measures. The resolution also declared establishment of an orderly fishing operations system based on scientific information. In the following National Fishermen's Congress held in 1983, this was further endorsed by a decision in which it was agreed that efforts shall be made to promote and implement CBFRM by mobilizing every resources, ideas and efforts to pursue scientific as well as rational utilization of fisheries resources.

3.1 Development of FCAs in Japan and fisheries resource management: The origin of fisheries resource management in Japan can be traced back to the customary practice of management of fishing area in the vicinity of fishing community (commonly

known as “fishing right”), and to promote propagation and conservation, which have been implemented since the feudal era. It is thought that this was established through the traditional resource management practices of sedentary animals and plants such as shellfishes and seaweeds in each fishing community. Fishers must have learned a lesson from the natural fluctuation of stock abundance and depletion of resources caused by competition for fishing. Based upon such experiences, they must have strongly felt the need for propagation and conservation at each fishing community, leading them to establish their own voluntary rules to restrict fishing period, introduce size (fish size) limit and fishing prohibition in spawning and breeding areas, etc.

It was during the modernization era in Japan that the government took initiatives to promote organization of fishery associations, which was a prototype of fishery cooperative and mainly engaged in management of fishing grounds. In 1933, it became possible for fishery associations to engage in economic businesses as well, and were allowed to rename it from associations to cooperatives. In 1948, the Fishery Cooperative Association Law was enacted and a legal base for the fishery cooperatives was put in place, which is effective till date. Incidentally, the former rules and regulations established at each fishing community level before the start of modernization in Japan were retained as customary practices. These were made effective later by codification: size limit and limit to fishing period as contained in the present Prefectural fishery regulations are some of the examples. In addition, Prefectural fishery regulations include restrictions on gear, limit to vessel size and fishing area, etc. Table 6 below gives one such examples:

Table 6: An example of size limit by species and regulations on fishing period

Species	Size limit	Regulations on fishing period
Horse dung sea urchin	Shell size: 40mm	
Purple sea urchin	Shell size: 50mm	
Sea cucumber	-	Prohibited during 1 April to 31 July
Abalone	Shell size: 90mm	Prohibited during 1 March to 31 October
Surf clam	Shell size: 70mm	
Salmon	Total length: 200 mm	
Trout	Total length: 200 mm	

Source: Excerpted from the Fishery Regulations of the Iwate Prefectural Government

3.2 Voluntary regulations as against public regulations: CBFRM practices implemented by Japanese fishers are based on voluntary arrangements. If it is legalized as public regulation, monitoring, control and surveillance (MCS) to ensure implementation of the regulation are to be enforced using public funds (*e.g.* taxpayer’s money). In contrast, voluntary regulations seldom need MCS since such regulations emerge from the agreement reached among the parties concerned. Voluntary restrictions are instituted in cases where depletion of resources and increasing competition can not be stopped even with public restrictions. In such cases, fishers concerned talk among themselves and come up with possible rules that would stem the problem. Voluntary rules are flexible and generally report high compliance, which reduces management costs such as those incurred for MCS.

One of the essential factors required for arriving at voluntary agreements among fishers is equity, which allows equal sharing of benefits from the resource management. Consensus among all parties concerned is a prerequisite to establish such rules and, therefore, usually it takes longer time before rules are established. However, quicker

decisions are arrived at when sufficient scientific information on the state of stocks and business management, etc is made available from the Prefectural Fisheries Research Institutes and other bodies concerned. Further, strong support measures from competent government authorities, research institutions and Prefectural Federations of FCAs becomes essential when fisheries resource management agreements are complex and also cover wider areas that are beyond the management capacity of the FCA.

4.0 Some representative functions of FCAs in Japan

FCAs in Japan play several functions which are common to all of them, such as community, professional and business functions, etc. These functions are described below.

4.1 Community function: Fishing villages, which form the basic constituent of FCAs, have long existed as local communities. The right to engage in fishing is attached to a fishing village and rules established within such a village are generally observed well as a code of their agreement, even if they are not codified as a law. It is common that FCAs play a central role in the event of local festivities and community level activities. Often, it is the largest sponsors of such events. Presently, amalgamation of FCAs is promoted all across Japan. Even in the cases of amalgamation, due consideration is given to various community level activities at village level to retain their original culture.

4.2 Professional function: FCAs have gear specific groups such as pole and line fishers group, trawler group, etc. By establishing gear specific rules, chances of conflict among various groups are minimized while mutual cooperation has been ensured. Each gear specific groups is engaged in coordination with other gear groups concerning use of common fishing ground. Many examples show that the gear specific groups of different FCAs have agreed to common resource management rules applicable to much broader areas covering several FCAs.

4.3 Business function: As described earlier, FCAs are engaged in various business activities such as credit business, supply business, marketing business and guidance activities. One of the important functions of FCAs is to ensure competitive prices for the member-fishers' catches. In Japan, many FCAs operate their own fish markets in landing areas and are engaged in joint marketing business (on consignment basis from member-fishers) with a view to ensuring stable and better fish prices. In guidance activities, they develop and implement the fisheries resource management programs, which may include propagation and resource conservation, patrolling, anti-pollution activities, fishery policy (including lobbying) activities, studies and experiments, holding of seminars and study meetings, etc.

4.4 Function to assist Administrative Authorities: In remote and less populated areas where branch offices of administrative authorities such as those of Prefectural government, etc. do not exist, FCA staffs carry out part of their functions too for the benefit of local residents.

4.5 Other functions (functions of auxiliary groups):

Youth groups - The executive members of the Board in most FCAs are over 50 years in age. In contrast, youth groups of FCAs are generally below 40 years and not many

find representation on the Board. Instead, they are active in promoting wider exchanges among youth group members in their own FCA and also with youth groups of the other neighboring FCAs on issues such as use of gear, conducting studies on specific subjects, etc.

Women's groups - Women in fishing communities are engaged in various types of works. In some areas, they too are engaged in fishing activities together with their family members. In many other areas, women are engaged in post-harvest activities and also engage in preparing the vessel for its fishing trip. Women also engage in many conservation and environment campaigns such as beach cleaning activities, planting trees on the mountain side, etc. In Japan, housewives are traditionally the manager of family's finance. Therefore, FCA women's group members do the book-keeping and advice on fishing business management matters. In this regard they play an important role in improving management of fishing households, particularly in small-scale coastal fisheries sector. Further, women's group members have long been doing savings promotion campaigns for saving, and through this movement have contributed to the progress of FCA's credit business development. In addition, they are also actively engaged in insurance subscription campaigns such as for fishing vessel insurance, fishery insurance, life insurance, etc.

5.0 Development of the Fisheries Resource Management Organizations (FRMOs) during 1988-1998

5.1 Result of the 8th Fishery Census of 1988: Based on a mass campaign by FCAs in support of CBFRM, the government conducted a nation-wide census on FRMOs in 1988. The census focused on the following three points:

- *Availability of fishers' organizations established for managing fisheries resources, fishing ground and catches collectively;*
- *Whether or not such organizations were established on the basis of active and voluntary will and consensus of the fishers concerned, and*
- *Whether or not such organizations have established certain resource management arrangements, and whether such arrangements are implemented by the organizations in accordance with their established rules and regulations.*

As a result, it was found that there were 1 339 FRMOs in Japan. Incidentally, according to the statistical survey conducted by Zengyoren, the number of FCAs in the same year was 1 987. Thereafter, the government has conducted fisheries census every 5 years. The first census on FRMOs in 1988 becomes the benchmark for the later development. The main outcomes of the censuses are detailed below:

Relationship of FROM and FCAs

FRMOs	1998	2008	Remarks in relation to FCAs
FCAs themselves serve as FRMOs	32%	29%	Decided by FCAs board meetings, etc.
Established by gear specific organizations, and by youth groups, etc.	40%	45%	Decided by the leaders meeting and assemblies etc. of auxiliary groups of FCAs (such as of gear specific groups and youth groups)
Established independently by FCA member fishers	18%	20%	The FRMOs are not based on any of FCA's rules and regulations
Federations of FCAs, etc.	10%	7%	Decided by talks by representatives of FCAs concerned

The above analyses show that the FRMOs in some or the other form are related with FCAs. In other words, CBFRM is carried out on the basis of FCAs and this is one of the features of voluntary fisheries resource management practices in Japan. Incidentally, fishery management units which constitute membership of FRMOs in coastal fisheries are generally small in scale, *e.g.* self-employed owner-skippers, using fishing vessels of less than 5 gross tons on average.

5.2 Establishment year of FRMOs: In Japan the 200 mile era refers to the year after 1977 when USA declared its 200 nautical mile EEZ. In those years Japan's distant water fishing fleet was very active and fishing distant water areas close to many foreign nations. With the declaration of EEZ by most nations, Japanese fishing fleet withdrew from such foreign waters. Simultaneously, the fisheries policies of the government of Japan progressively shifted to ensure sustainable development of fisheries from around Japan's legitimate waters and efficient utilization of the resources therein. The 1998 census also points towards the fact that of the total number of FRMOs (of 1 339), 40 percent were established after 1977, indicating the changing focus on the exploitation of the fisheries resources within the legitimate waters of Japan.

5.3 Participation in FRMOs by type of gear: There was a big difference in terms of percentage composition of participants in the FRMOs by type of gear. In terms of number of fishery management units (self-employed fishers) by type of gear, the result was as follows. It is noted here that the total percentage may exceed in some of types of gears since there are cases where the same management unit (fisher) joins with two or more of such FRMOs at the same time. On an average, it is estimated that in coastal fisheries management units, about 50 % are enrolled as participant in the FRMOs. Small-scale fisheries conducted in the near shore waters in which sedentary animals and plants are the main target species have high participation rate.

The fish production from these types of fisheries accounts for a meager percentage compared to the total fish production of Japan. However, with improved management measures, their share is continuing to increase both in terms of number of participants and production.

Activity	Percentage	Activity	Percentage
Collection of seashells	11	Collecting seaweed	16
Small trawl	64	Collecting of seaweed	14
Off shore troll	21	Coastal pole and line	02
Coastal gill net	32	Coastal purse seine	01
Boat seine	11		

5.4 Method of resource management: Various activities are employed by FRMOs for resource management purposes. Among others, the following are employed in order of frequency:

Activity	Percentage	Activity	Percentage
Control on gear and fishing method	99	Fishing ground creation	28
Arrangement on the use of fishing ground	68	Total catch quota	25
Monitoring	65	Conservation of resources	25
Resource propagation	63		

5.5 Voluntary restrictions: Voluntary restrictions constituted one of the effective fisheries resource management measures employed and include:

Method of voluntary restriction	Particulars
Fishing technology	Fishing method 43%, Fishing gear 48%
Fishing effort	Fishing season 68%, Fishing vessel gross ton and horse power 10%, No of crew/boat 24%, No of days/fishing trip 50%, No of fishing vessels 22%, Length of time of fishing operations 27%
Product	Size limit (length, weight) 35%, TAC 27%

5.6 Resource management by habitat of target species and by type of gear: Many FRMOs have also developed on ecological characteristics of target species. The following information shows the degree of difficulty in resource management.

Resource management category by habitat	Share %	Breakdown
Management of coastal tidal zone species (rocky shore areas)	56%	Lobster 10 %; Abalone 8 %; Sea urchin kelp and top shell, etc. 14 %; Multi-species consisting of these species 26 %
Management of littoral zone species (bottom consistency: sandy, muddy)	20%	Short-necked clam 8 %; Other clams (mainly caught by dredge) 8 %; Scallops 3 %; Sea cucumber, etc. 2 %
Management of offshore species (finfish, such as pelagic species)	17%	Fixed gear: gill net, traps, etc. 10 % Mobile gear: trawl, boat seine, purse seine, pole and line, gill net, etc. 7 %

The above classification of resource management categories corresponds to different habitat (and distribution area) by target species. In 1994, Japan Fisheries Resource Conservation Association, a private non-government organization conducted a follow-up survey based on the fisheries census of 1988. The result of the survey revealed that FRMOs target species in order of frequency as shown below in Table 7. However, as mentioned above, there are FRMOs who are also managing multi-species fishery.

Table 7: Frequency of various species covered by FRMOs in Japan

Fishes		Shellfishes & Cephalopod		Prawns & crabs	
Flounder (hirame)	43	Abalone (awabi)	203	Lobster (ise-ebi)	58
Flatfish (karei)	40	Top shell (sazae)	121	Kuruma prawn	19
Sea bream (madai)	38	Shortneck clam (asari)	52	Other prawns	18
Conger eel (anago)	15	Octopus (tako)	22	Tanner crab (zuwai -gani)	10
Sand lance (ikanago)	7	Surf clam (hokkigai)	21	Blue crab (gazami)	7
Hair crab (kegani)	7	Scallop (hotategai)	19	Mantis shrimp (shako)	4
Sharp toothed conger (hamo)	7	Hard clam (hamaguri)	11	Shrimp (hokkoku-akaebi)	3
Black rock fish (mebaru)	6	Clam (kotamagai)	5	**Seaweed**	
Alfonsin (kinmedai)	5	Abalone (tokobushi)	5	Kelp (konbu)	6
Puffer (torafugu)	5	Squid (ika)	4	Hiziki (hijiki)	6
Banded-blue sprat (kibinago)	4	Limpet (danbeikisago)	4	Undaria sp. (wakame)	5
Hasirtail (tachiuo)	4	Pen shell (tairagi)	3		
Dogfish (aburatsunozame)	3	Sea urchin (uni)	17		
Scorpion fish (kasago)	3	Sea cucumber (namako)	2		
Sillago sp. (kisu)	3				
Caplin (shishamo)	3				

5.7 Motives for starting resource management: Each FRMO has its reasons for starting resource management. Only words or ideas are not enough to convince them. The fishers need to be convinced on the utility of the plan and also the benefits that may accrue from business activities. The result of the census (taken in 1988) gives the following as motives for starting fisheries resource management measures (multiple replies).

Motives for starting resource management	Responses
Necessity for recovering resources from depletion:	
• To ensure sustainable management of resources	82%
• To prevent decrease in catches	63%
• To ensure effective utilization of fishing grounds	52%
• To do away with competitive over-fishing among fishers	45%
Harmonized use of fishing ground	37%
To do away with competition vying for securing good fishing ground	29%

Thus, many of them give “recovery of resources” as their motive. This result agrees with reports of various studies that fishers began to take resource management seriously only after they experienced continuous decline in catches. There are also reports that resource management efforts were initiated by fishers after the competition for securing good fishing grounds resulted in conflicts, which at times ended in casualties and deaths of fishers.

Natural fluctuation in fish stocks greatly influence outcome of fisheries. Bumper catch often results in lower fish prices, which affect fishers seriously. On the other hand, when catches are poor, decreased income affects the management of their business. Such unpredictable situations have been one of the main drivers behind the resource management and preparing long-term fishing plans for sustainable fishing practices. Such plans often include changes in the mesh size to catch particular size groups and exclude the juveniles in the fishery.

The 1988 census found that 60 percent of the FRMOs are doing propagation of resources. For some species like scallop, stocking of juveniles cultured by intermediate culture technology is done in large quantity. Table 8 below shows the number of species-wise juveniles stocked in Japan during 19988 through 2007.

Table 8: Propagation of fisheries resources during 1988-2007

Species	Individual stocked Unit: million fish, or number of individuals				% composition by stocking different agencies (in 2007)			
	1988	1993	1998	2007	FCAs	Municipal government =city officer	Prefectures	Others
Sea bream	17	21	23	16	6	6	56	32
Flounder	9	19	26	23	19	7	44	30
Kuruma prawn	324	304	225	113	40	11	18	31
Prawn (yoshiebi)	31	20	23	26	44	1	29	26
Blue crab	23	28	36	30	40	21	12	27
Abalone	20	24	28	26	80	7	0	13
Scallop	3 028	3 122	2 755	3 262	100	0	0	0
Sea urchin	12	60	69	70	93	3	0	4

Source: Stocked number of seedlings by species, Japan Farming/ Fisheries Association

FCAs are the main agencies for stocking water bodies. Scallops, sea urchins and abalone, etc. are not much mobile compared to finfish species and, therefore, after stocking, can be managed well within a given area. Before stocking, they are artificially cultured for certain period of time close to the stocking site. This has become a common practice in order to acclimatize them to the open water conditions. Such 'intermediate culture sites' for raising stocking material are also helpful in raising awareness and consensus on the need for conservation and resource management of fisheries resources.

5.8 Effects of resource management: The FRMOs have identified the following as the successes of fisheries resource management practices (multiple replies):

Activity	Percentage	Activity	Percentage
Maintenance of order in fisheries	84	Ensuring narrowing of gaps in income	30
Ensuring stable catch/ production	65	Ensuring stable fish prices	29
Ensuring stability in fisheries management	45	Reductiion of cost of fishing operations	21

6.0 Changes after 10 years as seen from the fisheries census of 1988

Post 1988, the fisheries census was carried out in 1988, 1993 and 1998. During this 10 year period, there was an increase of 396 FRMOs (Table 9***)***. The characteristic feature during this period was an increase in number of FRMOs encompassing resource management of wider geographical areas.

Table 9: Increase in number of FRMOs

Year	1988	1993	1998	2003	2008
No of FRMOs	1 339	1 524	1 735	1 608+*	1 738+*

* *Resources recovery plans*

6.1 Establishment of FRMOs covering wider areas: During the past 10 years from 1988 to 1998, there has been a steady progress in building up of consensus concerning wider area resource management within Prefectures - FRMOs covering multiple Prefectures have increased in number. For example, in 1988, FRMOs that covered areas larger than the area of one FCA were only 134 (10% of total). However, they increased to 26% in 1998. Their area coverage expanded from littoral zone in the immediate vicinity of the fishing community to much wider areas, and their resource management targeted species progressively expanded from sedentary to include more mobile fin fishes. The FRMOs covering several Prefectures have increased in number. It may be said that this is a result of national government support to promote wider area CBFRMs.

Number of FRMOs by area of coverage (in 1998)

Activity	Percentage	Activity	Percentage
Wider than one FCA area	26.3	Multiple numbers of municipalities	7.1
Multiple numbers of Prefectures	0.3	Within one municipality	18.2
One whole Prefecture	0.7	Within the area of one FCA	73.7

Facing page and above: Activities at Oodose Fishing Harbour (Shin Fukaura FCA) and Central Wholesale Market at Tsukiji, Tokyo.

7.0 CBFRM- types and examples

7.1 Objectives of CBFRM: The question on what are the objectives of CBFRM provides many answers. However, one answer is common to all replies that CBFRM aims at effective utilization of fisheries resources and improvement in management of such resources. In implementing CBFRM, various methods are employed so as to meet its main objectives and practical applicability as seen in Table 10 below:

Table 10: CBFRM by objective & method

Objective Method	Control of fishing effort	Management on the use of fishing ground	Maintenance of fish price	Control of recruit of resources (protection of juveniles)	Propagation of resources	Management (protection of parent fish)
Abstention from fishing on regular basis	⊙					
Fishing by shift and rotation system	⊙	⊙				
Pool account system		⊙	⊙			
Limiting of engine horse power	⊙					
Restrictions on fishing gears	⊙					
Control of fishing vessel deployment		⊙				
Management of TAC (total allowable catch)			⊙			
Management of per vessel catch quota			⊙			
Release of small size fish after catch (Minimum size limit)				⊙	⊙	
Mesh size control (increase)				⊙	⊙	
Banning of fishing operations in stocked (seedling released) areas					⊙	
Prohibition of fishing operations during spawning season						⊙
Releasing of parent fish after catch						⊙

Main features of CBFRM can be summarized as follows:

- It aims at better utilization of resources under the current fisheries legal system of Japan. Its basic concept is to ensure stable management of fishing business by fishers' voluntary resource management efforts, securing sustainability of business and effective utilization of resources.
- It is separate from fishery legal systems, and rules and regulations of fisheries regulatory commissions, fishers' voluntary arrangement. Further, it is supplemented by the following:
  - voluntary catch limit,
  - voluntary propagation efforts,

– efforts to increase the income by catching fishes at the time of the highest economic value possible from the resource, and
– efforts to prevent deterioration of the quality of the products.

These arrangement and efforts are designed to do away with the problems of intrinsic nature to fisheries, such as natural fluctuation of resources, collapsing of fish prices at the time of bumper catch, high and fast perishability (losing freshness) of fishes, etc.

- It aims at maximizing potential growth rate and reproduction of target species.
- It aims at curbing excessive fishing effort. Further, it also aims at securing higher income from catches. For this purpose, stocking of juveniles and inputs for fishing ground environment improvement are carried out.
- It is a shift from over-exploitation of resources which led to management difficulties. CBFRM aims at maximizing income of fishers corresponding to the status of stocks.

7.2 Classification of CBFRM by objective: As explained earlier, CBFRM can be classified into 6 types by objective. Objectives in this case are similar in meaning to economic gains accruing from different types of inputs for resource management. Some of the CBFRMs employ various methods for earning better revenue, whereas, others place more emphasis on ensuring sustainability of stock level rather than on obtaining economic gains. Few examples are cited below:

(i) Control on fishing effort

Example 1 - Aji FCA in Kagawa Prefecture: A small trawl fishery that implements two non-fishing days/ week. After implementation of this system, the number of fishing vessel accidents drastically decreased though catches have remained almost the same.

Example 2 - Kaiso FCA in Chiba Prefecture: It operates a clam dredge net fishery by rotation system. It places restrictions on fishing gear and implements the pool account system.

(ii) Management on the use of fishing ground

Example 1 - Hokubu FCA in Akita Prefecture: A trawl fishery that operates on pool account system and deploys fishing vessels in accordance with pre-determined plan. The deployment plan aims at avoiding too many vessels from gathering and fishing in .a good but limited small cod fishing area. It also aims at establishing rational use of other fishing ground areas.

Example 2: - Yamagata-Ken FCA in Yamagata Prefecture: A drift long line fishery that operates on pool account system and rotational use of the fishing ground (for sea bream). The fishing ground is relatively small in area. This fishery is implemented by the auxiliary gear specific consultative group on sea bream fishing.

(iii) Maintenance of fish price

Example 1 - Yokohama-Shi FCA (Shiba branch) in Kanagawa Prefecture:

A small trawl fishery for mantis shrimp and operates on individual catch quota basis. The price of mantis shrimp has become stable because of this management measure. It is implemented by gear specific group (mantis shrimp trawlers).

Example 2 - Yuiko FCA in Shizuoka Prefecture: This is a pair trawl fishery for stardust shrimp (*Sergia lucens*). The vessels to be used and the number of skipper/crew

Resource Management

to be allowed for fishing are pre-determined. Pool account system is used and it is implemented by multiple FCAs: all the cost and profit of the participants taking part in this pair trawl fishery from the neighboring several FCAs are pooled and counted as one group account. TAC is applied in this fishery.

(iv) Protection of juveniles

Example 1 - Minoshima FCA in Wakayama Prefecture: The trawl fishery operates for *Trichiurus lepturus* (Hairtail). The management plan includes use of large mesh size to allow escape of small sized fish. It is implemented by the trawl fishery study group, an auxiliary established by the FCA's member-fishers engaged in this fishery.

Example 2 - In Kanagawa Prefecture: This fishery operates for Conger eel. Small holes are bored into the conger eel fishing tube, a fishing gear, in order to allow escape of small sized fishes. The diameter of these holes is standardized. In view of the effectiveness of this selective fishing gear from the standpoint of contributing to management of the fishery, even conger eel fisher groups of other prefectures have shown an increasing interest in this method and some of them have reached consensus to follow this example. It is implemented by conger fishers group established by multiple number of FCAs concerned.

(v) Propagation of resources

Example 1 - Sarufutsu FCA in Hokkaido: It is a dredge fishery operating for scallops. The fishing area of scallops is divided into 4 divisions based on a plan to use each of these divisions in an orderly fashion. Fishing and stocking of juveniles (small scallops) is done and benefits are shared on pool account system. It is implemented by gear specific group (scallop dredge fishers).

Example 2 - Aomori Prefecture: This is a small trawl and gill net fishery. Every year, 2 million flounder of about 5 cm in body length are stocked. Fishers are required to release, as a duty, the flounder if it is smaller than 35 cm in total length. From the sales of flounder, seedling production cost is collected. It is implemented by all the FCAs within Aomori Prefecture.

(vi) Management of reproduction (protection of parent fish)

Example 1 - In eastern Hokkaido: It is implemented by gear specific consultative group for Caplin fishers and includes multiple FCAs. Caplin is an anadromous species and stock assessment is done by test fishing. Fishing of caplin is banned immediately before their migration upstream (namely, before spawning) and this secures the population of parent fishes.

Example 2 - In Hyogo Prefecture: It is a small trawl fishery and involves blue-crab. If blue crabs with eggs (row blue crabs) are caught, they are bought and released back to the sea. This buy-back money is funded from contributions (donations) of citizens. It is implemented by voluntary groups and involves multiple numbers of FCAs.

8.0 Expansion of CBFRMs area and roles of FCAs

8.1 Government policy to promote expansion of CBFRM area: In view of the necessity to promote dependable resource management systems in the EEZ of Japan, the Fishery Agency established CBFRM Promotion Section in 1991 and started the comprehensive CBFRM promotion program. Under this program, subsidies were provided for promoting dialogue among fishers by providing them with information on distribution, growth, mortality and other characteristics of target resources, as well as on abundance of the resources that are obtained from scientific research. Since such information could not be obtained easily without government assistance, the unit area covered by this program became far wider than the area that could be covered by fishers' own voluntary management efforts. The White Paper on Japan's Fisheries of those days reads as follows:

> *"It is necessary that awareness of fishers on the need of establishing fisheries resource management corresponding to the stock level/ conditions be firmly built. At the same time, in order to implement fishers' voluntary, local level resource management arrangement, a workable management structure and mechanism must be established. Thus, we need to implement a comprehensive policy to facilitate promotion of community-based fisheries resource management and ensure that it takes root in the fishing communities across the country."*

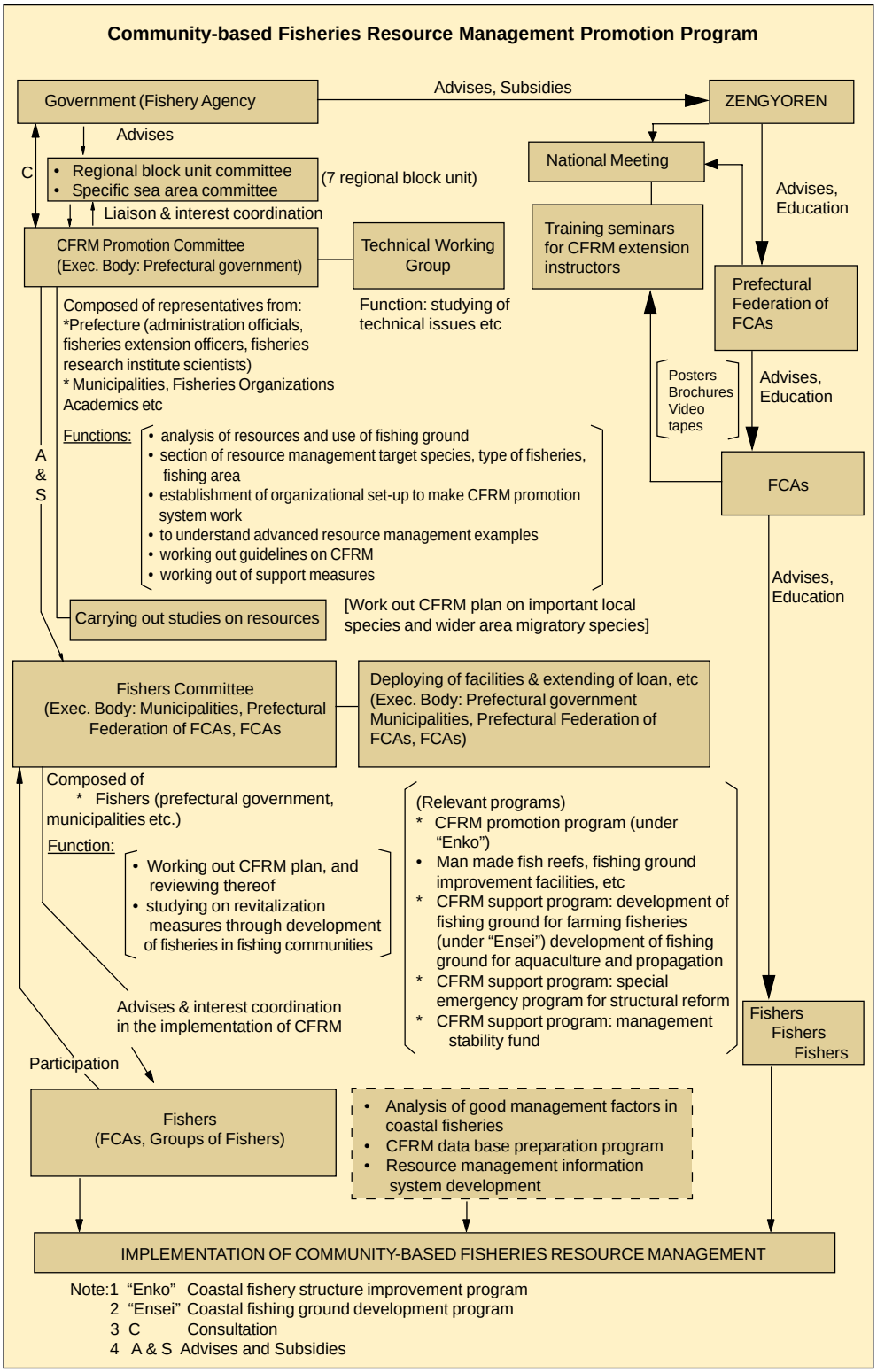
8.2 Preparation of Fisheries Resource Management Plan based on Government guidelines

Comprehensive CBFRM Promotion Program (Figure 3 an page 74)

This program consists of the following two items:

- Wide area migratory resource management - to be implemented by regional block units comprising participants (groups/bodies) from multiple numbers of Prefectures.
- Local area resource management - to be implemented within the sea area of each Prefecture (in all, there are 46 sea area divisions in the country).

Figure 3: An illustrative example of comprehensive CBFRM programme



The Government guidelines require that:

- Prefectural and/ or regional block CBFRM promotion consultative committee hold their meeting;
- Studies on possible resource management promotion measures and a structure and/or mechanism to promote them, and
- Preparation of CBFRM guidelines.

The Prefectural governments and Prefectural Fisheries Research Institutes conduct studies on fisheries economics and natural resources necessary for formulating a CBFRM plan, the result of which are then reported at consultative meetings of fishers concerned and necessary advises given. The fishers concerned then discuss things to do and draw up their CBFRM plans based on the information contained in the guidelines and the result of the studies.

***8.3 Guidance and Advisory (Education) Programs and Extension Programs*:** During the early 1991 there were not many fishers who understood CBFRM well. To facilitate their understanding, the Prefectural governments and Prefectural Federations of FCAs produced various brochures, posters and stickers as material awareness building. Further, to propagate resource conservation and management ideas even among recreational fishers and children, some Prefectures conducted awareness programs through TV and radio, placing of notice boards and distribution of video tapes in primary schools. Some examples are given below:

- Stickers for pasting on fishing vessels. Voluntary rules on size limits imposed on sea bream and flounder, etc. are indicated. Fishers are advised to release the prohibited sizes back to the sea;
- Posters: “Don’t catch, don’t sell, don’t buy small size fishes” for distribution to fishers and fish buyers;
- Bill boards: Usually set up in the premises of fishing port. “Please do not catch sea bream juveniles stocked”;
- Gauge, ruler distributed to fishers. Used for checking body length of fish to see whether or not it is larger or smaller than the voluntary rules;
- Cartoons: “Resource management: what is it?” For pupils of primary school;
- Video tapes: “Please release small size, stocked sea breams back to the sea!” For pupils of primary school, and
- Banners: “Let’s release flounders back to the sea if they are less than 25 cm in body length.” For recreational fishers, as well as fishers.

8.4 PR and education activities by Zengyoren to promote implementation of CBFRM

The government of Japan has continued to provide subsidies to Zengyoren (National Federation of Fisheries Cooperative Associations) in order to disseminate the philosophy of CBRM to all the fishers through Zengyoren’s education activities. The following are some of the examples of such activities carried out by Zengyoren:

- Catch phrase and resource management promotion symbol logo mark contest: Catch phrases for promoting CBFRM were called for from general public for 5 years. Likewise symbol logo marks that indicate CBFRM promotion movement were called for from general public. As a result, the CBFRM promotion logo mark was decided in 1991, which has since been widely used throughout the country.
- Case studies: Case studies on sophisticated examples of CBFRM have been made and introduced.

- Manuals: In order to disseminate theoretical knowledge concerning CBFRM, manuals were prepared and distributed.
- Seminars: Organized seminars in several places for people who work as grass root level CBFRM promotion and extension workers (called as "CBRM instructors").
- Video documentary: Selected one success story per year out of voluntary resource management cases and made it into a video tape for distribution.
- Journal: Continued to supply three page information on CBFRM in the bi-monthly journal of Zengyoren "FCAs".

Incidentally, the Comprehensive CBFRM Promotion Program of year 2000 corresponds to the 10th year since it first started in 1991. It is envisaged that this program will continue.

Some of winner phrases of the CBFRM Phrase Contest are given below:

- Resource Management: all of us are the star players of the game.
- Let's develop resources of the sea: for ensuring the promising tomorrow.
- Resource Management: it creates a harmony between man and fish.
- Prosperous fishing communities follow from the first step in CFRM.
- Let's realize a world of harmony: Man, Fish and Blue seas.
- Catch/sell/buy: do it after the fish grow to proper size.
- The seas are the banks. Fishes are the deposits to the banks.
- Wait a minute. Hold out today and you will have luck tomorrow.
- Resource Management: it starts from your boat, village and market.
- Manage resources. Volunteer to conserve.
- Many a fisher's efforts: a key to resource management and conservation.
- One sea, one heart: keep these fair and manage resources.
- Resource Management: productive seas, bear abundant fruits!
- Observe fisheries rules. Protect the productive seas.

9.0 Future perspectives of CBFRM promotion activities

9.1 Administrative Policies of the Central and Prefectural governments

TAC system: After the ratification of the UNCLOS (United Nations Convention on the Law of the Sea) in 1995 and its coming into effect in 1996, Japan enacted the Marine Living Resources Conservation and Management Act. The Act also known as TAC Law covers seven species (sardine, jack mackerel, mackerel, Pacific saury, tanner crab, squid) within Japan's 200 nautical mile zone. At the same time, the government introduced a mechanism for administrative support for establishment of voluntary resource management arrangements to ensure compliance with the rules and regulations of the TAC system. It is felt that the administration cost of the government will decrease if these voluntary fishers' resource management arrangements function well. The FCA and their nationwide

network including federations of FCAs are providing fishers' catch report, as obligatory under the TAC Law, to the government and thus contributing to reduce public expenses.

Stock rehabilitation program: In cases where fish stocks have been seriously depleted and require restoration and/ or rehabilitation, it became necessary to institute strong administrative measures such as fleet reduction or fishing prohibition (*e.g.* in Akita Prefecture fishing of sand fish (*Arctoscopus japonicus*) was banned for three years and the measure helped in restoring the stocks of sand fish). Currently, the government is contemplating to introduce a program that could help in stock rehabilitation plan, fleet reduction and abstention from fishing operations, etc. Over-fishing and over investment are an accompaniment to fisheries as long as it is conducted under free competition system. Thus, in order to ensure sustainable development of fisheries, continuous government involvement and support is essential.

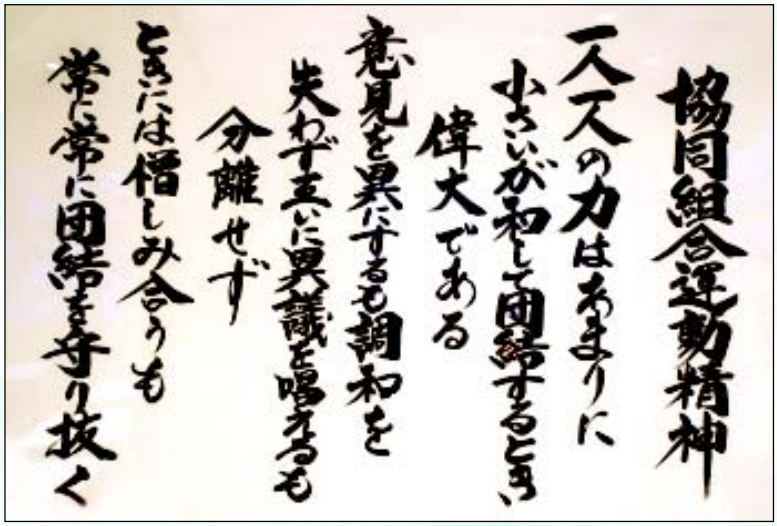
Wider area resource management involving several prefectures: Voluntary management of resources encompassing the waters of several Prefectures requires considerable amount of work. Though wider area resource management needs to be established and implemented based on voluntary fishers' consensus, involvement of and support from administrative authorities of Prefectural government as well as Prefectural Fisheries Research Institutes is essential. The general public also needs to be informed of the necessity of wider area resource management practices to build awareness and soliciting their support for spending tax payer's money for the purpose.

9.2 Voluntary management of resources

As a result of our activities during the past 10 years to promote fishers' voluntary management in wider area it may be said that it has paid dividends. By and large fishers throughout Japan understand CBFRM, although their participation is yet to reach the desired levels. Further efforts are required to ensure awareness building and implementation of CBFRM, based on fishers' consensus. Education and extension works through FCA network and administrative support from Prefectural governments will facilitate the process.

So far the major approaches employed include total length limit, area and seasonal closures, etc. However, in recent years, cases of comprehensive approach where fishers take responsibility from production to consumption stages with regard to the maintenance of product quality, has been increasingly observed across the country. This is a promising trend and should be promoted. .

Young fishers who will take over the fishing business in the coming years constitute one of the key driving forces for innovative management practices as they have done so far through the FCA's auxiliary youth group activities. For example, they have taken initiatives for introducing country-wise non-fishing day, improvement and development of fishing gear, etc. In order for the youth group members to be able to demonstrate their expertise and potential, it is important that both administrative authorities and fisheries cooperative sector cooperate and create an environment which would facilitate such a development. As pointed out earlier, understanding of the general public is important for securing public support for the CBFRM programs. Likewise, recreational fishers' understanding is required to ensure harmonious use of fishing ground and resources.



The essence of the spirit of co-operative moment

Though the power of an individual member is negligible, when members cooperate, their combined power become great.

Though members may have different opinion, it is essential that they don't lose harmony and don't get separated.

Though at times members may hold enmity towards each other, it is essential that they keep their solidarity and cooperation.

Annexure 8

Outline of Fishery Cooperative Associations in Japan[1]

1.0 Organizational Structure

Fisheries Cooperative Associations (FCAs) in Japan as they are today were established based on the Fisheries Cooperative Association Law (FCA Law) of 1948 (Law No 242 of 15 December, 1948). They are multi-purpose in businesses/ activities and provide various services to their members. The organizational structure of the JF[2] Group {Fisheries Cooperative Associations and their Federations Group, often referred to as "JF (Japan's Fisheries)} is three-tiered (Figure 1). However, in strict terms, JF usually implies not only to the three tiered fisheries cooperative organizations, but also to organizations dealing in sectors such as insurance and fisheries credit guarantee.

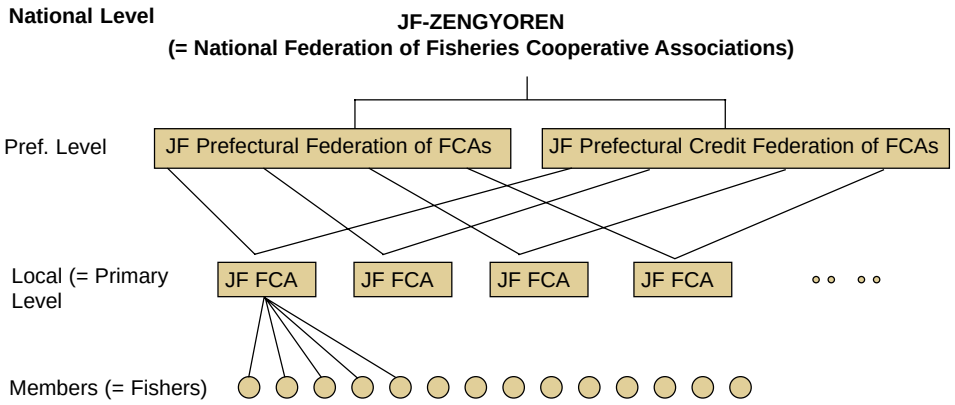


Figure 1: Organizational structure of the JF Group

2.0 Promotion of amalgamation

JF-ZENGYOREN has been promoting FCA amalgamation since 1967 giving various incentives. As of 1 October 2009, the total number of FCAs (coastal area FCAs with share capital) was 1 077. Of this, in 8 Prefectures (Miyagi, Akita, Yamagata, Ishikawa, Tottori, Shimane, Yamaguchi and Sag), a single FCA covers the whole Prefecture. Such FCAs are called by the name of the Prefecture, for example the FCA in Miyagi Prefecture is called as 'JF Miyagi Prefecture FCA'.

In 1967, the FCA Amalgamation Support Act was enacted by Law Number 78 of 24 July 1967. This law had a specific time-frame and before it came to an end on 31 March 2008 (fiscal year 2007), it was amended seven times to extend its duration. The Law was renamed as FCA Amalgamation Promotion Act in 1998 by Law number 32 of 31 March 1998. The aim of the FCA Amalgamation Promotion Act is to encourage amalgamation of FCAs in order to make them managerially, financially, and organizationally stronger and provide better services to the member-fishers. For this purpose, various preferential treatments were stipulated to FCAs in the Law. Resultantly, by the end of the 7th term of the Act, the number of FCAs declined considerably by way of amalgamation and the target set in the Act was revised down from 1 600 to 250 (Table 1).

---

[1] *From JF-ZENGYOREN. The paper was presented by Mr Jun Machiba, Deputy General Manager, JF-ZENGYOREN.*

[2] *"JF" is a logo established in 2001, which indicates Japan's fisheries cooperative sector.*

Table 1: Progress in amalgamation of FCA in Japan under the FCA Amalgamation Promotion Act

Phase of FCA Amalgamation Promotion Act	Term (= Time Frame)	Total target number of FCAs in Japan by the end of the term
FCA Amalgamation Support Act	1967-1970	1 600
The 1 st to 3rd Revisions for extension of the term	1971-1984	1 600
The 4th to 5th Revisions for extension of the term	1988-1997	1 000
The 6th Revision (= Renaming the law to "FCA Amalgamanation Promotion Act") and extension of the term	1998-2002	700
The 7th Revision for extension of the term	2003-2007	250

Presently, the government support for amalgamation through the Act has been stopped, although the target number of FCAs -250 is yet to be achieved. Therefore, the JF Group is continuing its own efforts to promote amalgamation of the FCAs in Japan.

3.0 Features of development of FCAs in Japan

The following are some of the most salient features of the fisheries sector in Japan:

- ***Decrease in number of FCA members:*** The number of FCA members has continued to decrease in recent years @ 8 000 members per year. During 1995 to 2005, the total number of FCA members has decreased by 26.7 percent.
- ***Decrease in number of FCAs:*** In order to cope with the decreasing number of member-fishers, amalgamation has been promoted. By the end of September, 2009, the number of FCAs has decreased from 2 443 in 1967 to 1 077.
- ***Business loss and low income:*** 75 percent of the FCAs (996/1 322 in 2005) are running in deficit and 29 percent have cumulative loss carried-over from previous years. As fisheries resources have decreased and fish prices stayed low, income of fishers is also low. It is a vicious cycle - leading to poor recruitment of fishers in the FCAs. In addition, fisheries production in Japan in 1986 was 12.8 million metric tons and it decreased to 5.7 million metric tons in 2006. The trend is still continuing and the production has decreased by more than 50 percent during these years.
- ***Low level of consumption:*** Fish consumption has not increased much as compared to meat and meat products.
- ***New political regime:*** During the national lower house election of 30 August, 2009, the Democratic Party of Japan (DPJ) won a landslide victory, defeating the Liberal Democratic Party of Japan (LDP), which was in power since 1955. The new DPJ government seems to be willing to conclude Economic Partnership Agreement (EPA) with USA, which may boost the automobile and electronics sectors due to removal of trade barriers. However, this EPA can negatively impact domestic fishery, especially the small-scale fishers by facilitating import of cheaper fishery products from USA.

It is in this background that the FCAs are trying to improve their business and tide over the difficulties. Amalgamation has been one such measure. Incidentally, in agriculture cooperative sector, amalgamation is being promoted as well. According to JA-ZENCHU

(Central Union of Agricultural Cooperatives), there is no national target for agriculture cooperatives (after amalgamation). However, the total number of agricultural cooperatives to be achieved by amalgamation is estimated at 428 (calculated by adding target figures of each Prefectural Agricultural Cooperatives Amalgamation Plan- the target year is different from one Prefecture to another). In contrast, the actual number of agricultural cooperatives as on 1 April, 2009 stands at 733. It may also be interesting to note that the largest agricultural cooperative in Japan is Kagawa Prefectural Agriculture Cooperative Association with member-farmers numbering 131 582 persons. Compared to this, the size of the FCAs is quite small. The largest FCA in Japan is Miyagi Prefectural FCA, which has a membership of 7 631 fishers.

4.0 Businesses and activities of JF Group

The FCA Law provides for various businesses/ activities that a FCA, a federation of FCAs (Gyoren), or a credit federation of FCAs (Shin-Gyoren) may engage in. Every FCA must have its own by-law (or, Articles of Association). The types of business and/ or activities that the FCA may engage in are described in Article 2 of the Model By-Law of Fisheries Cooperative Association. Usually, a FCA establishes its own by-law based on the model by-law, by modifying it as appropriate. The FCAs implement a combination of the following activities:

- Credit business;
- Marketing business;
- Supply business (fishing materials, fuel, ice, etc);
- Common use facilities (such as docks, cold storage, ice-making facilities, etc);
- Insurance (as agent for fishing vessel insurance, life and property insurance, and fishery/aquaculture insurance);
- Radio communication;
- Welfare (pension, health care support, scholarship for orphans of fishery cooperative member fishers who have died in accidents during fishing operations, etc.);
- Guidance activities (such as lobbying, resource management and conservation, environmental protection, education and training including book keeping, accounting and auditing etc), and
- Consultation in matters relating to legal as well as tax matters.

5.0 Characteristics of Fisheries Cooperative Associations in Japan

(i) Cooperative principles - a working guideline: FCAs in Japan are managed and operated with the statement on the cooperative identity of 1995 in mind. Namely, it defines that a cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise. It declares that cooperatives are based on the values of self-help, self-responsibility, democracy, equality and solidarity. Further, it says that cooperative members believe in ethical values of honesty, openness, social responsibility and caring for others. The cooperative identity sets out the following 7 principles, to be used as guidelines by the cooperatives to put their values into practice:

- Voluntary and open membership;
- Democratic member control (such as one member, one vote);
- Member economic participation;
- Autonomy and independence;
- Education, training and information;
- Cooperation among cooperatives, and
- Concern for community.

(ii) Fishing right: One of the most important characteristics of fishery cooperatives in Japan is that 'fishing right' is granted to FCAs by Prefectural governor. This system is unique in Japan and because of this condition all fishers, regardless of their scale of business, belong to one or the other FCA. This effectively helps ensuring compliance with resource management measures by the member-fishers and at the same time

Table 2: Number of FCAs by Business

Type of Business	Number of FCAs Engaged in	% of total
Credit	329	24.6
Insurance (life & property)	920	68.8
Supply	1 156	86.4
Marketing	1 093	81.7
Ice-making & cold storage	716	53.5
Fish processing	153	11.4
Storage	34	2.5
Common use facilities	1 030	77.0
Others	237	17.7
Use of fishing ground	117	8.7
Guidance	1 302	97.3
Radio communication	330	24.6
Total	**1 337**	**100.0**

Source: FCA Statistics, April 2007, Fishery Agency

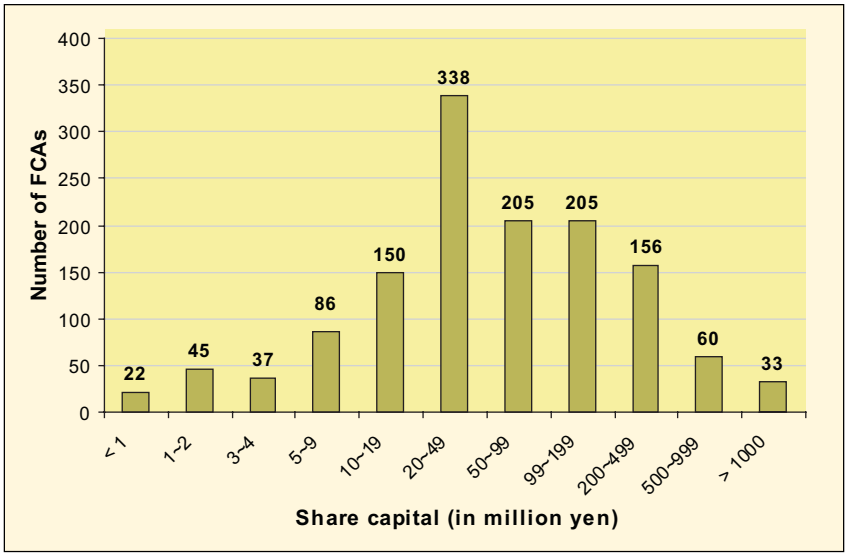


Figure 2: Distribution of FCAs as per share capital

makes the FCAs a centerpiece of social, economic as well as cultural activities in the fishing communities.

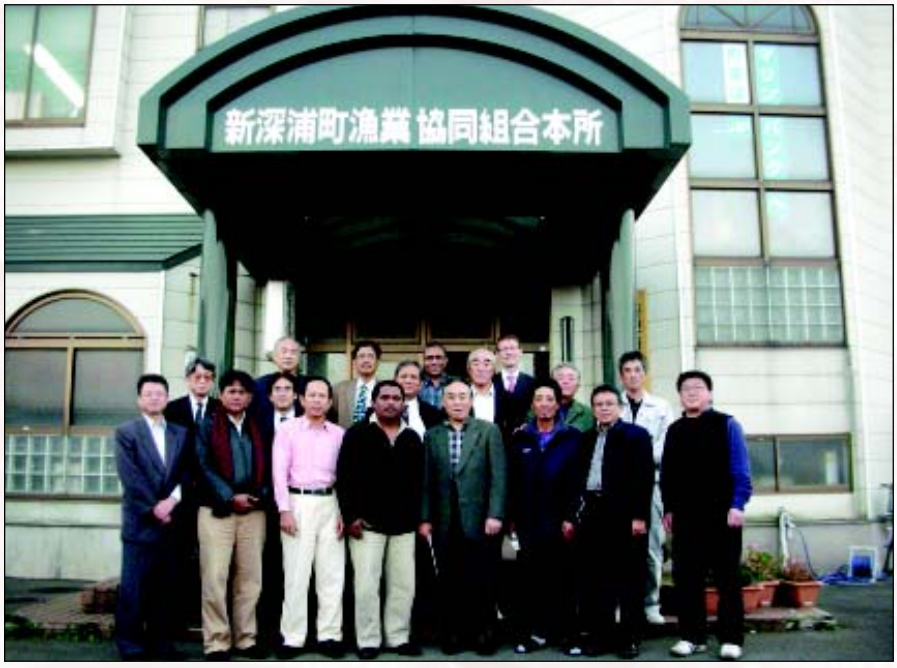
(iii) Multi purpose activity: One of the characteristics of Japan's FCAs is that they are multi-purpose. Of all the activities undertaken by the FCAs, marketing, supply and guidance are implemented in more than 80 percent of the FCAs (Table 2 on facing page).

(iv) Availability of a systematic FCA activities support system/ network of organizations: There are various institutions and organizations which provide support to the activities of fisheries cooperatives and their members, directly or indirectly, through their channels.

6.0 Issues affecting the efficacy of FCAs in Japan

An average FCA in Japan is small in size and scale of operations. Available statistics shows that by March 2006, an average FCA comprised 470.1 members of whom 175.4 were regular members with voting rights and 294.7 were associate members. Of the total 1 337 FCAs in Japan, 78 percent have members less than 200 and 54 percent have members less than 100. Only 24 FCAs (1.8%) have members more than 1 000. The balance of about 21 percent FCAs has members between 200 and 1 000.

Most of the FCAs (67.4%) are run by a small compliment of 1-9 staff, which is in contrast to the range of activities undertaken by them. About 29 percent FCAs have less than 3 staff while another 25 percent have 3-5 staff. The number of FCAs who employ 10 or more staff is 32.6 percent and number of FCAs who have 50 or more staff is a meager 2.8 percent. In terms of share capital, most of the FCAs have about 20 to 49 million Yen as share capital (Figure 2). The FCAs are also suffering from poor expertise in management due to lack of human resources. The necessary infrastructure facilities are also less developed compared to urban and agricultural areas (such as road, sewage, gas piping, etc). Therefore, amalgamation is a way to address these problems. However, side by side there is also a need to promote fisheries in view of the natural wealth of the country.


新深浦町漁業協同組合本所

Annexure 9

Outline of Shin Fukaura Machi Fisheries Cooperative Association[1]

1.0 Organization of Shin Fukaura Machi FCA[2]

The Shin Fukaura Machi Fisheries Cooperative Association (SFM FCA) was established on 1st January, 2008 as a result of amalgamation of the Oodose FCA, Henashi FCA and Iwasaki Mura FCA. Currently, there are 681 members in the SFM FCA. Among them, 545 members are fully qualified members with voting rights and 136 are associate members who do not have the voting right. There are 9 directors, all part-time; 3 part-time auditors and 24 employees in the SFM FCA.

2.0 Outline of Business Activities

The major business activities carried out by the SFM FCA are insurance (life and general), supply of fisheries inputs and marketing. By the financial year 2008, the SFM FCA had completed 758 insurance contracts comprising 371 ordinary mutual life insurance (Choko) valued at 1 936.3 million yen and 387 general mutual insurance (Kurashi) valued at 3 063.4 million yen. The total worth of insurance contact during FY 2008 was 4 999.7 million yen.

The organization also supplies petroleum, various fishing material and fish boxes. During 2008, the SFM FCA supplied fisheries input to the tune of 347 million yen. Due to price increase, the values of supplies has increased substantially (*e.g for petroleum),* however, there is no substantial increase in quantity terms. Prices of other fishing material such as fish box have increased as well during this period due to inflationary pressure caused by oil price rise.

Marketing is the main business of the SFM FCA. The total amount of marketing business in 2008 increased due to good catches of yellowfin tuna. The volume of trade touched 1 796.8 million yen during this period. Sale from fresh fish comprises 89.97 percent of the revenue, followed by seaweeds (5.22%) and shellfishes (4.81%). Table 1 (on page 86) shows the species-wise quantity and value marketed by the SFM FCA in 2007 and 2008 To maintain the price of 'iwa mozuku' (a brown algae), the FCA made an outright purchase of the algae and then processed it (salted) for marketing in cooperation with Gyoren Hanbai Co. Ltd. (Prefectural Federation FCAs Marketing Co. Ltd.) and postal office, etc.

The SFM FCA is also involved in marketing of ice. The total amount of ice sold in 2008 was 3 671.4 ton valued at 50.8 million Yen.

3.0 Guidance activities

The SFM FCA carries out a set of activities for the welfare of fishers and improvement of resources. These activities include (i) Education; (ii) enhancement and conservation of resources; (iii) management of fishing ground; (iv) fisheries resource management; (v) consultancy and guidance to improve fisheries business; (vi) safety at sea; (vii) improving livelihoods; (viii) hatchery and (ix) mutual insurance.

(i) Education: The SFM FCA participated in various seminars and study meetings organized by the Aomori Prefectural Government as well as by the Prefectural Federation and National Federation of FCAs aimed at building capacity in various aspect of fishery. The FCA also disseminates information to its members through journals, news letters, brochures and pamphlets, etc and encourages its members to

---

[1] *Mr Gizou Nishizaki, President, Shin Fukaura Machi FCA, Aza Shiomigata 406-1, Ooaza Kita, Kanegasawa, Fukaura Machi, Nishi Tsugaru Gun, Aomori-Ken, Japan 038-2504 (Tel: (0173) 76-2511; Fax: (0173) 76-3088).*

[2] *Source: Annual Report of FY "Heisei" 20 (1 Jan. - 31 Dec 2008)*

Table1: Quantity and value by species marketed by the SFM FCA during 2007 & 2008

Product	Geisei 20 (=2008)		Heisei 19(=2007)	
	Quantity (Ton)	Value (Million Yen)	Quantity (Ton)	Value (Million Yen)
Arrow Squid	432.9	358.5	148.8	136.3
Salmon	140.2	47.7	231.4	65.3
Bastard halibut(= Hirame: *Paralichthys olivaceus)*	105.1	125.7	95.5	110.6
Flatfish (*Karei*)	113.8	79.3	103.0	69.1
Common Japanese Squid	62.9	16.3	160.6	42.8
Red sea bream	111.3	67.0	102.2	57.2
Yellowfin (*Buri*)	586.3	218.7	232.2	100.9
Tunas	127.0	174.8	219.3	285.8
Aburame (or Ainame, a rockfish: *Hexagrammos otakii*)	10.2	5.8	9.6	5.3
Soi (or Kisunemabaru, a rockfish: *Seaastes vulpes*)	27.5	13.0	34.0	15.5
Gasa (or Mabaru, a rockfish)	26.1	34.6	30.1	41.6
Trout	27.0	31.9	30.8	36.0
Octopus	114.1	37.0	112.9	37.5
Cod	112.6	49.8	161.1	68.2
Shrimps/prawns	4.5	11.5	4.1	11.3
Kawahagi (Leatherjacket)	116.7	79.5	102.0	65.7
Hokke (Akta Mackerel, a rockfish: *Pleurogrammus azonus*)	88.5	9.9	50.8	5.3
Hatahaha (sandfish)	420.4	62.8	64.1	14.7
Sazae (Topshell)	72.3	40.2	28.1	18.6
Abhalone	3.9	27.5	0.6	3.0
Sea urchin	1.9	15.8	2.1	19.8
Ego (seaweed, a red sea algae) *Campylaephora hynaeoides*), a material of agar agar	13.6	65.1	1.1	9.8
Mozuku (a seaweed, a brown algae	73.9	25.1	52.0	21.8
Sea cucumber	7.1	3.2	11.8	6.9
Crabs	468.4	70.5	501.3	72.4
Other	300.2	125.6	321.5	109.1
Total	**3 568.4**	**1 796.8**	**2 810.9**	**1 430.5**

take part in seminars and study meetings to enhance their understanding of the fisheries resources and other related matters.

(ii) Enhancement (propagation) and conservation of resources: The SFM FCA provides guidance to its members to culture salmon for stock enhancement. Hatching of hirame is also made popular among the members.

(iii) Management of fishing ground: To deter and prevent poaching (illegal fishing), voluntary patrols are routinely undertaken on rotation system by the member-fishers. Meetings are held regularly to coordinate the interest of the member-fishers engaged in fishing rights fisheries. Particularly, in view of the importance of observing (and complying with) the Prefectural regulations concerning fishing rights, the FCA has made efforts to ensure that bottom gill net (sokotate ami), small set net (kogata teichi ami) and other gear are set in such a manner that they do not violate the regulations. These activities are termed as 'management activities'.

(iv) Fisheries resource management: In order to enhance reproductive power of sazae (topshell) and uni (sea urchin), the FCA has set much stricter regulations than the Prefecture's regulations on voluntary basis. In addition to these voluntary restrictions concerning fishing time and gear, fishers have also agreed to implement total allowable catch limits and to improve the health of the fish stocks.

(v) Consultancy and guidance on improvement of fisheries business: The FCA provides secretarial services for 'Shinkokai' (a voluntary association established by 110 member-fishers) and Youth Group. 'Shinkokai', implies 'Promotion Association' and is engaged in setting up of a substratum on the sea bottom for arrow squid spawning; intermediate culture, tagging and releasing of Soi (or Kitsunemabaru, a rockfish: *Sebastes vulpes*); and releasing/ stocking of sea cucumber. The FCA has also organized workshops and meetings for member-fishers to educate them about tax related issues and measures, and for dealing with fisheries business management. The FCA is now experimenting with on board processing of arrow squid to improve its quality and to gain better market share.

(vi) Safety at sea: The FCA works for the promotion of use of lifejacket by all member-fishers to prevent marine accidents/ disasters during fishing operations.

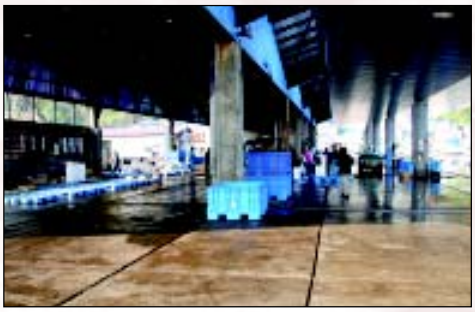
(vii) Improving livelihoods: The FCA provided financial as well as other assistance for cleaning and improving environment; promotion of fish consumption among the younger generation by holding temporary 'Fish Cooking Classes' in junior high schools. The FCA also provides support to Sawade Women's Group in Iwasaki branch area for their efforts to produce 'toba (dried flesh of salmon)' from carcasses of salmon after the eggs are removed for hatchery purpose. The carcass after eggs are removed and the product is known as 'Hocchare', which has a market value. Therefore, the experimentation for value addition is expected to be rewarding. Further, the FCA has also subsidized the cost of knives and material for fishing.

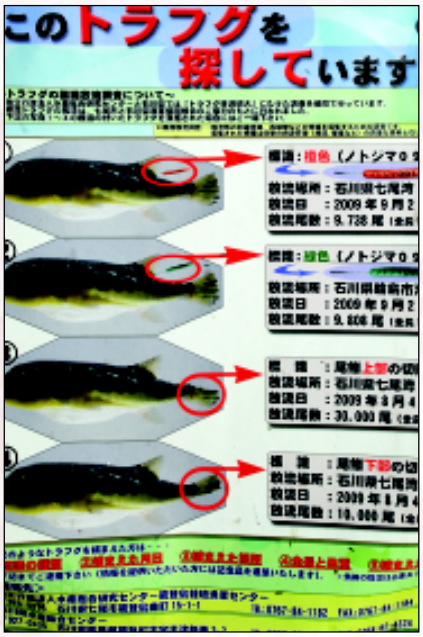
(viii) Hatchery: The FCA operates a salmon hatchery. A total of 6.3 million juvenile salmon were released/ stocked in the Sasanai River (in the Iwasaki branch area).

(ix) Mutual insurance: The FCA actively promotes fisheries insurance and fishing vessel insurance. Further, workers accident compensation insurance is also promoted.

4.0 Fisheries Resource Management

Reason for managing resources: Fishing is the main stay of Shin Fukaura Machi area. However, the industry is affected by various issues. As the stocks of important species are declining, the catch is also going down. In addition, jelly fish (*Nemopilema nomurai*) infestation is damaging the fishing gear. These issues are further accentuated by the ongoing economic recession coupled with inflationary pressure on fisheries inputs like fuel and a sluggish fish market. Resultantly, member-fishers' businesses





Activities at Shin Fukaura Machi FCA

are suffering. Through the fisheries resource management, the FCA is trying to enhance fish stocks to improve their catchability and landing and also to ensure better prices for the catch by ensuring their size and quality.

Resource management measures applied: One of the major types of fisheries in Shin Fukaura Machi area is set net fisheries, which is an environment- friendly and safe practice. It is known as *Eco Na Gyoho* or 'an ecologically acceptable fishing method' in Japan. The set net fishery is also important in providing employment opportunities in the local area. With regard to fisheries resource management, the SFM FCA is promoting enlargement of the mesh size of fishing net. This is intended to avoid catching small size fish and improving recruitment of the stocks.

In areas facing the Sea of Japan, one of the main species is salmon. Therefore, the FCA is taking measures to enhance the resources by releasing/ stocking juveniles in the open waters. It is expected that this stocking will improve the salmon population and the homing rate will also improve. During 2008, 1 055 brood stock (female salmon with matured eggs) were delivered to Akaishi Gawa (Akaishi River) Salmon Hatchery with cooperation from the set net fisher-members. The hatched out salmon were then brought to the intermediate culture facility where they become smolt at about 5 cm in body length (BL). After raising them to about 10 cm in BL, the smolt were then released into the sea. This intermediate culture was subsidized from the Aomori Prefectural Fisheries Research Institute under one of its experimental projects.

Hirame, or bastard halibut (*Paralichthys olivaceus*), is designated as a representative fish species of Aomori Prefecture. In Aomori Prefecture, the Aomori Prefectural Fish Farming Association is engaged in hatching of Hirame and distribution of its juveniles to FCAs engaged in Hirame fishing within the Prefecture. In 2008, the total number of Hirame juvenile produced and distributed to FCAs in the Prefecture was 2.1 million. A total of 155 000 juvenile (95 000 juvenile from Oodose branch, 20 000 from Henashi branch and 40 000 juvenile from Iwasaki branch respectively) of 6 cm in body length were released in the sea to enhance the stock during 2008. For this programme, fishers who catch Hirame are required to contribute 5 percent of their value of catch to the FCA. The FCA deposits their total collection to the association to cover the cost of the programme. This system is called as 'Beneficiaries-Pay-Principle'.

In addition, the fisheries regulations of Aomori Prefectural government requires that all the fishers within the Prefecture should release Hirame back to the sea if they are < 35 mm in BL. The FCA controls mesh size and fishing period for Hirame and flatfish to adhere to such requirements. Minimum size restrictions are also applied to such sedentary species such as awabi (abalone) and sazae (topshell).

Concerns:

- There is a perennial conflict between coastal fishers and offshore fishers. In spite of many efforts, the FCA is yet to reach mutually acceptable solutions for both the parties.
- Intervention of administrative authorities is necessary in such cases where member-fishers of FCA cannot reach an agreement as the parties have different and often conflicting interests. Some mutually acceptable solution is necessary to end this conflict. A clear-cut zoning for the two groups may be a possible solution.
- There are inconsistencies between the licenses approved by the Minister of Agriculture, Forestry and Fisheries and those by the Governor of the Prefecture. It is necessary that such inconsistencies are rectified to pave the way for sustainable fishery, particularly for the small-scale fisher community of Shin Fukaura Machi in Aomori Prefecture who totally depend on fisheries for their living.

Annexure 10

Speech of Mr Shoji Uemura, President, Aomori-Ken Gyoren

First of all, I would like to extend my heart-felt welcome to all of you to Aomori. We at the Aomori-Ken Gyoren (Aomori Prefectural Federation of Fisheries Cooperative Associations) are very glad that you decided to visit Aomori Prefecture during your Phase Two Study Visit to Japan. We are honoured by your visit and we hope that your visit to this Prefecture would be useful. The present Training Project was initiated by the International Cooperative Fisheries Organization (ICFO), when I was the chairman of the Organization. I am happy to note that Indonesia is also included in the Project.

We in the fishery sector have many common problems, some created by ourselves and some by others. Resource degradation and other environmental issues including the likely impacts of global warming are becoming major challenges before us and they need to be addressed on priority basis.

When you were visiting Shin Fukaura Machi Fisheries Co-operative Association yesterday, I was in the same area inspecting the damages caused by the giant jellyfish (*Nemopilema nomurai*) to fisheries in the set net area off Fukaura Machi (Fukaura Town) together with the FCA representatives, Fishery Agency and local government officials. The local Newspaper, Tou-Ou-Nippo (The North-East Honshu Island Daily Newspaper) has also reported on the damages caused by the jellyfish in the area.

I have visited your beautiful country to take part in the general meeting of the ICFO and found that in Indonesia too, you have many problems. Fisheries resource management is one of the major problems in your country and I hope some of the lessons learnt under this Project will be of help in addressing the issues of fisheries management in Indonesia.

As president of Aomori-Ken Gyoren, I have ensured that your visit to Aomori is as productive as possible. In this regard, I have also requested by staff to arrange your field visits and meetings in the best possible manner. I do hope that all of you will enjoy the field visits and the lectures and engage in stimulating discussions.

Let me also share with you that Aomori Prefecture is not only famous for its hot springs, good food and drinks but also for its friendly and good-hearted people. Please do enjoy your stay in Aomori and take with you beautiful memories of this Prefecture and your Japanese friends. I hope to see you again either in Japan or in Indonesia. In case you have chance to visit Japan again, please don't miss to visit Aomori.

Lastly, I do hope that this Training Project will be able to contribute to the sustainable development of fisheries in Indonesia.

Thank you very much!

Annexure 11

Present state of fisheries resource management in Aomori Prefecture[1]

Aomori Prefecture

Aomori Prefecture is located in the northernmost part of Honshu Island in Japan. It is surrounded by the Sea of Japan to the west, Tsugaru Strait to the north and Pacific Ocean to the east. To its north lies the Mutsu Bay. The fishing grounds of Aomori Prefecture are highly productive due to interplay of several warm and cold sea currents. The Tsushima Current (a warm current) that flows to the north in the Sea of Japan is diverted in Tsugaru Strait to form Tsugaru Warm Current (TWC). The TWC runs down along the coast of Honshu Island to the south in the Pacific Ocean and meets with Oyashio (a cold current) from the north and Kuroshio (a warm current) from the south, resulting in high production of phyto and zooplankton. This mixture of warm and cold currents results in highly productive fishing grounds around the Aomori Prefecture.

Fisheries of Aomori Prefecture

In 2007, the total fish production in Aomori Prefecture was estimated at 258 000 tons, which is the fourth highest in Japan after Hokkaido, Miyagi Prefecture and Nagasaki Prefecture. Various fish species, such as Japanese common squid, tunas, yellowfin and mackerel, etc migrate to this Prefecture together with the warm Tsushima current in the Sea of Japan. Other species such as salmon, cod and 'hokkae' (Atka mackerel) migrate down with the cold Oyashio current in the Pacific Ocean. The Prefecture is also famous for scallop production. Scallop culture is carried out in the Mutsu Bay, which is protected from the rough seas by the surrounding land areas and is ideal for scallop culture. Owing to such natural wealth, Aomori Prefecture is one of the best Prefectures in Japan in terms of fisheries production.

The major production in the Prefecture are scallops (100 000t), Japanese common squid (80 000 t) and mackerel (50 000 t) in terms of quantity. In terms of value, squid (16 billion Yen) fetches the highest value followed by scallops and sea cucumber. Japanese common squid is mainly caught by jigging method.

Fisheries Resource Recovery Plan in Aomori Prefecture

The Fisheries Resource Recovery Plan (FRRP) has been formulated with the cooperation of the concerned stakeholders (fishers, Prefectural government and the Fishery Agency). It is designed to realize a stable management of fisheries as well as stable supply of fish and fishery products. There are two types of FRRP: 'Wide Area FRRP' - prepared by the Fishery Agency and the 'Prefectural Area FRRP' prepared by the Prefectural government.

Wide Area FRRP: This FRRP covers offshore species such as Magarei (*Limanda* sp.) and Hatahata (sandfish) in northern part of the Sea of Japan; Pacific stock of mackerel; spawning stock of cod of Mutsu Bay and Alaska Pollock of the northern Sea of Japan. The offshore species FRRP was announced on 10 March 2003 and approved on 3 July 2003. The FRRP of Magarei and Hatahata was announced on 1 July 2003 and approved on 30 September 2003. The FRRP of Pacific stock of mackerel was announced on 23 October 2003 and approved on 7 November 2003. The FRRP of spawning stock of cod was announced on 29 March 2007 and approved on 28 August 2007 and the FRRP of Alaska was announced on 29 March 2007 and approved on 13 September 2007.

[1] *Mr Akira Aburano, Fisheries Promotion Section, Aomori Prefectural Government, Aomori, Japan.*

Prefectural Area FRRP: The Prefectural Area FRRP was started on 27 November 2008 for gold-eye rockfish, sand lance and bastard halibut. The FRRP of Usumebaru (gold-eye-rockfish) was announced on 28 March 2007, and approved on 27 November 2007. The FRRP of Ikanago (sand lance) was announced on 28 March 2007 and approved on 27 November 2007 and the FRRP of Hirame (bastard halibut) was announced on 24 March, 2008 and approved on 28 July 2008.

Impact of FRRP on targeted fisheries

Usumebaru: Usumebaru is a rockfish and quite popular in Japan. It commands a price of about 1500 Yen/ kg on an average. The flesh of the fish is white and is a delicacy. In the late 1970s, approximately 600 to 1 000 tons were caught in Sea of Japan. However, the production decreased thereafter and in 2008 about 331 tons were harvested. The resource management measures specifically administered by Aomori Prefectural Government include restrictions on duration of fishing period, time of fishing operations and fishing gear (public resource management measures) and restrictions on trading of small sized fish at the wholesale market and setting of non-fishing days.

Ikanago: Ikanago grows to about 25 cm in body length (BL). Recent catches are those of 2 to 5 cm in BL. Since Ikanago is eaten as 'Shirasu' (juvenile fish) or processed as 'tsukudani'. The smaller the size of the fish, the higher the price it fetches. In 1973, the production of Ikanago in Aomori Prefecture was more than 10 000 tonnes. However, after 1980, the production declined to 1 000 tonnes. In spite of the FRRP, production continued to decline and reached 180 tonnes in 2008. The resource management measures administered by the Aomori Prefectural Government include restrictions on duration of fishing period, time of fishing operations and fishing gear (public resource management measures), abstention from fishing 'L' size fish and suspension of fishing.

Hirame: In Aomori Prefecture, Hirame is caught round the year from shallow water areas (about 100 m in depth). In 1988, Hirame was designated as 'Aomori Prefecture's fish'. The peak production of Hirame in Aomori Prefecture was 1 807 tonnes in 2000. Though the production decreased thereafter, it started to increase from 2005. The production in 2008 was 1 176 tonnes. The resource management measures administered by the Prefectural Government include restrictions on duration of fishing period, fishing areas and fishing gear; releasing of small size fish, introduction of close season and restrictions on some fishing gear. As of now, fishers voluntarily release Hirame less than 35 mm in BL. The minimum mesh size of gill net has been fixed at 182 mm and for trawl nets 90 mm. Further, use of trammel net has been prohibited in this fishery.

In addition, Hirame farming was also initiated in 1990 for stock enhancement of the species. Every year, about 2 million juveniles of Hirame are released/ stocked in Aomori Prefecture to enhance the stock. In 2007, 23 700 00 juveniles of Hirame were released in waters around Aomori Prefecture. As a result of these efforts, Hirame landings have increased from 200 tons in 1990 to 1 000 tons per year today.

Conclusion

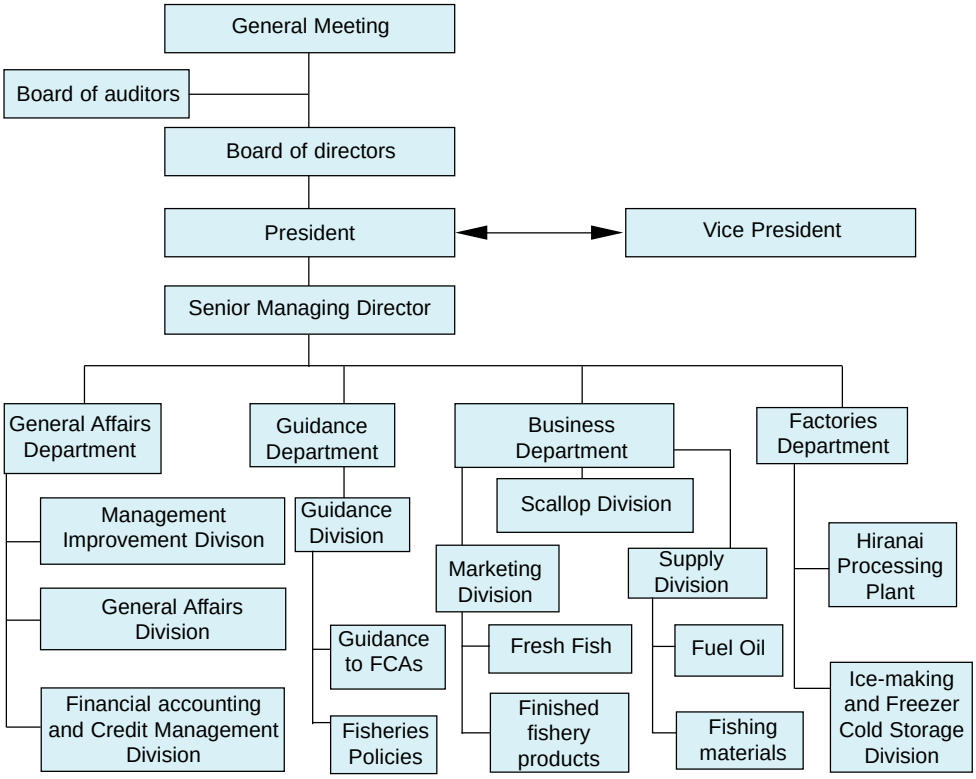
The experience of Aomori Prefecture shows that measures can be taken by the fishers with the support from the government to manage fish stocks sustainably. There is no definite roadmap for success and different fisheries may experience different outcomes. However, in the long run such measures are expected to improve both the fish stocks and fisheries economy of the region.

Annexure 12

Organization and activities of Aomori-Ken Gyoren with particular emphasis on promotion of community-based fisheries resource management[1]

1.0 Organization and activities of Aomori-Ken Gyoren with particular emphasis on promotion of CBFRM[2]

Aomori-Ken Gyoren or the Aomori Prefecture Federation of Fisheries Cooperative Associations has four departments namely, (i): Business Department, (ii) Factories Department (Processing and Sales Outlet Department), (iii) Guidance Department and (iv) General Affairs Department. As of 31 March, 2009, the organization has 54 member FCAs. The total number of member-fishers belonging to FCAs in Aomori Prefecture is 14 000. The total amount of share capital of Aomori-Ken Gyoren is 529 650 000 Yen, contributed by a total of 10 593 units (10 568 unit held by full-fledged, namely, voting right holder, members, and the rest 25 unit by associate members). The number of board of directors is 12, of which one is the full time director. The total number of employees is 77. The organizational structure of Aomori-Ken Gyoren is shown in Figure 1.



Aomori-Ken Gyoren was established on 26 September, 1949

Figure 1: Organizational structure of Aomori-Ken Gyoren

[1] *Prepared by Mr By Masanori Kumaki, Chief, Guidance Section, Aomori-Ken Gyoren.*

[2] *The following is a translated version of excerpt from the Annual Business Report of Aomori-Ken Gyoren in FY 2008 (April 1, 2008 – 31 March, 2009).*

2.0 Businesses Department

The Business Department of Aomori-Ken Gyoren has three divisions, namely, (i) Supply Division, (ii) Marketing Division and (iii) Scallop Division.

(i) Supply Division – This division is associated with selling of fuel and fishing gear. The total sales of the division have increased from about 3 ('000) million yen in 2004 to over 4 ('000) million yen in 2008 (Table 1).

Table 1: Business of supply division, 2004-08

Business	Sales (in 1000 Yen)				
	2004	2005	2006	2007	2008
Fuel oil*	1 824 042	2 534 417	2 852 699	2 739 523	2 898 196
Fishing and livelihood materials**	1 447 258	1 417 378	1 399 279	1 525 545	1 358 918
Total	3 271 300	3 951 795	4 251 978	4 265 068	4 257 114

**Fuel oil includes marine diesel oil, light oil, gasoline, lubricant oil, and others.*

*** Fishing and livelihood materials include fishing ropes and nets, ships machinery and chandlery, point, rubber coats, fish boxes, wrapping materials and others.*

(ii) Marketing Division – This division is involved in marketing of fresh fish, including shellfishes, seaweed and others. The commission at local fish wholesale market is 2 percent. There are 8 such markets in Aomori Prefecture, designated by the Governor as wholesale markets. The commission in other fish markets and in joint marketing at the fish market of FCA is 1.5 percent. In joint marketing, the FCA provides fish market facility and collects fish from its members where as the Prefectural Federation of FCAs ensures collection of bills. For live fish, the commission is 2~2.5 percent. The commission of joint marketing at the Federations Joint Marketing Facility is 1.5~3.5 percent and this facility deals with the products for which there are very few buyers at FCA level. Tables 2 -4 give more details on fish marketing activity of the Aomori-Ken Gyoren.

Marketing of finished fishery products: Sales of finished fishery product during the period 2004-08 have declined considerably in quantity terms. In 2004, 972 tons finished fishery product were sold. In 2008 it declined to 409 tons. The sales value also

Table 2: Revenue of the marketing division

Species	Transaction		Commission received (Yen)
	Quantity (Kg)	Value (Yen)	
Sea bream	273 160	191 815 867	1.5 ~2.0%
Japanese common squid	17 680 009	2 476 699 355	
Arrow squid	994 608	1 136 843 275	
Hirame (Bastard halibut)	458 761	527 807 305	
Karei (Flatfish)	629 005	406 224 870	
Buri (Yellowtail)	1 379 551	535 203 583	
Tunas	1 079 589	3 068 111 530	
Salmon	2 313 798	921 216 974	
Trout	234 800	254 276 576	
Mebaru (*Sebastes sp*)	552 422	595 787 431	
Sea urchin	393 487	413 111 641	
Octopus	1 399 187	673 108 547	
Abalone	25 490	154 018 770	
Shijimi (short-necked clam)	690 488	588 267 281	
Cod	529 072	269 382 302	
Frozen squid	406 880	89 543 399	1.7 %
Live fish	448 659	570 297 875	2.0 ~2.5 %
Other	7 597 738	1 812 189 748	1.5 ~ 2.0%
Marketed at Joint Market	1 082 168	1 070 911 708	1.5 ~ 3.5%
Total	**38 168 872**	**17 554 818 037**	**313 515 317**

Table 3: Breakdown of fish marketing by categories

Quantity in kg and value in Yen

Transaction place and/ or category	Transaction		Commission received
	Quantity	Value	
Local area Fish Wholesale Market (= 8 designated fish wholesale markets in Aomori Prefecture)	23 651 113	9 356 649 178	2.0 %
FCA fish market (joint marketing)	12 986 932	6 556 959 276	1.5 %
Live fishes	448 659	570 297 875	2.0 ~ 2.5 %
Federation's joint marketing facility	1 082 168	1 070 911 708	1.5 ~ 3.5 %
Total	38 168 872	17 554 818 037	313 515 317

Table 4: Changes in transactions of fresh fishes by year

(Quantity in kg and value in Yen)

	2004		2005		2006		2007		2008	
	Q	V	Q	V	Q	V	Q	V	Q	V
Japanese common squid	20 087	5 982 901	19 204	5 186 276	11 972	3768 124	24 367	5 915 471	17 685	4 279 030
Arrow squid	977	1 186 043	896	1 073 528	1 182	1 226 880	1 750	1 607 123	998	1 140 903
Hirame (Bastard halibut)	494	916 550	438	574 884	710	879 764	616	646 553	778	1 027 352
Salmon	4 417	786 985	2 752	616 830	3 522	1 138 312	2 552	824 808	2 317	922 658
Mebaru (*Sebastes sp*)	450	598 350	400	528 931	364	478 701	396	516 801	555	597 133
Octopus	1 379	565 399	1 396	755 299	1 634	884 682	1 590	832 406	1 410	682 394
Other	12 237	7 508 093	14 163	8 325 376	11 841	9 535 610	12 512	10 310 394	14 586	8 934 467
Total	40 041	17 544 321	39 249	17 061 124	31 225	17 912 073	43 783	20 653 556	38 329	17 583 937

Note: 1) Q= Quantity, V = Value; 2) Hirame includes that of live fish.

Table 5: Sales of finished fishery products, 2008

Product	Transaction		Commission received
	Quantity (Kg)	Value (Yen)	
'Niboshi Kounago' (Boiled and dried sand lance)	23 199	45 642 803	1.5 ~ 2.0%
Grilled and dried sardine	3 352	18 149 505	1.5%
Kelp	249 731	264 825 801	"
'Ego (red algae)' (*Campylaephora hypnaeoides*)	65 063	277 062 325	"
'Tengusa' (red algae) (*Gelidium crinale*)	17 299	10 074 855	"
'Funori' (red algae) (*Gloiopeltis sp*)	29 453	45 319 240	"
Other	20 759	15 015 454	1.5 ~ 2.0%
Total	**408 856**	**676 089 983**	**10 141 247 Yen**

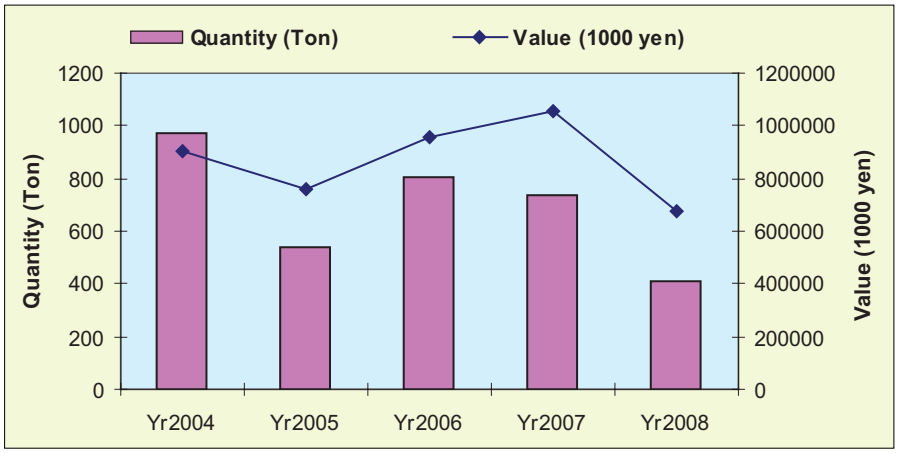


Figure 2: Change in sales of finished fishery product

correspondingly declined from 901 million Yen to 676 million Yen during the period (Figure 2 on facing page). Kelp, red algae (various species) and boiled and dried sand lance are the fast moving products of the Federation. The total sale of red algae was about 330 million Yen and kelp 264 million Yen in 2008. Sand lance fetched a value of 45 million Yen during 2008. In aggregate, Aomori-Ken Gyoren has sold about 408 tons of finished fishery products valued at about 676 million Yen and earned a commission of 10 million Yen during 2008 (Table 5 on facing page).

(iii) Scallops Division

Total sales for scallop in the year 2008 was 78 million kg in quantity and 8 996 million Yen in value terms. During the year Aomori-Ken Gyoren received a commission of 170 million Yen from scallop marketing (Table 6).

Table 6: Details of scallop marketing by Aomori-Ken Gyoren

Products		Transaction		Commission received
		Quantity in Kg	Value in Yen	
Seigal (= Adult scallops)	1) Cultured by "Kago" (lantern net) culture method	32 141 941	3 423 494 657	1.9%
	2) Cultured by "mimizuri" (hanging) culture method	25 855 328	3 528 925 507	
	3) Cultured by "jimaki" method (scattering baby scallops to the sea bottom)	1 144 098	162 241 924	
	Sub-total	59 141 367	7 114 662 088	
Han-seigai" (= Half-adult scallops)		18 673 546	1 826 332 370	1.9%
"Chigai" (=Baby scallops		192 160	25 987 400	1.0%
Total		**78 007 073**	**8 966 981 858**	**170 136 309 Yen**

Note: (i) "Seigai" (adult scallops) commonly refers to those scallops of larger than 10 cm in shell width (diameter), and are generally older than 2 years after fertilization in Mutsu Bay; (ii) "Han-seigai" (adult scallops) refers to those scallops of about 6 cm in shell width (diameter) of one year old after fertilization; (iii) "Chigai" (baby scallops) refers to those of about 3 cm in shell width (diameter) which are 9 to 10 months old after fertilization; (iv) Shellfish poisoning sometimes occurs. There are two types of shellfish poisoning: one is diarrheic shellfish poisoning and the other is paralytic shell fish poisoning. Both poisonings are mainly caused by phytoplankton belonging to dinoflagellate. The shellfish poisoning observed in Mutsu Bay is that of diarrheic, and is caused mainly by Dinophysis etc, while that observed in Hokkaido is mostly that of paralytic, and is caused by Gymnodinium and Alexandrium, etc. The poison is mostly found in the mid-gut gland ("Chucho-sen").

Trade practices in scallop trade: In 2008, Aomori-Ken Gyoren issued "Safety Proof Label", for counter value to shippers of scallops. For this service, a total income of 17 280 900 Yen was received. However, the amount is almost the same amount as incurred for issuing the label. The Aomori Prefectural government has set out guidelines on safety of scallops, and as long as mid-gut gland is removed and safety of the product confirmed by competent Prefectural government authority, such scallops are allowed to be marketed provided that they are accompanied by documents which prove the removal of mid-gut gland in accordance with the Prefectural government regulations. Thus, the documents contain the following details: (i) the fishing ground and the date when the scallops were harvested; (ii) the scallops were processed at the facility approved by the Prefectural government; and (iii) the mid-gut gland of the scallops was removed in accordance with the regulations of the Prefectural government.

3.0 Factories Department

Under the Factories Department (Processing & Sales Outlet Department), the Aomori-Ken Gyoren has an Ice-making and Freezer Cold Storage Division and Hiranai Processing Plant.

Ice-making and Freezer Cold Storage Division: Aomori-Ken Gyoren has an in-house ice factory with a production capacity of 20 tons a day and a storage capacity of 545 tons. During 2008, Aomori-Ken Gyoren produced 5 752.3 tons of ice valued at 31 143 679 Yen. The total sale of ice (including previous stock and excluding inventory) was 8 244 tons valued at 84 386 316 Yen. In addition, Aomori-Ken Gyoren purchased 2 578 tons of ice from outside and sold at 37 903 243 Yen. In aggregate, during the year 2008, Aomori-Ken Gyoren sold 8 330.8 tons of ice valued at 69 946 913 Yen. The organization has freezing ability of 16.8 ton/ day and cold storage capacity of 2 555 tons. During 2008, the organization earned 44.4 million Yen as storing fee, receiving and shipping fee and freezing fee. The details of freezing and cold storage business carried out by the organization are given in Table 7. There is a gradual increase in the transaction in ice and freezing during 2004-08. The total value of transaction has increased from 125 million Yen in 2004 to 152 million Yen in 2007. However, it declined to 128 million Yen in 2008 (Table 8).

Hiranai Processing Plant:

The sales of Hiranai Processing Plant in 2008 was 1 038 862 Yen. The products include (i) 'Sakamushi Hotate' (scallops seasoned with sake, etc and steamed); (ii) 'Mayonnaise Hotate' (scallops in mayonnaise); (iii) 'Boiled Hokate' (boiled scallops); and (iv) 'Nama Hotate Kaibashira' (abductor muscle of raw scallops). In addition, some of the products marketed by the organization also include those purchased from outside sources.

Table 7: Freezing and cold storage business of Aomori-Ken Gyoren

	Particulars in ton				Storing fee	Receiving & shipping fee	Freezing fee
	Carry-over from 2007	Received in 2008	Shipped in 2008	Inventory as at the end of 2008			
"Chikuwa"	19.3	673.4	672.5	20.2	3 762 724	2 506 054	6 133 817
Squid	1.8	7.2	5.5	3.5	204 176	32 258	0
Mackerel	17.0	33.8	21.9	28.9	1 477 823	174 817	0
Scallop	48.9	1 212.1	1 199.2	61.8	17 722 175	3m980 121	0
Other fishes	56.6	244.4	209.1	91.9	5 767 605	1 171 142	1 496 688
Total	**143.6**	**2 170.9**	**2 108.2**	**206.3**	**28 934 503**	**7 864 392**	**7 630 505**

Table 8: Changes in the value transaction of Ice-making and Freezer Cold Storage Division by year

Service	Value (1000 Yen)				
	2004	2005	2006	2007	2008
Supply of ice	76 418	67 868	70 397	105 899	84 386
Storing fee	34 951	34 212	33 471	31 996	28 935
Receiving & shipping fee	7 062	7 804	7 656	7 803	7 864
Freezing fee	6 683	7 626	7 765	7 259	7 631
Total	**125 114**	**117 510**	**119 289**	**152 957**	**128 816**

4.0 Processing & Sales Outlet Department

Processing Division: A total of 119 765.37 kg of the following processed products were produced and marketed during 2008. The total quantity sold was valued at 238 961 367 Yen. The products dealt with at Processing Division are (i) dried scallop abductor muscle; (ii) dried scallops 'Hoshi Shiro'; (iii) dried scallop 'Hoshi Himo'; (iv) salted Salmon 'Aramaki zake'; (v) dressed salmon; (vi) filleted salmon and (vii) salted sea cucumber. The changes of annual marketing of Processing Division are shown in Figure 3.

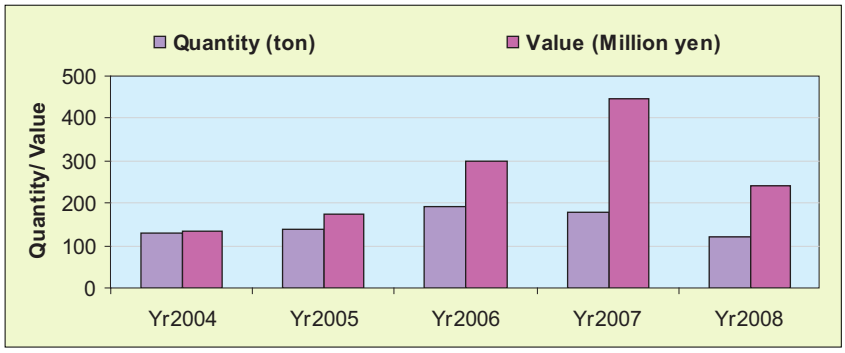


Figure 3: Change in the annual transactions of Processing Division of Aomori-Ken Gyoren

The reason for higher sales in 2007 was because of the marketing of larger quantities of salted sea cucumber. In 2007, 20 556 kg (334 054 000 Yen) of salted sea cucumber (75% of the total of 447 170 000 Yen) was marketed by the organization. The Sales Outlet Division of Aomori-Ken Gyoren has its sales outlet shops within its office and in addition, within the building of 'ASPM' and Aomori Airport. The total amount sold at the sales outlet shops in 2008 were 101 950 870 Yen. The products sold at the shops were (i) live scallops; (ii) Hoshi Kaibashira (dried abductor muscles of scallop); (iii) canned scallops and other processed scallop products; (iv) salted salmon and other processed salmon products; (v) processed products of squid, sea urchin, herring and cod and (vi) sea weed products, etc.

5.0 Guidance Department

The main activities carried out by the Guidance Department are as follows.

Fisheries policy related activities:

- *Coping with increased price of fuel oil;*
- *Taking appropriate counter measures against harmful marine organisms, such as giant jelly fish;*
- *Ensuring smooth financing to help management of fisheries by easing and relaxing loan conditions as well as by substantiating loan for the guarantee system;*
- *Taking appropriate counter measures, by lobbying, requesting for surveys to damages and petitions for help when damages to fisheries occur due to low atmospheric pressure;*
- *Negotiating for fisheries compensation when fisheries suffer damages from marine accidents such as by grounding, collision, leakage of harmful chemicals, etc by vessels of both domestic and foreign countries;*
- *Initiating appropriate measures to prevent poaching (illegal fishing). For this purpose, close cooperation has been maintained with the Maritime Safety Agency; and*


尾肉
切り落とし

- *Taking initiatives in holding meetings between coastal fishers and offshore fishers for finding mutually acceptable solutions for problems such as ensuring safety of vessels (collisions between the vessels, etc), conflicts over fishing ground, fishing period, fishing gear, resources, fish prices, etc.*

Activities related to conservation of fishing ground:

- *Removal of marine debris and other material, which are illegally discarded by foreign vessels;*
- *Surveillance for safety from low level radioactive waste material after decommissioning of the 'Nuclear Vessel Mutsu'; and*
- *Promotion of tree planting movement (which is implemented by FCA member fishers residing in 15 municipalities of Aomori Prefecture, etc).*

Activities intended to help improve management of FCAs:

- *Consultation and guidance on business management and auditing of FCAs, and activities for promoting amalgamation of FCAs.*

Activities for member fishers' improvement of technical expertise for management of fisheries and production:

- *Organizing technical meetings for improvement of community-based fisheries resource management by holding Fishers Consultation Session, which is an ad hoc group established by FCA chairperson/ presidents;*
- *Guidance on optimum level of stocking density with regard to scallop culture (introduction and guidance for implementation of 'TASC'); and*
- *Promotion of harvest insurance to help ensure stable business of fisheries and aquaculture.*

Activities for prevention of marine accidents and for marine rescue operations:

- *Organization of seminars and workshops to help reduce fishers' accidents during fishing operations; and*
- *Promotion of use of life jacket, etc.*

Promotion of FCA movement for revitalizing fishing communities: Efforts are being made to promote FCA movement by organizing Aomori Prefecture Fishers' Representatives meeting. The meetings are intended to help increase awareness on cooperation among FCA member-fishers. Through this movement, solidarity and unity among them is expected to be strengthened, leading to improvement in their socio-economic status.

Activities of Aomori-Ken Gyoren related to promotion of CBFRM: Starting from 1989, Aomori-Ken Gyoren has promoted CBFRM in the Prefecture by participating in the 'Hirame (bastard halibut or *Paralichthys olivaceus*)' Resource Management under the Prefectural government's subsidized Coastal Area Stock Enhancement Program, Wide Area Migratory Stock Management Program, etc. Currently, the 'Multi-species Stock Management Program' is being promoted. As a result, catches of Hirame as well as 'Mizudako (Octopus, *Paroctopus dofleini*)' have increased and stabilized. Such activities have also helped increase awareness of fishers on the importance of stock management.

Hirame is also designated as the fish of Aomori Prefecture. It is a fish highly prized fish due to its taste and fetches good price. Aomori Prefecture is number one in terms of Hirame production in Japan. Landings of Hirame in Aomori Prefecture decreased to as low as 200 tons in 1989, which led to the initiation of CBFRM in the Prefecture. In this regard, the Federation's activities included the following preparation of Hirame stock management plan and its implementation. Regional consultation meetings were

Table 9: Balance Sheet of Aomori-Ken Gyoren (as of 31 March, 2009)

Asset	Amount	Liabilities & Net Worth	Amount
1. Current Assets	385 097 723	1. Current Liabilities	313 166 779
Cash	0	Bills payable	311 347 524
Deposit	78 386 740	Other current liabilities	1 819 255
Bills receivable	261 590 149	Total of Liabilities	313 166 779
Articles inventoried	44 172 864		
Other assets	937 970	1. Capital	92 500 000
2. Fixed Assets	0	2 Surplus Profit	20 579 056
Tangible fixed assets	0	(1) current term surplus	20 579 056
Intangible fixed assets	0	Total of Net Capital	71 920 944
Other fixed assets	0		
Total of Assets	385 087 723	Total of Liabilities and Net Worth	385 087 723

Table 10: Profit and Loss Statement in FY 2007 (June 2, 2008 – March 31, 2009)

Account item	Amount	Account item	Amount
Total amount of Sales	1 250 750 296	Income from non-businesses	190 993
Total amount of cost of Sales	1 140 368 767	Miscellaneous income	100 400
Total amount of Profit from Businesses	110 381 529	Interest received	90 593
Miscellaneous income from businesses	9 452 570	Non-business expenses	0
Business Expenses	79 025 048	Interest paid	0
Personnel expenses	18 376 277	Profit from management	20 444 056
Material expenses	13 231 317	Special profit	0
Marketing expenses	13 231 317	Special loss	0
Miscellaneous expenses	418 027	Current term profit before tax	22 444 056
Gross business profit	40 809 051	Corporate tax & Residential tax	135 000
Business Management expenses	61 444	Current term net profit	20 579 056
Business operation profit	20 635 049		

conducted and for this purpose the Prefecture was divided into 3 blocks (=regions), namely, the Sea of Japan, Mutsu Bay, and Pacific Ocean blocks. In each block, members of the consultation meeting consisted of chairman/ president of FCAs in that block. The regional consultation meetings are held twice a year. The Prefectural consultation meeting on Hirame stock management is held once a year.

Major points of consultation include establishment of voluntary restriction rules on fishing of Hirame, monitoring of stock level changes and reporting thereupon and summarizing suggestions for improvement of possible measures to be adopted, etc. Such activities as voluntary use of larger mesh size and promotion of 'return-the-small Hirame back to the sea movement', in which releasing of less than 35 cm (body length) Hirame was made obligatory for the members. Extension activities at various places such as fish wholesale markets, peoples' gathering places, etc. were carried out to create mass awareness and also for soliciting people's cooperation for resource conservation.

As a result, the catch of Hirame began to increase and finally reached the 1 800 tons level in 2008, making Aomori once again as number one Prefecture in Hirame production in Japan. The reason for sticking to the 35 cm in BL was that fish larger than this will spawn. In addition to the stocks of naturally recruited (naturally spawned and hatched) Hirame, released/ stocked resources will add to the natural population. Further, the price of Hirame is lower if its size is less than 35 cm in BL. One more point that must be emphasized here is that each fisher who catches Hirame contributes certain percentage of his income as part of the budget to be used for the said program, based on 'beneficiaries-pay-principle'. This is to voluntarily contribute to the Prefectural government's program implemented by the Aomori Prefectural Fish Farming Center.

6.0 Activities for Better and Stable Fish Prices

Aomori-Ken Gyoren established 'Aomori-Ken Gyoren Fish Marketing Company' in 2008 to ensure that the fishers benefited from the marketing business.

7.0 Financial position

Aomori-Ken Gyoren has an asset of 385 million Yen and the organization earned a profit of 20 million Yen during 2007. The financial statement of the organization is provided in Tables 9 & 10 on facing page.

Annexure 13

Organization and activities of Hiranani Machi FCA with particular emphasis on community-based fisheries resource management[1]

1.0 Origin and organization

Hiranani Machi FCA (HM FCA) was established in 1970 by amalgamation by six FCAs in Hiranani Machi area. These FCAs are now operating as branch offices of HM FCA and conduct businesses such as credit, marketing, supply, etc. The HM FCA) has 7 offices (including branch offices) and direct fish sale shops. In 2000, the FCA also started operating a waste disposal facility for scallops.

During its establishment in 1970, the FCA had 1 235 members and was one of the largest FCA in Japan. Presently, the number of member-fishers is 943, of which 794 are full-fledged members. The FCA has 51 employees to look after its business and developmental activities. The organizational structure of the FCA is given in Figure 1 and Table 1 provides the details of various voluntary associations and groups established by the member-fishers.

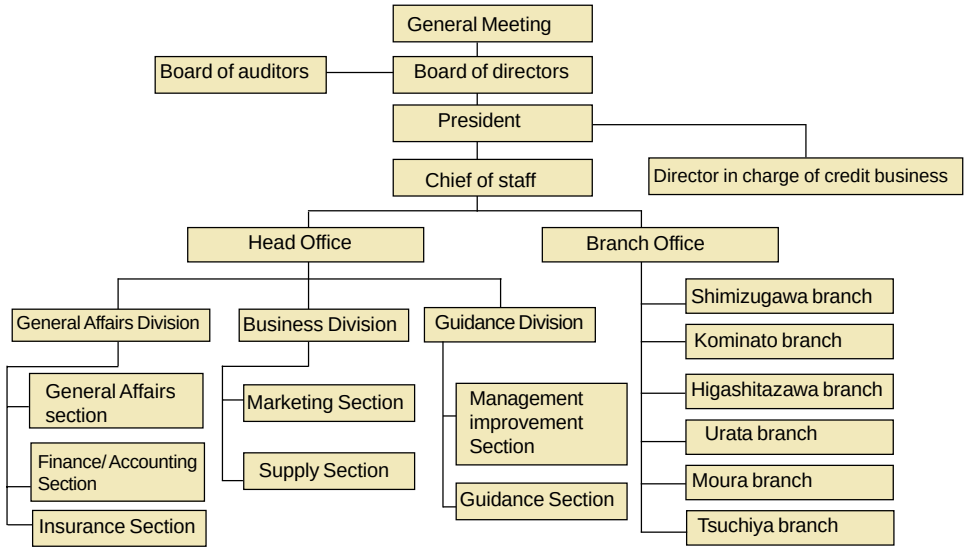


Figure 1: Organizational structure of HM FCA

Table 1: Voluntary associations/ groups established by the member-fishers of HM FCA

Name of the group	Name of the representative	Totalf affiliated member
Hiranai Machi Fisheries Study Group	Mr Ishio Goto	96
Women's Group of Hiranai Machi FCA	Ms Keiko Hosokawa	206
Hiranai Machi Fisher Youth Group Blue Color Tax Application Study Group	Mr Takenori Tojima	555
Hiranai Machi FCA Pensioners Group	Mr Chutaro Sudo	263
Recreational fisheries Group	Mr Yoshimasa Shibata	94

[1] *This document is prepared by Motokatsu Sutou, Chief of Staff, Hiranani Machi FCA, Aza Asadokoro 91-56, Ooaza Asadokoro, Hiranani Machi, Higashi Tsugaru Gun, Aomori-Ken, Japan 039-3312; Tele: (017) 755-4111; Fax: (017) 755-2792.*

The FCA has control over a coastline of 48 km facilitated with 13 ports and a common fishing right area of 3 million square meters. The total number of fishing vessels owned by member fishers is 1 162. The FCA also has about 230 million square meters of scallop aquaculture right area where 551 fishery management units, mostly family units of fishers are engaged in scallop culture. There are also 10 662 scallop culture facility units.

2.0 Business Activities

The main business activities of HM FCA are (i) credit; (ii) supply; (iii) marketing and (iv) mutual insurance. In Aomori Prefecture, HM FCA is the only local level FCA which undertakes credit business. The fiscal year of HM FCA is from January to December of each year.

(i) Credit Business: The total outstanding amount of savings by the members at the end of December 2008 was 6 310 million Yen, which declined marginally from the corresponding figures of 6 510 million Yen in December 2007. The total outstanding amount of loans extended at the end of December 2008 was 513 million Yen. Thus, the loans/savings rate is 8.1 percent. The capital ratio or equity ratio which is used to judge degree of health of FCA management is 21.74 percent.

(ii) Supply Business: The total amount of transaction in supply business in 2008 was 626.1 million Yen. Of this 68 percent or 429.4 million Yen was from supply of fuel. The FCA also transacted 137.7 million Yen of aquaculture materials, 38 million Yen of fishing materials, 2.7 million Yen of ships equipment and 17.9 million Yen of livelihood materials during 2008.

(iii) Marketing Business: The volume of transactions in the marketing business was 5 101 million Yen in 2009. It was highest in 2005, when the volume of transactions reached 7 440 million Yen. Scallop marketing business is the corner stone of HM FCA. It usually accounts for 90 to 95 percent of the value of transactions. In 2009, scallop marketing contributed 83 percent (4 283 million Yen) of the volume of transactions. The HM FCA deals with about 985 scallop products.

(iv) Mutual insurance business: The total amount of mutual insurance contract at the end of December 2008 was 15 812.5 million Yen. The total amount of insurance paid in 2008 was 195 million Yen.

Apart from these businesses, the HM FCA earned a revenue of 147 million Yen from direct fish retail shop, the 'Hotate Hiroba' or scallop plaza, which was opened in 2005.

3.0 Radio service

The HM FCA adopted a new radio system known as 'Marine Horn' from 1991 from 1 W Radio. This was the first radio service in Japan in the FCA sector.

4.0 Guidance activities

The FCA is engaged in dissemination of information through its news letter 'Kakehashi' (English - bridge); conservation of fishing grounds; resource enhancement; environmental conservation/ cleaning; management of fishing ground; consultancy on management of fisheries and aquaculture business; scallop fishing experience tour for general consumers/ citizens; scallop consumption campaign events such as sample tasting, cooking contest, etc and marketing and sample tasting of scallop cooking

5.0 Fisheries Resource Management

The FCA carries out several activities aimed at managing resources sustainably. These activities are:

(i) Waste disposal facilities: The Mustu Bay is a closed bay and the water exchange is slow. Therefore, once the area is polluted, it takes a long time to restore. Hence, it is necessary to dispose wastes that are discharged from scallop related activities, on land. It was under such necessity that Hiramai Machi (Hiranai Municipality Office) built and provided the FCA with a Waste Disposal Facility at their cost. The facility is managed by the FCA. Old scallop aquaculture lantern net, ropes, etc are categorized as industrial waste. Therefore, the FCA has established industrial waste gathering spots in various places of HM FCA area with the cooperation from member-fishers. The FCA is also using the Fishing Ground Waste Material Disposal Project of the government.

(ii) Environmental cleaning movement: In order to maintain clean fishing grounds, member-fishers are mobilized by the HM FCA to clean the beaches and fisheries related places under 'Environment Clean-up' program.

(iii) Stock enhancement: As one of the promotion activities to enhance resources, the FCA manages a salmon hatchery and release/ stocks small salmon in the rivers within the FCA area.

(iv) Joint management of sea cucumber: The FCA has started collecting fund from the member-fishers to release baby sea cucumbers in the fishing ground.

(v) Introduction of optimum scallop culture density: Due to overcrowding of scallop, culture size of scallops has become smaller and the quality is declining. Under this circumstances the FCA has started introducing allocation of optimum number of scallop aquaculture (known as TACS system) and thereby ensuring stable management of scallop aquaculture business.

(vi) Planting of trees: The FCA has initiated a programme for planting trees in the forest and land areas in cooperation with the forest cooperatives. This is expected to improve the coastal fertility.

Annexure 14

Essential factors required for empowerment and strengthening of Fishermen Cooperative Association's businesses and their management[1]

1.0 Introduction

It is important that fishers have their own organization. Indonesia has 'Fishermen's Cooperatives Law', which is almost the same as that of Fisheries Cooperative Association Law of Japan. These laws are established based on the cooperative principles of open and voluntary membership, democratic governance, limited return on equity, disposal of surplus, education of members and public in cooperative principles and cooperation between cooperatives.

From visits to eastern part of Indonesia in 2008, it is observed that the fishermen's cooperatives in Indonesia have not much developed yet except for KUDs (*Mina Koperasi Perikanan* or the Village Unit Fisheries Cooperative) in some areas. This paper describes the essential factors required for empowerment and strengthening of fishermen's cooperative's business and its management in Indonesia.

The aims of a fishermen cooperative

Fishermen's Cooperatives Law of Indonesia stipulates the aims of the cooperative towards (i) increasing the welfare of its members and their community in general and (ii) forming good economic system for the nation. However, these provisions are very abstract. It will be better if the objective/ purpose of fishermen's cooperatives are made clear to ensure that the aims of the fishermen's cooperatives are understood more clearly by each member.

Fishermen's cooperatives must be organized by the fishers and for the fishers. Community leaders and government officers must make them understand the objectives and the purposes. In order to ensure that all of them (fishers) understand the importance of the aims of fishermen's cooperatives, educational opportunities must be provided by the government or national organization of their cooperatives such as by the National Federation of Indonesian Fishermen's Cooperatives (*Induk Koperasi Perikanan Indonesia* or IKPI).

In Japan, one of the important roles of Prefecture Level Federations of Fisheries Cooperative Associations (FCAs) is to provide educational opportunities not only to the directors of the FCAs but also to employees of FCAs as well as fishing community leaders. As for education to KUD MINA employees, various training courses including courses on both theoretical and practical businesses should be made available.

Engaging in fishing operations involves various dangers; seas are not always calm. Under such situations, they need cooperation and help. Fishers are often not in economically favorable conditions, as compared to other professions because their income tends to fluctuate due to variations in the fish catches, adverse climatic conditions as well as fluctuations in the market. Here lies a reason and motivation for their getting associated and organized as an association and conducting their businesses in a collective manner.

According to some of the Japan International Cooperation Agency (JICA) papers, there are many small fishermen group activities in Indonesia. A small group of fishers in Indonesia is called *Kelompok Tani Nelayan*. Kelompoks are involved with wider range of activities such as joint marketing, mutual financing and mutual processing of fish, etc. These activities seem to be in their beginning stages of development, which

[1] *NaoyukiTao, Advisory Director, Fisheries Cooperative Management Centre Co. Ltd, Japan.*

may lead to worthwhile businesses later for fishermen's cooperatives. However, both in terms of their scale and range of coverage, it does not seem that the present level of Kelompok's activities are enough to realize the objectives of fishermen's cooperatives.

All Kelompoks located in fishing communities need to get themselves united in the form of a Local Area Fisher's Cooperative (KUD Mina) in order to exert member-fishers' collective strength. If all fishers join as member of KUD Mina, their collective power will make KUD Mina organizationally and economically stronger and then it can serve better the expectations of member fishers. The following activities which are essential for making FCAs in Japan both organizationally and economically stronger are worth consideration. The lessons learned from development of FCAs in Japan will probably be helpful in strengthening of KUDs in Indonesia.

2.0 Lessons from FCAs in Japan

Management bodies: It is necessary for a fisher's cooperative to have at least three management bodies in order to ensure that the cooperative functions as an effective economic entity. The three management bodies are as follows:

(i) General Meeting (GM): This is a management body which consists of all members of the cooperative. Each fully qualified member of the cooperative has one voting right. It should be held at least once a year. At this meeting the board members and auditors are elected and an annual business plan and a business report is submitted to the General Meeting. Decisions on submitted agenda should be made by a vote of majority.

In Japan's FCA (Fisheries Cooperative Association) Law, it is required that there must be more than two third of support/ agreement by fully qualified members (voting right holders) of the cooperative who attend the GM including those who attend by letter of proxy, or by deputy, in order to get them approved by the GM. In this case, the quorum of GM is more than half of fully qualified members (voting holders).

(ii) Board of Directors (BD): This is a management body which has the power to administer the cooperative and is held responsible for their decisions. They (board of director's members) are elected from among the fully qualified members (voting right holders). Since most of the directors (board members) who are elected from among the .member fishers are bona fide fishers themselves, it is not possible for them to work every day as board member of the cooperative. Therefore, in order to carry out daily businesses of the cooperative, it becomes necessary for them to employ competent staff and let them handle the daily business activities. The BD of a FCA in Japan holds its meeting generally once or twice a month. It discusses business plan (of the cooperative), examines appropriateness of extending loans to applicants (member fishers) and other important matters.

To ensure sound management of the cooperative, it is essential that board members (directors) must be faithful to their duties. In this respect, it may be mentioned that the International Cooperative Alliance (ICA) also has emphasized on 'Honesty and caring for others' as the 'Fundamental value of the cooperatives in the 21st Century'.

(iii) Board of Auditors (BA): Auditors are the members of the BA. Auditors are elected at the general meeting. In Japan, the BA of an FCA generally comprises two or three members. Their function is to audit the results of business operations and accounts of an FCA. On an average, auditing of FCAs is done once or twice a year in Japan. Unless one is specifically trained in accounting as well as on auditing matters, it is quite difficult to undertake this function.

In Japan, elected auditors receive training on how to audit FCA's businesses and accounts in a training course implemented by the Prefectural Federations of FCAs.

The training programs are comprehensive and cover all aspects, including detection of frauds and dubious accounting. The training is done by special government-certified auditing license holders (GCAL) who work at Prefectural Federation of FCAs. Often, the GCAL themselves visit local FCAs within the Prefecture and conduct auditing. The other important function of GCAL[2] is to provide advice on accounting and improvement in management to BD and employees of the cooperatives.

General Manager and Chief Accountant: In Japan, it is necessary for even the smallest FCA to employ at least a general manager and a chief accountant to ensure that the businesses are operated in a smooth manner. A president is elected from among the board members and he nominates a general manager, who acts as secretary to the board. The general manager is delegated with implementing powers by the board concerning operation of business.

It is necessary that an FCA establishes a trustworthy (good and reliable) accounting system. This is to ensure that transparency of its accounting is secured and explanations on matters of FCA's businesses, management and accounting, etc are made, at any time, to member fishers, if so requested. Accounting work is usually directly under the control of a chief accountant. Unless member fishers' transactions are correctly recorded, member by member, on FCA's ledger, it is quite liable that credit and/ or debit figures become wrongly entered, payment of bills become unreliable, leading to distrust towards FCA's businesses among the members. This is a point of high importance. It is from such a standpoint that the chief accountant keeps good track of the transactions. Particularly, in marketing business, which is one of the core businesses of a FCA, such reliable and trustworthy accounting is a must.

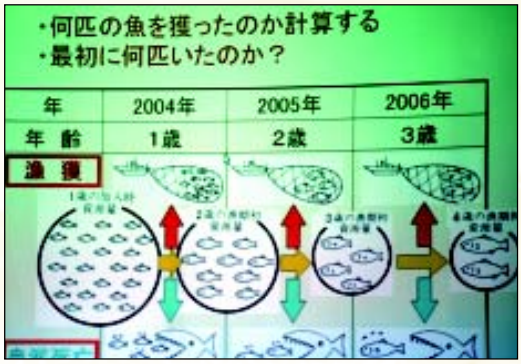
The same is true in other businesses such as in supply business. As businesses develop, quantity of transactions naturally increases. This requires the FCA to increase its number of employees. The more the scale of businesses develops, the more it becomes necessary for the FCA to get equipped with transparent and trustworthy accounting system. It may not be too much to say that success of business of a given FCA largely depends on an efficient and reliable, as well as a trustworthy accounting system where competent employees with accounting expertise keep good book keeping. In order to make this come true, education (training, including on job training and seminars, etc.) becomes further more important.

In this connection, it is hoped that in Indonesia, the government makes thorough and intensive accounting training courses available for employees and auditors of KUD MINA as well as PUSKUD MINA in the country. Such training must take root at all corners of grass root level fishing communities. Expertise necessary for accounting and auditing is fairly important and this importance can not be emphasized more. By carrying out transparent and reliable book keeping, trust from the members is gained, and this trust leads to increasing patronage by the members on use of FCA's businesses.

3.0 Businesses

In many places, including Indonesia it was found that despite poor infrastructure facilities such as port and landing centers, the government pushes fishers to increase fish production. In case of Indonesia, if maintenance and management of such infrastructure facilities are entrusted to KUD MINAs, with appropriate government support, it is likely that they would be maintained appropriately and contribute to the fish production. However, this depends on the consent of KUD MINAs at their general meetings.

[2] *To ensure that the management of an FCA is properly carried out in matters of businesses, accounting and auditing, etc, in case if the Fishery Agency of the government deems it necessary to carry out an inspection of the FCA's businesses, accounts and results of auditing, it may do so provided that it receives a written request from the said FCA with signatures of more than one fifth of the FCA's voting right holder members.*


・何匹の魚を獲ったのか計算する
・最初に何匹いたのか？
年
2004年
2005年
2006年
年 齢
1歳
2歳
3歳
漁 獲

Further, from the experience of fisheries cooperatives in Japan following business lessons can be drawn:

(i) Marketing business: Marketing of member's catch is one of the most important businesses of a fisher's cooperative because it is directly related to the economy of member-fishers. Fish prices have a direct bearing on their income. In many countries including Japan, middlemen or dealers of fish are economically very strong. Fishers have often suffered from deprivation caused by their unilateral profit making maneuvers. In Japan, the situation was similar to those in other Asian countries till the mid-1960s when fisheries cooperatives started to develop and become strong. The reason for development was success in the joint marketing movement of the FCAs.

In the past, merchants (middlemen) extended loans to fishers as advance money and the fishers became obliged to sell their catch. Re-payment of the borrowings (loans) was often in kind. The middlemen did not tell the actual price of fish they sold after they received from the fishers. Understandably, it is quite apparent that fishers in those days were placed under disadvantageous situation with regard to marketing of their catch.

In order to improve the situation, FCAs started joint marketing business, where FCAs made a contract with all the member fishers concerning marketing of their products: member fishers are required to deliver their products to FCAs and FCAs sell the fish, on consignment basis, to the middlemen. Fish prices were decided by negotiation between buyers (middlemen) and FCA marketing staff. As for fresh fish, marketing was done either by auction or tender. In Hokkaido, almost all member fishers' catches are marketed by such a system via FCAs.

In Japan, the way FCAs do marketing of members' catch is also well accepted by the government. There is a government subsidy scheme in which subsidies are made available to FCAs to build fish market facilities and cold storages. After such facilities are completed, the government (in this case Prefectural government) consigns maintenance and management of the facilities to the FCAs in question.

(ii) Credit business: The major functions of FCA's credit business are to receive members' deposit as their savings and extend loans to them. Loans are often extended to members for purchasing fishing gear, diesel engines and so forth.

In Japan there is a traditional credit system known as 'kou' (translated as a cooperative credit club). It was once a widely popular credit system among general citizens and was also popular in the fishing communities. It served as a means of making credit available at grass root levels from local sources. For example, if a group of fishers needed money, for building new fishing boat, they will join together in a credit club and each of them will contribute a fixed amount of money until it reached the necessary amount. After the target amount of money is accumulated, the members of the credit club would draw lots. The one who wins the lot (winner of the lottery) would then be entitled to use the money for his need and will repay the debt.

Such credit clubs are a form of mutual financing. During the cradle era of FCAs this system was applied to credit business of FCAs. Pioneers and leaders of FCA movement in Japan, especially in Hokkaido, used this method by persuading fishers to save money little by little every day and every month. The basic philosophy behind this is that if FCAs can collect small savings from all the fishers, one day it will accumulate into a big amount. If such a target is reached, FCAs may be able to use it as core fund to support poor fishers and also those in need.

It should be noted here that in order to start credit business of FCAs at a Prefectural level, it need to have cooperation from large FCAs as well: small-scale FCAs alone will not be enough to accomplish the objective of Prefecture-wide credit business.

Thus, at each Prefectural level, a Prefecture Credit Federation of FCAs was successively established. In addition, the government also helped the FCAs credit business by providing various government-subsidized loan schemes through FCAs in which certain percent of bank interest was subsidized by both the Central and Prefectural governments.

"If you collect enough dust, you can even make a mountain." This is an adage which well explains the essence of saving movement in FCAs of Japan. In case of FCAs, the adage can be interpreted 'if all fishers get united, though an individual fisher's power is limited and weak, their organization (FCA) will become stronger' and they will be able to improve their standard of living through cooperation.

(iii) Insurance Business: There are mainly three types of insurance business carried out by the FCAs. They are (i) Insurance by Kyosuiren; (ii) Fishing vessel insurance; and (iii) Fisheries and aquaculture insurance.

Fishing vessel insurance is to insure fishing vessels against damages caused by collisions and other accidents, etc. Fisheries insurance (known as 'harvest insurance') is basically to insure against income loss caused by poor harvest, etc. Aquaculture insurance is basically the same as that of harvest insurance in that it is designed to compensate for decreased amount of income to certain extent. Namely, decrease of income due to decrease in the unit price of fish or decrease in the quantity of aquaculture production due to high mortality rate, etc. In addition, loss of income caused by natural calamities such as typhoon and escapement of fish are also insured.

As for fishing vessel insurance, prefectural fishing vessel insurance associations directly make contract with individual fishers. However, in doing so, FCAs cooperates with member-fishers on handling of procedural matters when they subscribe to and/ or to made a claim. As for fishery mutual insurance, FCAs help member-fishers in handling of procedural matters when they subscribe to and/ or to claim insurance money. Since all these three types of insurance are important in that they function as kind of security net, FCAs are cooperating for promotion of each of these businesses. Insurance sector of fisheries of Japan is somewhat complicated in terms of organizational structure and Figure 1 (see facing page) explains the procedure.

At the national level there are three organizations dealing with insurance matters:

- Kyosuiren or the National Mutual Insurance Federation of FCAs;
- Gyosen Hoken Chuokai or the Central Society of Fishing Vessel Insurance Associations; and
- Gyosairen or the National Federation of Fishery Mutual Insurance Associations.

There are seven kinds of mutual insurance made available at FCAs by Kyosuiren. They are:

- Ordinary mutual life insurance (Choko).
- General mutual insurance (Kurashi): This is an insurance against damages caused by fire, lightening, explosion, theft, wind, snow, heavy rain, typhoon and earthquake, etc. Premium must be paid for more than 5 years.
- Fishers' Pension (Nenkin): Subscribing to and withdrawal from the Fishers' Pension is optional. The amount of insurance received is tax exempted.
- National pension for fishers (Nagisa): This is also optional. However, once a fisher subscribes to this national pension for fishers, he is not allowed to withdraw. One hundred percent of premium paid is deducted as social insurance premium.
- Mutual insurance for crew (Noriko): This is short term (less than 1 year) insurance for crew and employees of FCAs, family members of members of FCAs and fishing companies against unforeseen accidents and residual disabilities.

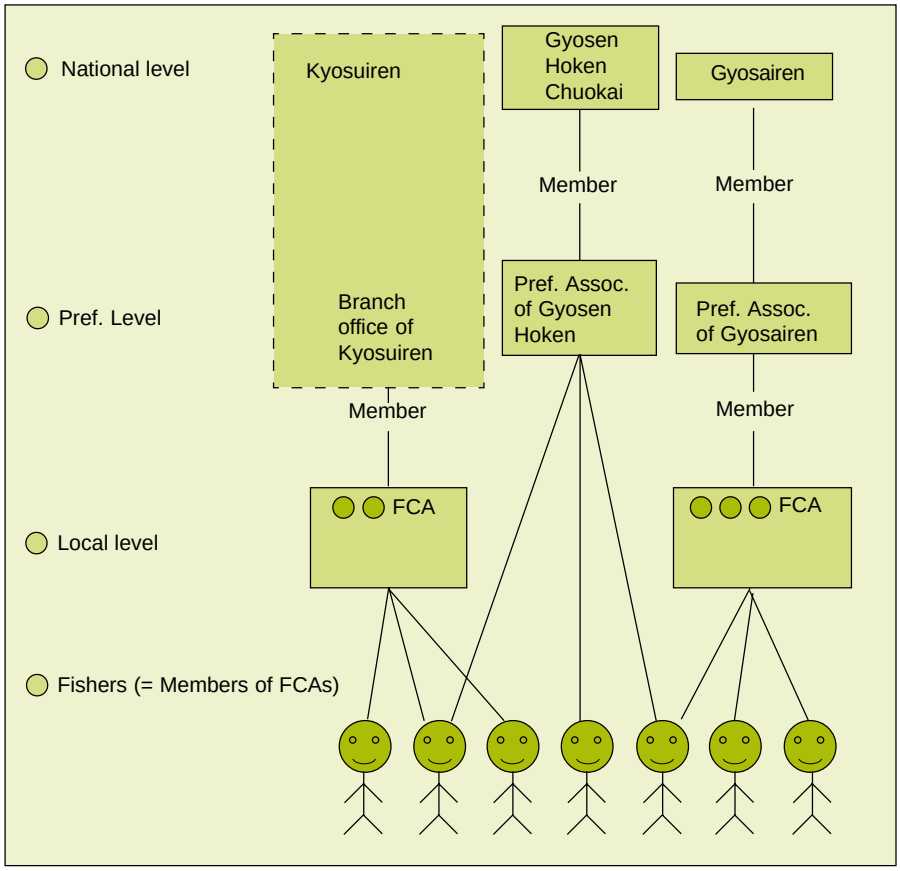


Figure 1: Structure of insurance sector in Japan

- Creditor group mutual welfare insurance (Danshin): This is a mutual insurance which repays the remaining amount of debts if the subscriber dies or suffers from serious injury while having debts to FCAs or Prefectural Credit Federation of FCAs.
- Fire mutual insurance (Kasai): This is a short term (1 year) insurance scheme to insure against any damage to residence, store houses and household goods caused by fire (including such fires as caused by lightening and earthquakes) and explosions, etc.

(iv) Supply Business: In order to ensure merit of transaction in large quantity, for example, fuel for vessels bought by JF Group in bulk at a discount rate. The fuel is then distributed to oil terminals operated by JF-ZENGYOREN and sold to member-fishers. The same practice is followed for other fishery inputs like fishing gear and material for net. In addition, there are FCAs which operate fish shops, sundry stores, etc.

4.0 Guidance and educational activities

This is an important task as far as FCAs are concerned. It includes a wide range of activities including education (training, workshops, seminars, symposia on various subjects) and other activities related to environmental conservation (such as anti-pollution activities), fisheries resource management, propagation of resources, public relations, controlling of fishing rights, consulting on management of fishing and or aquaculture business, promotion of Youth Group as well as Women's Group and many other non-economic activities. Among others, of particular importance is lobbying activity, representing the interest of member fishers. As the level of the organization

moves up from local to Prefectural and then to national level, the importance of such lobbying activities, including political canvassing increases.

5.0 Strengthening of financial base of FCAs

In order to make a FCA financially strong the following steps may be taken:

The capital of FCA must be increased: Even in cases where surplus arises out of the businesses of FCA, it is preferable that such surplus is used for investment in capital assets and reserves. Distribution of surpluses as dividend to member-fishers should preferably be avoided.

Soft loans to be used for infrastructure: Investing into facilities such as cold storage, fish market facilities and other common use facilities requires large sum of money. It must be always kept in mind that low interest government subsidized loans are used as much as possible for such purposes.

Reading a balance sheet of a cooperative: It is essential to read the balance sheet given in the example below (Table 1) to understand the state of FCA's financial status.

The major points that can be noted from the balance sheet are as follows:

- The upper part of the dotted line indicates balance of credit business.
- The savings in Liabilities and Share Capital indicates the amount of deposit by member-fishers. Usually, the savings are re-deposited to Prefectural Credit Federation of FCAs.
- Covering 100 percent of expenses is required. For example building of facilities and/or extending loans to members by FCA's own finance is not possible. Thus, in order to make such source of funds made available, member-fishers savings at the FCAs are re-deposited to Prefectural Credit Federation of FCAs. The funds thus concentrated at the Prefectural Credit Federation of FCAs are then made available to such borrowers. Thus, even small and weak FCAs can benefit from the credit business. This FCA credit system has gained trust from among the fisher members of FCAs.

Table 1: An example of balance sheet of an FCA, 31 March, 2000

Unit: 1 000 Yen

Assets		Liabilities & Share Capital	
1. Credit Business	472 300	1 Credit business	500 000
1) Cash	2 300	1) Borrowings	500 000
2) Deposit	450 000	2) Savings	450 000
3) Loan	20 000		
2 Current assets	20 700	2 Current liabilities	15 000
1) Deposit	14 500	1) Credit	15 000
2) Stocks	6 200		
3 Fixed	160 000	3 Fixed liabilities	25 000
1) Buildings	130 000	1) Accumulated Depreciation	25 000
2) Vehicles	5 000		
3) Oil tanks	25 000	4 Capital	113 000
		1) Share capital	100 000
		2) Accumulated profit	12 000

Table 2: An example of an FCA's profit and loss statement (April 1, 2000 ~ March 31, 2001)

Expenditure		Income	
Interest in savings	13 500	Interest for depositing	18 000
Interest in borrowings	3 000	Interest for loans	3 500
Sales cost	1 200	Sales commission	25 000
Fuel cost	1 800	Supply fuel	2 000
Total	**B** 19 500	Total	**A** 48000
Administration cost	**C** 28 500		
Wages	20 000		
Insurance	600		
Electricity	400		
Other cost	7 500		
Net profit (=A-B-C)	1 000		
Total	**48 000**	**Total**	**48 000**

During the period 1960 to 1985 fisheries developed rapidly in Japan due to a sound credit system of FCAs. After early 1990s, there appeared many FCAs which suffered from bad loans. The primary causes of such bad loans are depletion of resources, hence decrease in catch; declining trend of fish prices; decrease in income of FCA member-fishers; decrease in number of fishers, hence decrease in number of FCA members; decrease in transaction of FCA's businesses; import of fish and fishery products, affecting domestic prices of fish; and general decrease in consumption of fish and fishery products, influenced by western foods, particularly in younger generations.

The liabilities of FCA have, as a result, become difficult to be solved. In order to stem such a trend, integration of credit business of FCAs into Prefectural Credit Federation of FCAs was initiated in 1992 in which credit business of FCAs was transferred to the Prefectural Federation and the FCAs worked as branch offices of the Federation as regards credit business. This change has been supported by the government. Because of such integration efforts, the number of FCAs engaged in credit business has decreased from 1 604 in 1990 to 230 in 2005.

Table 2 above shows an example of a FCA's profit and loss statement. Directors, auditors and staff employees of FCAs must always be careful so as not to make the result of FCA's businesses end in deficit.

One important point to note is that FCAs should not be operated with profit and distribution of dividend as their primary objective. This is different from ordinary commercial companies. However, if deficit continues every year, FCAs will be crippled in their operations because funds for business operations become short. Efforts must be made to reverse the deficit management to profit management.

Annexure 15

Programme of the Seminar on "Promotion of Community-based Fisheries Resource Management by Coastal Small-scale Fishers in Indonesia" in Jakarta, Indonesia 2-5 March, 2010.

Programme

Dates 2 - 5 March 2010	Venue: Mercure Convention Centre Ancol Hotel Jalan Pantai Indah Taman Impian Jaya Ancol 14430 Jakarta, Indonesia Tel: + 62 (21) 640-6000; Fax: + 62 (21) 640-6123 Website: www.mercure.com

Date & Time	Programme
February 28 (Sunday)	Arrival of Foreign Advisors/ Lecturers
March 1 (Monday)	Arrival of Participants
13:00 - 17:00	Registration desk open
14:00 - 17:00	Meeting of ICFO Secretariat, IKPI, Indonesian and Foreign Advisors/ Lecturers
March 2 (Tuesday)	**Opening Ceremony**
09:00 - 10:00	1) Welcome address by: - Mr Wibisono Wiyono, President of IKPI 2) Speeches by: - Mr Park Kwang Bum, Secretary, ICFO - Representative of Ministry of Maritime Affairs & Fisheries (MMAF) - Dr Y S Yadava, Director, BOBP-IGO 3) Group Photo
10:00 - 10:15	***Tea/ Coffee Break***
10:15 - 11:00	**Lecture No 1** Results of Scoping Study for Promotion of Community-based Fishery Resource Management by Coastal Small-scale Fishers in Indonesia - **Dr Yugraj Singh Yadava** Director, Bay of Bengal Programme Inter-Governmental Organisation, Chennai, India
11:00 - 12:00	**Lecture No 2** Coastal Fisheries Management System and Efforts for Reource Recovery in Japan - **Dr Jun-ichiro Okamoto** Professor, Faculty of Fisheries, Hokkaido University, Japan
12:00 - 13:30	***Lunch***
13:30 - 14:00	**Lecture No 3** Applicability of Japan's Fisheries Resource Management System to Indonesia - Issues that have to be overcome - **Dr Mulyono Sumitro Baskoro** Professor, Faculty of Fisheries and Marine Science Bogor Agricultural University, Bogor, Indonesia
14:00 - 14:30	**Lecture No 4** Possibilities of introducing Community-based Fisheries Resource Management in the Philippines - Lessons from the First Year Project - **Dr Sandra Victoria R Arcamo** Chief Aquaculturist, Fisheries Resource Management Division, Bureau of Fisheries and Aquatic Resources, Department of Agriculture, Philippines


RUMAH MAKAN
"BU ALIF"
SEA FOOD

Date & Time	Programme
14:30 - 15:00	**Lecture No 5** Present Status of Fisheries Resource Management in Indonesia and suggestions for improvement - **Dr Gellwyn Daniel Hamzah Jusuf** Head of Agency for Marine and Fisheries Research, Ministry of Fisheries and Marine Affairs, Indonesia
15:00 - 16:00	**Lecture No 6** How fishermen's organizations should be stregthened to help promote fisheries resource management efforts - **Dr Siddiq Muslim** Chairman of Indonesian Fisheries Society
16:00 - 16:30	**Lecture No 7** Fisheries Resource Management Practices in Korea - **Mr Park Kwang Bum** Secretary, ICFO
16:30 - 17:00	Summing up/ Directions for next day/ Formation of Groups for Discussions
18:00	***Welcome Dinner***
March 3 (Wednesday) 09:00 - 10:15	Group Discussion
10:15 - 10:30	***Tea/ Coffee Break***
10:30 - 12:00	Group Discussion continued
12:30 - 14:00	***Lunch***
14:00 - 14:30	Finalization of Report by Group A and presentation of the results of Discussion
14:30 - 15:00	Finalization of Report by Group B and presentation of the results of Discussion
15:00 - 15:30	***Tea/ Coffee Break***
15:30 - 16:00	Finalization of Report by Group C and presentation of the results of Discussion
16:00 - 16:30	Finalization of Report by Group D and presentation of the results of Discussion
16:30 - 17:00	**Summing up by chair**
18:00	***Dinner***
March 4 (Thursday) 09:00 - 17:00	**Field Study Tour**
March 5 (Friday) 08:30 - 09:30 09:30 - 10:30	Preparation of draft recommendations by each Group 1) Presentation of recommendations by a representative of each Group (40 Minutes) 2) Corrections of recommendations as appropriate (20 Minutes)
10:30 - 10:45	***Tea/ Coffee Break***
10:45 - 11:15	Presentation of final recommendation and summing up remarks by advisors
11:15 - 11:30	Closing remarks: Mr Masaaki Sato, former Secretary of ICFO
11:30 - 11:40	Closing remarks: Mr Park Kwang Bum
11:40 - 12:10	Distribution of Certificate of Attendance: Mr Masaaki Sato
12:10 - 12:15	Closing remarks and Vote of Thanks: Representative of IKPI
12:15 - 13:00	Farewell Lunch
13:00 Onwards	Depature of Participants

Notes

Notes