





14. Fisheries

Stock management and Enhancement in the Sea 海域における水産資源の管理及び培養		GROUP 	0880336
Target Countries: Maritime countries		Fisheries—Fisheries Resource Management 7 participants / English	
OBJECTIVE	TARGET ORGANIZATION / GROUP		
The objective of this program is as follows: 1. To Understand the following points (1) The method of hatchery enhancement (2) The method of seed-release situation (3) Conservation of the nursery ground and method arrangement of artificial reef (4) The importance of the fishery ground environment (5) The analysis method of environmental chemistry in fishing grounds (6) The method of improvement of coastal fishing ground (7) The statistical method on the evaluation of stocking effectiveness for fisheries resources. 2. To make a Study Report	(1) University graduates or equivalent academic level with over 5 years of work experience (2) Individuals presently engaged in research and/or educational activities in fisheries (3) Individuals in good health to undergo fisheries field work		
CONTENTS	PROGRAM PERIOD	Jun.30.2008~Oct.26.2008	
This training course is formulated to cover the following programmes in order to obtain basic knowledge, both in theory and practice, of the marine farming: (1) Theory of Community Ecology, (2) Fisheries Pollution (3) Environmental Chemistry, (4) Fish Disease (5) Food nutrition for rearing (6) Preparing of Artificial Reef and Nursery Ground (7) Benthos and Plankton, (8) Hatchery Enhancement(Fish Seeding) (9) Seed- release Situation, (10) Fisheries Genetics (11) Statistical Method on the Evaluation of Stocking Effectiveness for Fisheries Resources, (12) Fish Taxonomy (13) Early Life History at Fishes, (14) Botany at Seaweed A self-study session is prepared for each participant's specialty, such as Fisheries Stock Management, Fisheries Ecology and Environmental Chemistry	IMPLEMENTING PARTNER	USA MARINE BIOLOGICAL INSTITUTE, KOCHI UNIVERSITY	
	JICA CENTER	JICA Shikoku	
	COOPERATION PERIOD	2007~2009	
	REMARKS	Japanese intensive class(60hours at Kochi University)	

Prevention of Cultured Fish Disease and Fish-Borne Disease 養殖魚の健康と安全管理		GROUP 	0880351
Target Countries: Countries with coastline or lakes suitable for seafood cultivation		Fisheries—Stock Enhancement and Aquaculture 8 participants / English	
OBJECTIVE	TARGET ORGANIZATION / GROUP		
The objective of this program is to deepen the knowledge relevant to hygienic handling of fishes as well as the diagnosis and prevention of fish disease. To attain the objective, participants are expected to achieve the following: (1) To clearly mention the present conditions and problems on aquaculture in each country in the form of an Inception Report. (2) To understand the hygienic handling of aquacultured products. (3) To understand the diagnosis and prevention of cultured fish disease. (4) To suggest a problem-solving plan on aquaculture in each country (Strategy Plan), from the aspects of hygienic handling or preventive measures of fish disease.	[Target Organizations] National or regional governments in charge of promoting aquaculture, fish processing and distribution [Target Group] (1) Administrators in charge of promoting aquaculture, fish processing and distribution for at least 5 years (2) Those who graduated undergraduate and/or graduate university. (3) Those who are excellent in English communication —for example TOEFL CBT Score 250 or above.		
CONTENTS	PROGRAM PERIOD	Aug.26.2008~Oct.31.2008	
(1) Implementation of Inception Report Presentation (Presentation and Discussion) (2) Technique of Hygienic Handling of Aquacultured Products (Lecture and Practice) (3) Seafood Hygiene (Lecture and Practice) (4) Preventive Measures of Fish Disease(Lecture and Practice) (5) Drafting and presentation of a Problem-solving Plan (Strategy Plan) * Besides the classes mentioned above, visits to fish-farmers and a wholesale market is scheduled as a study tour. * Participants are provided with 2-day individual training on the subject of personal interest by choosing from the curriculum, so that they can deepen their understanding on it.	IMPLEMENTING PARTNER	NATIONAL FISHERIES UNIVERSITY	
	JICA CENTER	JICA Chugoku	
	COOPERATION PERIOD	2006~2010	
	REMARKS		

Sustainable Aquaculture Development 持続的増養殖開発		GROUP  0880848
		Fisheries—Stock Enhancement and Aquaculture 10 participants / English
OBJECTIVE	TARGET ORGANIZATION / GROUP	
<p>This program aims to train the participants to become technical experts who are able to plan and implement an appropriate sustainable aquaculture development strategy in order to contribute to the development of environment-conscious and sustainable aquaculture. Upon successful completion of the course, the participants are expected;</p> <p>1) To learn the theoretical knowledge like pathology and fish nutrition and so on 2) To acquire practical knowledge and technologies like seed production and grow-out culture, modern technologies of aquaculture, stock enhancement and so on 3) To gain the ability to devise an appropriate strategy for sustainable aquacultural development in their home countries.</p>	<p>< Target Group > (1) Individuals presently engaged in aquaculture extension or technical work with 3 years of experience or more, (2) University graduates or equivalent (3) Individuals with a sufficient ability of spoken and written English</p>	
CONTENTS	PROGRAM PERIOD	Mar.3.2009~Jun.24.2009
<p>(1) Common Program: Outline of fisheries & aquaculture, role of the FCA, post-harvest treatment, aquatic engineering, aquaculture economics, extension & awareness, fish nutrition, fish feed preparation, biodiversity, environmental conservation, artificial maturation, biotechnology, fish genetics, gene analysis, parasitic diseases, practical field work in fish pathology, project cycle management, report consultation and presentation (2) Specific Program: (a) Freshwater aquaculture; Culture of common carp and others, gametogenesis and egg-quality, environmental conservation, self-sufficient small-scale aquaculture, case study, integrated aquaculture, field work for seed production (fancy carp, gold fish, grass carp, cat fish, willow gudgeon), site observation (b) Marine Aquaculture; seed production technology, sea farming, morphological anomalies, fish culture (grouper), culture of shrimp, crab, shellfish and seaweed, sustainable marine aquaculture and environmental conservation, sustainable world aquaculture, production and analysis of artificial feed, practical field work of living food organisms culture, site observation</p>	IMPLEMENTING PARTNER	Fisheries & Aquaculture International Co., Ltd
	JICA CENTER	JICA Yokohama
	COOPERATION PERIOD	2004~2008
	REMARKS	Midway through the program, the program will be divided to two groups (Freshwater Aquaculture, and Marine Aquaculture)

Coastal Fishing Technique for Sustainable Resource Use 持続可能な沿岸漁業		GROUP  0880975
Target Countries: Maritime countries		Fisheries—Fisheries Resource Management 6 participants / English
OBJECTIVE	TARGET ORGANIZATION / GROUP	
<p>Small-scale coastal fishing by artisan fishers accounts for the majority of the fisheries in developing countries. However, sustainable and effective fishing methods need to be diffused as resources decline. This program aims to enable participants to manage sustainable development and the diffusion of fisheries for the region for which the participants are responsible. To attain this objective, participants are expected to achieve the following: 1) To learn basic knowledge on the structure and capture function of fishing gear, 2) To learn fishing methods predominating in coastal fisheries through practice, 3) To learn the basic fishery resource biology, in particular, of target species in tropical coastal waters, 4) To learn the basic and applied knowledge of management of capture fisheries toward responsible fisheries, 5) To learn model method of proper management of capture fisheries through using one of major fishing gear, and 6) To learn comprehensive technical approaches for the extension and regulations of fishing techniques.</p>	<p>[Target Group] Ministries in charge of Fishing and Fish Resources Fisheries Training Institution</p> <p>[Target Group] 1. Individuals with more than 3 years of experience in fishing gear design and operation or engaged in extension service for coastal fishing techniques 2. University graduates or equivalent 3. Age: Preferably under 40 years old</p>	
CONTENTS	PROGRAM PERIOD	Feb.24.2009~Jun.13.2009
<p>1. Introduction to fisheries and management in Japan, introduction to designing fishing gear, etc.: 2. Measurement in fishing technology: Module 3. Structure and operation of trawl: Module 4. Fishing ground survey and devices: Module 5. Bycatch/discard survey in set-net fishery: Module</p> <p>The module will provide both lectures and practice exercises (both at sea and on land)</p>	IMPLEMENTING PARTNER	KAGOSHIMA University
	JICA CENTER	JICA Kyushu
	COOPERATION PERIOD	2005~2009
	REMARKS	* As on-board training is included in this program, under 40 years of age is preferable.


OBJECTIVE	TARGET ORGANIZATION / GROUP	
<p>This course is designed for the refrigeration systems for fisheries to be maintained and managed properly through the following outputs:</p> <p>(1) Understanding the fundamental knowledge and calculation of refrigeration systems</p> <p>(2) Obtain skills for troubleshooting, repairing and maintaining refrigeration systems using attached instruments or tools through disassembly and assembly systems.</p> <p>(3) Acquire and understand the latest information on refrigeration systems, based on actual processes in production.</p> <p>(4) Acquire and understand how to read and prepare the drawings of electric control.</p> <p>(5) Understand the fundamental knowledge of electric wiring.</p>	<p>【Target Organizations】 Ministries, agencies, and other organizations in charge of maintaining and managing refrigeration systems for fisheries, preferably provided under the Grand Aid Scheme</p> <p>【Target Group】 Instructors in technical institutions, extension officers and heads of workshop, providing fishermen with technical training</p>	
CONTENTS	PROGRAM PERIOD	Jan.12.2009～Mar.21.2009
<p>* Theory of refrigeration systems (Heat and work / Fundamental law / Cycle / Heat transfer / Mollier diagram/ Refrigerant etc.)</p> <p>* Functions and construction of refrigeration systems (Brine / Compressor / Condenser / Evaporator / Refrigerating Equipment etc.)</p> <p>* Maintenance of refrigeration systems (Welding / Charge of refrigerants / Leakage test / Operation / Adjusting etc.)</p> <p>* Overhaul of Compressor</p>	IMPLEMENTING PARTNER	Nissin Refrigeration & Engineering LTD
	JICA CENTER	JICA Osaka
	COOPERATION PERIOD	2007～2009
	REMARKS	For fiscal year 2009, this course will be implemented for both Oceania and Caribbean countries.


Target Countries : Oceania

8 participants / English

OBJECTIVE	TARGET ORGANIZATION / GROUP	
<p>Enable participants to understand the way of sustainable fisheries resources management by enhancing the skills and knowledge related to fisheries resources diversification (which refers to the way in Okinawa, such as producing and deploying submergible FADs (Fish Aggregation Devices))</p> <p>To attain the objective, participants are expected to achieve the following: (1) Share experience and lessons learned through implementation of the action plans produced in the last year, and study further practices and mechanisms in management and utilization of coastal fisheries resources in Okinawa, that can be applied to the participants countries. (2) Acquire the adequate know-how in planning, coordination and implementation of community-based practice in Tonga. (3) Learn about monitoring and evaluation method for FADs fishery as well as new fishing practices around FADs. (4) Understand about several useful practices other than FADs relevant to the fisheries diversification in the Pacific Island States. (5) Produce a final action plan to be applied in the participants' home countries with mastering methodology on formulation of eligible and concise project proposals in terms of coastal fisheries resource management.</p>	<p>【Target Organizations】 Administrative bodies engaged in fisheries resource management</p> <p>【Target Group】 Participants having taken part in the 2nd year training program</p>	
CONTENTS	PROGRAM PERIOD	Oct.5.2008~Nov.22.2008
<p><Preparatory phase> (1) Formulating a progress report which summarize the current progress of the action plan made in the 2nd year program.</p> <p><Program in Japan> Implementing lectures, observation tours and practices related to the following topics: (1) Monitoring the effects of FADs fisheries (2) Introducing processing skills and distribution mechanism of fisheries resources in Okinawa (3) Introducing the roles of fisheries cooperatives in Okinawa (4) Participating in the fishing program in tourism sector</p> <p><Program in Third Countries (Fiji and Tonga(still under consideration))> Implementing lectures, observation tours and practices related to the following topics: (1) Update the latest development and management on FAD fisheries (2) Practice in implementation of community-based approach (3) Formulating the final action plan</p>	<p>IMPLEMENTING PARTNER Okinawa Environment Club / Fisheries & Aquaculture Inter'l Co., Ltd.</p> <p>JICA CENTER JICA Okinawa</p> <p>COOPERATION PERIOD 2006~2008</p> <p>REMARKS (1) Since this training program covers different topics each year of three years, which are closely inter-related, the same participants are to participate in a 3 year program. (2) A program in Fiji and Tonga(still under consideration) is to be carried out in the 3rd year training program.</p>	

OBJECTIVE	TARGET ORGANIZATION / GROUP	
<p>The objectives of this training course are to nurture the ability to make fishery policy by utilizing regional resources and administrative skills. Participants are expected:</p> <p>(1) To understand the "law and system" and "economy and management" on fishery. (2) To understand the systems of resource management and fishery management and the structure of regional fishery through analysis of the statistics index. (3) To understand the merits of sustainable regional fishery as the resource management fishery. (4) To understand the policy measures, budgets, systems, financing, maintenance of facilities and administration, in order to realize sustainable regional fishery. (5) To increase the skills to prepare and promote fishery promotion policy as government officials.</p>	<p>(1) Regional fishery governmental officers with experience of regional fishery promotion and management (2) Individuals with at least 5 years of experience in fishery promotion administration (3) University graduates in fisheries or the related economy, management, administration and law</p>	
CONTENTS	PROGRAM PERIOD	Mar.25.2009~Jun.20.2009
<p>(1) To raise awareness in order to make policy (Country and Job Report presentation/Issue Analysis Workshop). (2) To understand the systems and economy and to discover the issues of their own countries (3) "Law and system" and "economy and management" on fishery in Japan. (4) Resource management, regional fishery management and analysis of statistics index (5) Merits of sustainable regional fishery (6) Necessary policy measures for sustainable regional fishery (7) Administration of Japan and visit to an area with large consumption (8) Exercise and experience in municipality (9) Making 2 Action Plans (The plan for fishery promotion (draft) / Individual Action Plan (draft)). (10) To present and discuss the Action Plans shown above.</p>	<p>IMPLEMENTING PARTNER</p>	<p>NATIONAL FISHERIES UNIVERSITY</p>
	<p>JICA CENTER</p>	<p>JICA Chugoku</p>
	<p>COOPERATION PERIOD</p>	<p>2007~2009</p>
	<p>REMARKS</p>	

Planning of Fisheries Community Development 漁業コミュニティ開発計画		GROUP  0880852
Target Countries: Countries with coastline or large lakes (670km ² or more)		Fisheries—Rural Development in Fisheries 10 participants / English
OBJECTIVE	TARGET ORGANIZATION / GROUP	
<p>The purpose of this program is to enhance participants' and their organizations' capabilities for comprehensive fishing community development through understanding of Japanese cases of community-based development in fisheries sectors.</p> <p>Outputs of the course are as follows:</p> <ol style="list-style-type: none"> To deepen the knowledge on sustainable fisheries development. To deepen the knowledge on institutional framework of community for fisheries development. To enhance the planning and management capabilities for fisheries community development, through the preparation and presentation of the action plan. (The organization of the participant is strongly recommended to formulate the fisheries community development plan prepared by the participant's action plan and to implement it.) 	<p><Target Organizations> Central or local government in charge of fisheries community development planning and its implementation</p> <p><Target Group> 1. Individuals with more than 5 years of experience in the fisheries sector and 2 years of experience in policy making/planning in the fisheries development, 2. University graduates or equivalent,</p>	
CONTENTS	PROGRAM PERIOD	Jul.13.2008~Oct.2.2008
<ol style="list-style-type: none"> Preparatory Program <ol style="list-style-type: none"> Sharing common problems and recognition of the same regarding fisheries community development with the participant's organization. Preparing a country report, including a clear explanation of the present situation and problems regarding fisheries community development by the organization. Program in Japan <ol style="list-style-type: none"> Sustainable fisheries development: Introducing the Japanese system of fisheries development and examples Institutional building and extension system: Formulating and managing fishermen organization, fishery extension system and service, and so on Comprehensive management for fisheries development: Introducing examples on coastal and the watershed environment, impact on aquatic resources, relations with other industries and so on Project planning and management: Analyzing problems and issues in the participants' own countries and introducing appropriate planning and management methods on community development plans Visit and Observation Action Plan formulation and presentation: This Action Plan will be prepared based on the country report and should be brushed up through acquainted knowledge of the course. Post-program Activities <ol style="list-style-type: none"> Review of the Action Plan together with the organization Submission of the Final Report stating how the Action Plan was reviewed and what is the result Providing technical advice by the implementing partner to the final report 	IMPLEMENTING PARTNER	I.C. Net Limited
	JICA CENTER	JICA Yokohama
	COOPERATION PERIOD	2004~2008
	REMARKS	

Coastal Fisheries Resource Management 沿岸漁業資源管理		GROUP  0880863
Target Countries: Maritime countries		Fisheries—Fisheries Resource Management 10 participants / English
OBJECTIVE	TARGET ORGANIZATION / GROUP	
<p>This program aims to realize any improvement through awareness of the existing problems or issues on policy making and/or system establishment of the coastal fisheries resource management in his/her own country.</p> <p>In order to accomplish the aim, the participants are expected to achieve the followings;</p> <ol style="list-style-type: none"> 1. To understand legal and regulation frameworks on sustainable coastal fisheries resource management, 2. To understand various methods for fisheries resource management, 3. To learn and acquire the resource management methods and improve the planning capacity <p>(Organization of the participant is strongly recommended to formulate the coastal fisheries resource management plan based on the participant's action plan and to implement it.)</p>	<p><Target Organization> This program is offered to central or regional governments responsible for policy making in the fisheries sector including research institutes.</p> <p><Target Group></p> <ol style="list-style-type: none"> 1. Officials in administration, policy planning and implementation of the coastal fisheries resource management in central or regional government including research institute 2. Officials who have more than 2 years' experience in the field of coastal fisheries resource management, 5 years' experience in the fisheries sector 3. University graduates or equivalent, 	
CONTENTS	PROGRAM PERIOD	Aug.19.2008~Oct.9.2008
<ol style="list-style-type: none"> 1. Preliminary Program Participants should study the designated documents, prepare a country report and submit it before coming to Japan 2. Program in Japan The program is about 7 weeks in duration, including lectures, discussion, and observation tours. The topics covered are as follows: * Stock Assessment and Fisheries Management * Fisheries Management * Fisheries and the Environment * Increase of Fisheries Productivity * Fisheries Administration * Fisheries Education and Training * Problem analysis of Fisheries Management in the participants' respective countries 3. Post-program Activities After the participants' return, (1) The actions described in the Report should be reviewed, authorized and implemented. (2) The result of the actions taken by the organization and the participant is reported as the Final Report at the time of 4 months after the return. (3) Implementing Partner will send technical advice to the Final Report. 	IMPLEMENTING PARTNER	INTEM Consulting, Inc.
	JICA CENTER	JICA Yokohama
	COOPERATION PERIOD	2004~2008
	REMARKS	The relevance of soft type Follow-up cooperation will be assessed based on the result of the final report.