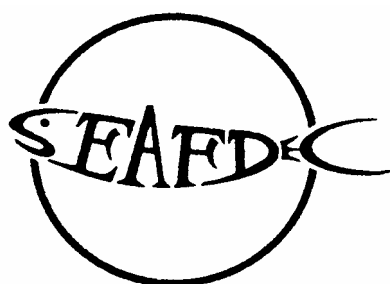


**REPORT OF
THE SEVENTH MEETING OF THE ASEAN-SEAFDEC
FISHERIES CONSULTATIVE GROUP (FCG)**

**Hanoi, Vietnam
4 April 2005**



**THE SECRETARIAT
SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER**

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EXECUTIVE SUMMARY

1. The Seventh Meeting of ASEAN-SEAFDEC FCG was held on 4 April 2005 in Hanoi, Vietnam with the objectives to discuss collaborative programs under the FCG mechanism for the year 2004 and 2005 as well as fisheries issues of ASEAN importance.

2. With regards to the programs under the FCG mechanism, the Meeting highly evaluated the initiatives and success of work done by SEAFDEC in 2004. The Meeting also expressed appreciation to the Government of Japan for her support to the programs. After deliberation, the Meeting endorsed the results and progress of programs for the year 2004 and proposals for future programs of activity for the year 2005.

3. The Meeting also endorsed the three new proposed programs to be placed under the FCG mechanism. These are:

- Research and Analysis of Chemical Residues and Contamination in Fish, Fish Products and the Environment;
- Research and Development (R&D) of Stock Enhancement for Species under International Concerns; and
- Capacity Building for Human Resources and Participation in Integrated Coastal Resources Management.

4. With respects to policy consideration on issues of ASEAN-SEAFDEC importance, the Meeting discussed on the following issues and made recommendations as follows:

Strengthening of Cooperation between ASEAN and SEAFDEC

5. The Meeting endorsed the establishment of an Memorandum of Understanding between the two organizations of which the content of the MoU could be modified and further improved. The Meeting viewed that the MoU as a tool to raise profile and visibility of SEAFDEC in ASEAN. The MoU could also help institutionalize and strengthen cooperation between ASEAN and SEAFDEC in the future.

Regional Cooperation on Issues related to the Tsunami Disaster

6. The Meeting expressed sympathy to the people affected by the Tsunami disaster on 26th December 2004 in Indonesia, Malaysia, Myanmar and Thailand. With the views to assist the affected Member Countries, the Meeting endorsed the “ASEAN-SEAFDEC Plan of Action on Regional Cooperation for the Rehabilitation and Restoration of Fisheries in the ASEAN Tsunami Affected Areas.”

7. The Meeting also endorsed the priority areas for SEAFDEC assistance, which could be incorporated into existing programs of activity or developed into a new program to appeal to donors for funding supports. These are:

- Assessment of impacts on fisheries resources and eco-system,
- Policy and technical advise on national fisheries rehabilitation policy and action plan, and
- Awareness and capacity building including technical training to support rehabilitation activities and safety at sea.

Review of Implementation of the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region

8. The Meeting considered and endorsed the report. The report was viewed as a benchmark for the implementation of the Resolution and Plan of Action. The Meeting suggested that SEAFDEC Secretariat should conduct a regular review every two years and report the result to the FCG for consideration. The review could also support the biennial review on the implementation of the Code of Conduct for Responsible Fisheries by the Member Countries.

Directions for Future Implementation of the Code of Conduct for Responsible Fisheries (CCRF) in the ASEAN Region

9. The Meeting complimented the achievement made by SEAFDEC for the regionalization of the CCRF. The Meeting endorsed the draft regional guidelines on post-harvest practices and trade and the proposal to submit the 4 sets of regional guidelines for responsible fisheries covering the main thematic areas for approval and launching by high level authorities of ASEAN. The Meeting also suggested SEAFDEC to obtain formal recognition of the regional guidelines from FAO and supported to keep momentum of work in the implementation of CCRF in the future.

Issues derived from the 26th Session of FAO Committee on Fisheries (COFI)

10. The Meeting took note of the results of 26th Session of COFI and identified follow-up actions on the following major issues:

- Fisheries subsidies – to develop criteria and lists of fisheries subsidies that should be permitted or prohibited.
- CITES – to formulate and implement NPOA-Shark, to incorporate sea horse and sea cucumber in future programs of activity, and to support closer collaboration between SEAFDEC and ASEAN Expert Group on CITES.
- Eco-labelling – to conduct a regional study on ecolabelling from the regional view point as a basis for future consideration.
- Sea turtles and fisheries – to conduct biological research and interaction between sea turtles and fishing to support management and conservation of sea turtles in the region as well as to develop information package on the issues for wider dissemination.
- Small-scale fisheries – to share experience on regionalization of the CCRF focusing on small-scale fisheries and actively involve in future development on the issue with FAO.

11. The Meeting urged all Member Countries and SEAFDEC to participate actively in future COFIs and other international fora related to fisheries to provide regional inputs and concern to safeguard fisheries interests in the region.

Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region (2006-2010)

12. The Meeting considered and endorsed the program proposal with the view to support the ASEAN Member Countries in the implementation of the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region and the ASEAN Roadmap for Integration of Fisheries Sector under the ASEAN Framework.

13. The Meeting expressed concern for unclear funding situation for the program and requested ASEAN Secretariat and SEAFDEC Secretariat to investigate possibility to secure required funding support to the program.

CONTENTS

	Paragraph No.
I. INTRODUCTION	1-4
II. ASEAN-SEAFDEC FISHERIES COLLABORATIVE PROGRAMS	5-6
III. POLICY CONSIDERATION ON ASEAN IMPORTANT ISSUES	
3.1 Strengthening of Cooperation between ASEAN and SEAFDEC	7-8
3.2 SEAFDEC Initiatives Related to the Tsunami Disaster	9-13
3.3 Review of the Implementation of the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region	14-17
3.4 Directions for Future Implementation of the Code of Conduct for Responsible Fisheries (CCRF) in the ASEAN Region	18-19
3.5 Issues Derived from the 26th Session of FAO Committee on Fisheries (COFI)	20-23
3.6 Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region (2006-2010)	24-31
3.7 Framework of the Fishery Statistical Bulletin for the Southeast Asian Region	32
3.8 Conservation and Management of Sea Turtles in Southeast Asia	33
IV. CONCLUSION	34

ANNEXES

	Page
1 List of Participants	7
2 Agenda	13
3 Program of Activities under the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) Mechanism (2004-2005)	15
4 Strengthening of Cooperation between ASEAN and SEAFDEC	27
5 Memorandum of Understanding to Strengthen and Formalize ASEAN-SEAFDEC Cooperation In Sustainable Fisheries Development	31
6 Draft ASEAN-SEAFDEC Plan of Action on Regional Cooperation for the Rehabilitation and Restoration of Fisheries in the ASEAN Tsunami Affected Areas	39
7 Review of Implementation the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region	41
8 Directions for Future Implementation of the Code of Conduct for Responsible Fisheries (CCRF) in the ASEAN Region	45
9 Proposal on the Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region (2006-2010)	47
10 Framework of the Fishery Statistical Bulletin for the Southeast Asian Region	117
11 Conservation and Management of Sea Turtles in Southeast Asia	135

REPORT OF THE SEVENTH MEETING OF THE ASEAN-SEAFDEC FISHERIES CONSULTATIVE GROUP (FCG)

**Hanoi, Vietnam
4 April 2005**

I. INTRODUCTION

1. The Seventh Meeting of the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) was held on 4 April 2005 in Hanoi, Vietnam with the objectives to discuss the ASEAN-SEAFDEC fisheries collaborative programs as well as policy considerations on ASEAN important issues.
2. The Meeting was attended by representatives of the ASEAN and SEAFDEC Member Countries (except Lao PDR), ASEAN Secretariat as well as SEAFDEC Secretariat and Departments. The list of participants appears as **Annex 1**.
3. The Meeting was co-chaired by the SEAFDEC Secretary-General, Mr. Niwes Ruangpanit and the Director-General of Department of Fisheries, Malaysia, Dato' Junaidi bin Che Ayub, in capacity of the current Chairman of the ASEAN Sectoral Working Group on Fisheries (ASWGF_i).
4. The Agenda, which appears as **Annex 2** was adopted.

II. ASEAN-SEAFDEC FISHERIES COLLABORATIVE PROGRAMS

5. The Meeting took note of progress and achievement of work and highly evaluated the initiatives and their success by SEAFDEC in 2004. These particular in the areas related to capacity building on fisheries management and aquaculture, fish diseases, fish trade, fishery information and statistics, and use of indicators in fisheries management.
6. The Meeting also expressed appreciation to the Government of Japan for her support to the programs. After deliberation, the Meeting endorsed the report of activities for the year 2004 and proposed future program of activities for the year 2005 under the FCG mechanism (**Annex 3**). The Meeting also endorsed the three new proposed programs to be placed under the FCG mechanism as follows:
 - Research and Analysis of Chemical Residues and Contamination in Fish, Fish Products and the Environment;
 - Research and Development (R&D) of Stock Enhancement for Species under International Concerns; and
 - Capacity Building for Human Resources and Participation in Integrated Coastal Resources Management.

III. POLICY CONSIDERATION ON ASEAN IMPORTANT ISSUES

3.1 Strengthening of Cooperation between ASEAN and SEAFDEC

7. The meeting acknowledged the past cooperation between ASEAN and SEAFDEC (**Annex 4**) in the implementation of various fisheries projects and activities, and the support by the 26th AMAF Meeting to further strengthen the cooperation between ASEAN and SEAFDEC.

8. The Meeting took note of the proposal for establishment of the Memorandum of Understanding (MoU) between ASEAN and SEAFDEC to strengthen and formalize ASEAN-SEAFDEC cooperation in sustainable fisheries development, which appears as **Annex 5**, and endorsed the principle of the MoU for submission to the higher authorities of ASEAN and SEAFDC for consideration and endorsement. The Meeting viewed the MoU as a tool to raise profile and visibility of SEAFDEC in ASEAN. The MoU could also help institutionalize and strengthen cooperation between ASEAN and SEAFDEC in the future.

3.2 SEAFDEC Initiatives Related to the Tsunami Disaster

9. The Meeting took note of the outcomes and recommendations made at the informal Consultation on SEAFDEC Supports to Fisheries Relief Program for the Tsunami Affected Countries of ASEAN held in Hanoi, Vietnam on 3 April 2005. The Meeting also acknowledged SEAFDEC initiatives for the tsunami affected countries in the region and endorsed the ASEAN-SEAFDEC Plan of Action on Its Regional Cooperation for the Rehabilitation and Restoration of Fisheries in ASEAN Tsunami Affected Areas', which appears as **Annex 6**. The Plan of Action is regarded as a framework for regional program development to appeal to donors for funding supports, and enhancing visibility of ASEAN and SEAFDEC in supporting the rehabilitation and restoration of fisheries affected by the Tsunami.

10. The Meeting also endorsed the recommendations for SEAFDEC to accommodate common areas of required assistance as identified by the affected countries during the Informal Consultation into existing programs of activity within the available resources or develop them into a new program to appeal to donors for funding supports. The common areas are:

- Assessment of impacts on fisheries resources and eco-system,
- Policy and technical advise on national fisheries rehabilitation policy and action plan, and
- Awareness and capacity building including technical training to support rehabilitation activities and safety at sea.

11. The Meeting also supported the recommendation that based on the spirit and experience for rehabilitation of fisheries affected by the Tsunami, the Plan of Action could be used as a basis to support rehabilitation work for fisheries when dealing with any future large-scale natural disasters that give direct impact to fisheries sector in the region and SEAFDEC could play an important role in implementing such plan.

12. The Meeting took note of the proposal made by Indonesia to host a Regional Technical Consultation on Rights-based Fisheries, under the framework of the Special 5-year program on Sustainable Fisheries for Food Security in the ASEAN region, in Jakarta in June 2005, as an initiative to also discuss the promotion of the rights-based fisheries in support of the rehabilitation of fisheries affected by the Tsunami.

13. The Meeting supported the proposal to be developed by the affected countries with assistance from SEAFDEC to submit to FAO and other competent organizations to mobilize the Global Environment Facility (GEF) fund for Bay of Bengal Large Marine Ecosystem (BOB-LME) for the possible implementation of stock assessment in the tsunami affected areas.

3.3 Review of the Implementation of the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region

14. While taking note of the progress of the implementation of the Resolution and Plan of Action by SEAFDEC and the ASEAN Member Countries, as well as issues and suggestions made by the ASEAN Member Countries during the mission conducted by SEAFDEC Secretariat to evaluate contribution of the program under the ASEAN-SEAFDEC FCG mechanism in the implementation of the Resolution and Plan of Action (**Annex 7**), the Meeting supported the Resolution and Plan of Action to be further used as policy guidance and action plan for the development of fisheries in the region, and the formulation of future programs under the ASEAN-SEAFDEC FCG Mechanism.

15. The Meeting regarded the review outcome as a benchmark for the implementation of the Resolution and Plan of Action and suggested that SEAFDEC Secretariat should conduct a regular review every two years and report the result to the FCG for consideration. The review could also support the biennial review on the implementation of the Code of Conduct for Responsible Fisheries by the Member Countries.

16. The Meeting expressed concerns that in the implementation of programs of activity that SEAFDEC and the Member Countries should try to avoid duplication of the same efforts made by other organizations. The Meeting also expressed the need to seek non-traditional donors in order to support implementation of program/projects along the line with issues identified in the Resolution and Plan of Action.

17. The representative from Japan requested SEAFDEC and the Member Countries to explore the fisheries-related issues (prohibition of bottom trawls in seamout areas, conservation and management of sharks, and by-catch of sea turtles in longline fishing) as raised up at the UN General Assembly, which might have impact to fisheries in the regional, and take appropriate action to safeguard the fisheries interests of the Member Countries.

3.4 Directions for Future Implementation of the Code of Conduct for Responsible Fisheries (CCRF) in the ASEAN Region

18. The Meeting acknowledged SEAFDEC efforts and accomplishment in regionalizing the Code of Conduct for Responsible Fisheries (CCRF), and producing the complete set of Regional Guidelines for Responsible Fisheries, comprising 4 guidelines namely: Responsible Fishing Operations; Responsible Aquaculture, Responsible Fisheries Management, and Responsible Post-harvest Practices and Trade; as well as the directions given from the 27th Meeting of Program Committee to promote the implementation of the CCRF (**Annex 8**).

19. The Meeting endorsed the 4-set package of the Regional Guidelines for Responsible Fisheries to be further submitted to the higher authorities of ASEAN to seek policy support to enhance further implementation of the CCRF. The Meeting also suggested SEAFDEC Secretariat to submit the 4-set package of the Regional Guidelines to FAO to obtain formal recognition, and create visibility in the implementation of the CCRF in the region. In addition the Regional Guidelines could also be used as basis for the complementary section of the CCRF on Small Scale Fisheries to be further developed by FAO.

3.5 Issues Derived from the 26th Session of FAO Committee on Fisheries (COFI)

20. The Meeting took note of the discussion on fisheries-related issues, namely the CCRF, fisheries subsidies, CITES, Eco-labeling, Small-scale Fisheries (SSF), Marine Protected Areas (MPAs) and fisheries, sea turtles and fisheries, Eco-system Approach to Fisheries (EAF), human capacity development in fisheries at the 26th Session of FAO Committee on fisheries (COFI).

21. After deliberation on the issues, the Meeting made the following recommendations to the follow-up the major issues:

- Fisheries subsidies – to develop criteria and lists of fisheries subsidies that should be permitted or prohibited.
- CITES – to formulate and implement NPOA-Shark, to incorporate sea horse and sea cucumber in future programs of activity, and to support closer collaboration between SEAFDEC and ASEAN Expert Group on CITES.
- Eco-labelling – to conduct a regional study on ecolabelling from the regional view point as a basis for future consideration
- Sea turtles and fisheries – to conduct biological research and interaction between sea turtles and fishing to support management and conservation of sea turtles in the region as well as to develop information package on the issues for wider dissemination.
- Small-scale fisheries – to share experience on regionalization of the CCRF focusing on small-scale fisheries and actively involve in future development on the issue with FAO.

22. The Meeting urged the Member Countries to actively participate in international fora to create balance of the discussion, and reflect the regional fisheries uniqueness and requirements. The Meeting also supported SEAFDEC to actively involve in the discussion in future international fora to keep Member Countries informed of the emerging fisheries-related issues and enhance visibility of the Center, and take leading role in reflecting regional fisheries concerns e.g. small-scale coastal and inland fisheries in the agenda of international fora.

23. The representative from Japan informed the Meeting of the Japanese Government plan to host an international meeting on tuna in January 2007, which will be attended by members of Regional Fisheries Management Organizations all over the world, and extended invitation to the ASEAN Member Countries of which many are members of these organizations to participate in the meeting.

3.6 Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region (2006-2010)

24. The Meeting acknowledged with appreciation SEAFDEC initiatives in formulation of the future phase of the Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region (2006-2010) in response to the needs and priorities of the Member Countries, which appears as **Annex 9**, and endorsed the program principle and framework of each program component and projects.

25. The Meeting took note of the 'Core Countries' concept to be used to promote ownership and ensure active involvement of countries in formulation and implementation of programs in close coordination with SEAFDEC. It was also noted that one of the project Core Countries could be selected as the Lead Country under the ASEAN mechanism.

26. The representative from Cambodia highlighted the strong needs for development of rural freshwater. In connection to this, the representative Thailand expressed willingness to share the expertise of the country, in support of the implementation of the program.

27. The Meeting requested SEAFDEC to conduct a paper research on energy saving in fishing and Vessel Monitoring Systems (VMSs) as a basis for future consideration by the Member Countries.

28. The Meeting suggested SEAFDEC to promote closer collaboration with other organization/institutions, such as MRC, AIT, etc which has developed capacity on issues identified in the Special 5-year Program in order to enhance the effectiveness of program implementation. The Meeting also urged SEAFDEC to seek non-traditional funding support to further promote implementation of the program.

29. The Meeting suggested SEAFDEC to standardize the program/project proposals and make proper reference and clear linkage to the items contained in the Resolution and Plan of Action in order to support regular monitoring of the implementation of the Resolution and Plan of Action.

30. The Meeting supported the proposal from Thailand to conduct a regional workshop to harmonize regional fisheries programs particularly those under the ASEAN and SEAFDEC collaboration and in response to the implementation of ASEAN Roadmap for Integration of Fisheries Sector, so as to avoid duplication of efforts. The Meeting also requested supports from SEAFDEC in conducting such a workshop.

31. The Meeting expressed concern for unclear funding situation for the implementation of the Special 5-year Program for benefit of all the Member Countries, and requested ASEAN Secretariat and SEAFDEC Secretariat to investigate possibility to secure required funding support to the program.

3.7 Framework of the Fishery Statistical Bulletin for the Southeast Asian Region

32. The Meeting took note of the draft Framework of the Fishery Statistical Bulletin for the Southeast Asian Region, which will streamline with the fishery statistics of Member Countries to be submitted to ASEAN and FAO (**Annex 10**). The Meeting also endorsed the establishment of the ASEAN Network on Fishery Statistics which is envisaged to support future compilation of fishery statistics and discussion on fishery statistical issues in the region.

3.8 Conservation and Management of Sea Turtle in Southeast Asia

33. The Meeting acknowledged the progress and achievements of the program on conservation and management of sea turtles in line with the ASEAN MoU on Sea Turtles as well as future plan (**Annex 11**). The Meeting also noted the need for national support in future implementation of activities particularly in providing resources and in-country coordination between the ministries concerned.

IV. CONCLUSION

34. After deliberation on collaborative programs and issues under the FCG mechanism, the Meeting agreed to submit the proposals and recommendations concluded at this Meeting for consideration at the forthcoming meetings of SEAFDEC Council and ASEAN Sectoral Working Group on Fisheries.

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AGENDA

- Agenda 1** Opening of the Meeting
- Agenda 2** Adoption of the Agenda
- Agenda 3** ASEAN-SEAFDEC Fisheries Collaborative Programs for the Year 2004-2005
- Agenda 4** Policy Consideration on ASEAN Important Issues
- 4.1 Strengthening of Cooperation between ASEAN and SEAFDEC
 - 4.2 SEAFDEC Initiatives Related to the Tsunami Disaster
 - 4.3 Review of the Implementation of the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region
 - 4.4 Directions for Future Implementation of the Code of Conduct for Responsible Fisheries (CCRF) in the ASEAN Region
 - 4.5 Issues derived from the 26th Session of FAO Committee on fisheries (COFI)
 - 4.6 Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region (2006-2010)
 - 4.7 Framework of the Fishery Statistical Bulletin for the Southeast Asian Region
 - 4.8 Conservation and Management of Sea Turtles in Southeast Asia
- Agenda 5** Other Matters
- Agenda 6** Closing of the Meeting

Annex 3

**PROGRAM OF ACTIVITIES UNDER THE ASEAN-SEAFDEC FISHERIES
CONSULTATIVE GROUP (FCG) MECHANISM (2004-2005)**

I. SUMMARY

Closer collaboration between ASEAN and SEAFDEC in the promotion of the sustainable fisheries development in Southeast Asian was considered as one important gateway. Since 1999, the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) was established as a strategic alliance to pool resources and to avoid duplication of effort. The FCG mechanism is mandated to identify important regional and international fisheries issues, to provide technical assistance to ASEAN for the formulation and implementation of common policies, to assist the Member Countries in formulating common positions on regional or international fisheries issues, and to promote the implementation of regional fisheries collaborative programs. Through this collaborative mechanism, a joint program of planning, implementation, and review have been conducted every year.

Since the Sixth meeting of the ASEAN-SEAFDEC FCG held on 5 April 2004 in Bangkok, a great deal of progress was achieved through the collective actions among Secretariat, Departments, and the Member Countries on the implementation of the agreed program of activities under the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) Mechanism in year 2003-2004.

This document aims to introduce the review of SEAFDEC program of activities under the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) Mechanism. The suggestion for follow-up action is also presented.

**II. OVERALL REVIEW OF THE ACHIEVEMENT OF THE PROGRAM
DURING 2004-2005**

Under ASEAN-SEAFDEC FCG, there are several meetings were conducted in 2004; the discussion of the ASEAN-SEAFDEC fisheries collaborative program as well as issues related to ASEAN-Japan cooperation on sustainable fisheries through SEAFDEC and fisheries policies of ASEAN importance was discussed in the Sixth Meeting of ASEAN-SEAFDEC fisheries Consultative Group (FCG) was held on 5 April 2004 in Bangkok, Thailand.

The Twenty-seventh Meeting of the Program Committee of the SEAFDEC was held in Langkawi, Malaysia from 6 to 9 December 2004 and hosted by the Marine Fishery Resources Development and Management Department (MFRDMD). The Programs under ASEAN-SEAFDEC FCG Mechanism were discussed with the following outcome.

Existing Programs

Title	Progress	Suggestion from 27th PCM
Promotion of Mangrove-friendly Aquaculture in Southeast Asian Countries	Mangrove-Friendly Shrimp Culture Project with Thailand as the Lead Country for the ASEAN was implemented starting in 2000. It aims to develop sustainable culture technology packages on shrimp farming that are friendly to mangroves and the environment, and to disseminate such packages to the region through actual demonstration and training. Verification and pilot demonstration, research, training and information dissemination activities have been conducted under this project. The Mangrove-Friendly Shrimp Culture Project will end in March 2005.	The Committee noted the requests for possible expansion of the Project's activities to Indonesia, the translation of manuals developed by the program into Khmer to enhance better understanding and promotion of the technology in Cambodia, and technical assistance for additional on-site training in Myanmar.
Conservation and Management of Sea Turtles in Southeast Asian Countries	<p>The book entitled "Conservation and Enhancement of Sea Turtles in the Southeast Asian Region" was published in September 2004. It was based on available information on research, conservation and management of sea turtles in ASEAN-SEAFDEC member countries gathered during the Regional Technical Consultation on Sea Turtle Conservation and Management in Southeast Asia, 16-18 September 2003 in Kuala Lumpur, Malaysia. Other sources of information were through literature search in scientific journals, proceedings of seminar/workshop, books etc. 500 books were printed.</p> <p>Another book entitled "A Guide to Set-up and Manage Sea Turtles Hatcheries in the Southeast Asian Region" was also published in November 2004. This book is the outcome of activity under Sea Turtle Hatchery Management, which was conducted from 2001-2003. 500 books were printed.</p>	<p>The Committee supported the suggestion that MFRDMD in collaboration with TD develop a comprehensive information kit containing the compiled outputs of the program in order to raise public awareness on the conservation and management of sea turtles at the regional and international levels.</p> <p>Considering that a number of programs addressing issues on sea turtles are being implemented in the region, the Committee suggested that paragraph 14, 16 and 29 of 27PCM's report should be referred to in planning and implementing such programs.</p>
Rationalization of the Code of Conduct for Responsible Fisheries	<p>Component I: Phase IV Post-harvest Practices and Trade</p> <p>In 2004, the regional guideline on CCRF Phase IV: Post-harvest Practices and Trade was developed after the series of the meetings to formulate the regional guidelines for Article 11 of the CCRF, which focuses on post-harvest practices and trade.</p> <p><u>Activity 1: Planning Meeting</u></p> <p>The program started with a Planning Meeting between MFRD and the Secretariat held from 26-27 January 2004 in Singapore. During this meeting, the</p>	<p>Regarding Component I, the Committee requested SEAFDEC to give priority in the following areas:</p> <ul style="list-style-type: none"> - Submission of a 4-set package of regional guidelines for responsible fisheries in Southeast Asia to higher authorities of ASEAN to seek policy support for future implementation of the CCRF - Supports to the Member Countries in formulation of NPOAs

	<p>scope and framework of the RCCRF Phase IV including the implementation plan of activities was defined and a tentative list of regional core experts identified.</p> <p><u>Activity 2: Preliminary drafting of guidelines</u> After the Planning Meeting, MFRD and the Secretariat began work on a preliminary drafting of the guidelines for the RCCRF Phase IV Program and confirmation of the list of core experts.</p> <p><u>Activity 3: Core Experts Meeting (1st draft)</u> The Core Expert Meeting was held from 4-6 May 2004 in Singapore. The core experts attended the meeting from the ASEAN and SEAFDEC member countries including members of the ASEAN Post-Harvest Technology Network as well as staff of MFRD and the Secretariat. The Meeting reviewed the CCRF Article 11 on Post-Harvest Practices and Trade by clarifying issues and areas in the regional fisheries context based on the preliminary review made by MFRD and the Secretariat, covering Article 11.1- Responsible Fish Utilization; Article 11.2 – Responsible International Trade; and Article 11.3 – Laws and Regulations relating to Fish Trade. After brainstorming and deliberation, the Meeting developed the 1st draft of the Regional Guidelines for Responsible Fisheries on Post-Harvest Practices and Trade based on relevant technical recommendations, the Resolution and Plan of Action of the Millennium Conference, including results of implementation of subsequent initiatives.</p> <p><u>Activity 4: Country reviews and inputs to the guidelines (2nd draft)</u> Subsequently, core experts coordinated with their relevant national agencies within their country to obtain inputs for drafting the 2nd draft of the Regional Guidelines and provided the inputs to MFRD.</p> <p><u>Activity 5: Consolidation of country inputs (3rd draft)</u> After compiling the inputs from the ASEAN member countries, MFRD in consultation with the Secretariat consolidated all national inputs into the 3rd draft of the Regional guidelines without country specific actions for finalization through the discussion at the Regional Technical Consultation.</p>	<ul style="list-style-type: none"> - Continued awareness and capacity building as well as promotional campaign on responsible fisheries targeting at key stakeholders including government officials, fishers, and consumers through development of appropriate media - ASEAN and SEAFDEC visibility in the implementation of the CCRF - Possible cooperation with FAO through its Fish Code program for the implementation of the CCRF in the region - Clear policy directions in sharing experience in the RCCRF program with other regions through technical cooperation to mobilize and widen regional expertise <p>It was also reiterated that regional guidelines for responsible fisheries should be translated into national languages. The Committee also suggested that the Member Countries accommodated appropriate parts into the national policy and prepared materials targeting at various levels of stakeholders to ensure effective implementation of the CCRF.</p> <p>In the program component II on human resources development supporting fisheries management, the Committee suggested that the program focus on the target stakeholders including not only the government officials but also fishers and fisher groups to ensure better understanding and compliance to the management of fisheries.</p>
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Activity 6: Regional Technical Consultation (Final draft)

The Regional Technical Consultation was organized in Chiang Mai, Thailand, from 26-29 October 2004. Representatives attended in the consultation from the ASEAN-SEAFDEC member countries with one representative responsible for fish utilization/international trade/laws and regulations relating to fish trade and another representative being a core expert of post-harvest technology and trade. Representatives of regional/international organizations such as the ASEAN Secretariat and FAO, resource persons on issues related to legal aspects and the WTO as well as representatives and advisors from the SEAFDEC Secretariat and Departments responsible for post-harvest practices and trade in fish and fish products attended the meeting. The meeting deliberated on the 3rd draft Regional guidelines for Post-Harvest Practices and Trade for Article 11.1, 11.2 and 11.3 as well as clarification of the terminologies for Article 11.1, 11.2 and 11.3 and after brainstorming and deliberation, developed a Final Draft of the guidelines. The meeting then discussed the finalization and dissemination strategies and plan for the Regional Guidelines.

Activity 7: Compilation of additional views and comments to the Final Draft made at RTC

From November to December 2004, additional views and comments to the Final Draft of the Regional Guidelines made at the Regional Technical Consultation were compiled so as to finalize the draft guidelines such that it is ready for circulation to member countries for final confirmation.

Activity 8: Submission of Final Draft to 27th PCM

The Guidelines was then reported to the 27th PCM for information, after which, the guidelines will be circulated to the member countries for final confirmation from January to February 2005.

Component II: Human Resources Development with emphasis on Fisheries Management Related Aspects

To support ASEAN Member Countries in facilitating programs/activities related to HRD in fisheries management to work towards the achievement of the sustainable fisheries in the region, and to assist in awareness building and training programs/activities at the national levels, the following three major

	<p>activities were organized during the year 2004:</p> <ul style="list-style-type: none"> - Co-organization of the ASEAN-SEAFDEC Regional Workshop (R/W) on Human Resource Development (HRD) in Fisheries, Kuala Lumpur, Malaysia, 20-23 Feb. 2004 - Organization of the ASEAN-SEAFDEC Regional Technical Consultation (RTC) on HRD in Fisheries Management, Phnom Penh, Cambodia, 3-6 Jun. 2004 - Organization of the ASEAN-SEAFDEC Preparatory Expert Meeting on Fishing Capacity and Related HRD Needs in the ASEAN Region, Bangkok, Thailand, 14-16 Sep. 2004 <p>This “Strategy” for HRD in fisheries in the ASEAN Region, developed during the regional workshop in Malaysia, is essential to clarify role of HRD to effectively implement the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region.</p> <p>During the RTC in Cambodia, clarification on target groups/areas and priority requirements for HRD in fisheries management at the national levels was made with special emphasis on small scale fisheries while also taking into consideration the integration of social, environmental and legal aspects in HRD for fisheries management. The requirements identified at the RTC in Cambodia will be incorporated in plans and activities to be further promoted by the project with the supports by Sida (e.g. recommended “representative set of countries”) as well as by other international/regional/national organizations concerned. The RTC agreed that SEAFDEC will develop a regional inventory, database and network for information collection on HRD in fisheries through close cooperation and coordination with national focal point of the program from each member country.</p> <p>During the Experts Meeting in Bangkok, as the follow-up event to the series of meeting related to HRD in fisheries management, discussions focused on identification of problem areas, possibilities and target groups for various HRD interventions to alleviate problems caused by excess fishing capacity and related activities to be implemented to respond to social changes/needs due to reduced opportunities to fish. The Meeting gave recommendations regarding practical</p>	
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	<p>steps to be taken towards development of HRD programs for management of fishing capacity in the region for further incorporated into the process in this project.</p>	
<p>Fish Trade and Environment</p>	<p>In 2004, the project organized a RTC on Fish Trade and Environment from 16 to 18 March in Bangkok focusing on issues of CITES (particularly on sharks) and fisheries subsidies. The result of the RTC was used as a basis for policy discussion of which regional common positions were set and used to reflect in various international fora.</p> <p>The project also coordinated closely with other projects such as conservation and management of sea turtles in the ASEAN region and management of shark fisheries. The result of coordination, with the assistance of the WGRFP, was used as inputs for the participation of the Member Countries and SEAFDEC in the CoP13-CITES, which was held in Bangkok in October.</p> <p>At the international level, the project also formulated reviews of issues and common positions related to fisheries subsidies and eco-labelling. The reviews supported the Member Countries who participated in the relevant FAO technical consultations (Fisheries Subsidies in June and Eco-labelling in October, respectively) discussing global concerns and directions on the issues. In addition, the project was also able to assist the Member Countries to consolidate views and concerns during various international fora to safeguard requirements and interests of the ASEAN region.</p> <p>In February 2005, RTC on Fish Trade and Environment was held with the main objective to develop a common understanding and position related to fish trade and other fisheries important issue as a preparation for intervention by the ASEAN-SEAFDEC Member Countries at the 26th Session of FAO Committee on Fisheries to be held from 7 to 11 March 2005.</p> <p>During RTC on Fish Trade in February 2005, it was reaffirmed that the responsible fisheries is the principle of development of fisheries in the region and should not be compromised by an unsustainable trade and fisheries practices.</p>	<p>The Committee supported the proposal of the Secretariat to conduct a regional preparatory meeting on fish trade and environment in early 2005 to exchange views and develop coordinated/common positions on fish trade issues particularly on fisheries subsidies, CITES, eco-labelling and sea turtles, as basis for the general view of the Member Countries participating in the next FAO Meeting of the Committee on Fisheries in March 2005.</p> <p>The Committee urged all Member Countries to seriously work towards the formulation and implementation of NPOA-Shark (National Plan of Action-Shark) in anticipation of the future listing of proposals on sharks. It was also suggested that the inter-agency coordination at the national level should be strengthened to reflect the national positions on the fisheries issues prior to the WTO negotiations considering that some national fisheries management authorities are not involved directly in such negotiations. Similarly, all Member Countries are invited to actively participate in regional/international fora including meetings of the FAO Sub-committee on Fish Trade in order to continuously convey their common positions in trade related issues.</p>

<p>Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region</p>	<p>Since the current Special 5-year Program is approaching its final year in 2005, the Secretariat organized the regional program planning meeting for the next phase of the Special 5-year covering the period from the year 2006-2010.</p> <p>During the planning meeting, to review implementation and achievement of the Special 5-year Program during 2002-2005, and to finalize concept and scope to identify projects/activities of the next phase of the program were the major objectives of the program.</p> <p>In formulating the Special 5-year program for 2006 to 2010, the Meeting supported the program principle, outlining program objectives, guiding principles, framework, program administration, and consideration for program formulation, as presented by SEAFDEC Secretariat and stressed on the importance of active participation by the Member Countries in the program formulation and implementation to ensure benefits and greater impacts to the Member Countries.</p> <p>Based on the inputs from ASEAN-SEAFDEC Member Countries, the proposed projects for the Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region from 2006-2010 include:</p> <p>Component1: Fisheries Management</p> <ul style="list-style-type: none"> - The Use of Indicators for Sustainable Development and Management of Capture Fisheries in the ASEAN Region - Development of Integrated Inland Fisheries Management in ASEAN Countries - Improvement of Statistics and Information for Planning and Management of Fisheries the ASEAN Region - Rehabilitation of Fisheries Resources and Habitats/Fishing Grounds through Resource Enhancement - Strengthening Small-scale Fisheries Management through Promotion of Rights-based and Co-management Concepts - Sustainable Utilization of Potential Fisheries Resources and Reduction of Post-harvest Losses - Responsible Fishing Technologies and Practices 	
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	<p>Component 2: Aquaculture</p> <ul style="list-style-type: none">- Development of Technologies for Sustainable Aquaculture- Human Capacity Building for Sustainable Aquaculture <p>Component 3: Fisheries Post-harvest</p> <ul style="list-style-type: none">- Quality Assurance Systems for Small and Medium-sized Fish Processing Establishments in the ASEAN Region- Good Laboratory Practices (GLP) and Methods Validation- Utilization of Freshwater Fish <p>During its planning meeting, it was requested that SEAFDEC Secretariat and the Departments to accommodate the following recommendations when formulating detailed program proposal to ensure cost-effective implementation and greater impacts of the program.</p> <ul style="list-style-type: none">▪ To enhance ownership of the proposed program, the Member Countries should be fully involved in formulation and implementation process of the program including planning of projects and activities. To ensure close coordination and involvement of the Member Countries, the Meeting suggested identifying “core countries” for each project.▪ In implementation of the program, close cooperation with the ASEAN member countries and other institutions/international organizations through technical assistance and staff exchange should be promoted.▪ To assess benefits and impacts of the program to the Member Countries, SEAFDEC Secretariat and the Departments should develop an appropriate mechanism for the program evaluation. <p>During the planning meeting, SEAFDEC was also requested to subsequently submit the detailed program proposal to the forthcoming meetings of ASEAN-SEAFDEC Fisheries Consultative Group (FCG) and SEAFDEC Council for consideration and endorsement.</p>	
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Information Collection for Sustainable Pelagic Fisheries in the South China Sea	<p>The progress of the components on the fishing operation and catches, biological data collection and analysis and maximizing utilization of some selected species exploited by purse seine were highlighted. The implementation of these components in 2003 and 2004 was presented and discussed at the 3rd Technical Consultation Meeting held in Kuala Lumpur from 22 to 24 November 2004.</p>	<p>The Committee considered the inclusion of coastal tuna species under the future stage of the project and noted the regional database on catch and biological data, now accessible via the SEAFDEC homepage.</p> <p>The Committee supported the need to increase the number of BBO (Black Box on Board) recorders in some participating countries on condition that appropriate data retrieval can be done and also noted the request of Cambodia for additional training on data analysis.</p>
Development of Fish Disease Surveillance System	<p>The Fish Disease Project was initially planned to end in March 2004 but was extended to March 2005 because of the urgent need to study an emerging viral disease, koi herpesvirus (KHV) disease of common carp and koi (Cyprinus carpio). Also implemented as Phase II of the Regional Fish Disease Project is the Establishment of Disease Surveillance System of Aquatic Animal. The Research and Development component of this project was planned to commence in late 2004.</p>	<p>The Committee supported the proposal to extend the fish disease inspection activities on KHV to 2005 and to establish a regional Fish Disease Diagnosis Team, which will work closely with identified national fisheries authorities to immediately respond to any disease outbreak in the region.</p>

New Proposed Programs

The Committee supported the following new proposed programs to be placed under the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) mechanism and requested the relevant Departments to accommodate the suggestions of the Committee in the proposals for submission to the next FCG meeting.

Research and Analysis of Chemical Residues and Contamination in Fish, Fish Products and the Environment such as Fishing Ground and Aquaculture Field

Since a number of antibiotics have been added to the international list of prohibited antibiotics in fish and fishery products, the Committee suggested MFRD to work also on other important antibiotics and chemical agents that may have residues in fish and fish products.

Research and Development (R&D) of Stock Enhancement for Species under International Concerns

The Committee suggested that the project on stock enhancement be integrated into a comprehensive management framework on resource enhancement, and that AQD and MFRDMD collaborate with TD on this project.

The Committee suggested MFRDMD and TD to investigate the interaction between fishing operations on sea turtle mortality in the seas. To support such investigation, the cooperation with other competent institutions on satellite tracking for sea turtles should be considered.

Capacity Improvement of Fisheries Community for Fisheries Management and Alleviation of Poverty

The Committee suggested TD to coordinate with the RCCRF Component II on human resources development to support fisheries management. The Committee also suggested that the experiences from the program on Coastal Resource Management in Thailand and Malaysia could be extended to other Member Countries through related projects. The Committee also noted the requests of Myanmar and Vietnam to conduct pilot activities in their countries.

III. SUGGESTIONS FOR CONSIDERATION

The Meeting is requested to consider and endorse the programs under the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) mechanism for 2004 and 2005 as well as new proposed programs. The Meeting is also requested to provide suggestions to improve better implementation of the programs.

Lastly, the Meeting is requested in particular to consider and endorse the following:

Regionalization of the Code of Conduct for Responsible Fisheries (RCCRF)

- Submission for endorsement on the 4-set package of the regional guidelines for responsible fisheries in Southeast Asia, and its future implementation of the CCRF on the submission of the to high-level authorities of ASEAN;

- Policy support on the formulation of the National Plan of Actions by all Member Countries for future promotion of the RCCRF;
- Policy direction by the Meeting on the ASEAN and SEAFDEC visibility in the implementation of the CCRF;
- Policy direction/suggestion by the Meeting on the possible cooperation with FAO through its Fish Code program for the implementation of the CCRF in the region;
- Clear policy directions in sharing experience in the RCCRF program with other regions through technical cooperation to mobilize and widen regional expertise; and
- Policy support on the translation of the regional guidelines for responsible fisheries into national languages;

Fish Trade and Environment

(program title to be changed to 'Assistance of Capacity Building in the Region to Address International Trade Related Issues' from 2005 onwards)

- Support to all the Member Countries to the work towards the formulation and implementation of National Plan of Action-Shark in anticipation of the future listing of proposals on sharks of the WTO negotiations.

Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region

- Submission for endorsement on the detailed program proposal of the Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN (2006-2010); and
- Policy support on the establishment of the "Core Countries" for each project in order to enhance ownership of the proposed programs/projects and to ensure close coordination and involvement of the Member Countries.

STRENGTHENING OF COOPERATION BETWEEN ASEAN AND SEAFDEC

I. INTRODUCTION

SEAFDEC has been closely cooperating and collaborating with the ASEAN through the ASEAN Sectoral Working Group (ASWGFi) for many years. In 1993, the 15th ASEAN Ministers on Agriculture and Forestry (AMAF) Meeting, in recognition of the contribution of SEAFDEC to ASEAN, agreed that SEAFDEC be appointed as the executing and implementation agency for ASEAN fishery projects. In 1999, the 21st AMAF Meeting further endorsed the establishment of the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) as a mechanism to harmonize their technical programs/projects/activities, and further enhance cooperation and strengthen the linkages between ASEAN and SEAFDEC and among the Member Countries.

In 2001, with the endorsement of the 23rd AMAF Meeting, ASEAN and SEAFDEC successfully organized the “ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security in the New Millennium, “Fish for the People” (Millennium Conference)” in November 2001 in Bangkok Thailand. The Ministerial Meeting organized during the Millennium Conference adopted the “Resolution on Sustainable Fisheries for Food Security for the ASEAN Region” and endorsed the “Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region” formulated by the ASEAN Senior Officials. Since the ASEAN-SEAFDEC Millennium Conference in 2001, ASEAN Member Countries have implemented various ASEAN-SEAFDEC collaborative projects and activities on priority issues contained in the Resolution and Plan of Action for Food Security for the ASEAN Region. These project and activities were funded by the Government of Japan through SEAFDEC.

The 25th AMAF Meeting in 2003 endorsed SEAFDEC’s proposal to organize a “Seminar on ASEAN-Japan Cooperation for Sustainable Fisheries through SEAFDEC” as an activity Commemorating ASEAN-Japan Exchange Year 2003. Seminar on ASEAN-Japan Cooperation for Sustainable Fisheries through SEAFDEC was organized in Tokyo, Japan during 3-5 Dec 2003. The objectives of the Seminar were to develop a “Vision” of ASEAN Member Countries in achieving sustainable fisheries in the ASEAN Region and to enhance the greater awareness among wider audiences in ASEAN and SEAFDEC Member Countries on the importance of sustainable cooperation on fisheries in the ASEAN Region. A “Statement” including the “Vision”, formulated and endorsed at this Seminar, provides the direction to strengthen cooperation to meet the challenges in sustainable fisheries development and global fisheries issue.

In 2004, the 26th AMAF endorsed various existing and new activities/initiatives under joint implementation between ASEAN and SEAFDEC which had been adopted by SOM-AMAF. The Meeting also agreed to SOM’s endorsement on the “Statement” of the Seminar in Japan including ASEAN Vision “To be a leader in Sustainable Tropical Fisheries for the People”; the “Strategy for Human Resource Development in Fisheries in the ASEAN Region” jointly formulated and developed under ASEAN-SEAFDEC

collaborative program; and the “Report and Recommendation” of the ASEAN-SEAFDEC preparatory meeting on the issues related to fish trade and environment.

II. BASIC RECOGNITIONS

Considering the dominant direction of the organizations, SEAFDEC has been viewed as a policy and technical organization, while ASEAN as a political organization. Mutual benefits, especially from activities conducted in the fields of fishery and aquaculture development can, therefore, be derived by their Member Countries. In this regard, ASEAN and SEAFDEC had initiated a series of initiatives/programs/activities in order to enhance and strengthen the cooperation between ASEAN and SEAFDEC including as follows:

2.1 Harmonization of technical programs/activities

To enhance the effectiveness of the implementation of fishery programs in the ASEAN Region, closer collaboration between ASEAN and SEAFDEC in the promotion of sustainable fisheries development in Southeast Asia could be considered as one important gateway. In this connection, the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) mechanism was established in 1999 and the First ASEAN-SEAFDEC FCG Meeting was held on 4 March 1999. Through this collaborative mechanism, a joint program of planning and review has been conducted every year. It is envisaged that, supported by ASEAN and SEAFDEC Member Countries, the programs will provide greater impact for the benefit of sustainable fisheries development in the region.

2.2 Common ASEAN fisheries policy and guidelines

“The Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region (The Resolution and Plan of Action)” adopted at the Senior Official Meeting and Ministerial Meeting during the Millennium Conference have been widely recognized, through the ASEAN and SEAFDEC process, as a common ASEAN fisheries policy and guidelines to be used for promoting activities toward sustainable fisheries development in the region. SEAFDEC, in collaboration with ASEAN Member Countries, have developed a series of projects to assist ASEAN Member Countries in the implementation of the various issues contained in “The Resolution and Plan of Action”. Since 2002, the Special 5-year Program has been promoted under the ASEAN-SEAFDEC Fisheries Collaborative Group (FCG) mechanism to support the Member Countries in the implementation of the “Resolution” and “Plan of Action”.

Overall implementation of “The Resolution and Plan of Action” by the Member Countries, as resulted from the Mission carried out by SEAFDEC Secretariat which was instructed by SEAFDEC’s Council Director Meeting in 2004, indicated that “The Resolution and Plan of Action” does not only provide regional policy framework and priority actions to promote regional cooperation in sustainable development of fisheries but also provide a basis for strengthening their national policy and programs in achieving sustainable fisheries and food security. In addition, the Member Countries expressed their appreciation to SEAFDEC and Japan for the support, and they requested SEAFDEC to continue support for present and future program from SEAFDEC to ASEAN in strengthening the implementation of “The Resolution and Plan of Action”.

2.3 “Statement” for Sustainable Fisheries through SEAFDEC

In the deliberation on the development of sustainable fisheries in ASEAN for food security, a “Statement” was formulated and adopted by the Senior Officials, during the “Seminar on ASEAN-Japan Cooperation for Sustainable Fisheries through SEAFDEC”. The “Statement” reiterated ASEAN Member Countries commitment to the policy in achieving sustainable fisheries to support their fisheries industries; the need for scientific and research-based policies for sustainable fisheries; and recognition of the importance of the existing ASEAN-SEAFDEC collaborative framework and the role of Japan in the promotion of sustainable fisheries in the ASEAN.

2.4 Strategy for Human Resource Development in Fisheries in the ASEAN Region

“The Strategy for Human Resource Development in Fisheries in the ASEAN Region” was developed during the joint meeting of ASEAN and SEAFDEC in collaboration with DOF of Malaysia and the Swedish International Development Cooperation Agency in 2004. The “Strategy” is considered vital to clarify the role of human resource development to effectively promote “The Resolution and Plan of Action” particular emphasis on education, skills/competency training and research-based human capacity building. In collaboration with the ASEAN-SEAFDEC Member Countries and other fisheries-related institutions, this “Strategy” will be used as a basis for further formulation of the regional programs/initiatives to support the implementation of “The Resolution and Plan of Action”.

III. RECOMMENDATIONS AND SUGGESTED ACTION BY THE MEETING

The Meeting is invited to make suggestions for further strengthening cooperation between ASEAN and SEAFDEC including possible establishment of an Memorandum of Understanding (MoU) on Cooperation between ASEAN and SEAFDEC (Annex 5).

**MEMORANDUM OF UNDERSTANDING TO
STRENGTHEN AND FORMALIZE ASEAN-SEAFDEC COOPERATION IN
SUSTAINABLE FISHERIES DEVELOPMENT**

Introduction

1. The Southeast Asian Fisheries Development Center (SEAFDEC) is a regional inter-governmental organisation established in 1967 to promote fisheries development. SEAFDEC has a Secretariat in Bangkok, Thailand, and four technical departments. The Training Department in Thailand, Marine Fisheries Research Department in Singapore, Aquaculture Department in the Philippines and the Marine Fishery Resources Development and Management Department in Malaysia. SEAFDEC has 11 member countries; they are the 10 ASEAN member countries and Japan.

2. SEAFDEC has been closely cooperating and collaborating with the ASEAN through the ASEAN Sectoral Working Group on Fisheries (ASWGF_i) for many years. In 1993, the 15th ASEAN Ministers on Agriculture and Forestry (AMAF) Meeting, in recognition of the contribution of SEAFDEC to ASEAN, agreed that SEAFDEC be appointed as the technical arms for ASEAN fishery projects on a project-by-project basis. In 1999, the 21st AMAF Meeting further endorsed the establishment of ASEAN-SEAFDEC Fisheries Consultative Group (FCG) as a mechanism to harmonize their technical programs/ projects/activities, and further enhance cooperation and strengthen the linkages between ASEAN and SEAFDEC and among the member countries.

3. In 2001, with the endorsement of the 23rd AMAF, ASEAN and SEAFDEC successfully organized the “ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security in the New Millennium, “Fish for the People (Millennium Conference)” in Nov 2001, Bangkok, Thailand, as a major collaborative program. The Ministerial Meeting, attended by Ministers from ASEAN Member Countries and Japan, organized during the Millennium Conference, adopted the “Resolution on Sustainable Fisheries for Food Security for the ASEAN Region” and endorsed the “Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region” formulated by the ASEAN Senior Officials. The Resolution and Plan of Action provides a common fisheries policy and guidelines for the ASEAN region. Since the ASEAN-SEAFDEC Millennium Conference in 2001, ASEAN Member Countries have implemented various ASEAN-SEAFDEC collaborative projects and activities on priority issues contained in the Resolution and Plan of Action. These projects and activities were funded by Japan through SEAFDEC, under a special 5-year program on sustainable fisheries for food security in the ASEAN region.

4. The 25th AMAF Meeting in 2003 endorsed SEAFDEC’s proposal to organize a “Seminar on ASEAN-Japan Cooperation for Sustainable Fisheries through SEAFDEC” as an activity Commemorating ASEAN-Japan Exchange Year 2003. The objectives of the Seminar were to develop a “Vision” of ASEAN Member Countries in achieving sustainable fisheries in the ASEAN region; highlight the directions to effectively promote the implementation of the “Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region” adopted at the Millennium

Conference; and to enhance the greater general awareness among wider audiences both in ASEAN and SEAFDEC Member Countries on the importance of the sustainable cooperation on fisheries in the ASEAN region on the occasion of ASEAN-Japan Cooperation Year 2003. The Seminar was successfully held in Tokyo, Japan, from the 3-5 December 2003.

5. In October 2004, SEAFDEC was invited by ASEAN for the first time to participate in the 26th AMAF Meeting in Yangon, Myanmar, to make a presentation to the ASEAN Ministers on ASEAN-SEAFDEC cooperation. After SEAFDEC's presentation, the Ministers expressed their recognition of the significant role and function of SEAFDEC in the promotion of sustainable fisheries in the ASEAN region, and expressed their appreciation to SEAFDEC and Japan for their contributions. In particular, the Ministers acknowledged the success of the "Seminar on ASEAN-Japan Cooperation for Sustainable Fisheries through SEAFDEC", which was held on 3-5 December 2003, Tokyo, Japan, for commemorating the ASEAN-Japan Exchange Year 2003. The Ministers endorsed the Statement from the Seminar including the ASEAN Vision: "*To be a leader in Sustainable Tropical Fisheries for the People*", and agreed that ASEAN-Japan cooperation in fisheries through SEAFDEC, should be further strengthened.

Rationale for an ASEAN-SEAFDEC Memorandum of Understanding (MOU)

6. All ASEAN member countries and Japan are members of SEAFDEC. In addition to the ASEAN-SEAFDEC fisheries programs, ASEAN also has its own fisheries programs implemented under the ASEAN Sectoral Working Group on Fisheries (ASWGFi). There have been cases that there are some duplication and overlap between the ASEAN and ASEAN-SEAFDEC activities, and efforts were made to integrate these activities to pool resources. It is therefore timely for ASEAN and SEAFDEC to establish a more formal relationship through the proposed MOU. The purpose of the MOU is for ASEAN and SEAFDEC to formally agree for SEAFDEC to be ASEAN's executing agency for designated ASEAN programs/projects/activities. Such an arrangement will be beneficial to both ASEAN and SEAFDEC and the member countries.

7. ASEAN had in the past appointed SEAFDEC to be its implement agency for some ASEAN's fisheries programs/projects. This arrangement excludes ASEAN fisheries programs/projects that are implemented directly by the ASWGFi. SEAFDEC does not have direct access to or contact with these programs. For ASEAN, the implementation of fisheries programs/projects by ASWGFi has inherent difficulties as ASWGFi does not have a permanent secretariat that can monitor program activities and progress, as the Chairmanship and secretariat of the ASWGFi is held by rotation on a yearly basis among ASEAN member countries. In order for ASEAN fisheries programs/projects to be implemented quickly and the progress monitored regularly, it will be extremely advantageous for ASWGFi to have an executing agency that will be able to work closely with rotating Chairmanship. It is therefore appropriate for ASEAN to consider SEAFDEC as the logical choice as the ASWGFi's executing agency. SEAFDEC is already the implementing agency for many of ASWGFi's ASEAN-SEAFDEC programs.

8. The proposal for ASEAN to appoint SEAFDEC as its executing agency will require the approval of ASEAN and SEAFDEC. The proposed MOU will further strengthen ASEAN-SEAFDEC cooperation and integrate the fisheries programs/projects of ASEAN and SEAFDEC and will enhance the development of sustainable fisheries development in the Southeast Asia region.

9. For ASEAN, the MOU will be a document that ASEAN registers her commitment and support to SEAFDEC, and also define SEAFDEC's role and contributions to ASEAN fisheries development and ASEAN Fisheries Vision. It is also in response to the directive of the AMAF Ministers as declared in their 26th AMAF Meeting Press Release, in which they called for ways and means to further strengthen the existing ASEAN - SEAFDEC cooperation. The MOU, can be viewed by ASEAN as moving a step forward in response to the 26th AMAF Ministers directive, and could be reported to the next 27th AMAF Meeting in 2005. The MOU spells out what are ASEAN commitments to SEAFDEC, including the FCG mechanism and the participation of SEAFDEC in ASEAN meetings, so that all ASEAN member countries will be aware of the special relationship and the commitments. In this way the MOU will be an important formal reference document for present and future ASEAN cooperation with SEAFDEC.

10. For SEAFDEC, the MOU will provide SEAFDEC with a document that will formalise the contributions that SEAFDEC have made to ASEAN fisheries development and the acknowledgement by ASEAN. It will also provide the "platform" for present and future SEAFDEC cooperation with ASEAN. The MOU does not in anyway replace FCG, but will further strengthen the mechanism and work of FCG. SEAFDEC will have a formal reference document that spells out ASEAN's commitments to SEAFDEC, and also ASEAN's recognition of the importance of, and contributions from, SEAFDEC. The MOU will place on record the close relationship between SEAFDEC and ASEAN in fisheries development in the ASEAN region. Under the MOU, SEAFDEC will be provided with a clearer mandate, role and function in ASEAN-SEAFDEC cooperation and as the executing agency for ASEAN fisheries projects. SEAFDEC will also be provided with an avenue/opportunity, under the MOU, to provide program/projects updates and/or progress reports to the AMAF Ministers at their annual meetings and to seek AMAF Ministerial support and guidance on important fisheries issues.

Conclusion

11. The attached draft MOU (Appendix 1) spells out the interest and commitments of the participating parties to enhance closer collaboration and cooperation between the two regional organizations in Southeast Asia. It also provides the formal framework for the ASEAN and SEAFDEC "strategic partnership", and to tap each other resources and information systems by participating at each other relevant meetings. The MOU will be "operated" by the ASEAN Secretariat (or appointed subsidiary body) and the SEAFDEC Secretariat. Under the draft MOU, SEAFDEC will serve as the executing agency to assist ASEAN to implement and monitor the progress of ASEAN fisheries programs/projects and submit regular reports to ASEAN and the SEAFDEC Council. ASEAN will report to AMAF through SOM-AMAF so that AMAF will be kept informed of the progress of ASEAN-SEAFDEC fisheries program/projects. Where necessary or appropriate, ASEAN will invited SEAFDEC to participate at SOM-AMAF

and AMAF meetings to make presentations or report to the ASEAN Ministers on the progress of programs/projects and to seek Ministers' guidance and endorsement on important fisheries issues and policies.

12. It is proposed that the 7th ASEAN-SEAFDEC FCG and the 37th SEAFDEC Council meetings consider the proposed draft MOU for approval. The draft MOU will also require the approval of the ASEAN. If the draft MOU is agreeable to ASEAN and SEAFDEC a mutually suitable venue and date can be agreed upon for the signing of the MOU. One possible date and venue for the signing of the MOU could be as a side event to be witness by AMAF + Japan Ministers during the "5th AMAF + 3" Meeting in Manila, the Philippines in 2005.

DRAFT

**Memorandum of Understanding
Between
Association of Southeast Asian Nations (ASEAN)
and
Southeast Asian Fisheries Development Center (SEAFDEC)
to strengthen ASEAN – SEAFDEC Cooperation in Fisheries**

The Association of Southeast Asian Nations (ASEAN) Secretariat, acting for and on behalf of the Member States of ASEAN and the Southeast Asian Fisheries Development Center (SEAFDEC) acting on behalf of the Member States hereinafter referred to as "the Parties";

RECOGNISING the need for closer collaboration between ASEAN and SEAFDEC in the various fisheries programs related to globalisation of the fisheries issues, promoting sustainable fisheries, and food security;

RECALLING the successful conclusion of the “ASEAN-SEAFDEC Ministerial Conference on Sustainable Fisheries for the Food Security in the New Millennium, ‘Fish for the People’ (Millennium Conference) in 2001 attended by the ASEAN Member countries and Japan, and the implementation its follow-up programs;

RECALLING the Statement issued after the successful conclusion of the “Seminar on ASEAN-JAPAN Cooperation for Sustainable Fisheries through SEAFDEC” held on 3-5 Dec 2003, Tokyo, Japan, Commemorating the ASEAN-Japan Exchange Year 2003;

NOTING that at 26th Meeting of the ASEAN Ministers on Agriculture and Forestry (26th AMAF) held on 7th October 2004, Yangon, Myanmar, the ASEAN Ministers recognized the significant role and function of SEAFDEC in the promotion of sustainable fisheries in the ASEAN region, and expressed their appreciation to SEAFDEC for their contributions. The ASEAN Ministers further called for the strengthening of ASEAN and SEAFDEC cooperation;

DESIRING to further strengthen the closer working relationship between the ASEAN and SEAFDEC, the Parties have reached an understanding on the following:-

1. ASEAN agreed to entrust SEAFDEC, when appropriate, within the SEAFDEC capacity and capability to implement mutually agreed ASEAN fisheries programs. This arrangement will provide for greater integration of ASEAN and SEAFDEC fisheries programs thereby avoid duplication and enable better utilisation of resources.
2. The Parties agreed that the existing ASEAN-SEAFDEC Fisheries Consultative Group (FCG) is the authorised mechanism to consult, deliberate and agree on the ASEAN fisheries programs, which this Memorandum of Understanding covers.

3. While the fisheries programs shall be conducted based on the principles, rules, procedures and regulations of ASEAN and “ the Agreement Establishing the Southeast Asian Development Center” of SEAFDEC, the following modalities shall be considered:
 - a) The development and implementation of regional fisheries programs related to the Southeast Asian Region by ASEAN and SEAFDEC will be undertaken more systematically and vigorously in terms of the regional and national priority;
 - b) SEAFDEC will undertake the technical responsibilities for the promotion, implementation, monitoring and coordination for the designated ASEAN fisheries programs in collaboration with SEAFDEC countries;
 - c) ASEAN Secretariat and/or ASEAN Sectoral Working Group on Fisheries (ASEAN WGFi) will continue to undertake overall coordination and implementation work of ASEAN fisheries programs within the ASEAN framework, and provide policy and Ministerial guidance from AMAF when necessary in order for SEAFDEC to effectively implement ASEAN fisheries programs entrusted to SEAFDEC;
 - d) SEAFDEC will, in consultation with ASEAN Secretariat and/or ASEAN WGFi, prepare the documentations, when necessary, on ASEAN Fisheries Programs in response to ASEAN needs;
 - e) Before their implementation, SEAFDEC Secretariat has to have the approval of the Council of SEAFDEC on ASEAN fisheries programs which will be entrusted by ASEAN.
 - f) To further promote closer coordination and collaboration on fisheries issues and programs to be developed by SEAFDEC and ASEAN, the following mechanism shall be initiated;
 - i. ASEAN will invite SEAFDEC representatives to meetings of the ASEAN Sectoral Working Group on Fisheries (ASEAN WGFi) and its subsidiaries bodies, and other relevant ASEAN meetings (e.g. SOM-AMAF, AEG-CITES, etc...)
 - ii. SEAFDEC will invite ASEAN Secretariat to the SEAFDEC Council of Directors Meeting, and other relevant SEAFDEC meetings.
4. The Parties agree that the executing agencies for the implementation of this Memorandum of Understanding are:
 - The ASEAN Secretariat,
 - The SEAFDEC Secretariat,

5. The Parties further agreed to the following;
- a) The usage of the names, logo and/or official emblem of any of the Parties on any publication, document and/or paper shall also be decided upon the consultations among the Parties.
 - b) The Parties shall not disclose or distribute any confidential information, document, data received or supplied to the other in the course of the implementation of this Memorandum of Understanding to any third party except with the written approval of the Parties concerned.
 - c) In the event of termination of this Memorandum of Understanding, the Parties agree that the above provision on disclosure and distribution of confidential information shall continue to apply.
 - d) The Parties may revise, amend or modify all or part of the Memorandum of Understanding by any mutual consent in writing. Such revision, amendment or modification, if mutually agreed upon, shall come into force on such date as determined and shall not have retrospective effect.
 - e) Any dispute or differences arising out of the interpretation/ implementation/ application of the provisions of this Memorandum of Understanding shall be settled amicably through consultation/negotiations between the Parties.
6. This Memorandum of Understanding shall enter into force on the date of its signing and can be terminated by the Parties through mutual agreement. The termination of this Memorandum of Understanding shall not affect the implementation of on going activities/programs, which have been agreed upon prior to the date of the termination of this Memorandum of Understanding.

Done in _____, on _____ in the English language.

By:

ASEAN Secretariat

SEAFDEC Secretariat

DRAFT

**ASEAN-SEAFDEC PLAN OF ACTION ON REGIONAL COOPERATION FOR
THE REHABILITATION AND RESTORATION OF FISHERIES IN THE
ASEAN TSUNAMI AFFECTED AREAS**

We, the representatives of the fisheries sector of the ASEAN and SEAFDEC Member Countries (the Member Countries), expressed our sincere sympathy to Indonesia, Malaysia, Myanmar and Thailand and their people who are the victims and affected by unprecedented and devastated scale of earthquake and tsunami on 26 December 2004,

Recognizing the sovereign rights and policy of each affected Member Country and cultural context of coastal community,

Recognizing the different scales of damages of the tsunami impacts in each affected Member Country and their localities,

Acknowledging the importance and guidance given in the ASEAN Declaration on Action to Strengthen Emergency Relief, Rehabilitation, Reconstruction and Prevention on the Aftermath of Earthquake and Tsunami Disaster of 26 December 2004¹,

Recognizing the direction for rehabilitation and restoration of fisheries given in the 2005 Rome Declaration on Fisheries and the Tsunami² as well as the initiatives of the Consortium to Restore Shattered Livelihoods in Tsunami Devastated Nations³ (CONSRN),

Recognizing the major role of SEAFDEC in fisheries development in Southeast Asia and its potential contributions in rehabilitation and restoration of fisheries as well as coastal communities in the Tsunami affected countries in ASEAN region.

Taking into consideration the resource capacity of SEAFDEC and the Member Countries on the scale, timeframe and competency needed for supports to the rehabilitation and restoration of fisheries for the tsunami affected areas,

Hereby agreed the following Plan of Action to assist fishers, fish farmers and their communities on the rehabilitation of their livelihoods and restoration of fisheries:

¹ Adopted by the Special ASEAN Leaders' Meeting on Aftermath of Earthquake and Tsunami held in Jakarta, Indonesia on 6 January 2005

² Adopted by the FAO Ministerial Meeting on Fisheries held in Rome, Italy on 12 March 2005

³ Comprises of the Bay of Bengal Programme – Intergovernmental Organization (BOBP-IGO), the Food and Agriculture Organization of the United Nations (FAO/RAP), the Network of Aquaculture Centres in Asia-Pacific (NACA), the Southeast Asian Fisheries Development Center (SEAFDEC), and the WorldFish Center (WorldFish).

1. To formulate a regional cooperative framework including strategy and guiding principles to support the affected Member Countries and areas as well as their communities and people.
2. To identify areas of required technical supports based on the assessments made by the respective tsunami affected Member Countries.
3. To identify and mobilize donor supports for the required regional assistance.
4. To develop the required regional program identifying the appropriate scope of work and work plan in consultation with ASEAN and the affected Member Countries.
5. To coordinate the activities with programs developed by other organizations in the same areas on the required regional program.
6. To mobilize technical resources from SEAFDEC Departments and among the Member Countries.
7. To develop a regional information base to monitor the rehabilitation and restoring progress in the affected areas.
8. To continue to collaborate with the activities/program of the Consortium to Restore Shattered Livelihoods in Tsunami Devastated Nations (CONSRN).
9. To periodically evaluate the progress and impact of the regional programs and report the outcomes to ASEAN and the Member Countries and incorporate the regional programs into the national sustainable fisheries development.

We, further agreed that SEAFDEC implements the above Plan of Action in close consultation with the Member Countries.

Annex 7

REVIEW OF IMPLEMENTATION OF THE RESOLUTION AND PLAN OF ACTION ON SUSTAINABLE FISHERIES FOR FOOD SECURITY FOR THE ASEAN REGION

I. SUMMARY

The Resolution and the Plan of Action were adopted during the Millennium Conference: “Fish for the People” on November 2001 by the ASEAN-SEAFDEC Senior Officials and Ministers. They were recognized as the common regional policy framework and guidelines in promoting and ensuring sustainable fisheries in the region. Along this line, SEAFDEC, in collaboration with the ASEAN promoted the special 5-year program and other collaborative programs under the ASEAN-SEAFDEC Fisheries Consultative Group mechanism to support Member Countries in the implementation of the Resolution and the Plan of Action.

The Seminar on ASEAN-Japan Cooperation for Sustainable Fisheries through SEAFDEC in December 2003 recommended for a review in the implementation of the Resolution and the Plan of Action especially at the national level. Subsequently, the SEAFDEC Council in its 36th Meeting gave the note for SEAFDEC, through the Secretariat, to dispatch a Mission to the Member Countries and discuss the implementation of the Resolution and the Plan of Action. The Mission reviewed the extent of national implementation, identified problems and constraints in the course of implementation, as well as identified areas where SEAFDEC’s assistance are most needed.

II. CONTEXT/ISSUES

The Member Countries reaffirmed that the Resolution and the Plan of Action provide the needed framework to promote regional cooperation in sustainable fisheries development, as well as the basis for strengthening national policy and programs. This was evident, as the Member Countries have tried to accommodate the required issues into relevant national legislation for a more effective dealing and implementation of the Resolution and the Plan of Action, and follow up activities on formulation of national fisheries policies were conducted. In addition to this, the Resolution and the Plan of Action also paved the way for an improved regional cooperation especially in the formulation of common regional policy on international issues and encouraged active participation of the Member Countries in various fora.

The Mission was able to gather suggestions from the Member Countries for enhancing future implementation of the Resolution and the Plan of Action, as summarized in the table below:

Issues	Elaboration
1. Definition of lead countries	Following the ASEAN mechanism whereby a lead country is identified to play the lead role in programs/project formulation and implementation, the role and function of lead countries for implementation of ASEAN-SEAFDEC FCG programs/projects have

	to be clearly defined. This is seen to enhance ownership of the programs/projects by the Member Countries.
2. ASEAN Member Countries' leadership in programs/projects formulation/implementation	SEAFDEC to develop a mechanism to ensure Member Countries' leadership in program/project formulation and implementation. Considerations maybe focused on the level of advancement in terms of technology, expertise, competence, and national priorities by some Member Countries in specific fields/areas.
3. Mobilizing regional expertise for the implementation of programs/ projects	Considering that much progress has been made in the implementation of RES & POA. In addition, capacity and expertise of the Member Countries have been drastically increased. To ensure effective implementation of RES & POA, mobilization of these capacity and expertise should be promoted in addition to that of SEAFDEC competence.
4. Consideration of ASEAN Member Countries specific situations	In as much as the programs/projects should involve all Member Countries, specific situations must be carefully taken into consideration to ensure their utmost participation. Some Member Countries with less economic opportunities and technical competence may feel that they are in no position to actively participate in program/project implementation. The archipelagic nature of fisheries of some Countries may also have some implications in the overall program/project implementation. In all of these, the commonality in country groupings should be carefully studied.
5. Enhanced ownership of the programs/projects	This is a critical issue to ensure sustainability and effectiveness of the FCG programs/projects implementation at the national level. In relation to this, the issues identified above on the leading role and function, as well as the priorities and implementation through cost-sharing scheme are significant elements that will enhance the sense of ownership of the programs/projects by the Member Countries.
6. Coordination with programs/projects implemented by other regional/international organizations	This will ensure that implementation of similar activities in the region is avoided and the limited funds will be properly allocated to other priority projects.
7. Identification and mobilization of non-traditional donors	As the cost-sharing scheme may still be very difficult to follow for some less economically developed Member Countries, as well as the dwindling financial situation SEAFDEC is experiencing, it will be difficult to push for implementation of the programs/projects. Considering such constraints, SEAFDEC and the Member Countries should collaboratively work to identify non-traditional donors and mobilize the required technical and financial assistance from such donors to alleviate the financial problem and the technical disparities.
8. Modality of program/project formulation exercise	If the role and function of SEAFDEC through the implementation of FCG programs/projects is to support the Member Countries for their efforts and actions for the implementation of the Resolution and Plan of Action, the programming exercise of FCG, irrespective of funds source, that become major thrust of SEAFDEC, should be modified in line with the requirement of the Member Countries. The Member Countries' active participation at the very beginning of program/project formulation, planning, and implementation are crucial.

<p>9. Thematic Issues</p> <ul style="list-style-type: none"> • Areas for future SEAFDEC activities • Human resource development • Fisheries Management • Aquaculture • Postharvest technologies 	<ul style="list-style-type: none"> • Strengthening of existing regional collaborative mechanism, policy dialogues, and program framework • Reduction of disparities among Member Countries • Proactive approach and contribution in development of fisheries issues in international fora • Shift of focus from industrial fisheries to SMEs in fisheries • on areas of SEAFDEC comparative advantages and networking of expertise • promotion of on-site training exercise and sub-regional training courses • WGRFP as regional collaborative mechanism • Different socio-economic-polical and other factors are important in the implementation of fisheries management framework and plan • Focus on regional awareness building on innovative fisheries management mechanism at test the methodology through appropriate pilot projects • Promote aquaculture in conformity with other requirements including mitigation of environmental negative impacts, and the scope for poverty alleviation and local food security. • Expand programs/projects on good manufacturing practices of fisheries products for domestic market and consumption • Safety and quality assurance of fish and fisheries products domestic consumption and/or intra-regional trade without double standard.
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III. RECOMMENDATIONS FROM THE SEAFDEC PROGRAM COMMITTEE MEETING

The Committee acknowledged with great appreciation the review of the implementation of the Resolution and Plan of Action by the Member Countries. The Committee subsequently requested the Secretariat to continue to conduct regular reviews on the progress of implementation and the further suggested that the review results should be used as basis for the planning of future programs and activities.

In addition, while noting that a number of fisheries initiatives and activities are promoted by international/regional organizations in the region, the Committee requested the Secretariat and the Departments to coordinate with organizations concerned when developing initiatives to avoid duplication of efforts and possible conflicts in concepts and approaches. The Committee, likewise, requested the Secretariat in collaboration with the Departments to look into the strengthening of SEAFDEC roles and functions in the ASEAN framework as endorsed by the 26th Meetings of the ASEAN Ministers on Agriculture and Forestry to facilitate closer collaboration between ASEAN and SEAFDEC.

IV. SUGGESTIONS FOR CONSIDERATION BY THE FCG

The FCG Meeting is invited to consider and suggest the above review of implementation of RES & POA, recommendations made by Member Countries, future regular monitoring and evaluation implementation of the RES & POA in appropriate time interval as well as ways to implement RES & POA in the future.

DIRECTIONS FOR FUTURE IMPLEMENTATION OF THE CODE OF CONDUCT FOR RESPONSIBLE FISHERIES (CCRF) IN THE ASEAN REGION

1. SUMMARY

Over the years, SEAFDEC has carried out its regular programs, and programs under the ASEAN-SEAFDEC FCG mechanism including the Special 5-year Program, leading fisheries development toward sustainable and responsible directions. Since the adoption of the global Code of Conduct for Responsible Fisheries in 1995, many international/regional/sub-regional, or even national fisheries bodies acted accordingly to the challenges posted by the Code. For one, SEAFDEC has initiated the Regionalization of the Code of Conduct for Responsible Fisheries Program in 1998 with the aim of coming out with supplementary guidelines that define specific regional concerns that the global Code of Conduct failed to highlight. It can be said that the underlying idea of the Regionalization Program is to identify and prepare the most effective scenarios to be implemented, especially at the national level, using regional criteria in order to achieve the Code's overriding goal of sustainable fisheries. In that sense, the regional guidelines were prepared in consideration of the Southeast Asian region specific situations encompassing cultural, fisheries structure, and the regions' fisheries ecosystem. Since there can only be one Code of Conduct for Responsible Fisheries and one set of standards that should apply globally, "Regionalization" was taken to mean the preparation of a set of regional guidelines such that the issues of particular importance to the region can be amplified and elaborated.

At the end of 2003, the program is composed of two components. One is the formulation and dissemination of regional guidelines on responsible fisheries, and the other one on the promotion of human resources development with emphasis on fisheries management. The program has been financially supported by the Government of Japan through its Trust Funds to SEAFDEC from 1999-2004 (Component I), and by the Government of Sweden through its Swedish National Board of Fisheries (NBF) from 2002-2006 (Component II).

The Program already came up with three regional guidelines on 1) Responsible Fisheries Management; 2) Responsible Aquaculture; and Responsible Fishing Operations. These guidelines were already published and distributed to the Member Countries and other parties concerned in the sustainable development of fisheries in the region. The fourth regional guidelines, which is on Responsible Post-harvest Practices and Trade has already gone through the finalization process and is set to be published and distributed to the Member Countries in the near future.

The guidelines have also been translated into local languages and even used as framework for development of legislation/code in some Member Countries. Along the line of these initiatives, SEAFDEC also initiated the human resource development program to support implementation of the CCRF by all Member Countries.

2. RECOMMENDATIONS FOR FUTURE PROMOTION OF THE CCRF, THE 27TH SEAFDEC PROGRAM COMMITTEE MEETING

In pursuing for future activities in line with the implementation/promotion of the CCRF, the 27th Meeting of SEAFDEC Program Committee requested the Secretariat and the Departments to give priority on the following areas:

- Submission of a 4-set package of regional guidelines for responsible fisheries in Southeast Asia to higher authorities of the ASEAN to seek policy support for future implementation of the CCRF;
- Assisting the member countries in the formulation of National Plan of Actions (NPOAs);
- Promoting continued awareness and capacity building as well as development of promotional campaign on responsible fisheries targeting at key stakeholders including government officials, fishers and consumers through the development of media materials;
- Strengthening the ASEAN and SEAFDEC visibility in the implementation of the CCRF;
- Possible cooperation with FAO through its Fish Code Program on the implementation of the CCRF in the region; and
- Establishing clear policy directions in sharing experiences in the RCCRf program with other regions through technical cooperation to mobilize and widen regional expertise.

The Committee also reiterated that aside from translation of the regional guidelines for responsible fisheries in to national languages, the most important step for the Member Countries is to accommodate and incorporate appropriate parts of the CCRF and the regional guidelines into their national policy and prepare materials targeting at various levels of stakeholders to ensure the effective implementation of the CCRF.

3. RECOMMENDED ACTION BY THE MEETING

The Meeting is requested to consider and endorse progress and achievement of RCCRf program and draft regional guidelines on post-harvest practices and trade. The Meeting is also requested to suggest future implementation of the CCRF and the 4-sets of regional guidelines for responsible fisheries, or otherwise endorse the recommendations made by the SEAFDEC Program Committee for implementation.

PROPOSAL ON THE SPECIAL 5-YEAR PROGRAM ON SUSTAINABLE FISHERIES FOR FOOD SECURITY IN THE ASEAN REGION (2006-2010)

Program Document

Program Title: Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region

Duration: 5 years from 2006 to 2010

Implementing Agency: Southeast Asian Fisheries Development Center (SEAFDEC)

Background:

Since 2000, the Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region was initiated and promoted through fisheries collaborative mechanism of ASEAN and SEAFDEC Member Countries in order to analyze fisheries problems and discuss issues of concern to the ASEAN region, as well as help formulate harmonized regional policies to ensure sustainable fisheries production and promote collaboration on the global initiatives.

At the 36th Meeting of SEAFDEC Council, SEAFDEC Secretariat was given directives to conduct a review of progress of implementation of the Resolution and Plan of Action in collaboration with the ASEAN Member Countries. During the review exercise, the Member Countries reported that the Resolution and Plan of Action does not only provide regional policy framework and priority actions to promote regional cooperation in sustainable development of fisheries but also a basis for strengthening the national policy and programs in achieving sustainable fisheries and food security.

The Member Countries also reported during the review exercise that much progress have been made in the implementation of the Resolution and Plan of Action, and expressed their appreciation to SEAFDEC and Japan for their support which could be further enhanced. However, there is still much to be done taking into account that the Resolution and Plan of Action have proved to be valid to current fisheries situation in the region and needs of the Member Countries, although there are different stages of fisheries development among the Member Countries. It was requested that the supports for present and future programs, from SEAFDEC to ASEAN in strengthening the implementation of the "Resolution and Plan of Action" would have to take this into consideration.

The current Special 5-year Program is considered a continuum of activities divided into three phases covering the period of 2000 to 2005 as follows:

1. *Preparatory Stage (2000-2001):* A series of preparatory activities leading up to the organization of the Conference have been conducted by SEAFDEC in collaboration with ASEAN, FAO, DOF (Thailand) and ASEAN-SEAFDEC

- Member Countries. The activities included regional consultations, national seminars, etc.
2. *Conference Proper (19-24 November 2001)*: The Conference divided into technical and ministerial sessions was conducted in order to discuss fisheries related problems and identify ways and means to overcome the problems. The major outcomes of the Conference– Resolution and Plan of Action – are considered a regional fisheries policy and actions to be undertaken to promote sustainable fisheries development in the region.
 3. *Follow-up Stage (2002-2005)*: In order to ensure proper actions to be taken in line with the Resolution and Plan of Action, follow-up program/projects are developed to assist ASEAN Member Countries in ensuring sustainable fisheries in the region.

As the current Special 5-year Program is approaching its final year in 2005, the Meeting of the ASEAN-SEAFDEC Regional Program Planning for the Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region (Planning Meeting) was organized to review implementation and achievements of the program covering the period from 2002-2005 and to formulate its future projects of the program from 2006-2010 to ensure continuous process of implementation of the Resolution and Plan of Action for the ASEAN Region by the Member Countries.

Objectives:

The Special 5-year Program was initiated with clear objective to support ASEAN Member Countries in implementing the priority issues “the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region” adopted at the Millennium Conference. With the aim to provide benefit to all ASEAN Member Countries, to minimize disparities and to achieve coordinated efforts toward sustainable fisheries, the program has the following specific objectives:

1. To analyze issues critical to ensure sustainable development of fisheries, recognizing its importance to food security for the ASEAN region;
2. To create a climate of cooperative and integrated efforts among ASEAN Member Countries to achieve sustainable fisheries; and
3. To promote capacity building of national institutions and human resources responsible for the promotion of sustainable fisheries in the ASEAN region.

Program Principle:

At the Regional Program Planning Meeting held in February 2005 in Bangkok, the Member Countries stressed on the need for continuation of the program in the future as the program is viewed as a regional collaborative effort in achieving sustainable fisheries in the region and a platform for closer partnership among the Member Countries particularly in safeguarding fisheries interests in international fora.

The program principle, as suggested by 27 Program Committee Meeting of SEAFDEC together with the recommendations made at the Program Planning Meeting, for formulation of the Special 5-year Program in 2006-2010 includes:

- Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region;
- Results of the Review Exercise of Progress of Implementation of the Resolution and Plan of Action;
- Statement for ASEAN-Japan Cooperation on Sustainable Fisheries through SEAFDEC particularly the Vision “to be a leader in sustainable tropical fisheries”;
- Roadmap for Integration of Fisheries Sector under the ASEAN Framework Agreement for the Integration of Priority Sectors; and
- Directions for future promotion of the Code of Conduct for Responsible Fisheries and Regional Guidelines for Responsible Fisheries in the ASEAN Region.

Program Structure:

Based on the inputs from ASEAN-SEAFDEC Member Countries during the Regional Program Planning Meeting held in February 2005 in Bangkok, the Meeting identified the following projects. There are three components, totally 12 projects, under the Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region from 2006-2010 as follows:

Component 1: Fisheries Management

- The Use of Indicators for Sustainable Development and Management of Capture Fisheries in the ASEAN Region
- Development of Integrated Inland Fisheries Management in ASEAN Countries
- Improvement of Statistics and Information for Planning and Management of Fisheries the ASEAN Region
- Rehabilitation of Fisheries Resources and Habitats/Fishing Grounds through Resource Enhancement
- Strengthening Small-scale Fisheries Management through Promotion of Rights-based and Co-management Concepts
- Sustainable Utilization of Potential Fisheries Resources and Reduction of Post-harvest Losses
- Responsible Fishing Technologies and Practices

Component 2: Aquaculture

- Development of Technologies for Sustainable Aquaculture
- Human Capacity Building for Sustainable Aquaculture

Component 3: Fisheries Post-harvest

- Quality Assurance Systems for Small and Medium-sized Fish Processing Establishments in the ASEAN Region
- Good Laboratory Practices (GLP) and Methods Validation
- Utilization of Freshwater Fish

Program Administration:

Through the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) mechanism, SEAFDEC Secretariat will be responsible for the overall program administration in coordination with the Departments. The program will be implemented in close collaboration with the “core countries” (*Appendix 1 of Annex 13*) to achieve the identified objectives. In implementation of the program close cooperation with ASEAN

Member Countries and other institutions/international organizations through technical assistance and staff exchange will be promoted.

Financial Arrangement:

Cost-sharing policy among SEAFDEC, ASEAN Member Countries and collaborating regional/international organizations will be extensively promoted with the major contribution from the Government of Japan. SEAFDEC Secretariat is responsible for preparing consolidated financial requirement and reporting for submission to relevant bodies.

Program Monitoring and Evaluation:

Program monitoring will be conducted annually by SEAFDEC Secretariat in coordination with the Departments from 2006 to 2010. At the end of the program period, the overall evaluation will be also conducted by the Secretariat in collaboration with the Departments and ASEAN Member Countries for submission to relevant bodies.

Program Components

Component Program Title: I-Fisheries Management

Background and Rationale:

Concerns over the long-term sustainability of fisheries resources using appropriate management mechanisms is vital to ensuring stable fish supply and achieving food security and related benefits in the ASEAN region both now and in the future. Each country has applied their own policy, legal and institutional or regulation frameworks to manage their respective fisheries, these systems are generally based and increasing production levels. So that, there is a need to improve national fisheries management frameworks in order to accommodate the various requirements for sustainable fisheries development in the region.

In the absence of suitable stock assessment model for multi-species and multi-gear fisheries, the indicator-based management system has been recognized as one of the reliable and practical approaches for sustainable development and management of the capture fishery in this region. Based on the Resolution and Plan of Action adopted at the Millennium conference 2001 “Fish for the people” on Sustainable Fisheries for Food Security for the ASEAN Region, SEAFDEC in collaboration with Member Countries has initiated since the year 2002 and on the experiences from the pilot scale, the Regional Guideline on the Use of Indicators for Sustainable Development and Management of Capture Fisheries is now developing. Indicators could reflect the well being of the fishery resource, as well as broader ecological, social, economic and institutional objectives. When coupled with other management approaches such as right-based management, co-management, ecosystem-based approach, management of fishing capacity, the use of indicators has the potential to more effectively aid to control of exploitation level.

The priority issues on the necessity to improve fishery statistics and information systems as a tool for planning and management of fisheries was highlighted as an important prerequisite to tackle with the various problems toward the sustainable fisheries and food security. To achieve sustainable fisheries objectives, understanding and knowledge of fishery status, trend and prospectus are needed to be enhanced. These could be obtained through analysis of reliable and timely statistics and information, which will then be used for the formulation of sound fisheries policies and management strategies. To fulfill this goal, the fishery statistics is still form an important basis which required improvement of better national fishery statistical system in terms of quality, availability, reliability, accuracy and timeliness of statistics in line with the minimum requirements and the regionally standardized definitions and classifications for fishery statistics to facilitate regional compilation, analysis and data exchange.

In many areas, the introduction of man-made structures, including artificial reefs, aquaculture facilities, breakwaters, stationary nets and jetties are shown to enhance fishery resources. There are sufficient numbers of structures to have a significant and positive impact on ecosystem productivity. Recently, those structures are integrated into coastal zone management regimes as the resource enhancement tools. To optimize the results of such initiatives, careful impact assessment and planning procedures are required together with the immediate action to prevent further loss of habitat and

damage to fish stocks. A range of effective community-level mechanisms must also be developed in order to assist fishers in restoring habitats and rebuild stocks. These mechanisms are likely to be specific to different stocks and habitats.

The regional guidelines of rights-based and co-management has been developing under the project “Towards Decentralized Management of Sustainable Fisheries in the ASEAN Region”. This guideline covers several management issues, namely management of fishery resources, fishing licensing, Monitoring Control and Surveillance system for the local institution and co-management mechanism. Considering that management of small-scale fisheries may have to clarify various issues, which could lead to the sustainable management of the resources and improvement of small-scale fishers’ livelihoods.

On the “Sustainable Utilization of Potential Fisheries Resources and Reduction of Post-harvest Losses”, the member countries requirement for developing this program there are many interested issues were proposed as identification and exploitation of potential resources through development of appropriate technology particularly in untrawlable areas, sea mounts, and deep sea basins; development and capacity building for deep sea fisheries and maximization of catch utilization through reduction of post-harvest losses.

Solutions the problem of over-exploitation and habitat degradation in the region are both difficult and complex. The conflicting socio-economic problems associated with an increasing population and a need to maintain food security and people’s livelihoods are significant. Under these circumstances, there is a lack of awareness of the need for selective fishing gear that has minimal impact on aquatic ecosystems. Despite increased emphasis on the sustainable harvest of fisheries resources, a lack of standardized research methodologies, particularly in gear selectivity research, coupled with difficulties associated with the design and introduction of effective selectivity devices in multi-species fisheries, makes overcoming these problems difficult. Greater collaboration and commitment are required from many countries to reduce the impact of illegal and destructive fishing gear and practices and the use of responsible fishing technologies and practices must be promoted to maintain the integrity of the aquatic environment and the sustainability of fisheries resources.

Objectives:

This component highlights the need for innovative management for sustainable fisheries through consultation, demonstration and dissemination of relevant approaches. With the aim to provide to minimize disparities of the Member Countries and to achieve coordinated efforts toward sustainable fisheries, the program has the following proposed specific objectives:

1. To create awareness and promote use of indicators for sustainable development and management of capture fishery in the ASEAN Region;
2. To develop and promote appropriate approaches for management of inland fisheries in the region together with strengthening community participation in management inland fisheries resources;
3. To improve better understanding and knowledge of fisheries and aquaculture in the region through effective management of reporting fishery statistics and information systems;

4. To optimize the use of coastal fisheries resources through using of the appropriate resource enhancement tools.
5. To promote rights-based and co-management regime in the regional.
6. To develop capacity building for deep sea fishing particularly in untrawlable grounds, sea mounts, and deep sea basins for sustainable utilization of potential fisheries resources and reduction of post-harvest losses.
7. To promote responsible fishing technology and practices through the introduction, demonstration, and training on fishing gear selectivity and devices in order to reduce the capture of immature/juvenile fishes of commercially important species and unwanted catch including endangered species.

There are 7 projects under this component. The summary of description of each project is shown in the following:

The Use of Indicators for Sustainable Development and Management of Capture Fisheries in the ASEAN Region

This project aims at addressing the important innovative fisheries management frameworks to ensure stable fish supplies and food security for sustainable development and management of capture fisheries in the region. The pilot projects in wider scope from the previous phase will be conducted in the identified core countries. In addition, related research activities will be carried out to provide additional information to support the implementation of pilot projects. Training courses on the related issues will also be organized for relevant participants to ensure the success in the implementation of the pilot projects.

Development of Integrated Inland Fisheries Management in ASEAN Countries

The information on inland capture fisheries gathered and compiled during the first phase will be used to provide baseline information in formulating appropriate approaches in the management of inland fisheries resources. The project will be carried out with the involvement of community at respective pilot sites, the mobilization of experts from national research institutes and/or the core countries. The various training course for fishery trainers in the field of management of inland fisheries will be carried out under this project.

Improvement of Statistics and Information for Planning and Management of Fisheries the ASEAN Region

The primary aim of the project is to improve better understanding and knowledge of fisheries and aquaculture in the region as a basis for development planning and management through effective management of statistics and information systems and capacity building. To achieve sustainable fisheries objectives, the project will focus the issues and target outputs on fishery statistics that form an important foundation which required improvement of better national fishery statistical system in terms of quality, availability, reliability, accuracy and timeliness of statistics in line with the minimum requirements and the regionally standardized definitions and classifications for fishery statistics to facilitate regional compilation, analysis and data exchange, as well as ways and means to present information in user-friendly manner for management and decision-making.

Rehabilitation of Fisheries Resources and Habitats/Fishing Grounds through Resource Enhancement

This project aims at promoting resource enhancement tools such as artificial reefs as well as some selected stationary fishing gears and aquaculture facilities. The habitat restoration and/or enhancement and establishment of exclusive fishing rights may be necessary prerequisites for any marine re-stocking exercises. The focused issues of this project is the development of designs/models for resource enhancement tools including artificial reefs, evaluation/assessment of impacts of resource enhancement tools with due consideration on socio-economic aspect, stock enhancement and re-stocking programs and conservation of endangered species.

Strengthening Small-scale Fisheries Management through Promotion of Rights-based and Co-management Concepts

This project addresses the importance and need in strengthening management for small-scale fisheries. It is envisaged that the regional guidelines will form the basis to clarify strategies for the purpose. The project will tackle a number of issues are capacity building for management of small-scale fisheries including the application of co-management and rights-based fisheries, development/improvement of Monitoring Control and Surveillance, management of overcapacity in coastal areas, improvement of management measures and measurement of their impacts and Sustainable fisheries livelihoods. It is also envisaged that the outcomes of this project will improve fisheries management through the application of rights-based fishery and co-management principles.

Sustainable Utilization of Potential Fisheries Resources and Reduction of Post-harvest Losses

This project aims at addressing the important innovative fisheries management frameworks that must ensure sustainable utilization of potential fisheries resources and reduction of post-harvest losses in ASEAN member. This project will develop and promote the appropriate onboard fish handling technology, capacity building on human resources. Production of information packages of project will be the manuals for appropriate technology for deep sea fishing, and also manuals for onboard fishing handling technology and technical paper on “Investigation on the potential of under-utilized resources in Southeast Asian Region.

Responsible Fishing Technologies and Practices

This project centers on the promotion of selective fishing gears and practices, particularly in coastal areas. It will be implemented in close collaboration with international and national organizations and agencies, including FAO/GEF, AMC, MI, and TUF. The project activities will focus on a review of the selective fishing gear and practices and the preparation of its demonstrations and experiments. Additionally, the outcome and experiences of the project together with issues of common interest related to the improvement of fishing technology and practices will be discussed and exchanged during regional consultations to disseminate the information for the region.

Program Components

Component Program Title: II – Aquaculture

Background and Rationale:

In the ASEAN region, aquaculture remains an important producer of high quality protein for domestic consumption. Aquaculture is also one of the major generators of the region's export earnings. The ASEAN region has great potentials for aquaculture development, especially in terms of variety of aquatic species for culture, aquaculture technologies and technical expertise. However, there is still a need to intensify the promotion of sustainable aquaculture in the region in order to close the gap that exists among the member countries in terms of aquaculture technology and development. This will contribute to the region's over-all economic development and spread prosperity as envisioned in ASEAN Vision 2020.

Recognizing that responsible aquaculture is one of the most important factors for food security in the region, the ASEAN-SEAFDEC Millennium Conference in November 2001, included in the adopted Resolution and Plan of Action, provisions that call for the promotion of sustainable aquaculture in the region. Thus, the Aquaculture Component of the ASEAN-SEAFDEC Special Five-Year Program on Sustainable Fisheries for Food Security in the ASEAN Region, which is the Integrated Regional Aquaculture Program (IRAP) was implemented from 2002 to 2005. IRAP has two major components: (1) Aquaculture for Rural Development, and (2) Supply of Good Quality Seeds. The activities under IRAP include: (1) pilot demonstration; (2) research; (3) training; (4) information dissemination.

The participating countries of IRAP are: (1) Brunei Darussalam; (2) Cambodia; (3) Indonesia; (4) Lao PDR; (5) Malaysia; (6) Myanmar; (7) Philippines; (8) Thailand; and (9) Vietnam. Although Singapore and Japan are non-participating countries, these countries could be tapped as source of technical expertise. IRAP initiated the promotion of sustainable aquaculture of various species that are considered priority by the participating countries from freshwater to marine aquatic species. The species include: (1) giant freshwater prawn, *Macrobrachium rosenbergii*; (2) *Pangasius* sp.; (4) common carp; (5) tilapia; (6) grouper; (7) sea bass; (8) mud crab; (9) abalone; (10) milkfish; (11) siganids. IRAP also promoted the cost-sharing scheme of the Program with the participating countries bearing the cost of some inputs whether financial or technical. Exchange of aquaculture technical expertise already available in some countries in the region has been facilitated through IRAP. Specifically, technical experts are sent to countries needing specific aquaculture technologies.

An initial evaluation of the outcome of IRAP was done during the Regional Planning Meeting for the Special Five-year Program in February 2005. Although the member countries considered that the implementation of IRAP was a success, specific areas that require further development were still identified. Even some member countries that have ongoing national activities on research and technology development on aquaculture still raised some aspects on aquaculture that require further development. Human resource capacity building in various areas of aquaculture development was also strongly identified as one of the important aspects that need to be promoted in the region under the Special Five-year Program.

It is therefore important to continue the Aquaculture Component of the ASEAN-SEAFDEC Special Five-year Program beyond 2005 in order to address the impending needs of the region in the development of aquaculture. The program envisioned for the second phase of IRAP from 2006 to 2010 is the Promotion of Sustainable Aquaculture in the ASEAN Region.

Objectives:

The Program on the Promotion of Sustainable Aquaculture in the ASEAN Region aims to address food security, poverty alleviation and livelihood generation in order to contribute to the improvement of the socio-economic conditions of the countries in the region as provided for in the Resolution and Plan of Action on Sustainable Fisheries for Food Security in the ASEAN Region adopted during the 2001 ASEAN-SEAFDEC Millennium Conference. The Program is also intended to serve as an avenue for addressing the issues of unequal economic development, poverty and socio-economic disparities among the countries in the region as emphasized in the Hanoi Plan of Action.

Specifically therefore, the Program aims to: (1) address regionally relevant technology needs for sustainable aquaculture in the areas of broodstock development, genetic improvement, seed production, and culture systems of various species for aquaculture; and (2) develop human resource in the region in sustainable aquaculture through training, farm demonstration, production of training materials like manuals and handbooks, and mobilization of experts within the region.

Program Management and Administration:

The Program on the Promotion of Sustainable Aquaculture in the ASEAN Region will have two major component projects: (1) Development of Technologies for Sustainable Aquaculture; and (2) Human Capacity Building for Sustainable Aquaculture. SEAFDEC Aquaculture Department shall be responsible for the implementation of the planned activities, exploring possible collaboration with other donors for the implementation of the program activities, and the mobilization of technical expertise in the region.

For the core countries, the National Coordinators shall take care of the overall conduct of the activities in their respective countries. The National Coordinators shall also be responsible for securing national financial support for the implementation of the activities under the cost-sharing scheme being promoted under the FCG collaborative mechanism.

The Lead ASEAN Country shall represent ASEAN in providing a linkage between AQD and the core countries. Thus, the Lead ASEAN Country shall be responsible for reporting the progress of the project activities to the ASWGF and in ensuring that the activities receive the support of the core countries. AQD shall work closely with the Lead ASEAN Country in the implementation of the activities specifically on the technical coordination of the Program implementation as well as on policy-related issues of the project.

Program Component

Component Program Title: III – Utilization of Fish and Fishery Products

Background and Rationale:

Food security has been defined as when “all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life”. With respect to fish as food, this implies providing enough fisheries resources to feed the people through maximizing the utilization of fisheries resources for human consumption, reducing post-harvest loss, and assisting the fish processing industry to produce fish and fish products which are safe and of good quality through the application of appropriate quality assurance systems.

In Southeast Asia, the fisheries sector, both marine and freshwater, contributes significantly to food security. However based on future regional outlook it appears that there is a developing risk gap between declining fish supply and increasing demand. Under current circumstances, further exploitation of both marine and freshwater fisheries resources is unlikely to greatly increase fisheries production. Aquaculture, on the other hand, has considerable potential to increase production levels. There might be some potential to maintain or increase fish supply, particularly through innovative fisheries policy, appropriate management, close coordination among stakeholders, the reduction of waste and post-harvest losses and maximized use of existing fish catch.

The maximised use of existing fish catch will have a positive impact on the supply of fish to the local and international market. The waste or discarding of fish is predominantly caused by low market demand, value and poor quality, and these issues clearly need to be addressed. In addition to market acceptability, improved fish quality will widen the use of these species by the fish processing sector, including those producing traditional fish products. Traditional fish products represent a significant component of fish utilization in Southeast Asian and are produced largely by small and medium-sized fish processing establishments. The production of these culturally important products should be promoted, with appropriate support including the establishment of quality assurance systems which are suitable for implementation in the small and medium-sized fish processing establishments. Otherwise these products will gradually disappear under the modernization and globalisation of fish trade. The Southeast Asian region therefore clearly needs to place greater emphasis on fish quality, safety and management systems.

Under this program component, MFRD proposes three projects, namely:

1. Quality Assurance Systems for Small and Medium-sized Fish Processing Establishments in ASEAN Member Countries.
2. Good Laboratory Quality Management in ASEAN Member Countries.
3. Utilization of Freshwater Fish in ASEAN Member Countries.

The first project is a new proposal to address the difficulty faced by the majority of Small and Medium-sized Fish Processing Establishments in ASEAN Member Countries to implement quality assurance systems to meet safety and quality requirements. The

second and third projects are continuation of the two projects carried out in the first Special 5-year Program.

The expected outputs for the three proposed projects include Manuals on GMP/SSOP, pilot projects on GMP/SSOP implementation, training courses on GMP/SSOP implementation; Workshops on Good Laboratory Quality Management Practices, Methods Validation, Measurement of Uncertainty and Internal Auditing, Manuals on Good Laboratory Quality Management Practices, Compilation of harmonized and validated methods used in ASEAN lead laboratories; Inventory on freshwater fish products in Southeast Asia, pilot processing studies on freshwater fish products; and End-of-Activity Workshops.

Objectives:

To develop an integrated fisheries post-harvest technology program that would address food security and sustainable development of fish resources in the region, and strengthen collaboration amongst ASEAN Member Countries.

Program Management and Administration:

The lead SEAFDEC Department for this program component will be the Marine Fisheries Research Department in Singapore. MFRD will manage and coordinate all projects and activities under this program component. MFRD will also lead in some activities of the projects.

Other ASEAN Member Countries which have been identified as core countries based on their national expertise or strong interest in the respective fields of study will also be actively involved as project sites, to provide technical expertise or lead in the relevant project activities

Project Document

Program Title: Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region

Program Category: Fisheries Management

Project Title: The Use of Indicators for Sustainable Development and Management of Capture Fisheries in the ASEAN Region

Background and Rationale:

Many fisheries in this region are suspected to be fully- or over exploited. In the absence of suitable stock assessment model for multi-species and multi-gear fisheries, the use of indicator- based management system has been recognized as one of the reliable and practical approaches for sustainable development and management of the capture fishery in this region. Indicators could reflect the well-being of the fishery resource, as well as broader ecological, social, economic and institutional objectives. When cooperate with other management approaches such as right based management, co-management, eco-system based approach and management of fishing capacity, the use of indicators has the potential to be a more effectively aid to control of exploitation level.

Based on the Resolution and Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region, SEAFDEC in collaboration with some member countries has initiated the pilot projects to identify some of the appropriate indicators, since the year 2002. Based on the experiences in the pilot scale, the Regional Guideline on the Use of Indicators for Sustainable Development and Management of Capture Fisheries has been developed. In order to successfully implement the use of indicators as a management tool in this region, this guideline need to be apply at larger scope and should be clearly understood among the users. Further improvement and elaboration might be necessary to ensure the guideline to be reliable and practically apply to this region.

Project Objectives:

1. To disseminated the Regional Guideline on the Use of Indicators for Sustainable Development and Management of Capture Fishery in the ASEAN Region, to member countries.
2. To apply in the larger scope the use of indicators for Sustainable Development and Management of capture fishery in the ASEAN Region.
3. To mobilize experts in the region in promoting the application the Regional Guideline on the Use of Indicators for Sustainable Development and Management of Capture Fishery in the ASEAN Region, to member countries
4. To conduct training on the use of indicators in Fisheries Management
5. To carry out related research to identify and use of indicators in Fisheries Management
6. To revise and improve the Regional Guideline on the Use of Indicators for Sustainable Development and Management of Capture Fishery in the ASEAN Region.

Project Management and Administration:

SEAFDEC-MFRDMD is the implement agency in collaboration with SEAFDEC-Secretariat and the ASEAN Member Countries. Experts from member countries will be mobilized in implementation of the project as well as close collaboration with other international and regional agencies such FAO and Sida.

Implementation Procedure:

This project comprise of six main activities:-

Activity 1: Promotion on the use of indicators in development and management of capture fisheries in ASEAN region

The regional guideline formulated in the first phase will be published and disseminated to member countries. Seminar and symposium will be organized to promote the implementation of the guideline.

Activity 2: Implementation of pilot projects

The pilot projects with wider scope from the previous phase, will be conducted in the core countries. The core countries will be selected based on the certain criteria to be listed soon. Participation of stakeholder will be emphasized in the implementation of the pilot projects. The implementation of the pilot projects will be on the cost sharing basis.

Activity 3: Research activities

Related research activities, when necessary, will be carried out to provide additional information to support the implementation of pilot projects.

Activity 4: Development of Human Capacity

In order to ensure the success in the implementation of the pilot projects, trainings on the related issues will be organized to relevant participants. These include Workshops, consultations, meetings and technical visits.

Activity 5: Revise and improve the regional guideline

The early version of the guideline will be revised from time to time based on feed back from the follow-up activities and if necessary will be amended and improved.

Activity 6: Administration

SEAFDEC-MFRDMD will participate in relevant meetings, consultation etc, organized by other institutions, to share experiences and enhance collaborations.

Envisaged Outcomes:

1. Regional Guidelines (original and revised version)
2. List of indicators
3. Application of indicators in management framework
4. Capacity buildings
5. Reports and proceedings

Schedule of Activities: 5 years (2006-2010)

No	Activities	2006				2007				2008				2009				2010			
		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
1.	Promotion on the use of indicators in development and management of capture fisheries in ASEAN region - Published and Disseminate the guideline - Seminar/Symposium																				
2.	Implementation of pilot projects																				
3.	Research activities																				
4.	Development of Human Capacity																				
5.	Revise and improve the regional guideline																				
6.	Administration																				

Financial Arrangement and Required Budget:

No.	Activities	Proposed budget (US\$)				
		2006	2007	2008	2009	2010
1.	Promotion on the use of indicators in development and management of capture fisheries in ASEAN region	5000	15000		15000	15000
2.	Implementation of pilot projects	15000	15000	15000	15000	
3.	Research activities	15000	15000	15000	15000	
4.	Development of Human Capacity	15000	15000	15000	15000	
5.	Revise and improve the regional guideline					15000
6.	Administration	5000	5000	5000	5000	5000
Total		55000	65000	50000	65000	35000

Project Monitoring and Evaluation:

The Project Coordinator and the National Coordinators of participating ASEAN Member Countries will be responsible to regularly monitor and evaluate the proposed schedule of the activity in order to ensure for a successful implementation of the project. The outcome of the monitoring and evaluation will be reported as the year-end report together with modifications for future activities. After the project period, a final evaluation will be made to investigate the overall project as well as to assess the degree of achievement.

Project Document

Program Title: Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region

Component Program Title: Fisheries Management

Project Title: Development of Integrated Inland Fisheries Management in ASEAN Countries

Background and Rationale:

The lack of information and the need to review and compile inland capture fisheries data / information as basis for the enhancement of sustainable fishery resource management was highlighted in the Report of the Fourth Meeting of the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) in Myanmar, 18 March 2002. In view of achieving accurate information on inland capture fisheries, MFRDMD was given the task as the Lead Department to undertake the project aimed at gathering as much information about the inland capture fisheries. In this continuation project, there is a need to stress the importance of integrated approach in managing this limited resource.

Preventing the further decline of fishes in the inland ecosystem is fundamental to sustainable development as fish and fishing are of central importance to the lives and culture of many people who depend entirely on inland ecosystem as source of animal protein. The overriding threat to the future of inland ecosystem is the impact of water management schemes for improving navigation, drainage of wetlands for flood control, construction of dams for hydroelectricity, irrigation channels for agriculture and the establishment of inter-basin connections and water transfer. Even though these changes have improved transportation, provided flood control and hydropower, and boosted agricultural output but sad to say that inland fisheries has becoming less importance in enhancing the economic well being of the country's population.

To date, there has been little effective dialogue between the fisheries sector and other agencies that are involved in sharing this inland water source and also the need to stress the importance of integrated approach in managing this limited resource. A key to optimizing benefits gained from inland water ecosystem is to promote effective dialogue and consultation between all those involved in water management as well as the users that depend on this limited resource to sustain their livelihood. In such dialogues, the importance of fisheries will be fully understood, the biology of selected certain species taken into account, and mitigation and management of impacts are regularly monitored and improved. Thus more concerted efforts are needed to manage the inland water ecosystem in an integrated approach that would benefit all users. This is a challenge to managers and users of the resources in formulating measures to contain the situation as well as sustaining the inland fisheries resources.

Objectives:

1. To develop appropriate approaches in management of inland fisheries
2. To develop guideline for formulating more pragmatic management plans in sustainable utilization of inland fisheries resources
3. To strengthen community participation in management and conservation of inland fisheries resources
4. To strengthen current websites on inland fisheries for sharing updated information
5. To strengthen development of database for data entry: Fish module, socio-economy, fishing gears, etc.

Project Management and Administration:

MFRDMD is the implementing agency in collaboration with TD and ASEAN Member Countries. In order to achieve the objectives and to mobilize financial and technical supports, the project will be conducted in close collaboration with international and regional agencies such as FAO, MRC and NACA as well as experts from participating ASEAN Member Countries. Where the project is operated, local cost should be the responsibility of the country hosting the project site.

Implementation Procedure:

The information on inland capture fisheries gathered and compiled during the first phase will be used to provide baseline information in formulating appropriate approaches in conducting this second phase activities of project on inland fisheries resources. The project will be carried out with the involvement of community at respective pilot sites, the mobilization of experts from National Research institutes, and core member countries leading the implementation of project activities. This project will also involve the conduct of training courses for trainers in the management of inland fisheries managers and the handling of database applications developed.

The following are tentative activities to be implemented throughout this project.

Activity 1: Development of guideline for formulating management plan of inland fisheries

- Establish Core Working Group
- Core Working Group composed of representatives from SEAFDEC-MFRDMD, TD, and ASEAN Member Countries and from other International/ Regional Organizations dealing with Inland Fisheries such as FAO, MRC, WFC and NACA.
- This Core Working Group will draft guideline for formulating management plan of inland fisheries

Activity 2: Implementation of Pilot Projects in participating countries

- Educate local stakeholders at selected sites through regular national consultation/ seminar/ workshop/ meetings/ dialogues with clear explanation of objectives, implementation strategies and expected output of the projects. Full cooperation from

the local community is to be promoted in the management and conservation of inland fisheries resources.

- Establish frequent dialogues among the stakeholders and other user agencies to enable:
 - Importance of each component to be understood
 - Establish, adopt and implement management plan
 - Formulate mitigation measures
 - Promulgate and enforce regulations
 - Establish, adopt and implement long-term monitoring system on inland fisheries.
- The choice of the pilot sites is to be decided by the community. The local community is empowered to protect and manage the fisheries resources in their rivers or other small water bodies.
- The local stakeholders together with staff of DoF and other relevant agencies that deal with the ecosystem will formulate suitable fisheries management plan at the respective pilot sites.

Activity 3: Conduct Research Activities on

MFRDMD in collaboration with technical experts from ASEAN Member Countries will conduct the following research activities:

- Assessment and evaluation of floodplain areas using satellite imagery
- Development of spatial database on inland water bodies
- Strengthening in development of database for data entry: Fish module, socio-economy, fishing gears, etc.
- Development of appropriate approaches in inland fisheries management

Activity 4: Human Resource Development

Capacity building of MFRDMD staff and ASEAN Member Countries will be developed and strengthened through:

- Training on data handling: use of application database on fish module, socio-economy, fishing gears, etc.
- Training of Trainers on Fisheries Management of Inland Fisheries
- Attachment training at relevant competent regional/ international organizations

Activity 5: Publication and Dissemination of Information

- Publications on guideline for formulating management plan of Inland Fisheries
- Upgrading knowledge management: strengthen the current websites for sharing updated information
- Dissemination of pamphlets for public awareness program

Envisaged Outcomes:

- More pragmatic management plan
- Full participation of local communities and financial institutions in conservation, enhancement and rehabilitation programs

- Strengthening of current websites on inland fisheries
- Spatial database on inland water bodies
- Application database for data entry
- Capacity building on management of inland fisheries

Schedule of Activities: 5 years (2006-2010)

No	Activities	2006				2007				2008				2009				2010			
		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
1.	Development of guideline for formulating management plan																				
2.	Implementation of Pilot Projects in participating countries																				
3.	Conduct Research Activities:																				
	• Assessment and evaluation of floodplain areas using satellite imagery																				
	• Development of spatial database on inland water bodies																				
	• Strengthening in development of database for data entry																				
	• Development of appropriate approaches in inland fisheries management																				
4.	Human Resource Development:																				
	• Training on data handling																				
	• Training of Trainers on Fisheries Management																				
5.	Publication and Dissemination of Information																				
	• Upgrading knowledge management																				
	• Publications on guideline																				
	• Pamphlets/ articles for public awareness program																				

Financial Arrangement and Required Budget:

No.	Activities	Proposed budget (US\$)				
		2006	2007	2008	2009	2010
1.	Development of guideline for formulating management plan	35,000	10,000			
2.	Implementation of Pilot Projects in participating countries		30,000	20,000	20,000	
3.	Conduct Research Activities:					
	Assessment and evaluation of floodplain areas using satellite imagery	10,000	10,000	10,000	5,000	
	Development of spatial database on inland water bodies			15,000	15,000	
	Strengthening in development of database for data entry	10,000	10,000			
	Development of appropriate approaches in inland fisheries management				10,000	10,000
	Sub-total	20,000	20,000	25,000	30,000	10,000
4.	Human Resource Development:					
	• Training on data handling		15,000		15,000	
	• Training of Trainers on Fisheries Management			15,000		15,000
	Sub-total	0	15,000	15,000	15,000	15,000
5.	Publication and Dissemination of Information					
	• Upgrading knowledge management	5,000	5,000	5,000	5,000	5,000
	• Publications on guideline and others	10,000	10,000	20,000	10,000	20,000
	Sub-total	15,000	15,000	25,000	15,000	25,000
6.	Administration	10,000	10,000	10,000	10,000	10,000
	Total	60,000	100,000	95,000	90,000	60,000

Project Monitoring and Evaluation:

The Project Coordinator and the National Coordinators of participating ASEAN Member Countries will be responsible to regularly monitor and evaluate the proposed schedule of the activity in order to ensure for a successful implementation of the project. The outcome of the monitoring and evaluation will be reported as the year-end report together with modifications for future activities. After the project period, a final evaluation will be made to investigate the overall project as well as to assess the degree of achievement.

Project Document

Program Title: Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region

Component Program Title: Fisheries Management

Project Title: Improvement of Statistics and Information for Planning and Management of Fisheries in the ASEAN Region

Background and Rationale:

Fishery statistics is widely accepted as a tool to provide a basis and being crucial to the determination of national fisheries policies, the formulation of national management frameworks and actions or even as a basis for understanding the status and condition of fisheries resources. However, current national fishery statistical systems of ASEAN Member Countries are not effectively implemented.

To continue providing assistance to the ASEAN Member Countries in the implementation of the Resolution and Plan of Action adopted at the Millennium Conference in 2001, the priority issues on the necessity to improve fishery statistics and information systems as a tool for planning and management of fisheries is required as an important basis and prerequisite to tackle with the various problems toward the sustainable fisheries and food security.

This project was proposed based upon Resolutions 3, 4 and 7, the Plan of Action A9, A10 and A11 as well as relevant conclusions and recommendations endorsed by the Conference, which highlighted important issues in the improvement of fishery statistics.

Resolution 3: Acknowledge the need for enhanced human resource capabilities at all levels and encourage greater involvement by stakeholders to facilitate consensus and compliance in achieving sustainable fisheries

Resolution 4: Mobilize regional technical cooperation to reduce disparities and promote solidarity among ASEAN Member Countries

Resolution 7: Strengthen national fishery statistical systems and maximize their use for fisheries planning and management and develop standard definitions and classifications to facilitate regional fishery statistics and information exchanges

Plan of Action A9: Coordinate and decentralize the collection and use of fisheries related statistical data between the national fisheries and other authorities including those responsible for food security, trade, vessel registration, aquaculture and rural development

Plan of Action A10: Maximize the use of national fisheries statistical systems by focusing on clear objectives and timely results directly related to Fisheries Management decision-making and planning processes

Plan of Action A11: Apply, where appropriate, regionally standardized definitions and classifications for statistical data to facilitate regional compilation, analysis and data exchange

To achieve sustainable fisheries objectives, understanding and knowledge of fisheries industries particularly their status, trend and prospectus need to be enhanced. This is obtained through analysis of reliable and timely statistics and information, which will then be used as a basis for the formulation of sound fisheries policies and management strategies. To fulfill this goal, it is generally noted that fishery statistics still form an important foundation which required improvement of better national fishery statistical system in terms of quality, availability, reliability, accuracy and timeliness of statistics in line with the minimum requirements and the regionally standardized definitions and classifications for fishery statistics to facilitate regional compilation, analysis and data exchange, as well as ways and means to present information in user-friendly manner for management and decision-making.

Objectives:

Overall objective: The project objective is to improve better understanding and knowledge of fisheries and aquaculture in the region as a basis for development planning and management through effective management of statistics and information systems and capacity building.

Specific objectives: Responding to the above overall objective, the project will focus on the following specific objectives:

1. To develop strategies and initiatives by strategic planning/system review to support improvement of national statistical system for fisheries and aquaculture;
2. To improve management of national statistics and information systems through the application of database and information technology; and
3. To promote statistics and information sharing and usage among the Member Countries through compilation of the Fishery Statistical Bulletin for the Southeast Asian Region and development of the Southeast Asian Status of Fisheries and Aquaculture (SEASOFIA).

Expected Outputs:

1. Minimum requirements and regional harmonized standard definitions and classifications for fishery statistics;
2. Strategies, plans and initiatives to support improvement of national statistical system for fisheries and aquaculture;
3. Application of database and information technology to improve management of national statistics and information systems; and
4. The annually Fishery Statistical Bulletin for the Southeast Asian Region
5. The biennial/triennial analytical information for status and trend of fisheries and aquaculture in Southeast Asia (SEASOFIA)

Project Management and Administration: SEAFDEC Secretariat in collaboration with the Member Countries (Cambodia, Indonesia, Malaysia, Philippines and Thailand as core countries) and the Departments

Implementation Procedure: (5 years from 2006 to 2010)

Activity 1: Development of guidelines and standards

Activity 1.1 Development of regional guidelines on fishery statistics in the ASEAN Region

Within the scope of fisheries management in the Code of Conduct for Responsible Fisheries, the importance of quality statistics and information was stressed as a tool to facilitate development planning and management of fisheries. Issues related to fishery statistics as included in the regional guidelines for responsible fisheries management will be substantiated. This is to enable the countries in the region to clarify a clear direction for actions to improve fishery statistics.

The regional guidelines on fishery statistics will then be submitted to higher authorities of ASEAN and SEAFDEC for consideration and endorsement. This will provide an important framework for formulation of ASEAN-SEAFDEC collaborative programs on fishery statistics and information as well as for supporting cooperation among the countries in Southeast Asia and international/regional organizations.

Activity 1.2 Development of minimum requirement on fishery statistics and harmonization of standard definitions and classification for fishery statistics in Southeast Asia

To facilitate regional fishery statistics and information exchanges as well as comparability of fishery statistics in the region by harmonizing definitions, standards and classification of statistics including statistical measurement and units as well as reporting formats, development of minimum requirement on fishery statistics and harmonization of standard definitions and classification for fishery statistics in Southeast Asia are required as paramount importance. The minimum requirement targets at a basic data set to facilitate timely provision of quality fishery statistics will be compiled at the regional level, once agreed among the countries in the region, can also be used as a framework to facilitate long-term improvement of fishery statistics at the national level through sharing common goals and experience.

The minimum requirement and framework of the Fishery Statistical Bulletin for the Southeast Asian Region will further submission for consideration and endorsement to the ASEAN-SEAFDEC Fisheries Consultative Group (FCG) and SEAFDEC Council, respectively.

Activity 2: Research and Pilot Studies:

Activity 2.1 Improvement of national fishery statistical system through introduction of appropriate methodology for collection of statistics for marine and inland fisheries in selected areas

Based on the recommendations made at the 2nd RTC on Fishery Statistics, research and pilot studies on strengthening of national fishery statistics and information will be conducted in selected ASEAN countries through the introduction of appropriate

methodology for collection of statistics for marine and inland fisheries in selected areas. This includes identification and visit of the pilot sites, development of pilot project mechanisms, set-up of pilot project resources and facilities as well as required collaborating mechanism including networks of institutions and experts.

Activity 3: Capacity Development:

Activity 3.1 Capacity building for national institutions through review/update of fishery statistics and information system

To ensure improvement of fishery statistical system in a practical and sustainable manner, based on the recommendations made at the 2nd RTC on Fishery Statistics, capacity building for national institutions through review/update of fishery statistics and information system could form a basis for high-level policy consideration and support. This will be done to develop strategies and initiatives by strategic planning/system review to support improvement of national statistical system for fisheries and aquaculture.

Activity 3.2 Regional Consultation/Workshop on fishery statistics and information to identify important/ emerging issues and improvement strategies

To start the project implementation, mid-term and project ended Regional Consultations/Workshops on fishery statistics and information in the ASEAN region will be conducted to identify important/emerging issues and improvement strategies as well as formulating a strategic plan to ensure sustainable fishery statistical system in the ASEAN region, review progress of the results of implementation during mid-term and project end. It is envisaged that the strategic plan comprising considerations and actions (both within the Department of Fisheries and across concerned agencies).

Activity 3.3 Training on data collection, processing, analysis and reporting for marine and inland fisheries, and aquaculture

Based on the identify human capacity building requirements made at the 2nd RTC on Fishery Statistics as well as the FAO-SEAFDEC Regional Workshop on the Improvement of Fishery Data and Information Collection Systems, as the priority issues to ensure improvement of sustainable fishery statistical systems, the trainings on data collection, processing, analysis and reporting for marine and inland fisheries, and aquaculture as well as develop training modules for data collectors, processors, and end users will be implemented.

Activity 4: Information Dissemination:

Activity 4.1 Management of web-based knowledge and information related to fisheries in the region

To improve better understanding and knowledge of fisheries and aquaculture in the region as a basis for development planning and management, development and management of web-based knowledge and information related to fisheries in the region will be implemented through SEAFDEC homepage.

Activity 4.2 Annual compilation of regional fishery statistical bulletin for the Southeast Asian region focusing on data required for supporting development planning and management of fisheries

The compilation of regional fishery statistical bulletin for the Southeast Asian region focusing on data required for supporting development planning and management of fisheries will be implemented annually based on the agreed minimum requirement and the regionally standardized definitions and classifications for fishery statistics. This will facilitate information exchange and comparability of fishery statistics in the region.

Activity 4.3 Development of biennial/triennial analytical information for status and trend of fisheries and aquaculture in Southeast Asia (SEASOFIA) including trade statistics and information

To provide the ASEAN countries with better understanding and knowledge of fisheries industries in particular fisheries information for status and trend of fisheries and aquaculture in Southeast Asia, to be used for development planning and management for fisheries, development of the biennial/triennial analytical information for status and trend of fisheries and aquaculture in Southeast Asia (SEASOFIA) including trade statistics and information will be implemented.

Schedule of Activities: 5 years (2006-2010)

Activities	2006				2007				2008				2009				2010			
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
1. Development of guidelines and standards																				
1.1 Development of regional guidelines on fishery statistics in the ASEAN Region																				
1.2 Development of minimum requirement on fishery statistics and harmonization of standard definitions and classification for fishery statistics in Southeast Asia																				
2. Research and Pilot Studies																				
2.1 Improvement of national fishery statistical system through introduction of appropriate methodology for collection of statistics for marine and inland fisheries in selected areas																				

3. Capacity Development																			
3.1 Capacity building for national institutions through review/update of fishery statistics and information system																			
3.2 Regional Consultation/Workshop on fishery statistics and information to identify important/emerging issues and improvement strategies																			
3.3 Training on data collection, processing, analysis and reporting for marine and inland fisheries, and aquaculture																			
4. Information Dissemination																			
4.1 Management of web-based knowledge and information related to fisheries in the region																			
4.2 Annual compilation of regional fishery statistical bulletin for the Southeast Asian region focusing on data required for supporting development planning and management of fisheries																			
4.3 Development of biennial/triennial analytical information for status and trend of fisheries and aquaculture in Southeast Asia (SEASOFIA) including trade statistics and information																			

Financial Arrangement and Required Budget:

Activities	Proposed budget (US\$)				
	2006	2007	2008	2009	2010
1. Development of guidelines and standards	15,000				
2. Research and Pilot Studies		15,000	20,000	20,000	20,000
3. Capacity Development	25,000	25,000	35,000	15,000	30,000
4. Information Dissemination	40,000	40,000	25,000	45,000	30,000
Total	80,000	80,000	80,000	80,000	80,000

Project Monitoring and Evaluation:

This includes annual progress reports, regular monitoring and evaluation of the pilot projects, and End-of-Activity Seminar/Workshop.

Collaborative Arrangement:

This project will promote close collaboration with the competent organizations/agencies to mobilize technical capability into the project. Technical support such as exchange of information and publication, provision of staff time, use of existing networking, etc. considered as contribution in-kind will be promoted. In addition, where the project is operated, local cost should be shouldered by the country hosting the project site. The following are the key tentative organizations/agencies to be involved in this project:

- Food and Agriculture Organization (FAO)
- Mekong River Commission (MRC)
- Department of Fisheries, Cambodia
- Directorate General of Capture Fisheries, Directorate General of Aquaculture, Agency for Marine and Fisheries Research, Indonesia
- Department of Fisheries, Malaysia
- Bureau of Agriculture Statistics, and Bureau of Fisheries and Aquatic Resources, the Philippines
- Department of Fisheries, and National Statistical Office, Thailand

Project Document

Program Title: Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region

Component Program Title: Fisheries Management

Project Title: Rehabilitation of Fisheries Resources and Habitats/Fishing Grounds through Resource Enhancement

Total Duration: January 2006 to December 2010 (5 years program)

Background and Rational:

The quality of coastal and inshore ecosystems has deteriorated significantly as a result of continued and increasing human activities. These areas are critical to a broad range of aquatic organisms during their life cycles including spawning, nursery areas and feeding zones and many of these species are of economic importance. The areas serve as important sources of recruitment to, and the sustainability of, commercial fisheries. It is suggested that the productivity of these ecosystems can be enhanced through human intervention leading to improved livelihoods for coastal communities.

In many areas, the introduction of man-made structures, including artificial reefs, aquaculture facilities, breakwaters, stationary nets and jetties are shown to enhance local populations of aquatic organisms, provided that there are sufficient numbers of structures to have a significant and positive impact on ecosystem productivity and that they are integrated into coastal zone management regimes. These structures can enhance fisheries resources. To optimize the results of such initiatives, careful impact assessment and planning procedures are required.

Re-stocking may be an effective component in the enhancement of marine resources in inshore waters. Juveniles and seeds produced by hatcheries or collected from the wild in other areas are removed rapidly from the ecosystem by destructive fishing gears such as push nets or small-mesh trawl nets. Furthermore, in order to retain the released stocks within the immediate vicinity and minimize losses through out-migration, suitable habitat must be available to them. Therefore, habitat restoration and/or enhancement and establishment of exclusive fishing rights may be necessary prerequisites for any marine re-stocking exercises.

Immediate action is required to prevent further loss of habitat and damage to fish stocks. A range of effective community-level mechanisms must be developed to assist fishers to restore habitats and rebuild stocks. These mechanisms are likely to be specific to different stocks and habitats. Habitat creation and the establishment of artificial reefs, the use of fish attraction devices and predator removal all have potential in the region.

The project is proposed based on the following resolution and plan of action as endorsed at the Millennium Conference:

Resolution 9: Work towards the conservation and rehabilitation of aquatic habitats essential to enhancing fisheries resources.

Plan of Action A4: Optimize the use of inshore waters through resource enhancement programs such as promoting the installation of artificial reefs and structures, encouraging coordinated and effective planning for coastal fisheries management programs, undertaking environmental impact assessment studies, restocking of commercially important fish species and developing human resources for the implementation of such programs.

Plan of Action A8: Develop and maintain freshwater fisheries through inter-agency coordination of multiple-use water resources and trans-boundary inland fisheries management, promoting awareness of the importance of freshwater fisheries for local food security, rehabilitating and restoring habitats for migratory freshwater fish, restocking indigenous fish species to enhance productivity and encouraging culture-base freshwater fisheries where appropriate.

Objectives:

1. To optimize the use of fishing ground through resource enhancement programs;
2. To enhance the fisheries resources by resource enhancement tools;
3. To assess the feasibility, environmental and socio-economical impact of resource enhancement tools;
4. To develop and design the appropriate resource enhancement tools/models;
5. To evaluate the impact of the fisheries resources enhancement by re-stocking programs; and
6. To develop human resources for the implementation of resource enhancement programs.

Project Management and Administration:

TD will be the responsible SEAFDEC Department for this project and will manage and coordinate all project activities. Other ASEAN Member Countries which have been identified as core countries will be involved in implementing the relevant project activities on a *cost-sharing basis* to develop Rehabilitation of Fisheries Resources and Habitats/Fishing Grounds through Resource Enhancement program and to conduct pilot projects to implement the program in their respective countries.

Implementation Procedure:

Activity 1: Experiments/Regional Workshop on the suitable designs/models of the resource enhancement tools in collaboration with the Member Countries including its evaluation and promotion.

Activity 2: Workshop/seminar on resource enhancement tools including artificial design and construction.

Activity 3: Development of fisheries resources conservation and enhancing through marine ranching/re-stocking and evaluation of the impact.

- 3.1 Conservation of endangered species (dugong, whale shark, dolphin, etc.)
- 3.2 Sea ranching of selected species (sea cucumber, giant clam, sea horse, spiny lobster, abalone, etc.)
- 3.3 Restocking of indigenous species (freshwater species, shrimp, etc.)
- 3.4 Marine Protected Areas

Activity 4: Ecosystem valuation: Sea-grass, mangroves, corals, soft-bottom, rivers, reservoirs, wetlands, etc.

Activity 5: Capacity building on Rehabilitation of Fisheries Resources and Habitats/Fishing Grounds to fisheries officer of member countries.

- 5.1 Training course on Sea ranching
- 5.2 Training course on Ecosystem Valuation
- 5.3 Training course on Resources Assessment in artificial reef and reef areas

Activity 6: Information dissemination on rehabilitation of fisheries resources and habitats/fishing grounds for public awareness

Schedule of Activities: 5 years (2006-2010)

Activities	2006				2007				2008				2009				2010			
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
1. Experiments/Regional Workshop on the suitable designs/models of the resource enhancement tools in collaboration with the Member Countries including its evaluation and promotion																				
2. Workshop/seminar on resource enhancement tools including artificial design and construction.																				
3. Development of fisheries resources conservation and enhancing through marine ranching/re-stocking and evaluation of the impact.																				
3.1 Conservation of endangered species (dugong, whale shark, dolphin, etc.)																				

3.2 Sea ranching of selected species (sea cucumber, giant clam, sea horse, spiny lobster, abalone, etc.)																				
3.3 Restocking of indigenous species (freshwater species, shrimp, etc.)																				
3.4 Marine Protected Areas																				
4. Ecosystem evaluation: Sea-grass, mangroves, corals, soft-bottom, rivers, reservoirs, wetlands, etc.																				
5. Capacity building on Rehabilitation of Fisheries Resources and Habitats/Fishing Grounds to fisheries officer of member countries.																				
5.1 Training course on Sea ranching																				
5.2 Training course on Ecosystem Valuation																				
5.3 Training course on Resources Assessment in artificial reef and reef areas																				
6. Information dissemination on rehabilitation of fisheries resources and habitats/fishing grounds for public awareness																				

Financial Arrangement and Required Budget:

Activities / Sub-Activities	Proposed budget (US\$)				
	2006	2007	2008	2009	2010
1. Experiments/Regional Workshop on the suitable designs/models of the resource enhancement tools in collaboration with the Member Countries including its evaluation and promotion	12,000	12,000	12,000	12,000	12,000
2. Workshop/seminar on resource enhancement tools including artificial design and construction.	20,000				20,000
3. Development of fisheries resources conservation and enhancing through marine ranching/re-stocking and evaluation of the impact.					
3.1 Conservation of endangered species (dugong, whale shark, dolphin, etc.)	5,000	5,000	5,000	5,000	5,000

3.2 Sea ranching of selected species (sea cucumber, giant clam, sea horse, spiny lobster, abalone, etc.)	5,000	5,000	5,000	5,000	5,000
3.3 Restocking of indigenous species (freshwater species, shrimp, etc.)	5,000	5,000	5,000	5,000	5,000
3.4 Marine Protected Areas	5,000	5,000	5,000	5,000	5,000
4. Ecosystem valuation: Sea-grass, mangroves, corals, soft-bottom, rivers, reservoirs, wetlands, etc.	5,000	5,000	5,000	5,000	5,000
5. Capacity building on Rehabilitation of Fisheries Resources and Habitats/Fishing Grounds to fisheries officer of member countries.					
5.1 Training course on Sea ranching				20,000	
5.2 Training course on Ecosystem Valuation		20,000			
5.3 Training course on Resources Assessment in artificial reef and reef areas			20,000		
6. Information dissemination on rehabilitation of fisheries resources and habitats/fishing grounds for public awareness	3,000	3,000	3,000	3,000	3,000
Total	60,000	60,000	60,000	60,000	60,000

Project Monitoring and Evaluation:

This will include annual progress reports, regular monitoring and evaluation of the pilot projects, and End-of-Activity Workshops.

Project Document

Program Title: Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region

Component Program Title: Fisheries Management

Project Title: Strengthening Small-scale Fisheries Management through the Promotion of Rights-based and Co-management Concepts

Background and Rationale:

The project on “Towards Decentralized Management of Sustainable Fisheries in the ASEAN Region” from 2002 to 2005 concludes the regional guidelines on rights-based and co-management for small-scale fisheries. The objective of the guideline is to promote the sustainable management of small-scale fisheries in the ASEAN region in both sustainable utilization of fishery resources, and an improvement in small-scale fishers’ livelihoods. The issue of Rights-based management in the guideline emphasizes managing the fishery resources by creating some management measures at local level by managing the numbers and fishing gear types and the close monitoring of fishing practices of fishers by a local institution. The co-management issue in the guideline covers the local institution establishment and how management functions at the local level could be shared between government agencies and local institutions. This project is therefore proposed as a continuation of the previous project to help the member countries to clarify strategies in strengthening management for small-scale fisheries through the promotion of rights-based and co-management concepts and approaches including the implementation of the regional guidelines.

Objectives:

In strengthening management for small-scale fisheries, it is envisaged that the regional guidelines will form the basis to clarify strategies for this purpose. The project is therefore proposed with the following specific objectives:

1. That rights-based and co-management in the regional guidelines are well known by responsible management institutions in the member countries through various kinds of activity;
2. The Human capacity of Fisheries Management institutions at all levels is improved;
3. Management of the coastal/inland fishery resources is improved through the rights-based fisheries and co-management approaches; and
4. The participation and compliance of fishers in the management of small-scale fisheries is improved through the rights-based fisheries and co-management approaches.

Envisaged Outcomes: An improvement in small-scale fisheries management through the application of rights-based fishery and co-management principles

Project Management and Administration: SEAFDEC-Secretariat in collaboration with identified “core countries” and the Member Countries concerned

Implementation Procedure:

The project will consist of three main activities i.e. implementation of the pilot project on the guidelines in selected member countries, strengthening and building capacity for the management of small-scale fisheries including the application of rights-based fisheries and co-management and to establish a network for sharing information and the utilization of Fisheries Management expertise of the region.

Proposed Activities:

Activity 1: Capacity Building

Capacity building on the management of small-scale fisheries both in coastal and inland waters for all levels through various activities e.g. workshops, seminars, regional training and on the site training, etc. It is envisaged that activities will be conducted by mobilizing any existing expertise in the member countries through establishing a regional core pool of trainers on several issues as follows:

- Rights-based
- Rights-based and coastal Fisheries Management concepts
- Co-management concepts
- Extension concepts, and methodology,
- Communication processes and (simple) media production for extension work
- Participatory methods for management program planning, fishery resource surveys and socio-economic research
- Mediation and conflict resolution
- Local MCS systems

Activity 2: Implementation of pilot projects in selected member countries

Implementation of pilot projects in selected member countries to study and clarify the practicability and adoption of the guidelines at local level. The pilot projects will cover several issues including:

- Strengthening and/or establishing local institution who have a mandate/authority for local management (building strategic alliances for management of coastal fisheries);
- Setting up local legal frameworks addressing both resource management and responsibility functions of various local institutions involved in management;
- Management of the resources within the project boundary inline with the concept and implementation of responsible fishing and resource enhancement projects; and
- Pre and post research on the issues that indicate the factors of the successes and failures of the project (marine resource, social and economic, and management institutions).

Activity 3: Awareness building and information dissemination

Awareness building and information dissemination to promote the wider application of the rights-based and co-management approaches

- Information dissemination through several kinds of media and channels
- Establishment of a regional network on rights-based and co-management to facilitate the implementation of projects and the sharing of information and experience on management of small-scale fisheries

Schedule of Activities: 5 years (2006-2010)

Activities	2006				2007				2008				2009				2010			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Activity 1: Capacity Building																				
Activity 2: Pilot Projects																				
Activity 3: Awareness Building																				

Financial Arrangement and Required Budget:

Activities	Proposed budget (US\$)				
	2006	2007	2008	2009	2010
Activity 1: Capacity Building	40,000	35,000	35,000	35,000	35,000
Activity 2: Pilot Projects	20,000	25,000	15,000	15,000	15,000
Activity 3: Awareness Building	-	-	10,000	10,000	10,000
Total	60,000	60,000	60,000	60,000	60,000

Project Monitoring and Evaluation:

This includes annual progress reports, regular monitoring and evaluation of the pilot projects, and End-of-Activity Seminar/Workshop.

Project Document

Program Title: Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region

Component Program Title: Fisheries Management

Project Title: Sustainable Utilization of Potential Fisheries Resources and Reduction of Post-harvest Losses

Background and Rationale:

Regarding fisheries resources in Southeast Asian Region is currently heavily exploited. Most of these fisheries resources were harvested in the coastal zone or offshore area where the depth of waters lesser than 100m. Consideration for the geo-topographic features in the region found that more than 50% of the sea area is classified as deep sea and most of our fishers in the region have not utilized yet. It is expected that many potential resources such as in the untrawlable areas, sea mounts, and deep sea basins are existing in the many seas in the Southeast Asian region. This is why SEAFDEC/TD proposed to identify these potential resources in cooperation with member countries. The activities will be conducted/ developed together with development of appropriate technology.

In addition, to maximize the utilization of resources as well as to reduce the post harvest losses, developing of the appropriate fish handling technology is one of the important issues to support the sustainable utilization of potential. As it was found that onboard fish handling and preservation techniques are main problems in many member countries which need to be developed. In member countries, there are different designs of fishing boat and different fish handing technologies, SEAFDEC will look for appropriate and low cost technology for fishermen to solve the problem of fish freshness/quality. Technology transfer to member countries will be one of the activities.

The project is proposed based on the following resolution and plan of action as endorsed at the Millennium Conference:

Resolution 11: Promote the maximum utilization of catch, including the reduction of discards and postharvest losses to increase fish supply and improve economic returns

Resolution 14: Improve post-harvest technologies to ensure fish quality assurance and safety management systems which are appropriate for small and medium-sized enterprises in the region, taking into account the importance of traditional fish products and food security requirements.

Plan of Action A7: Investigate the potential of under-utilized fisheries resources and promote their exploitation in a precautionary manner based upon analysis of the best available scientific information under rights-based fisheries regimes.

Plan of Action C1: Introduce and provide support for the development of technologies to optimize the utilization of catch and reduce post-harvest losses, wastes, discards in industrial and small-scale fisheries and processing operations through improved

processing facilities, on-board and on-shore handling, storage and distribution of fish and fishery products.

Objectives:

1. To *investigate* the potential of under-utilized fisheries resources and *promote* their exploitation in a precautionary manner based upon analysis of the best available scientific information through development of appropriate technology.
2. To develop and promote capacity building for deep sea fishing in off shore areas particularly in untrawlable grounds, sea mounts, and deep sea basins.
3. To promote the maximum utilization of catch through better onboard fish handling to increase fish supply and improve economic return
4. To develop and promote capacity building for onboard fish handling technology and methods

Project Management and Administration:

TD will be the responsible SEAFDEC Department for this project and will manage and coordinate all project activities.

Other ASEAN Member Countries which have been identified as core countries will be involved in implementing the relevant project activities under a *cost-sharing basis*

Implementation Procedure:

Activity 1: Workshops/ Consultation

The 1st Workshop/ consultation will be organized in the first calendar year for identifying and reviewing the potential of under-utilized fisheries resources. Formulating of the proposed national survey plan in collaboration with SEAFDEC by using MV SEAFDEC2 will be discussed. The 2nd workshop will be organized in 2009 to present the results of the survey for of under-utilized fisheries resources.

Activity 2: Survey on the potential of under-utilized resources

The collaborative research survey on potential of under-utilized resources in member countries will be conducted in cooperation with the national research program of each member country using of MV SEAFDEC2 (under the cost-shared policy for M.V. SEAFDEC2) or other national research vessel(s). The survey areas will be focused in the EEZ of member countries and/or over lapping areas particularly in un-trawlable grounds, sea mounts, and deep sea basins. The results from the surveys will be analyzed as the national and regional levels.

Activity 3: Development/promotion of appropriate onboard fish handling technology

Development of appropriate onboard fish handling technology will be based on the different natures of the fishing boat design and operation periods which are covered medium and small scales for both marine and inland captured fisheries. In principal, the Core countries or national pilot projects for implementation of the on-board fish handling technology will be requested for feasibility study before and after

improvement of onboard fish handling technology in term of economic return is suggested

In order to ensure that technology transfer from SEAFDEC go to fishermen/ fishing boat owner and to increase more effective promotion, Technical supporting agency/institution is need at national level.

Activity 4: Capacity Building on Human Resources

a.) Shipboard training on the appropriate technology for deep sea fishing will be developed for both gear technologist and private sector selected by fisheries agency.

b.) Onsite training on the improvement of onboard fish handling technology and methods

- For trainer (Technician/engineer); to transfer knowledge on the concept, and appropriate system
- For fishermen and fishing boat owner; to provide information on how important of the activities.

Activity 5: Production of information packages

a.) Manuals for appropriate technology for deep sea fishing based on region information

b.) Manuals for onboard fishing handling technology

c.) Technical paper on “Investigation on the potential of under-utilized resources in Southeast Asian Region”

Schedule of activities: 5 years (2006-2010)

Activities	2006				2007				2008				2009				2010			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Activity 1: Workshop/ Consultation																				
Activity 2: Actual Survey on the potential of under- utilized resources																				
Activity 3: Development / promotion of appropriate onboard fish handling technology																				
Activity 4: Capacity Building on Human Resources																				

Activity 5: Production of Information Packages																																					
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Financial Arrangement and Required Budget:

Activities	Proposed budget (US\$)				
	2006	2007	2008	2009	2010
Activity 1: Workshop/ Consultation	1 st TCM 22,000				2 nd WS 22,000
Activity 2: Actual Survey on the potential of under-utilized resources	Member Countries 24,000	Member Countries 32,000	Member Countries 30,000	Member Countries 30,000	
Activity 3: Development / promotion of appropriate onboard fish handling technology	Member Countries 12,000	Member Countries 15,000	Member Countries 15,000	Member Countries 15,000	Member Countries 10,000
Activity 4: Capacity Building on Human Resources		Member Countries 10,000	Member Countries 10,000	Member Countries 10,000	Member Countries 15,000
Activity 5: Production of Information Packages	Media 2,000	Materials 3,000	Publications 5,000	Publications 5,000	Publications 13,000
Total	60,000	60,000	60,000	60,000	60,000

Project Monitoring and Evaluation:

This will include annual progress reports, regular monitoring and evaluation of the pilot projects, and End-of-Activity Workshops.

- To understanding of the potential of under-utilized fisheries resources and promote their exploitation in a precautionary manner in member countries, collaborative research survey among SEAFDEC and member country will be developed based on the utilization of MV SEAFDEC2 under the cost-shared policy. Preliminary results from the collaborative survey will be reported to individual concerned country. At the regional level, the results from various surveys will be analyzed and summarized.
- For Technology transfer on the appropriate fishing technology for harvesting of the under-utilized fisheries resources will be conducted through shipboard training using MV SEAFDEC2.
- Technology transfer on the appropriate onboard fish handling technology to the user and trainer

Project Document

Program Title: Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region

Component Program Title: Fisheries Management

Project Title: Responsible Fishing Technologies and Practices (Fishing in Harmony with Nature)

Background and Rationale:

The current status of many fishery resources in the Asian region is of serious concern. A growing national and international demand for fish and fishery products has led to the continued development and adoption of modern fishing technologies, including new and improved boat design, fishing gear and deck equipment. Overall, fisheries production in the ASEAN region has increased during the past decade, although in some regions, localized depletion of fisheries resources has resulted in reduced landings or catch compositions that comprise mainly smaller and less valuable species. Significant contributors to the problem of deteriorating fisheries resources are over-exploitation practices and non-selective fishing gear. The impact of these is devastating, and ineffective management plans and law enforcement have, to date, failed to reduce these fishing pressures. Additionally, contributions to resource deterioration include excessive fishing effort, over-capacity and non-fisheries related impacts like the destruction of estuarine habitats, housing developments and water pollution.

Solutions to the problem of over-exploitation and habitat degradation in the region are both difficult and complex. The conflicting socio-economic problems associated with an increasing population and a need to maintain food security and people's livelihoods are significant. Under these circumstances, there is a lack of appreciation and awareness of the need for selective fishing gear that has minimal impact on aquatic ecosystems. Despite increased emphasis on the sustainable harvest of fisheries and their resources, a lack of standardized research methodologies, particularly in gear selectivity research, coupled with difficulties associated with the design and introduction of effective selectivity devices in multi-species fisheries, makes overcoming these problems difficult.

Greater collaboration and commitment are required from ASEAN Member countries to reduce the impact of illegal and destructive fishing gear and practices and the use of responsible fishing technologies and practices must be promoted to maintain the integrity of the aquatic environment and the sustainability of fisheries resources.

This project is proposed based upon the resolutions and plans of action as endorsed at the Millennium Conference in 2001 and also the regional program planning meeting in 2005 for the special 5-year program on sustainable fisheries for food security in the ASEAN region. (2006-2010)

Objectives:

1. To promote responsible fishing technologies and practices through the introduction, demonstration, and training in fishing gear selectivity and devices at experimental sites to reduce the capture of immature/juvenile fishes of commercially important species and unwanted catch including endangered species
2. To review and study the interaction between fishing and fishery resources the ecosystem and endangered species including the effects of lure light fishing, and to develop guidelines for the reduction of unwanted catch and lure light fishing
3. To produce and disseminate information and training packages on responsible fishing technologies and practices to ASEAN Member Countries

Project Management and Administration:

TD will be the responsible SEAFDEC Department for this project and will manage and coordinate all project activities. Collaborative arrangements with FAO/UNEP, AMC, MI, TUMSAT, Kagoshima University and other organizations will continue in the 2nd phase through the implementation of the existing project and will include the dispatch of experts and staff exchanges.

Implementation Procedure:

Activity 1: A review of responsible fishing technologies and practices in the Southeast Asian Region.

A review of the available selective fishing gear and practices, including an assessment exercise to evaluate the lessons learned from the introduction and promotion of TEDs and JTEDs will be carried out. The experts consultation and a workshop for scientists, fishermen and personnel involved in the project will be organized at a beginning and end of the project.

Activity 2: A review and compilation of fishing gear and methods in use in marine and inland in Southeast Asia.

An ongoing review and compilation of the fishing gear and methods in use in marine and inland waters will be continued from the first phase of the project, especially for inland waters.

Activity 3: Research and development on fishing gear selectivity and devices.

Research and development on fishing gear selectivity and devices will be continued to cover all types of fishing gear operating in the region.

Activity 4: Assessment of the impact of fishing operations on the environment.

A study on the impact of fishing operations on the environment will be carried out including the impact of lure light fishing. This will include the development of guidelines on the optimum use of lure lights in fishing. Information collection on the interaction between fishing operations and endangered species will be conducted in collaboration with member countries.

Activity 5: Human capacity building on Responsible Fishing Technologies and practices.

The introduction, demonstrations and training will be conducted on fishing gear selectivity and devices, including the environmentally and user friendly fishing gear will be conducted both at TD and in member countries. A training course on the ecosystem effects of fishing will be conducted in collaboration with AMC and other interested organizations.

Activity 6: Production and dissemination of information packages.

The production of information packages will be conducted throughout the project implementation. The dissemination of the information of responsible fishing technology in harmony with nature will also be conducted through workshops and exhibitions.

Schedule of Activities: 5 years (2006-2010)

Activities	2006				2007				2008				2009				2010							
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4				
Activity 1: A review of responsible fishing technologies and practices in the Southeast Asian Region. 1.1. Expert Consultation. 1.2. Workshop for Scientists and fishermen.																								
Activity 2: A review and compilation of fishing gear and methods in use in marine and inland in Southeast Asia.																								
Activity 3: Research and development on fishing gear selectivity and devices. 3.1. Research and development on juvenile reduction devices. 3.2. Research on circle hook and j-hook.																								
Activity 4: Assessment of the impact of fishing operations on the environment. 4.1. Assessment of light fishing.																								

4.2. Development of guidelines for optimum use of luring light for fishing.																				
4.3. Information collection on interaction between fishing operation and endangered species.																				
Activity 5 Human capacity building on Responsible Fishing Technologies and practices.																				
5.1. Introduction and Demonstration on fishing gear selectivity and devices.																				
5.2. Training course on environment / user friendly fishing gear and Practices.																				
5.3. Training course on Ecosystem effects of fishing.																				
Activity 6: Production and dissemination of information packages.																				

Financial Arrangement and Required Budget:

Activities / Sub-Activities	Proposed budget (US\$)				
	2006	2007	2008	2009	2010
Activity 1: A review of responsible fishing technologies and practices in the Southeast Asian Region.	20,000				20,000
Activity 2: A review and compilation of fishing gear and methods in use in marine and inland in Southeast Asia.	5,000	5,000	5,000	5,000	
Activity 3: Research and development on fishing gear selectivity and devices.	15,000	20,000	20,000	20,000	
Activity 4: Assessment of the impact of fishing operations on the environment.	5,000	10,000	10,000	10,000	20,000
Activity 5: Human capacity building on Responsible Fishing Technologies and practices.	10,000	20,000	20,000	20,000	10,000
Activity 6: Production and dissemination of information packages.	5,000	5,000	5,000	5,000	10,000
Total	60,000	60,000	60,000	60,000	60,000

Project Monitoring and Evaluation:

The project manager and the national coordinators of participatory SEAFDEC Member countries and appointed staff of the collaborating organizations will have the responsibility of reviewing and monitoring progress. This will include yearly Monitoring (2006-2009) and Overall Project Evaluation (2010). Feedback and reporting from the participating countries and organization will be sought and included in the overall evaluation.

Project Document

Program Title: Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region

Component Program Title: Aquaculture

Project Title: I - Development of Technologies for Sustainable Aquaculture

Background and Rationale:

The continuing population growth, the decline in capture fisheries, and the widespread poverty in the rural areas of the ASEAN region make it imperative that sustainable aquaculture be promoted to ensure food security and generate livelihood in the region. Recognizing this need, the Ministers of the ASEAN-SEAFDEC Member Countries responsible for fisheries declared in the Resolution, which they adopted in November 2001, that: “aquaculture production be increased in a sustainable and environment-friendly manner by ensuring a stable supply of quality seeds and feeds, effectively controlling aquatic diseases, promoting good farm management, and transferring appropriate technology.” This declaration has been clearly specified and spelled out in detail in the accompanying Plan of Action on Sustainable Fisheries for Food Security in the ASEAN Region, which the Ministers also adopted in November 2001.

An initial evaluation of the outcome of the Aquaculture Component of the Special Five-year Program, implemented from 2002 to 2005, was done during the Regional Planning Meeting for the Special Five-year Program in February 2005. Although the member countries considered the implementation of the Aquaculture Component a success, specific areas that require further development were still identified. Some member countries that have ongoing activities on research and technology development for aquaculture still expressed the need for some aspects of aquaculture that would require further development.

During the February 2005 Regional Planning Meeting, the member countries raised specific issues that need to be addressed by this Project. These include: (1) consistent supply of quality seeds for various priority aquatic commodities to support the aquaculture industry in respective countries; (2) access to developed captive broodstock technology for important aquatic commodities; (3) environment-friendly culture technologies that promote socio-economic development and rural livelihood while optimizing the utilization of resources and inputs; (4) ecologically sound farm management; (5) conservation of ecosystems and biodiversity; (6) development of low fish meal, cost-efficient and environment-friendly aquaculture feeds; (7) diagnosis and control of aquatic diseases; and (8) monitoring and surveillance of occurrence of aquatic diseases.

Initial efforts have been made to address certain regional aquaculture issues during the implementation of the Special Five-Year Program from 2002 to 2005, but there is a need to continue the activities that have been carried out under the Aquaculture Component in order to address the aforementioned concerns for the promotion of sustainable aquaculture in the ASEAN region. It should be noted that the last two issues

on disease diagnosis, monitoring and surveillance will be covered by the second phase of the Regional Fish Disease Project and are no longer included in this proposal.

Objectives:

The main objective of the project is to address regional technology needs for sustainable aquaculture in the areas of broodstock development, genetic improvement, seed production, and culture systems of various priority species for aquaculture, through research and verification.

Specifically, the Project intends to:

1. Establish consistent supply of quality seeds through the establishment and promotion of captive broodstock of selected species and refinement of larval rearing techniques;
2. Promote ecologically sound aquaculture farm management by refining existing grow-out systems with the aim of increasing production, environmental sustainability and satisfying international trade standards;
3. Develop cost-efficient feeds utilizing locally available materials that are low in fish meal and environment-friendly and establish database on nutrient requirement of priority species and nutrient composition and digestibility of feed ingredients.

Project Management and Administration:

The Project on the Development of Technologies for Sustainable Aquaculture has three major components: (1) Broodstock Development and Genetic Improvement; (2) Quality Seed Production; and (3) Development/Improvement of Culture Grow-out Systems. The Aquaculture Department shall be responsible for the implementation of this project.

The suggested Core Countries for this Project shall later be identified using the ASWGFi mechanism. The National Coordinators from the identified core countries shall take care of the overall conduct of the activities in their respective countries. The National Coordinators shall also be responsible for securing national financial support for the implementation of the activities under the cost-sharing scheme being promoted under the FCG collaborative mechanism. Specifically, the National Coordinators shall also be responsible for the submission of reports to AQD on the progress of activities in their respective countries. ASEAN-SEAFDEC Member Countries that have developed aquaculture technologies or have the technical capabilities, such as Thailand, Indonesia, Malaysia, Philippines, Singapore, and Japan could be considered the source of expertise and avenues for the promotion of the resource mobilization strategy under the Program.

From among the suggested Core Countries for this Project, the Lead ASEAN Country should be identified again following the ASWGFi mechanism. The Lead ASEAN Country shall represent ASEAN in providing a linkage between AQD and the Core Countries. Thus, the Lead ASEAN Country shall be responsible for reporting the progress of the project activities to the ASWGFi and in ensuring that the activities receive the support of the core countries. AQD shall work closely with the Lead ASEAN Country in the implementation of the activities specifically as regards the technical coordination of the Project implementation as well as on policy-related issues of the Project.

Implementation Procedure:

From the outcome of the Aquaculture Component of the Special Five-Year Program from 2002 to 2005, and considering the concerns of the member countries raised during the February 2005 Regional Planning Meeting for the Special Five-Year Program, AQD shall implement research and verification activities on the following areas:

1. Freshwater Aquaculture of Indigenous Species (e.g., refinement of culture technologies for giant freshwater prawn, *Pangasius* sp., etc.)
2. Integrated Agri-Aqua Culture Systems (e.g., verification of sea bass culture with rice, prawn culture with rice, carp culture with rice, culture in small farm reservoirs, etc.)
3. Coastal Aquaculture and Mariculture (e.g., refinement of culture technologies using ponds or other structures such as pens, cages and/or fixed floating structures for mud crab, mollusk, seaweeds, etc.)
4. Captive Broodstock Development (e.g., selection for Specific Pathogen Resistance (SPR) and Specific Pathogen Free (SPF) broodstock for sea bass, marine shrimps (*P. monodon*, *P. vannamei*, etc.), grouper, etc.)

Research and verification activities will be conducted on various priority aquatic species of the region. Culture technology packages that are known to be economically viable and environment-friendly, that are well developed in one country will be considered for verification in another country. The verification and demonstration of the technologies are intended to sustain the contribution of freshwater aquaculture in order to attain mutual cooperation, equitable economic development, and poverty alleviation in the region.

Activity 1: Freshwater Aquaculture of Indigenous Species

This activity will address the various concerns identified for the priority species during the February 2005 Planning Meeting. In order to shorten the research processes, countries that have common interest in specific species will be grouped to conduct the collaborative research on such species. Countries that have the developed technology for such identified species shall serve as source for technical assistance.

For the giant freshwater prawn, the concerns raised included: broodstock development; seed production; genetic improvement for growth and survival, and consumer-preferred traits; and development of low-cost feeds. Since these are also being addressed in the collaborative research for the genetic improvement of *Macrobrachium rosenbergii*, such collaborative research should be strengthened.

For *Pangasius* sp. and other indigenous freshwater fish species, the concerns identified were: refinement of broodstock development technologies and seed production.

Activity 2: Integrated Agri-Aqua Culture Systems

This activity will make use of the packaged successful experiences from other institutions or countries on the integration of aquaculture with the farming of rice and other crops in the agricultural systems in the region. The verification of the technology

will be conducted in areas having adequate water supply. The culture of fish in small farm reservoirs will also be promoted.

Production of consistent supply of seeds of the initial species identified by the member countries should be promoted in order to sustain the implementation of the activity in the region. Since tilapia shall be an important species in integrated farming systems, farm-based broodstock selection and maintenance shall be promoted under this activity so that farmers can produce their own high quality tilapia fingerlings.

Activity 3: Coastal Aquaculture and Mariculture

This activity will focus on the coastal areas in the region where a range of aquatic species could be cultured, including finfish, mud crab, mollusks, etc. Technologies on small scale mariculture including off shore cages that are already developed in some countries will be verified in countries where such technology maybe appropriate.

Activity 4: Captive Broodstock Development and Seed Production

One of the major constraints in aquaculture development is the inconsistent and seasonal supply of quality seeds, especially for such species as grouper, milkfish, rabbitfish, shrimps, sea bass, mud crab, etc. In order to address this concern, this activity will focus on one of the factors essential to a consistent supply of quality seeds for aquaculture, the development of captive broodstock for the priority species. The intended output of this activity is a supply of high-health seedstock.

Schedule of Activities: 5 years (2006-2010)

Activities	2006				2007				2008				2009				2010			
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
1. Freshwater Aquaculture of Indigenous Species																				
Planning Workshop	■				■				■				■				■			
Formalization of core countries	■																			
Research		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Verification		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2. Integrated Agri-Aqua Culture Systems																				
Planning Workshop	■				■				■				■				■			
Formalization of core countries	■																			
Research		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Verification		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3. Coastal Aquaculture and Mariculture																				
Planning Workshop	■				■				■				■				■			
Formalization of core countries	■																			

Research																											
Verification																											
4. Captive Broodstock Development and Seed Production																											
Planning Workshop																											
Formalization of core countries																											
Research																											
Verification																											
5. End-of-Project Workshop																											

Financial Arrangement and Required Budget:

The Project on the Development of Technologies for Sustainable Aquaculture would entail an estimated budget of US\$80,000.00 annually from 2006 to 2010. The breakdown of the budget required for the Project is shown in the table below:

Proposed indicative budget for the Project on the Development of Technologies for Sustainable Aquaculture (in US\$)

Activities	Proposed budget (US\$)				
	2006	2007	2008	2009	2010
1. Freshwater Aquaculture of Indigenous Species	15,000	15,000	15,000	15,000	15,000
2. Integrated Agri-Aqua Culture Systems	20,000	20,000	20,000	20,000	20,000
3. Coastal Aquaculture and Mariculture	20,000	20,000	20,000	20,000	20,000
4. Captive Broodstock and Seed Production	25,000	25,000	25,000	25,000	25,000
TOTAL	80,000	80,000	80,000	80,000	80,000

Note: This budget does not include counterpart funding from host governments.

Project Monitoring and Evaluation:

The Project on the Development of Technologies for Sustainable Aquaculture is expected to come up with developed technologies for sustainable aquaculture, refined and verified in selected countries in the region. Specifically, the expected output of the Project includes:

1. Increased availability of quality broodstock of priority species;
2. Increased supply of quality seeds of priority species;
3. Sustainable production of quality marketable size commodities through technological refinements;
4. Cost effective feeds through utilization of cheap locally available ingredients;
5. Database on nutrient requirements of priority species;
6. Database on feed ingredients that shall include data on composition and digestibility;

7. Appropriate near shore sea cage culture system; and
8. Guidelines for instituting accreditation of farms and traceability of aquaculture products including a “fish passport” system.

In order to assess the impact of the Project in the development of aquaculture in the region, evaluation and planning workshops will be conducted annually from 2006 to 2009, and the end-of-project workshop in 2010. The planning and evaluation workshops will discuss the progress of implementation of the activities with the envisaged outcomes as the possible indicators, while the End-of-Project Workshop will discuss the overall impact of the Project to the development of the aquaculture industry in the region.

Project Document

Program Title: Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region

Component Program Title: Aquaculture

Project Title: II - Human Capacity Building for Sustainable Aquaculture

Background and Rationale:

The Resolution on Sustainable Fisheries for Food Security in the ASEAN Region, which was adopted in November 2001, included a provision on the need to “enhance human resource capabilities at all levels and encourage greater involvement by stakeholders to facilitate consensus and compliance in achieving sustainable fisheries.” The Plan of Action specified the need to “build human resource capabilities for environment-friendly, healthy, wholesome and sustainable aquaculture through closer public and private sector collaboration in research and development, paying particular attention to the emerging need for skills in biotechnology, and effectively implementing aquaculture education and extension services.”

Thus the need for human resource development to strengthen capability for sustainable aquaculture is recognized for the development of sustainable aquaculture in the region. Specifically, human capacity building will be promoted in the components identified in Project I such as broodstock development and genetic improvement; quality seed production; and grow-out systems as well as on feed development and management; disease management and other related areas. It is envisaged that promoting human capacity building in the region will eventually result in good aquaculture practices for the sustainable development of the industry.

During the implementation of the Aquaculture Component of the Special Five-year Program 2002 to 2005, the conduct of training and information activities has been promoted. Training was of three types: (1) on-site training in beneficiary country on cost-sharing basis and utilizing technical expertise from host country or another ASEAN country; (2) training at AQD in the Philippines for technologies that have been developed at AQD; and (3) attachment training in another ASEAN country for specific technologies that have been developed in such country.

Information dissemination on various aquaculture technologies was also facilitated through the publication of manuals and other extension materials. Exchange of information was enhanced through the conduct of workshops, round table discussions and meetings.

In the initial evaluation of the outcome of the Aquaculture Component of the Special Five-year Program from 2002 to 2005 during the Regional Planning Meeting for the Special Five-year Program in February 2005, the member countries considered the implementation of the Aquaculture Component a success. However, specific areas that require further development were still identified. Among the areas identified by the member countries is human capacity building for the sustainable development of aquaculture in the region.

During the February 2005 Regional Planning Meeting, the member countries raised specific issues on human capacity building that need to be addressed by this Project. These include: (1) production and dissemination of manuals and handbooks; (2) training of technical staff to enable national governments to independently implement sustainable aquaculture in respective countries; (3) study visits of selected farmers to countries with developed technologies to expose them on recent developments in aquaculture; and (4) farm demonstration on viable aquaculture technologies and systems.

Initial efforts have been made to develop the human capacity building of stakeholders in the region during the implementation of the Special Five-Year Program from 2002 to 2005, but there is a need to continue the training and information activities in order to address one of the major setbacks in the promotion of sustainable aquaculture in the ASEAN region, which is lack of technical expertise. This could be done through the Project on Human Capacity Building for Sustainable Aquaculture.

Objectives:

The main objective of the project is to develop the human resource in the region in sustainable aquaculture especially in the areas identified in Project I, through training, farm demonstration, production of training materials like manuals and handbooks, and mobilization of experts within the region. Specifically, the Project intends to:

1. Conduct a holistic training program for technical persons from the region on sustainable aquaculture from broodstock management and seed production to environment-friendly aquaculture including feeds and feeding management as well as disease management;
2. Develop a training program for fish farmers that will put emphasis on practical sessions to include farm visits to countries with developed technologies;
3. Intensify the production and dissemination of manuals and handbooks on various aquaculture technologies, and;
4. Promote the development of good farming practices for the various priority species.

Project Management and Administration:

The Project on Human Capacity Building for Sustainable Aquaculture has four major components: (1) Production of Manuals and Handbooks; (2) Training of Technical Staff; (3) Study Visits for Farmers; and (4) Farm Demonstration. The Aquaculture Department shall be responsible for the implementation of this project.

The Core Countries and the beneficiary countries for this Project shall be identified using the ASWGFi mechanism. The core countries will be the source of technical expertise for the implementation of the Project. The National Coordinators of the core countries shall assist in the coordination for the conduct of the activities in the beneficiary countries. The National Coordinators of the beneficiary countries on the other hand, shall be responsible for securing national financial support for the implementation of the activities under the cost-sharing scheme being promoted in the FCG collaborative mechanism.

Specifically, the National Coordinators of the core countries shall also be responsible for the submission of reports to the Project Manager for AQD on the progress of activities in the beneficiary countries. From among the suggested core countries for this Project, the Lead ASEAN Country shall be identified following the ASWGFi mechanism. The Lead ASEAN Country shall represent ASEAN in providing a linkage between AQD as well as the core and beneficiary countries. Thus, the Lead ASEAN Country shall be responsible for reporting the progress of the project activities to the ASWGFi and in ensuring that the activities receive the support of the core countries. AQD shall work closely with the Lead ASEAN Country in the implementation of the activities especially on the technical coordination of the Project and on the policy-related issues of the project.

Implementation Procedure:

From the outcome of the Aquaculture Component of the Special Five-Year Program from 2002 to 2005, and considering the concerns of the member countries raised during the February 2005 Regional Planning Meeting for the Special Five-Year Program, AQD shall intensify the human capacity building in the region for sustainable aquaculture development. Specifically, the activities under this project are:

Activity 1: Production of Manuals and Handbooks

Using the experiences of the countries with developed aquaculture technologies, State-of-the-Art Technology Compilations would be published in order to hasten the transfer of the technologies to the countries that need such technologies. The State-of-the-Art compilations will also serve as protocol to be used in verifying and demonstrating the technologies as well as model for the standardization of the verification activities for Project I.

Initially, State-of-the-Art Technology Compilations will focus on: (1) on-farm selection and seed production of tilapia; (2) genetic improvement for growth and survival of the giant freshwater prawn; (3) seed production and grow-out of other indigenous fish species, such as *Pangasius* sp., carp, etc.; (4) seed production and grow-out of marine species, such as grouper, sea bass, milkfish, mud crab, etc.; (5) aquafeeds.

This will be followed by the publication of handbooks and guides on the sustainable aquaculture of the aforementioned species based on the experiences in the participating countries as well as on the refined technologies developed during the implementation of the Project. Translation of the manuals and handbooks into the various languages in the region will also be a major component of this activity.

Activity 2: Training for Technical Staff

Training of the technical staff in the countries could either be on-site in order to maximize the participation of the host countries; or formal training at AQD in the Philippines; or attachment training in specific countries where the technologies needed are already well-developed.

A holistic training program will be developed that would cover the whole aspect of aquaculture development from broodstock management, seed production to grow-out

culture in ponds, cages or in small-farm reservoirs, or in offshore cages. An extensive training program will be developed for each priority aquatic species.

This activity shall also include the formation of working groups to update the database on nutrition and feed development as well as chemicals used in aquaculture. The mobilization of experts in the region will be promoted in the training activities.

Activity 3: Study Visits for Farmers

Instead of formal lectures, practical sessions and study visit programs would be developed for fish farmers from the region. The areas considered for the farm visits are those with relatively advanced technologies. The participating farmers in this activity will be chosen from the respective beneficiary countries of the Project.

Activity 4: Farm Demonstration

Viable aquaculture technologies and systems will be implemented via farm demonstration. The intention is to transform such farm demonstration activities into commercial aquaculture projects. In the process of implementing this activity, good farm practices would be developed and eventually the farm accreditation system would be established for specific species and technology.

Schedule of Activities: 5 years (2006-2010)

Activities	2006				2007				2008				2009				2010			
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
1. Production of Manuals and Handbooks																				
<i>State-of-the-Art Technology</i>																				
On-farm selection and seed production of tilapia																				
Genetic improvement for growth and survival of the giant freshwater prawn																				
Seed production and grow-out culture of indigenous freshwater species, e.g., <i>Pangasius</i> sp.																				
Seed production and grow-out culture of marine species, e.g., grouper, sea bass, milkfish, shrimps, etc.																				

Feeds and feeding management (Aquafeeds)																				
Manuals																				
Specific technologies and species																				
Handbooks and Guide																				
Specific technologies and species farm accreditation process aquaculture product traceability																				
2. Training for Technical Staff																				
Freshwater Aquaculture																				
Integrated Agri-Aqua Culture																				
Coastal Aquaculture																				
Small-scale Seafarming																				
Captive Broodstock Development																				
3. Study Visits for Farmers to:																				
Indonesia																				
Japan																				
Malaysia																				
Philippines																				
Thailand																				
Singapore																				
4. Farm Demonstration																				
Rice-fish culture																				
Village fishpond																				
School fishpond																				
Backyard aquaculture																				
Good farm practices (Code)																				
Farm accreditation																				

Financial Arrangement and Required Budget:

The Project on Human Capacity Building for Sustainable Aquaculture would entail an estimated budget of US\$80,000.00 annually from 2006 to 2010. The breakdown of the budget required for the Project is shown in the table below:

Proposed indicative budget for the Project on Human Capacity Building for Sustainable Aquaculture (in US\$)

Activities	Proposed budget (US\$)				
	2006	2007	2008	2009	2010
1. Production of Manuals and Handbooks (including survey of existing technologies in the region)	80,000		35,000	20,000	20,000
2. Training for Technical Staff		30,000	15,000	15,000	15,000
3. Study Visits for Farmers		30,000	10,000	20,000	10,000
4. Farm Demonstration		20,000	20,000	25,000	35,000
TOTAL	80,000	80,000	80,000	80,000	80,000

Note: This budget does not include counterpart funding from host governments.

Project Monitoring and Evaluation:

The Project on Human Capacity Building for Sustainable Aquaculture is expected to come up with consolidated manuals and handbooks on: culture of various priority commodities, and nutrition and feed development; integrated national guidelines such as Code of Practice or Good Aquaculture Practices for sustainable aquaculture for adoption by the farmers in the region; and aquafarm accreditation system for the region to ensure that production from aquaculture meets the international trade standards.

In order to assess the impact of the Project in the development of aquaculture in the region, issues raised during the implementation of the Project would be raised during the evaluation and planning workshops conducted annually from 2006 to 2009, and the end-of-project workshop in 2010.

Project Document

Program Title: Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region

Component Program Title: Utilization of Fish and Fishery Products

Project Title: Quality Assurance Systems for Small and Medium-sized Fish Processing Establishments in ASEAN Member Countries.

Background and Rationale:

Many small and medium-sized fish processing establishments (SME) in ASEAN Member Countries find it difficult to implement quality assurance systems due to economic and technical constraints. They comprised largely of pre-processing establishments which produce semi-processed raw materials for main processing establishments and traditional products processing establishments. The project will develop quality assurance systems for these SME that incorporate GMP and SSOP as a first step towards the implementation of HACCP and help them meet safety and quality assurance requirements.

The project is proposed based on the following resolution and plan of action as endorsed at the Millennium Conference:

Resolution 14: Improve post-harvest technologies to ensure fish quality assurance and safety management systems which are appropriate for small and medium-sized enterprises in the region, taking into account the importance of traditional fish products and food security requirements.

Plan of Action C4: Develop and apply fish quality and safety management systems that ensure food safety and support the competitive position of ASEAN fish products on world markets through the implementation, validation and verification of Hazard Analysis and Critical Control Point (HACCP) based systems and improved laboratory practices, and adapting quality and safety management systems so that they may be applied to small and medium enterprises in the ASEAN region.

The project is also in line with the measure nos. 40 and 44 of the Roadmap for Integration of Fisheries Sector under the ASEAN Framework Agreement for the Integration of Priority Sectors.

The project involves the development and implementation of GMP/SSOP programs for SME (pre-processing and traditional fish products) through pilot projects with commercial co-operants in participating ASEAN Member Countries. Training courses involving regional expertise will be conducted to build up capacity in ASEAN Member Countries for GMP/SSOP implementation. Manuals on GMP/SSOP implementation will also be prepared and distributed to member countries to assist them to conduct national training programs.

Objectives:

1. To develop GMP/SSOP programs for Small and Medium-sized Fish Processing Establishments (SME) in ASEAN Member Countries.
2. To promote the implementation of GMP/SSOP programs in Small and Medium-sized Fish Processing Enterprises (SME) thereby assuring quality and safety of fish products in ASEAN Member Countries.

The expected outputs for the project include development of GMP/SSOP programs for SME, publication of Manuals on GMP/SSOP to promote implementation in SME, conduct of pilot projects on GMP/SSOP implementation in SME, training courses on GMP/SSOP implementation, and End-of-Activity Workshops.

Project Management and Administration:

MFRD will be the responsible SEAFDEC Department for this project and will manage and coordinate all project activities.

Other ASEAN Member Countries which have been identified as core countries will be involved in implementing the relevant project activities on a *cost-sharing basis* to develop GMP/SSOP programs in pre-processing and traditional products establishments, and to conduct pilot projects to implement GMP/SSOP programs with commercial co-operants in their respective countries.

Implementation Procedure: (5-year project plan)

Activity 1: Regional Planning Workshop

The workshop will be held in Singapore to initiate the project and plan for all the project activities. All the ASEAN Member Countries will be invited to the workshop and to participate in the project activities. The lead countries to develop the various GMP/SSOP programs for pre-processing and traditional products establishments will be discussed and identified at the workshop. The workshop will also decide and agree on the pilot projects on GMP/SSOP implementation with commercial co-operants in participating ASEAN Member Countries.

Activity 2: GMP/SSOP Programs for pre-processing establishments (PPE)

Pre-processing establishments supply semi-processed raw materials such as shrimp, crab, squid, fish and bivalve mollusk to main fish processing establishments. The processes carried out in these establishments may include peeling, de-heading, degutting, de-skinning, cooking, picking, filleting or shucking depending on the raw materials involved. Thus, pre-processing establishments can play a significant role in determining the quality and safety of raw materials and subsequently of the finished products. The activity will be implemented through the following sub-activities:

Sub-Activity 2.1: Development of GMP/SSOP programs

Sub-Activity 2.2: Publication of Manual

Sub-Activity 2.3: End-of-Activity (EOA) Workshop and RTC (project site)

Activity 3: GMP/SSOP programs for traditional products establishments (TPE)

In the ASEAN region, traditional fish products represent a significantly large part of total fish utilization and are a major source of animal protein. As a result, these products are vitally important to food security, especially considering that most of it goes to the marginalized and poorer segments of the population. Considering the importance of these products to the diet in the ASEAN region and the importance of a safe food supply to food security, it is imperative that the TPE apply appropriate GMP/SSOP programs to assure quality and safety of these products. The activity will be implemented through the following sub-activities:

Sub-Activity 3.1: Development of GMP/SSOP programs

Sub-Activity 3.2: Publication of Manual

Sub-Activity 2.3: End-of-Activity (EOA) Workshop and RTC (project site)

Activity 4: Pilot Projects (PP)

After the GMP/SSOP programs have been established, the pilot projects to showcase their implementation in commercial fish processing establishments will be conducted at the project sites in ASEAN Member Countries. These establishments may serve as models for GMP/SSOP implementation to help them meet safety and quality requirements. The pilot projects will also help to fine-tune and improve the respective GMP/SSOP programs established. The activity will be implemented through the following sub-activities:

Sub-Activity 4.1: Implementation of PP

Sub-Activity 4.2: Monitoring and evaluation of PP

Sub-Activity 4.3: End-of-Activity (EOA) Workshop and RTC (project site)

Activity 5: Regional Training Course (RTC) on GMP/SSOP

The RTC will provide training on GMP/SSOP to two participants (preferably one from the private sector) from each ASEAN / SEAFDEC member country. The training course will be conducted at the project sites in conjunction with the EOA Workshops and will cover the basic principles and concepts of GMP/SSOP and its various aspects as well as its application and implementation of GMP/SSOP programs. The GMP/SSOP manuals developed by the project will be used in the training. Study visits to fish processing establishments with GMP/SSOP implementation will also be arranged.

Schedule of Activities: 5 years (2006-2010)

Activities	2006				2007				2008				2009				2010			
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
1 Regional Planning Workshop																				
2 GMP/SSOP programs for PPE																				
2.1 Development of GMP/SSOP programs																				

2.2 Publication of Manual																				
2.3 EOA Workshop and RTC																				
3 GMP/SSOP programs for TPE																				
3.1 Development of GMP/SSOP programs																				
3.2 Publication of Manual																				
3.3 EOA Workshop and RTC																				
4 Pilot Projects (PP)																				
4.1 Implementation of PP																				
4.2 Monitoring and evaluation of PP																				
4.3 EOA Workshop and RTC																				
5 RTC																				

Financial Arrangement and Required Budget:

Activities / Sub-Activities	Proposed budget (US\$)				
	2006	2007	2008	2009	2010
1. Regional Planning Workshop	35,000				
2. GMP/SSOP programs for PPE					
2.1 Development of GMP/SSOP programs	25,000				
2.2 Publication of Manual		10,000			
2.3 EOA Workshop and RTC		35,000			
3. GMP/SSOP programs for TPE					
3.1 Development of GMP/SSOP programs		15,000			
3.2 Publication of Manual			10,000		
3.3 EOA Workshop and RTC			35,000		
4. Pilot Projects (PP)					
4.1 Implementation of PP			15,000	15,000	15,000
4.2 Monitoring and evaluation of PP				10,000	10,000
4.3 EOA Workshop and RTC					35,000
5. RTC				35,000	
Total	60,000	60,000	60,000	60,000	60,000

Project Monitoring and Evaluation:

This will include annual progress reports, regular monitoring and evaluation of the pilot projects, and End-of-Activity Workshops.

Project Document

Program Title: Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region

Component Program Title: Utilization of Fish and Fishery Products

Project Title: Good Laboratory Quality Management in ASEAN Member Countries

Background and Rationale:

The harmonization of analytical methods through a network of lead laboratories in the various ASEAN Member Countries will enhance ASEAN as a coordinated fish-exporting bloc to importing countries such as Canada, USA, Japan and EU. This will help facilitate trade in fish and fish products within and without the ASEAN region. It will then be the onus of the ASEAN member governments to ensure that the methodologies in the other fish inspection laboratories in their respective countries are aligned with their lead laboratory. This project aims to enhance the credibility of the various fish inspection testing laboratories in the ASEAN Member Countries, and enable them to achieve equivalent results through their national governments support to attain ISO 17025 accreditation and participation in inter-laboratory proficiency testing programs.

The project is proposed based on the following resolution and plan of action as endorsed at the Millennium Conference:

Resolution 15: Strengthen the joint ASEAN approaches and positions on international trade in fish and fishery products indigenous to the region by harmonizing standards, criteria and guidelines; and

Plan of Action C4: Develop and apply fish quality and safety management systems that ensure food safety and support the competitive position of ASEAN fish products on world markets through the implementation, validation and verification of Hazard Analysis and Critical Control Point (HACCP) based systems and improved laboratory practices, and adapting quality and safety management systems so that they may be applied to small and medium enterprises in the ASEAN region.

Plan of Action D1: Strengthen ASEAN trade policy on fish and fishery products through regional collaboration by harmonizing product standards and sanitary measures with international standards wherever appropriate, working towards harmonised guidelines for fish inspection and quality control systems among ASEAN Member Countries, strengthening fish inspection and quality control systems with regard to food safety and exchanging information on risk analysis

Recommendation in Technical Report: To develop a regional inter-laboratory proficiency-testing program

Based on the above Resolution, Plan of Action and Recommendations, the following work program is proposed:

This project on Good Laboratory Quality Management includes the establishment of good laboratory management practices in lead regional laboratories, the validation of analytical methods for fish and fish products, the establishment of measurement of uncertainties and inter-laboratory proficiency testing programs amongst the fish inspection and technology laboratories in ASEAN.

The project will comprise of five components:

- a) Networking of lead laboratories in ASEAN
- b) Implementing good laboratory practices in lead laboratories in the region
- c) Validation of laboratory test procedures and
- d) Establishment of Measurement of Uncertainties
- e) Regional Inter-laboratory Proficiency Testing

All the components, although separate in focus, are interconnected. All laboratories in the region (and in particular those certifying products for export) need to meet laboratory quality assurance requirements found in ISO 17025. This project is designed to assist laboratories in the region to meet this standard. It would also investigate the possibility of developing a regional inter-laboratory proficiency-testing program. In addition to meeting quality assurance requirements, there should also be a validation of laboratory analytical procedures to ensure equivalency of results. Many laboratories use their own methods or procedures adopted from another country, which may not have been validated against recognized international procedures such as AOAC. This program is designed to improve aspects of laboratory practices in the region.

In the first Special 5-year Program, a network of lead fisheries post-harvest laboratories in ASEAN has been established through the ASEAN Network of Fisheries Post-Harvest Technology Centres for regional collaboration on the program items. Most of the lead laboratories in ASEAN Member Countries are in various stages of preparation of their laboratory Quality Management Manual and validation of methods. One regional inter-laboratory proficiency testing on heavy metal was also conducted. This project is proposed to be continued into the next 5 years to enable most laboratories to achieve ISO 17025 accreditation and to validate as many of their methods as possible. In this new phase of the project, two additional aspects have been added, namely the establishment of Measurement of Uncertainties for the laboratory test methods (a requirement for ISO17025 accreditation) and training on internal auditing of the laboratory quality system as well as technical performance.

Objectives:

1. To strengthen the network of lead laboratories in ASEAN Member Countries,
2. To implement good laboratory practices in lead laboratories in the region,
3. To validate laboratory test methods and establish their measurement of uncertainties,
4. To conduct inter-laboratory proficiency testing for lead laboratories in the region, and
5. To train laboratory personnel in good laboratory practices and internal auditing, and methods validation and measurement of uncertainties.

Project Management and Administration:

MFRD will be the responsible SEAFDEC Department for this project and will manage and coordinate all project activities. Other ASEAN Member Countries which have been identified with the necessary expertise will be involved in implementing the relevant project activities on a *cost-sharing basis*.

Implementation Procedure: (5-year project plan)

Activity 1: Workshop on Methods Validation and Measurement of Uncertainties

This 5-day Workshop comprises two training sessions back-to-back. The first is on Methods Validation which aims to train laboratory personnel to validate the methods used in their laboratory which they would like to accredit under ISO 17025, and to calculate the Limit of Detection and Limit of Quantification for each method. The second is on the Measurement of Uncertainties where laboratory personnel are trained to calculate the Measurement of Uncertainties for the methods they wish to submit for ISO 17025 accreditation. Technical expertise from SEAFDEC Member Countries may be identified to assist in conducting the Workshop on a cost-sharing basis. The Workshop may be held in various member countries.

Activity 2: Workshop on Good Laboratory Practices and Internal Auditing

This 5-day Workshop comprises two training sessions back-to-back. The first is on Good Laboratory Practices which aims to enable laboratory personnel to understand the requirements of good laboratory practices for compliance with ISO 17025. The second is on Internal Auditing of a laboratory where laboratory personnel are trained to conduct internal audit of their laboratory based on ISO 17025 requirements. Technical expertise from SEAFDEC Member Countries may be identified to assist in conducting the Workshop on a cost-sharing basis. The Workshop may be held in various member countries.

Activity 3: Implementation of good laboratory practices in lead laboratories

This activity aims to assist lead laboratories in the ASEAN Member Countries to prepare their Laboratory Management Manual and to implement good laboratory practices in their laboratories. MFRD will assist the laboratories in reviewing the laboratories' Laboratory Management Manuals and provide consultation on the implementation of good laboratory practices. This activity is a follow-up commitment by lead laboratories after the Workshop on Good Laboratory Practices

Activity 4: Validation of laboratory methods and calculation of Measurement of Uncertainties by lead laboratories

This activity aims to assist lead laboratories in their methods validation. MFRD will assist in reviewing the methods validation and calculation of Measurement of Uncertainties conducted by the laboratories and make recommendations where necessary. This activity is also a follow-up commitment by lead laboratories after the Workshop on Methods Validation and Measurement of Uncertainties. MFRD staff will visit lead laboratories to review their laboratory practices and set up and provide advice.

Activity 5: Validation of MFRD laboratory methods

As MFRD has many methods established by Japanese experts over the years, MFRD is continually validating these methods and calculating their measurement of uncertainties. Only when these are completed then can the methods be accredited under ISO 17025. MFRD staff will visit lead laboratories to review their laboratory practices and set up and provide advice.

Activity 6: Regional Inter-laboratory Proficiency Testing

MFRD will conduct a regional inter-laboratory proficiency testing exercise annually on certain test methods. The objective is to enable regional lead laboratories test the competency of their staff performing the various tests and to check if their methods produce accurate results. In addition, the laboratories that pass the testing have methods that produce same results and are thus harmonized where those methods are concerned. All lead laboratories in the region will be invited to participate.

Activity 7: Compilation of Manual of Validated Methods used by ASEAN lead laboratories

At the end of this project, MFRD will compile validated methods used by ASEAN lead laboratories and validated under this project. The publication will be distributed to all member countries.

Schedule of Activities: 5 years (2006-2010)

Activities	2006				2007				2008				2009				2010			
	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
1. Workshop on Methods Validation and Measurement of Uncertainties																				
2. Workshop on Good Laboratory Practices and Internal Auditing																				
3. Implementation of good laboratory practices in lead regional laboratories																				
4. Validation of laboratory methods and calculation of Measurement of Uncertainties by lead laboratories																				
5. Validation of MFRD laboratory methods																				
6. Inter-laboratory Proficiency Testing																				
7. Compilation of Manual of Validated Methods used by ASEAN lead laboratories																				

Financial Arrangement and Required Budget:

Activities	Proposed budget (US\$)				
	2006	2007	2008	2009	2010
1. Workshop on Methods Validation and Measurement of Uncertainties	35,000		35,000		35,000
2. Workshop on Good Laboratory Practices and Internal Auditing		35,000		35,000	
3. Implementation of good laboratory practices in lead regional laboratories	5,000	5,000	5,000	5,000	5,000
4. Validation of laboratory methods and calculation of Measurement of Uncertainties by lead laboratories	5,000	5,000	5,000	5,000	5,000
5. Validation of MFRD laboratory methods	40,000	40,000	40,000	40,000	40,000
6. Inter-laboratory proficiency testing	15,000	15,000	15,000	15,000	
7. Compilation of Manual of Validated Methods used by ASEAN lead laboratories					15,000
Total	100,000	100,000	100,000	100,000	100,000

Project Monitoring and Evaluation:

This will include annual progress / status reports (an update is provided at each Workshop), regular monitoring and evaluation reports.

Project Document

Program Title: Special 5-year Program on Sustainable Fisheries for Food Security in the ASEAN Region

Component Program Title: Utilization of Fish and Fishery Products

Project Title: Utilization of Freshwater Fish in ASEAN Member Countries

Background and Rationale:

Freshwater fish is an important fisheries resource in many ASEAN Member Countries where it serves as a major source of animal protein especially for the marginalized and poorer segments of the population thereby contributing to food security in these countries. Freshwater fish is also an important source of raw materials for processing into a variety of traditional fish products in the ASEAN Member Countries. However, information on these freshwater fish products are not readily available as either they are not published or are published in the local language. ASEAN Member Countries can assist each other to better utilize their freshwater fish resources through the exchange of such information.

Freshwater fish products as with other traditional products in the ASEAN region are largely processed by household producers and small and medium-sized establishments which are usually family-owned operations with little mechanization. Upgrading of processing and packaging technology for the freshwater fish products will help to improve their quality and safety with the possibility of commercialization.

The project is proposed based on the following resolution and plan of action as endorsed at the Millennium Conference:

Resolution 11: Promote the maximum utilization of catch, including the reduction of discards and post-harvest losses to increase fish supply and improve economic returns.

Plan of Action C1: To introduce and provide support for the development of technologies to optimise the utilization of catch and reduce post-harvest losses, wastes and discards in industrial and small-scale fisheries and processing operations through improved processing facilities, on-board and on-shore handling, storage and distribution of fish and fishery products.

Plan of Action C2: Promote the production and preserve the diversity of traditional fish products by assisting producers to secure stable supplies of quality raw materials, to meet food safety requirements and to improve product identity, nutritive value and marketing.

The project will comprise of two main activities i.e. a survey to compile information and data (product types, raw materials utilized, production volume, processing and packaging technology involved, etc) on freshwater fish products in ASEAN Member Countries, and pilot processing studies on selected freshwater fish products to upgrade processing and packaging technology which will be conducted with regional expertise.

Objectives:

1. To compile information and data on freshwater fish products to assist in establishing national strategies for utilization of freshwater fish resources
2. To assist in upgrading processing and packaging technology for freshwater fish products

The expected outputs for the project include a Handbook on inventory of freshwater fish products, pilot processing studies and End-of-Activity Workshops.

Project Management and Administration:

MFRD will be the responsible SEAFDEC department for this project and will manage and coordinate all project activities.

The survey on freshwater fish products will be conducted by the Department of Fisheries or other relevant authorities in all the ASEAN Member Countries while the pilot processing studies will be carried out in those ASEAN Member Countries which have been identified as core countries on a *cost-sharing basis*.

Implementation Procedure: (5-year project plan)

Activity 1: Survey on freshwater fish products

The survey will compile information and data (product types, raw materials utilized, production volume, processing and packaging technology involved, nutritive value, quality and safety standards, etc) on freshwater fish products in all the ASEAN Member Countries. A survey form will be designed and soft copies will be distributed to the identified respondents in the ASEAN Member Countries. The respondents may have to go the field to conduct the survey if necessary. Pictures of the products and the processing involved should be included in the survey. MFRD will compile and analyze all available information and survey results and publish them in a handbook on inventory of freshwater fish products. The handbook will serve as a definitive guide on freshwater fish products in the ASEAN region to promote exchange of information on these products and to assist in establishing national strategies for utilization of freshwater fish resources

Sub-Activity 1.1: Regional Planning Workshop

Sub-Activity 1.2: Conduct of survey

Sub-Activity 1.3: Compilation and analyses of available information and survey results

Sub-Activity 1.4: Publication of Handbook on inventory of freshwater fish products

Sub-Activity 1.5: End-of-Activity (EOA) Workshop

Activity 2: Upgrading processing and packaging technology for freshwater fish products

The survey results will be used to identify economically important freshwater fish products for pilot processing studies to upgrade processing and packaging technology. Regional expertise will assist ASEAN Member Countries to conduct the pilot processing studies at the project sites.

Sub-Activity 2.1: Conduct of pilot processing studies on selected freshwater fish products

Sub-Activity 2.2: Monitoring and evaluation of pilot processing studies

Sub-Activity 2.3: Preparation and publication of reports on pilot processing studies

Sub-Activity 2.4: End-of-Activity (EOA) Workshop

Schedule of Activities: 5 years (2006-2010)

Activities	2006				2007				2008				2009				2010			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1 Survey on freshwater fish products																				
1.1 Regional Planning Workshop	■																			
1.2 Conduct of survey	■	■	■	■																
1.3 Compilation and analyses					■															
1.4 Publication of Handbook						■														
1.5 EOA Workshop								■												
2 Upgrading processing and packaging technology																				
2.1 Conduct of pilot processing studies									■	■	■	■	■	■	■	■				
2.2 Monitoring and evaluation																■				
2.3 Publication of reports on pilot processing studies																■	■			
2.4 EOA Workshop																				■

Financial Arrangement and Required Budget:

Activities	Proposed budget (US\$)				
	2006	2007	2008	2009	2010
1. Survey on freshwater fish products					
1.1 Regional Planning Workshop	30,000				
1.2 Conduct of survey	10,000				
1.3 Compilation and analyses		500			
1.4 Publication of Handbook		9,500			
1.5 EOA Workshop		30,000			
2. Upgrading processing and packaging technology					
2.1 Conduct of pilot processing studies			31,000	31,000	
2.2 Monitoring and evaluation			9,000	9,000	
2.3 Publication of reports on pilot processing studies					10,000
2.4 EOA Workshop					30,000
Total	40,000	40,000	40,000	40,000	40,000

Project Monitoring and Evaluation:

This will include progress reports, regular monitoring of the pilot processing studies, and End-of-Activity Workshops.

**Terms of Reference of “Core Countries” including Roles, Responsibilities and
Inputs to the Special 5-Year Program on Sustainable Fisheries for Food Security
in the ASEAN Region
(2006-2010)**

1. Introduction

In order to enhance active participation and involvement of the SEAFDEC Member Countries in the formulation and implementation of the Special 5-year Program (2006-2010), the Regional Planning Meeting for the Special 5-year Program suggested the concept of “Core Countries”. The “Core Countries” are a group of 3 to 5 countries that have indicated their strong interest and willingness to take an active role in each project under the Special 5-year Program. It is envisaged that the role of “Core Countries” will enhance “ownership” and is considered necessary to ensure successful implementation of the program/project and achieving their objectives.

2. Terms of Reference of “Core Countries”

Member Countries are encouraged to consider and offer themselves as “Core Countries” for projects. As a basis for member countries to identify themselves as “Core Countries” for each project under the Special 5-year Program, the following Terms of Reference including roles, responsibilities and inputs to the program are proposed:

- To be actively involved in the formulation/finalization of the identified project(s) in consultation with the responsible SEAFDEC Department;
- To be willing to take a leading role in the implementation of the identified project(s) including activities included under the project(s).
- To mobilize their national experts on the proposed regional activities of the project as resource persons (The mobilization of the regional experts): This requirement will be additionally requested to these countries on their participation/involvement of their national experts to the Regional Meeting (ex. RTC) and the implementation of the pilot project, if the countries propose to be implemented in their countries under the cost-share system under the project.

The “*Core Countries*” can be considered as indication of their interest for selection process of the ASEAN lead countries for the project under the ASEAN mechanism. The qualification of the “Core Countries” can be considered as the following two factors.

1. The Countries should have strong interest (accorded with their priority) for the project objectives and wish to take leading role in the implementation of the project in close collaboration with the concerned SEAFDEC Department.
2. The Countries wish to mobilize their national expertise as additional resource persons for their contribution for the implementation of the project implementation.

FRAMEWORK OF THE FISHERY STATISTICAL BULLETIN FOR THE SOUTHEAST ASIAN REGION

I. BACKGROUND AND RATIONALE

Fishery statistics is considered as a tool that has been used as a basis to facilitate development planning and management of fisheries. Fishery statistical items and data set collected by countries may be different based on priority needs and objectives of fishery statistics in the countries. The need for the use of fishery statistics does not only exist at national but also at regional and international levels to facilitate comparable and analysis of fishery status and trends for development planning and management in broader scope.

In Southeast Asia, compilation of fishery statistics has been regularly conducted by SEAFDEC over the past twenty years in the form of “Fishery Statistical Bulletin for the South China Sea Area”. Due to the escalated situation in fisheries practices in the region and new geo-political set-up of ASEAN, there is a need to revise the existing framework of the regional fishery statistics and the usage of this bulletin. Considering that there are some differences in the current national statistical systems of the countries in Southeast Asia, the revision targets at a basic requirement that can possibly be achieved by countries in the region.

Based on the policy directives given at the 36th Meeting of SEAFDEC Council, SEAFDEC Secretariat organized a series of consultations with the Member Countries to develop a new framework for SEAFDEC Fishery Statistical Bulletin. These include the 2nd Regional Technical Consultation on Fishery Statistics held in Prachuab Khirikhan, Thailand from 15 to 18 June 2004, the Core Expert Meeting on Fishery Statistics, held at SEAFDEC Secretariat, Thailand from 20 to 23 December 2004, and the FAO-SEAFDEC Regional Workshop on the Improvement of Fishery Data and Information Collection Systems held in Bali, Indonesia from 15 to 18 February 2005. Based on these consultations, SEAFDEC Secretariat, in close consultation with the national focal points of fishery statistics, agreed this draft minimum requirement and framework for submission for consideration and approval to the SEAFDEC Council.

Reflecting the above rationale, this document proposes a Draft Minimum Requirement and Framework of the Fishery Statistical Bulletin for the Southeast Asian region, the establishment of the ASEAN Network on Fishery Statistics, and the initiative on establishment of the biennial/triennial analytical information for status of fisheries and aquaculture in Southeast Asia (SEASOFIA). The minimum requirement was, to a large extent, based on the explanatory note of the existing SEAFDEC Fishery Statistical Bulletin and the FAO Fishery Statistical Yearbook. It is suggested that the minimum requirement targets at a basic data set to facilitate timely provision of quality fishery statistics to be compiled at the regional level. It is expected that the minimum requirement, once agreed among the countries in the region, can also be used as a framework to facilitate long-term improvement of fishery statistics at the national level through sharing common goals and experience. It should be emphasized that accuracy and reliability of regional aggregation of fishery statistics would ultimately depend on

upon the quality of national data sources, collection, methods, periodicity of up-dating, and reporting.

II. PROPOSED FRAMEWORK OF THE FISHERY STATISTICAL BULLETIN FOR THE SOUTHEAST ASIAN REGION

Based on development of the draft new framework of the Bulletin from series of technical consultations, the Draft framework was discussed and supported by at the Member Countries at the FAO-SEAFDEC Regional Workshop in Bali in February 2005. The structure and contents of the new Framework of SEAFDEC Bulletin are as follows.

2.1 Geographical Coverage

The data covers all production by large-scale and small-scale fisheries and aquaculture activities in freshwater, brackishwater and marine water designated by FAO Fishing Area 71 (Pacific, Western Central), 57 (Indian Ocean, Eastern) and 04 (Asia, Inland Water).

Due to the change in geographical coverage for reporting fishery statistics in the Region, the recommendation made at the FAO-SEAFDEC Regional Workshop in Bali for SEAFDEC to seek formal confirmation from Indonesia, Malaysia and Vietnam on the proposed adjustment of the demarcation line in between Area 71 and 57 for the Malaysian water in the Malacca Strait by using demarcation of east and west coast Peninsular Malaysia as well as Area 71 and 61 for the Tonkin Gulf by using the Vietnam-China boundaries.

In addition, the Twenty-first Session of the Coordinating Working Party on Fishery Statistics (CWP-21) held in March 2005 recommended SEAFDEC to make formal confirmation on the acceptance of the proposed adjustment of Geographical Areas for Fishery Statistics Reporting under the new Framework of SEAFDEC Bulletin with Indonesia, Malaysia and Vietnam on the proposed adjustment of the demarcation line in between Area 71 and 57 for the Malaysian water in the Malacca Strait by using demarcation of east and west coast Peninsular Malaysia as well as Area 71 and 61 for the Tonkin Gulf by using the Vietnam-China boundaries and to submit a formal request for modification to the next CWP-22 Meeting.

2.2 Main Contents and Data items

The contents and data items of the new framework was discussed and supported by the Member Countries at the FAO-SEAFDEC Regional Workshop in Bali as follows. The detail framework could be referred to as Appendix 1.

1. Introduction

1.1 Definition of Minimum Requirement

1.2 Objectives of Fishery Statistics

1.3 Coverage of "Fishery Statistical Bulletin for the Southeast Asian Region"

1.4 National focal points

2. Geographical coverage of the Bulletin

2.1 Fishing Areas Coverage

2.2 Countries and Sub-areas

- a) Brunei Darussalam*
- b) Cambodia*
- c) Indonesia*
 - West Sumatra*
 - South Java*
 - Malacca Strait*
 - East Sumatra*
 - North Java*
 - Bali-Nusa Tenggara*
 - South-west Kalimantan*
 - East Kalimantan*
 - South Sulawesi*
 - North Sulawesi*
 - Maluku-Papua*
- d) Lao PDR*
- e) Malaysia*
 - West Coast of Peninsular Malaysia*
 - East Coast of Peninsular Malaysia*
 - Sabah*
 - Sarawak*
- f) Myanmar*
- g) Philippines*
 - Luzon*
 - Visayas*
 - Mindanao*
- h) Singapore*
- i) Thailand*
 - Gulf of Thailand*
 - Indian Ocean*
- j) Timor Leste*
- k) Vietnam*
 - North Vietnam*
 - Central Vietnam*
 - South Vietnam*

3. Definition of Fishery Sector

3.1 Fishery Sector

1. Capture Fishery

- Marine capture fishery*
- Inland capture fishery*

2. Aquaculture

- Marine aquaculture*
- Brackish water aquaculture*
- Freshwater aquaculture*

3.2 Capture Fishery

3.3 Aquaculture

4. Statistics on Marine Capture Fishery

4.1 Coverage and Definition

4.2 Production in Quantity and Value

4.3 Classification of Production

1) Production by species:

2) Production by type of fishing gear

4.4 Fishing Effort

4.5 Fishing Boat

1) Coverage of fishing boat

2) Classification of fishing boat

Fishing boats are classified into:

- Non-powered boat,

- Out-board powered boat

- In-board powered boat

Less than 5 tons

5-10 tons

10-20 tons

20-50 tons

50-100 tons

100-200 tons

200-500 tons

More than 500 tons

4.6 Fishers

1) Coverage of fishers

2) Classification of fishers

a. Full time fishers

b. Part time fishers

5. Statistics on Inland Capture Fishery

5.1 Coverage and Definition

5.2 Production in Quantity and Value

5.3 Classification of Production

1) Production by Species

5.4 Classification of Water body

a) Reservoir

b) Lake

c) River

d) Others

5.5 Fishers

1) Coverage of fishers

6. Statistics on Aquaculture

6.1 Coverage and definition

6.2 Production in Quantity and Value

6.3 Classification of aquaculture

- *Mariculture*
- *Brackishwater aquaculture*
- *Freshwater aquaculture*
- *Artificial Seed Production (fry, fingerling, seed)*

6.4 Classification of Aquaculture Production

- 1) *Production by Species*
- 2) *Production by Types of Culture*

6.5 Aquaculture Unit

6.6 Fish farmers

7. Statistics on Price of Fresh [Live] Fish

7.1. Coverage

7.2 Definition of price

7.3 Unit of price

8. Statistics on Disposition of Catch

8.1 Coverage

8.2 Classification and definition

9. Statistics on Fish Processing

9.1 Coverage

9.2 Classification and definition

9.3 Counting principle for number of processing establishments (units)

2.3 Streamline Reporting Fishery Statistics of the Member Countries to FAO and SEAFDEC

To follow-up the recommendations made from the Program Committee Meetings and approved by the 36th Council Meeting in 2004 to revise the format and structure of the SEAFDEC Fishery Statistical Bulletin questionnaire for collecting statistics and harmonization with FAO fishery statistics, the proposal on streamlining of reporting of fishery statistics by the Southeast Asian countries to FAO and SEAFDEC was proposed and supported by the Member Countries at the FAO-SEAFDEC Regional Workshop in Bali. This will benefit in reducing burden of the Member Countries in providing statistics to FAO and SEAFDEC and improving timeliness of the production of the Bulletin.

In addition, to facilitate this achievement, the Workshop in Bali also suggested the following:

- FAO, SEAFDEC and the Southeast Asian countries to identify/confirm common focal points to facilitate communication, reporting and compilation of fishery statistics in the Southeast Asia as well as to promote planning and implementation of regional collaborative programs on Fishery Statistics;
- FAO and SEAFDEC to jointly develop an integrated questionnaire and a common work timeframe based on FAO requirements and the Minimum Requirements and Framework for Fishery Statistics in the Southeast Asian Region;

- Where there is missing or delay of submission of data, data from other sources or that of the previous year data may be used. This will be updated once the actual data becomes available.
- Sharing of supplementary information/publication of fishery statistics of the SEA countries to FAO and SEAFDEC to support aggregation of fishery statistics at regional/international levels.

The issue of Streamline reporting of fishery statistics to FAO and SEAFDEC was also discussed at the CWP-20 and followed-up at the CWP-21 in March 2005 with recommendation to further coordination with FAO in order to harmonize FAO and SEAFDEC statistical reporting in the Southeast Asian Region with the aim to introduce harmonize reporting systems as of 2006.

2.4 National Focal Points

As the ASEAN Member Countries have to report their annual catches to SEAFDEC and FAO annually, the use of the National focal points for fishery statistics as the mechanism for coordination work for SEAFDEC and FAO should be the same person, as well as for the ASEAN. List of SEAFDEC national focal points of fishery statistics is referred as *Appendix 2*.

This system would help reducing discrepancies between fishery statistics appearing in “Fishery Statistical Bulletin for the Southeast Asian Region” and the FAO Fishery Statistical Yearbook.

III. ASEAN NETWORK OF FISHERY STATISTICS

To facilitate future harmonization of efforts and collaboration among the Member Countries and international/regional organizations in fishery statistics, the proposal on establishment of an ASEAN network of fishery statistics is initiated. The network is composed of a national focal point from each of the ASEAN Member Countries, whose proposed terms of reference are as follows:

- To act as the national focal point in developing regional standards and classification of fishery statistics;
- To involve in planning and implementation of regional programs/projects on fishery statistics; and
- To provide national inputs for compilation of fishery statistics at regional and international levels.

IV. DEVELOPMENT OF THE SOUTHEAST ASIAN STATUS OF FISHERIES AND AQUACULTURE (SEASOFIA)

In line with the development of the new SEAFDEC Fishery Statistical Bulletin for the Southeast Asian Region, one important recommendation made at the recent SEAFDEC Program Committee Meetings, the 2nd RTC on Fishery statistics in 2004 as well as the FAO-SEAFDEC Regional Workshop in February 2005 is the development of the biennial/triennial analytical information for status of fisheries and aquaculture in Southeast Asia (SEASOFIA). This initiative will provide the ASEAN countries with better understanding and knowledge of fisheries industries in particular fisheries information for status and trend of fisheries and aquaculture in Southeast Asia, to be

used for development planning and management of fisheries sectors applying tools/database and presentation in a user's friendly manner.

DRAFT
MINIMUM REQUIREMENT
AND FRAMEWORK OF THE FISHERY STATISTICAL BULLETIN
FOR THE SOUTHEAST ASIAN REGION

1. Introduction

1.1 Definition of Minimum Requirement

Minimum requirement refers to a minimum data set required for a comparable system for aggregation of fishery statistics in Southeast Asia. The minimum requirement, developed based on identified objectives of fishery statistics, can also be used as a framework for priority improvement of fishery statistics at the national level.

1.2 Objectives of Fishery Statistics

Fishery statistics is a tool used as a basis for development planning and management of fisheries both at national and regional levels.

1.3 Coverage of “Fishery Statistical Bulletin for the Southeast Asian Region”

1) Fishery Statistical Bulletin for the Southeast Asian Region presents the annual statistics, on production of fish, crustacean, molluscs and other aquatic animals and plants taken for all purposes (capture fisheries and aquaculture) by all types and classes of fishing units and aquaculture activities operating in inland, brackishwater, and marine waters, in appropriate geographical categories. The production means landings.

2) The annual period used is calendar year (1 January – 31 December).

1.4 National focal points

National focal points for fishery statistics, in particular those of countries fishing in more than one major fishing areas, report their annual catches to concerned fishery commission including WCPFC, CCSBT and IOTC as well as SEAFDEC and FAO. SEAFDEC cooperates with the Coordinating Working Party on Fishery Statistics (CWP) to harmonize standards, reporting forms procedures, definitions, classification and other related documentation used in Southeast Asia with those used in international level.

This system reduces discrepancies between the figures appearing in “Fishery Statistical Bulletin for the Southeast Asian Region” and the FAO Fishery Statistical Yearbook.

2. Geographical coverage of the Bulletin

2.1 The data covers all production by large-scale and small-scale fisheries and aquaculture activities in freshwater, brackishwater and marine water designated by FAO

Fishing Area 71 (Pacific, Western Central), 57 (Indian Ocean, Eastern) and 04 (Asia, Inland Water).

2.2 Countries and Sub-areas

Countries and Sub-areas to be used in marine fishery statistics are as follows. Sub- areas used in this Bulletin are established in line with the FAO Fishing Areas.

- a) Brunei Darussalam
- b) Cambodia
- c) Indonesia
 - West Sumatra
 - South Java
 - Malacca Strait
 - East Sumatra
 - North Java
 - Bali-Nusa Tenggara
 - South-west Kalimantan
 - East Kalimantan
 - South Sulawesi
 - North Sulawesi
 - Maluku-Papua
- d) Lao PDR
- e) Malaysia
 - West Coast of Peninsular Malaysia
 - East Coast of Peninsular Malaysia
 - Sabah
 - Sarawak
- f) Myanmar
- g) Philippines
 - Luzon
 - Visayas
 - Mindanao
- h) Singapore
- i) Thailand
 - Gulf of Thailand
 - Indian Ocean
- j) Timor Leste
- k) Vietnam
 - North Vietnam
 - Central Vietnam
 - South Vietnam

3. Definition of Fishery Sector

3.1 Fishery Sector

In the Bulletin, fishery is divided into two sectors: capture fishery, and aquaculture. These are further divided into sub-sectors as follows:

1. Capture Fishery
 - Marine capture fishery
 - Inland capture fishery
2. Aquaculture
 - Marine aquaculture
 - Brackish water aquaculture
 - Freshwater aquaculture

3.2 Capture Fishery

Capture fishery means activities to catch or collect aquatic organisms which grow naturally in public waters, which do not belong to the property of any person for economic, livelihoods, and food security purposes.

3.3 Aquaculture

Aquaculture means the farming of aquatic organisms including fish, molluscs, crustaceans, echinoderms, and aquatic plants. Farming implies some form of intervention in the rearing process to enhance production, such as seed production, regular stocking, feeding and protection from predators. Farming also implies individual or corporate ownership of or rights resulting from contractual arrangements to, the stock being cultivated primarily for livelihood and business activities.

4. Statistics on Marine Capture Fishery

4.1 Coverage and Definition

Marine capture fishery is divided into two sub-sectors: small-scale fishery (including subsistence fishery) and large-scale (commercial) fishery. The distinction between them is determined by the respective countries as provided in Appendix xx.

4.2 Production in Quantity and Value

1) Production in quantity

Production in quantity represents the weight equivalent of the landing.

Production in quantity should be reported in metric tons, except those expressed in numbers or in kilogram. Production of ornamental fish and reptiles will be reported in numbers.

There are many instances where the catches on board fishing vessels are gutted, filleted, salted, dried etc. or reduced to meals, oil, etc. The data on the landings of such species and products require conversion by accurate yield rates (conversion factors) to establish the live weight equivalents at the time of their capture.

2) Production in value

Production in value represents the producer value equivalent of landing (average monthly weighted value, where available). It is generally estimated by multiplying

quantity of production by producer price (wholesale price at landing center) by the species items.

4.3 Classification of Production

1) Production by species:

The production of aquatic animals and plants in marine waters by all kinds of large-scale and small-scale fisheries should be broken down by species (at either the species, genus, family or higher taxonomic levels into statistical categories called species items).

The standard statistical list of marine species is given in Appendix xx. These species items are arranged within the FAO "International Standard Statistical Classification of Aquatic Animals and Plants (ISSCAAP).

2) Production by type of fishing gear

The production is broadly classified into large-scale (commercial) fishery and small-scale fishery, and then further classified into detailed types of fishing gear for each category. Please refer to the regional classification of fishing gear as Appendix xx.

4.4 Fishing Effort

Fishing effort represents operational activity measures by fishing unit, number of boats, size of boat, type of fishing gear.

Fishing unit means the smallest unit for a fishing operation which generally consists of a fishing boat, fishermen and fishing gears. In cases, where two fishing boats are jointly operated in fishing as pair trawler or two-boat purse seine, these two fishing boats are regarded as one fishing unit.

A fishing boat may be counted as two or more fishing units for the same year if it uses different kinds of fishing gears in separate seasons. For instance, in cases, where a fishing boat operate trawl fishing half a year and gill net fishing in the other half year, the fishing boat is regarded as two fishing units. Fishing unit are generally counted by type of fishing gear.

It is suggested that aggregated gross tonnage of fishing boat by fishing gear used can represent as initial classification for fishing effort.

4.5 Fishing Boat

1) Coverage of fishing boat

The statistics should cover annual data on the fishing boat engaged in marine areas. All boats used in fishing, whether registered with the government or not, should be included.

2) Classification of fishing boat

Fishing boats are classified into:

- Non-powered boat,
- Out-board powered boat
- In-board powered boat

Less than 5tons

5-10 tons

10-20 tons

20-50 tons

50-100 tons

100-200 tons

200-500 tons

More than 500 tons

Tonnage is expressed uniformly in gross ton. When a unit other than gross ton is used to measure the size of boat, it has to be converted into gross ton. Although the method of measurement of the tonnage of fishing boat varies from country to country, data should be based on the national measurement standard.

4.6 Fishers

1) Coverage of fishers

The statistics should cover all fishers operating in marine areas.

2) Classification of fishers

The statistics on numbers of fishers by working status should be based on the following two main categories:

- a. Full time fishers - fishers who spend all of their working time fishing
- b. Part time fishers - fishers who spend part of their working time fishing

5. Statistics on Inland Capture Fishery

5.1 Coverage and Definition

Inland fishery means activities to catch or collect aquatic organisms, which grow naturally in inland waters for economic, livelihoods, and food security purposes.

5.2 Production in Quantity and Value

1) Production in quantity

Production in quantity represents the live weight equivalent of the landing.

Production in quantity should be reported in metric tons, except those expressed in numbers or in kilogram.

Production in value

Production in value represents the producer value equivalent of landing (average monthly weighted value, where available). It is generally estimated by multiplying quantity of production by producer price (wholesale price at landing center) by the species items.

In reporting production in value, national currency should be converted to US\$.

5.3 Classification of Production

1) Production by Species

The production refers to aquatic animals and plants in inland waters, which should be broken down by species (at either species, genus, family or higher taxonomic levels into statistical categories called species items).

The standard statistical list of inland species is given in Appendix xx.

5.4 Classification of Water body

The statistics on inland fishery catches should be presented for the following four types of water body:

- e) Reservoir: Man- made still water body commonly called a reservoir, artificial lake, water tank, water pool, pond, etc., used for purposes of irrigation, hydropower generation, etc.
- f) Lake: Natural still water body commonly called a lake, marsh, etc.,
- g) River: Running water body commonly called a river, drainage canal, irrigation canal, etc.,
- h) Others: Any water bodies other than above. A paddy field is included in this category.

5.5 Fishers

Coverage of Fishers

The statistics should cover all fishers fishing in inland waters.

6. Statistics on Aquaculture

6.1 Coverage and definition

Aquaculture is divided into three sub-sectors, i.e., mariculture, brackishwater culture and freshwater culture.

The distinction between mariculture, brackishwater culture and freshwater culture should be based on ecological characteristics.

6.2 Production in Quantity and Value

1) Production in quantity

Production in quantity represents the weight at farm gate.

Production in quantity should be reported in metric tons, except those expressed in numbers or in kilogram.

2) Production in value

Production in value represents the producer value at farm gate (average monthly weighted value, where available). It is generally estimated by multiplying quantity of production by farm gate price by species.

In reporting production in value, national currency should be converted to US\$.

6.3 Classification of aquaculture

Scale of aquaculture expressed the areas of aquaculture facilities in hectare (ha), including the water surface areas as well as the areas of dike surrounding the water areas.

The statistics should be based on the type of culture categorized by the method of culture.

Mariculture

Artificial facilities such as raft, rack, long lines, stone, sea bed, etc.

Cage culture

others

Brackishwater aquaculture

Pond culture

Pen culture

Cage culture,

Artificial facilities such as raft, rack, long lines, stone, sea bed, etc.

Others

Freshwater aquaculture

Cage culture

Pen culture

Pond culture

Paddy fields

Others

Artificial Seed Production (fry, fingerling, seed)

For Wild Stock Enhancement

For Mariculture

For Brackishwater aquaculture
For Freshwater aquaculture

6.4 Classification of Aquaculture Production

1) Production by Species

The production from aquaculture should be broken down by species. The lists of species are provided in Appendix xx.

2) Production by Types of Culture

6.5 Aquaculture Unit

Aquaculture unit refers to the unit which operates aquaculture in marine, brackish, and freshwater areas.

6.6 Fish farmers

Fish farmers, under this item, refer to persons who engage in the work of aquaculture such as maintenance of aquaculture facilities, water supply, feeding etc.

As the numbers of fish farmers engaged in aquaculture often varies according to the season such as harvesting or construction of the aquaculture facilities, only the fish farmers who are generally engaged in aquaculture are counted in compiling the statistics on the numbers of fish farmers.

7. Statistics on Price of Fresh [Live] Fish

7.1. Coverage

Statistics on price cover fresh aquatic organisms which includes marine, brackishwater and freshwater species, with the exclusion of processed fish. Where possible, price refers to average weighted price.

7.2 Definition of price

The producer price, refer to the average price which is realized at wholesale markets or landing centers where producers sell their catches. The price is determined (there) by means of auction, negotiation between producers and wholesalers and middlemen, etc. The price of a same species of fish may vary in different fish markets and season.

7.3 Unit of Price

The producer price should be given in US\$ per kilogram of fresh fish by species.

8. Statistics on Disposition of Catch

8.1 Coverage

The statistics on disposition of catch should cover the disposition of the quantities of annual catches or landings of all aquatic animals. The disposition of quantities produced through aquaculture should also be included.

8.2 Classification and definition

The statistics should be based on three fishery sub-sectors, i.e., marine fishery, inland fishery and aquaculture, according to the following broad categories as provided in Appendix xx.

9. Statistics on Fish Processing

9.1 Coverage

The statistics should cover the processing establishment (unit), and their products, of all aquatic animals produced in freshwater, brackishwater and marine areas. The raw materials of commodities, whether from domestic or imported products, should be included.

9.2 Classification and definition

The statistics should be based on the following group of commodities as provided in Appendix xx.

9.3 Counting principle for number of processing establishments (units)

The number of processing establishments (units) is generally counted by the group of commodities. Therefore, for a processing establishment which processes more than two groups of commodities, the establishment (unit) is counted in the number of each group of commodities. The total number of establishments (units) is obtained as a result of accumulation of the numbers of counted for each group of commodities. This means that the total numbers do not always show the actual number of establishments (units).

Appendix 2 of Annex 10

LIST OF SEAFDEC NATIONAL FOCAL POINTS ON FISHERY STATISTICS

SEAFDEC

The Secretariat Name: Ms. Pouchamarn Wongsanga
 Position: Information Program Coordinator

MEMBER COUNTRIES

Brunei Darussalam Name: Mr. Haji Alias Haji Shari
 Position: Senior Fisheries Officer

Cambodia Name: Mr. Thor Sensereivorth
 Position: Vice Chief of Planning and Accounting Office

Indonesia Name: Ms. Dyah Retnowati
 Position: Chief of Capture Fishery Statistics Division

Lao PDR Name: Mr. Bounthong Saphakdy
 Position: Chief of Technical Division

Malaysia Name: Mr. Teo Siong Wan
 Position: Head, Data Collection Section

Myanmar Name: Mr. Tint Swe
 Position: Deputy Director

The Philippines Name: Mr. Noel C. Barut
 Position: Chief, Marine Research Division,

Singapore Name: Mr. Boey Chee Cheong
 Position: Deputy Director

Thailand Name: Mr. Pongpat Boonchuwong
 Position: Senior Fisheries Economist

Vietnam Name: Dr. Thai Thanh Duong
 Position: Director

CONSERVATION AND MANAGEMENT OF SEA TURTLES IN SOUTHEAST ASIA

I. BACKGROUND

It is believed that biodiversity in the Southeast Asian waters is the highest in the world. Six of seven species of living sea turtles in the world are commonly found in these areas. The six species are leatherback (*Dermochelys coriacea*), green turtle (*Chelonia mydas*), olive ridley (*Lepidochelys olivacea*), hawksbill (*Eretmochelys imbricata*), loggerhead (*Caretta caretta*) and flatback turtle (*Natator depressus*). In view of the importance to maintain the sea turtle biodiversity, the Southeast Asian water is the most suitable research field to conserve and enhance sea turtle population.

Sea turtles are highly migratory and most probably share the waters of the Southeast Asian region. Within the region, conservation in one country may be jeopardized by activities in another country. The conservation of sea turtle populations in the region is crucial and proper management of these resources based on scientific evidence is highly needed to conserve and enhance these valuable species in the future. Regional cooperation among member countries in conserving sea turtles is vital to ensure their survival.

II. PROGRESS

A project on Conservation and Management of Sea Turtles in Southeast Asian Countries was carried out by SEAFDEC/MFRDMD under Trust Fund I from 2001-2003. This project has succeeded in compiling information on the aspects of sea turtles conservation and management from ASEAN-SEAFDEC member countries. Tagging activities have been conducted in participating countries but the tag recovery has been low. Effort to develop a database on Sea Turtle in the region will be continued in a new project, Trust Fund IV.

Two books have been published. "Conservation and Enhancement of Sea Turtles in the Southeast Asian Region" was published in September 2004 and this was based on information gathered during the Regional Technical Consultation on Sea Turtle Conservation and Management in Southeast Asia, held from 16-18 September 2003 in Kuala Lumpur. The other book entitled "A Guide to Set-up and Manage Sea Turtles Hatcheries in the Southeast Asian Region" was also published in November 2004. This book is the outcome of activity under Sea Turtle Hatchery Management which was conducted from 2001-2003.

III. FUTURE ACTIVITIES

As part of the Program on Research and Development of Stock Enhancement for Species under International Concerns under the ASEAN-SEAFDEC FCG Mechanism, a project entitled Research for Stock Enhancement of Sea Turtles was proposed for 2005. The objectives of this program are: 1) To identify the subpopulations of sea turtles in the Southeast Asian region; 2) To determine the migration pattern of sea turtles and

location of foraging habitats; 3) To determine the reproductive biology of sea turtles and growth rates; 4) To provide a guideline of genetic study for sea turtle management in the region; and 5) To investigate the possibility of reducing sea turtle mortality in fishing operations.

A Planning Meeting by Experts to discuss on the research activities proposed by MFRDMD was held in December 2004. The experts from around this region including Japan were invited to this meeting.

It is planned that activities under this project will be:

1. Regional Technical Consultation on the Research for the Stock Enhancement of Sea Turtles - in April 2005, to inform Member Countries on the activities under this project
2. Identification of the stock/population of sea turtles in the Southeast Asian region and preliminary study on the possibility of cloning of sea turtle - visit to member countries for training of sample collection for DNA study. Sample will also be collected on by-catch sea turtles.
3. Tagging of sea turtles - tagging of female sea turtles as well as on the recovery of tagged sea turtles in member countries. Tagging will be conducted throughout the nesting season at established rookery. All species of sea turtles will be tagged.
4. Feasibility study of head-starting technique for enhancing the survival of sea turtle hatchlings - to enhance the survival of sea turtle hatchling.
5. Interaction between sea turtles and fisheries - to collect information on sea turtle interaction with fishing operation, and to evaluate the lessons learned from introduction and promotion of TEDs in shrimp trawls. A comparative study on the efficiency of the circle hook and the J-hook in pelagic and bottom longlines will be conducted.

The envisaged project outcome of 2005 are: 1) Implementation of the conventional and specialized tagging experiments; 2) Strengthening the capabilities of Technical Officers on the DNA study; and 3) Information collection for the existing fisheries management to reduce impacts of fishing on sea turtles.

IV. SUGGESTED ACTION BY THE FCG MEETING

The Meeting is invited to assess and endorse the progress and achievement of the conservation and management of sea turtles in Southeast Asia. The Meeting is also invited to provide suggestions for future directions of work in support of better conservation and management of sea turtles in the region particularly taking into consideration on-going discourse related to interaction between fishing and sea turtles.