



## **Report**

### **FAO/GEF Regional Workshop on Work Planning Year I**

#### **Strategies for Trawl Fisheries Bycatch Management REBYC-II CTI (GCP/RAS/269/GFF)**



**Bangkok, Thailand, 6-9 November 2012**

## EXECUTIVE SUMMARY

The Regional Workshop on Work Planning Year I for the FAO/GEF REBYC-II CTI project (GCP/RAS/269/GFF) was held in Bangkok, Thailand from 6 to 9 November 2012. The workshop was attended by representatives from the participating countries – Indonesia, Papua New Guinea, Philippines, Thailand, and Viet Nam – and included invited resource persons, observers, FAO officers, and staffs from the South Southeast Asian Fisheries Development Center Secretariat (SEAFDEC/SEC) and Training Department (SEAFDEC/TD). SEAFDEC/TD has been designated as the Regional Facilitation Unit (RFU) under a Letter of Agreement (LOA) with FAO and acted in that capacity.

The work plans of the RFU and the participating countries were presented and discussed with a view to agree on a project work plan for the first year of operation, comprising activities to achieve outputs organized under the four project components.

The following key points, clarifications and comments were raised during the presentation of work plans:

### **Regional Facilitation Unit – SEAFDEC**

- Because each project country has its own data collection methods and formats, one of the most urgent need in the project is a regional workshop to discuss and agree on a standardized data collection process that could generate a holistic understanding about the biological, ecological, social and economic aspects of the trawl fishery including the impacts on other fisheries in each country.
- The project needs to arrive at a standardized assessment that combines the necessary elements and minimum requirements useful for identifying and implementing management measures.
- RFU will need support from the partners to conduct a review of existing fishing capacity management as well as the policy, legal and institutional framework. The policy review will be done for all five countries but in Year 1 will be completed only for two countries.
- It was acknowledged that economic incentives are critically important for changing behavior in the fishing industry and this issue should be thoroughly discussed during national roundtable meetings with the fishing sector.

### **Indonesia**

- It was noted that in a multi-species fishery the use of Bycatch Reduction Devices (BRDs) generally is only part of the solution in reducing bycatch. Additional measures are often needed and these should have a high priority in this project.
- It is expected that at a new regulation scheme for the trawl fishery in Arafura Sea is developed through participatory data collection and sharing on best practices with help of this project.
- The identification and mapping of bycatch hotspots in addition to the identification of critical habitats should be an important part of the work to determine appropriate zonation, seasonal and area closures as well as no-take zones.
- WWF-Indonesia has expressed its willingness to support the project by sharing data on turtle migration.

### **Papua New Guinea**

- In Papua New Guinea, resource owners are villages along the coast that have customary rights to land and the adjoining near shore coastal area (within 3 nautical miles from the coastline). Trawl bycatch from these coastal waters is often given to resource owners for their consumption. Reducing bycatch would have an impact on the livelihoods of these resource owners.
- There is an existing management plan in Papua New Guinea for trawl fisheries, which is reviewed every three years, and the project is expected to provide up-dated information for revising the management plan.
- It was stressed that the project needs to address not only the quantity but also the species composition of the bycatch for which identification guides for both low and high value species would be needed. It was also pointed out that recommendations for closed seasons would need at least one year of research.
- It was stressed that the Papua New Guinea National Fisheries Authority (NFA), the project executing partner, should carefully consider the plan to allow resource owners to conduct finfish trawling during closed periods and thereby increases fishing activity within 3 nautical miles zone. It was pointed out that the project may contribute to the gathering of non-partial and reliable information for an informed decision by NFA.

### **Philippines**

- Fisheries Administrative Order 237 is an outcome of REBYC-I project that was implemented in 2002-2008 and covers commercial trawlers.
- Despite the recognition that technological solutions such as gear modifications and the use of Bycatch Reduction Devices may play a role in bycatch management, Philippine project partners strongly believe that an alternative gear to trawl (municipal) should have an important role in the solution.
- It is well demonstrated that fish larval studies take time to complete. Nevertheless, Philippine project partners believe that this activity is important to demonstrate to the private fishing sector the potential impacts of trawling on fish recruitment.
- Southeast Asian aquaculture is heavily dependent on fishmeal made from the bycatch of trawl fisheries. It is necessary to demonstrate that this bycatch is comprised of low value species and the trawling has low impacts on the ecosystem.

### **Thailand**

- Review of the current national legal framework and management plan is needed to provide the basis for recommending a revision, among others, of the minimum codend mesh size for trawlers.
- Although it is debatable whether increasing the mesh size only makes a significant difference in reducing bycatch, the Department of Fisheries has already conducted studies on different mesh sizes and the project will be working with stakeholders in looking at the effects.
- It was pointed out that many Thai fishers already have voluntarily increased the trawl mesh size to increase selectivity and to reduce fuel cost.

### **Viet Nam**

- Local knowledge will be important for mapping and arriving at an initial zoning system for trawl fisheries.
- The 2009 data on trawlers need to be updated.

After the country presentations the participants were divided into subgroups by country to revise their respective work plans based on the comments and suggestions. At the end of the session, each group presented the changes made to their work plan. The revised work plans were submitted to RFU for consolidation and integration into the revised results framework for Year 1. The partner activities were further discussed in the context of the regional objectives and amendments to the consolidated work plan were agreed.

One of the purposes of the workshop was to prepare for the signing of Letters of Agreement and/or activity based administration of funds, to enable disbursement of project funds to the executing partners. To facilitate the process, the applicable FAO rules and regulations were revisited and explained.

It was noted that the participating countries have signed co-financing letters where each country made commitments to co-finance the project – in cash and in-kind. It was pointed out that each country partner must keep track of this co-financing and report to RFU for monitoring.

#### Other agenda items included

- Study visits to two Thai fish processing companies that rely on trawl fisheries for their products.
- Discussion of a draft communication strategy for the project.
- An introduction to the draft project website, including selection of a project logo.
- An upcoming meeting of the ICES-FAO Working Group on Fishing Technology and Fish Behavior (WGFTFB) that will be held in Bangkok in May 2013. This meeting represents an opportunity for project partners to share and expand their knowledge.
- The content and timing of a Regional technical workshop on mapping, information and data requirements
- The content and timing of a Regional Technical Workshop on Strategies for Trawl Fisheries Bycatch Management
- The content and timing of a Regional Training-cum-Workshop on Co-management and Locally-based Approaches to Responsible Fisheries and Regional Study Visit
- The timing of the first Steering Committee Meeting
- An agreed table of follow-up actions and responsibilities

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## GLOSSARY OF ACRONYMS

BOBLME	Sustainable Management of the Bay of Bengal Large Marine Ecosystem (Project)
BRDs	Bycatch Reduction Devices
CIM	Centre for International Migration and Development
CTI	Coral Triangle Initiative
DECAFIREP	Department of Capture Fishery and Aquatic Resources Protection
DOF	Department of Fisheries (Thailand)
EAFM	Ecosystem Approach to Fisheries Management
ETP	Endangered, Treated and Protected
FAO	Food and Agriculture Organization of the United Nations
FAO/RAP	Regional Office for Asia and the Pacific (FAO)
GEF	Global Environment Facility
GOP	Gulf of Papua
ICES-FAO	International Council for the Exploration of the Sea
IEC	Information, Education and Communication
IFFO	International Fishmeal and Fish Oil Organization
JTEDs	Juvenile and Trash fish Excluding Devices
LoA	Letter of Agreement
LGUs	Local Government Units
LIFE	Low Impact and Fuel Efficient
LTU	Lead Technical Unit
LTO	Lead Technical Officer
MGT	Mapping Gear Type Selection
MS	Mesh Size
NFA	National Fisheries Authority (Papua New Guinea)
NGO	Non-Governmental Organization
NPC	National project Coordinator
NTO	National Technical Officer
PNG	Papua New Guinea
PRC	project Regional Coordinator
PSA	Personal Service Agreement
PSC	Project Steering Committee
PTA	Project Technical Advisor
REBYC-I	Reduction of Environmental Impact from Tropical Shrimp Trawling through the Introduction of Bycatch Reduction Technologies and Change of Management
REBYC-II CTI	Strategies for Trawl Fisheries Bycatch Management
RFLP	Regional Fisheries Livelihoods Programme for South and Southeast Asia
RFU	Regional Facilitation Unit
SEAFDEC	Southeast Asian Fisheries Development Center
SEAFDEC/MFRD	Marine Fisheries Research Development Center, Southeast Asian Fisheries Development Center
SEAFDEC/TD	Training Department, Southeast Asian Fisheries Development Center
SEAFDEC/SEC	Secretariat, Southeast Asian Fisheries Development Center
SFP	Sustainable Fisheries Partnership
Sida	Swedish International Development Cooperation Agency
SOE	Statement of Expenditure
TAE	Total Available Effort
TED	Turtle Excluder Device

ToA	Terms of Agreement
UN	United Nations
VMS	Vessel Monitoring System
WGFTFB	Working Group on Fishing Technology and Fish Behavior
WWF	World Wildlife Fund



## I. INTRODUCTION

1. The FAO/GEF Regional Workshop on Work Planning Year I for Project Strategies for Trawl Fisheries Bycatch Management (REBYC-II CTI) was organized in Bangkok, Thailand from 6 to 9 November 2012 to review the proposed work plans of the participating countries and the Regional Facilitation Unit (RFU) and to discuss the roles and responsibilities of all concerned especially in Year I of the Project including the timeline and targets, and agree on the communications strategy and internal communication arrangements. The Provisional Prospectus of the Workshop is attached as **Annex 1**.

2. The Workshop was attended by representatives from the participating countries of the Project, Indonesia, Papua New Guinea, Philippines, Thailand, and Viet Nam, invited Resource Persons, and representatives from the FAO Headquarters in Rome; FAO Regional Office for the Asia and Pacific Region (FAO/RAP) in Bangkok; the Management Staff of the Project; and senior officials of the SEAFDEC/SEC and SEAFDEC/TD including the staffs of SEAFDEC who have been assigned to also work with the RFU of the Project. The List of Participants is attached as **Annex 2**.

## II. OPENING OF THE REGIONAL WORKSHOP

3. The Secretary-General of SEAFDEC and member of the REBYC-II CTI Steering Committee for SEAFDEC, *Dr. Chumnarn Pongsri* welcomed the participants to the Regional Workshop. He cited that as a sequel to the Inception Workshop for the Project in May 2012, this Regional Workshop is crucial as the framework and work plan agreed upon during the Inception Workshop would be thoroughly discussed, the results of which would comprise the first steps for the implementation of the Project. After expressing the willingness of SEAFDEC to collaborate with the project partners for the development and promotion of strategies for trawl fisheries bycatch management in the Coral Triangle area of the Southeast Asian region, he declared the Workshop open. His Opening Statement appears as **Annex 3**.

4. The representative from FAO and REBYC-II CTI Lead Technical Officer (LTO), *Mr. Petri Suuronen* welcomed the participants on behalf of FAO and mentioned that in spite of certain setbacks that have led to a delayed implementation of the Project, this Regional Workshop is well-timed in order that all concerned will obtain clearer understanding of the concept of the Project before full execution of the activities starts. He commended the project executing partners for their efforts in coming up with their respective detailed work plans and expressed the view that there is still room for adjustment in the schedule of the activities in order to catch up with the planned time frame of the Project. In this regard, he urged the project partners to consider speeding up the implementation of their respective Project activities after the Regional Workshop.

5. The representative from FAO/RAP, *Mr. Simon Funge-Smith* appreciated the efforts made by the project partners to launch the Project even after some delays. He looked forward to the success of the Regional Workshop especially in coming up with the validated and harmonized work plans in order that the executing project partners could carry out the project as early as possible. He added that several agencies and organizations that have expressed interest in collaborating with the Project and willingness to bring in possible funding and technical support, could be counted on to contribute to the successful implementation of the Project.

## III. ADOPTION OF THE AGENDA AND ARRANGEMENTS OF THE WORKSHOP

6. The Project Technical Advisor for the Regional Facilitating Unit (RFU) at SEAFDEC, *Mr. Isara Chanrachkij* and officer of the SEAFDEC Training Department (SEAFDEC/TD) introduced the Agenda and Arrangements of the Workshop. He also specified the important roles that the designated workshop facilitators could play during the deliberation of the work plans developed by the project executing partners, especially in validating and harmonizing such work plans for eventual integration into the revised results framework.

7. The Provisional Agenda of the Workshop, attached as **Annex 4**, was adopted.

#### **IV. BACKGROUND, OBJECTIVES AND EXPECTED OUTPUTS OF THE WORKSHOP**

8. *Mr. Isara Chanrachkij* gave a brief Background of the Project and Output which started with its REBYC Phase I (REBYC-I project<sup>1</sup>) implemented in 2002- 2008, as a response to the advocacy initiated by FAO to reduce bycatch from trawl fishing operations. While promoting such initiative worldwide, FAO produced a number of publications on bycatch management including the International Guidelines on Bycatch Management and Reduction of Discards prepared in 2009-2010 and published in 2011. These Guidelines have been used as a framework in developing the activities in REBYC-II CTI Project. The presentation is attached as **Annex 5**.

9. An important conclusion of REBYC-I was that gear modification solutions often need to be supported by other management measures and appropriate legal and incentive frameworks. Picking up from where Phase I left off, and to give more focus to the Coral Triangle of the Southeast Asia which is the most vulnerable area in the region in terms of the possible impacts of unsustainable exploitation of its fishery resources and marine ecosystems, Phase II was conceived during a regional workshop in 2009. With funding support from the Global Environment Facility (GEF) and the implementing and executing partners, the second phase (REBYC-II CTI project) is aims at developing Strategies for Trawl Fisheries Bycatch Management. REBYC-II CTI is being implemented by SEAFDEC and the Governments of Indonesia, Papua New Guinea, Philippines, Thailand, and Viet Nam, and with FAO as the GEF Agency for the Project. The regional workshop organized in 2010 came up with the logframe matrix for the Project, and the Inception Workshop in May 2012 formulated the initial work plans for the Project, which is being harmonized during this Regional Workshop.

A Letter of Agreement (LOA) was signed by FAO and SEAFDEC (**Annex 6a** and **Annex 6b**) on 7 September 2012, after which SEAFDEC started functioning as the Regional Facilitation Unit located at the SEAFDEC Training Department in Samut Prakarn, Thailand. The RFU comprises the following members: SEAFDEC Secretary-General *Dr. Chumnarn Pongsri* as the Project Steering Committee Member for SEAFDEC and assisted by Alternate Steering Committee Members for SEAFDEC, *Mr. Bundit Chokesanguan* (Head of Information and Training Division of SEAFDEC/TD) and *Dr. Somboon Sirirakophon* (Policy and Program Coordinator of SEAFDEC/SEC); and supported by the FAO-designated Project Regional Coordinator (*a.i. Dr. Niklas S. Mattson*), Project Technical Advisor *Mr. Isara Chanrachkij* of SEAFDEC/TD, Project Regional Administrative Officer *Ms. Natacha Sornvaree* of SEAFDEC/TD, and Project Web-Master *Ms. Namforn Imsamrarn* of SEAFDEC/TD.

#### **V. YEAR I WORK PLANS**

10. The Project Regional Coordinator, *Dr. Niklas S. Mattson* reviewed the Revised Results Framework (**Annex 7**) which was adopted during the Inception Workshop in May 2012. He pointed out the logical hierarchy of the Project starting with the activities agreed upon in order to come up with the desired outputs. He added that as agreed during the May 2012 Inception Workshop, the activities have been grouped into four major components: (1) Policy, legal and institutional frameworks; (2) Resource management and fishing operations; (3) Information management and communications; and (4) Awareness and knowledge improvement. These components will be used as guide in monitoring the progress of the project taking into consideration the intermediate indicators adopted during the Inception Workshop.

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<sup>1</sup> Reduction of Environmental Impact from Tropical Shrimp Trawling through the Introduction of **Bycatch** Reduction Technologies and Change of Management (REBYC).

## 5.1 Work Plans of Project Executing Partners for Year 1

11. The review was followed by the presentation of the respective work plans for Year I by the project executing partners based on the framework agreed during the May 2012 Workshop. Detailed comments by activity for all six executing partners are included in **Annex 8a**.

### 5.1.1 Regional Work Plan Year 1 (SEAFDEC)

12. The Project Technical Advisor for the RFU, *Mr. Isara Chanrachkij* presented the Regional Work Plan for Year 1 of the RFU, which comprises 10 activities as shown in **Annex 8b**. The representative from the Philippines, *Dr. Jonathan O. Dickson* served as the facilitator for the discussion of work plan of RFU for Year 1. During the discussion of the RFU work plan, the Workshop provided some suggestions, comments and insights on the specific activities for possible integration into the revised results framework, the most pressing of which was the holding of a regional workshop to discuss and agree on standardized data collection processes. It was agreed that this workshop should be conducted before May 2013.

13. During the discussion, it was suggested that understanding the broader effects of trawl fishing beyond bycatch and habitat impacts is necessary. In particular the social dimensions and the wider ecosystem effects of trawl fishing should be considered. Therefore, extensive dialogue with a broad range of stakeholders is recommended.

14. Moreover, it was pointed out that the high quality of catch in trawl fishing is an important topic as this could contribute to improved management and reduced volume of bycatch. In this regard, the Project could consider examining the activities of SEAFDEC/MFRD in Singapore, which promote the grading of fish catch using simple guidelines for better understanding of the quality of catch.

15. In addition, the whole chain from harvesting to processing of fish should be taken into consideration to arrive at suitable incentives, also in terms of the socio-economic aspects. This would involve identifying who are involved and who benefits in the whole chain.

16. Furthermore, since trawling could create various impacts including those severely affecting the habitats especially in the near-shore areas, it is necessary to understand the socio-economic aspects of trawling. Recently, for example, interest of the international community has been increasing in the area of traceability of the raw materials used for the production of fish meal, while the requirements for fishing licensing have also been widely enforced. Therefore, it is necessary to prioritize the issues in coming up with improved development plans including fisheries improvement plans to take into consideration the emerging concerns. In this regard, the International Guidelines on Bycatch Management and Reduction of Discards should be revisited to identify the issues that could be addressed by the Project and to be used as framework for the planning of activities and eventual implementation of the Project.

17. In general, the participating countries were requested to submit to the RFU their respective data requirements by the end of November 2012 for final consolidation and possible harmonization. This will enable the RFU to compile the preliminary variables needed for the data collection and develop the requirements for the collection activities.

18. The work plan of RFU should be specifically transposed into the adopted format in order to be consistent with the format used by the national partners.

### 5.1.2 Work Plan Year 1 (Indonesia)

19. The representative from Indonesia, *Mr. Imron Rosyidi* presented the Work Plan of Year 1 for the Republic of Indonesia (**Annex 8c**), which includes 12 activities with some activities, which have already implemented since July 2012. The project in Indonesia aims to develop and improve the

management practices for trawl operations in the Arafura Sea following the concept of Mapping, Gear Type (MGT) selection and Total Allowable Effort (TAE). The facilitator for the discussion of the work plan of Indonesia in year 1 was *Mr. Isara Chanrachkij*. The Workshop provided some suggestions, comments and insights on the activities under the work plan of Indonesia, which was revised during the Working Group Session.

20. The Workshop was also informed that through mapping the sites to be avoided such as critical habitats and ETP (Endangered, Threatened and Protected) species will be pinpointed. Zonation as an important part of the project particularly with respect to the limited and no-take zones, could be adopted taking into consideration seasonal importance to mitigate the impacts of trawl operations on the recruitment of small pelagic fishes and stocks of commercial importance. Hotspot areas with high levels of bycatch comprising adults or juveniles of economically important fishes could also be included in the mapping. The Workshop was also informed that the Project in Indonesia will also avail of the data collected by the World Wildlife Fund (WWF) project on turtle migration in the same area as well as data collected from fishers on fish catch.

21. Revision of the management plans and schemes is an useful task for the project in Indonesia. The country's activities under the Project could also make use of the information compiled from the implementation of REBYC-I, especially on the management of bycatch and on the best management practices. Although the technical recommendations from REBYC-I had already been implemented in the country, JTEDs could not be installed in trawl net because of the utilization of bycatch in Indonesia. Nevertheless, the installation of JTEDs could be carried out for certain seasons and some other modifications (e.g. with Turtle Exclusion Devices (TEDs) could still be carried out. Lessons from REBYC-I could be modified in order to come up with the most appropriate tools and practices for adaption in REBYC-II CTI.

22. With regard to the seasonal use of JTEDs, the project should identify the specific areas where JTEDs should be used while zonation could be explored on a fishery-by-fishery basis. Since two types of trawls are operated in the Arafura Sea (fish and shrimp trawls), information on bycatch from both types should be compiled by the project while a standard format on collecting the necessary data from trawls could be established.

23. The activities of the project in Indonesia may still be adjusted after the regional workshop to be organized by RFU which would develop the necessary guidelines for assessment of trawl fishery in the region. Moreover, since FAO is developing a practical tool for the adoption of the ecosystem approach to fisheries (EAF), this could be adapted by the countries after an introduction of the concept during the regional workshop planned by the RFU.

### **5.1.3 Work Plan Year 1 (Papua New Guinea)**

24. The representative from Papua New Guinea, *Mr. Lehan Gisawa* presented the Annual Work Plan for Year 1 of Papua New Guinea (**Annex 8d**) and the profile of the fisheries industry focusing on trawl fishery. There is a need to reduce the quantity of bycatch which has affected on the livelihoods of the resource owners and possibly also on production of commercially valuable species. In this regard, the project could focus on the needs to address the insufficiency of biological and socio-economic data on bycatch, i.e. composition, volume, values and utilization to evaluate the impacts on fishery resources, livelihoods and food security. The project could as well as address the possibilities on reducing of fuel consumption in trawl operations. The representative from Viet Nam, *Mr. Pham Viet Anh* served as the facilitator for the discussion of the country's work plan. The Workshop provided some suggestions, comments and insights on the activities under the work plan of Papua New Guinea, which had been revised during the Working Group Session, for possible integration into the revised results framework.

25. During the discussion, the Workshop was informed that under the management plan which is already in place in the country, 10-15 trawlers have been issued fishing license to fish in the Gulf of

Papua (GOP) area. Issuance of fishing license for these vessels has been based on results of their effort control as well as on stock assessment. The management plan has been in force for 19 years and its focus has mainly been on prawn fishery. Nonetheless, it is still necessary to manage bycatch in order to reduce its impacts on demersal species. Recently, the licensed fishing vessels had been allowed to operate near shore. Therefore, in order to facilitate the monitoring of these vessels, VMS systems are installed in them. A concern was raised on the proposed extension of the areas for trawling inshore. This concern should be discussed with the resource owners once the project becomes operational in the GOP.

26. The Workshop was informed that many participants in the country's Observer Program in prawn trawlers now prefer to go onboard tuna trawlers. Considering that the Observer Program had been providing considerable data for management purposes, the aforementioned concern could alter the effort of the country in promoting bycatch management.

27. After the discussion, the Workshop suggested that the RFU should consider developing a laminated guide of common low value and high value species juveniles which stakeholders could use for identifying the species composition of bycatch. It will also be necessary to define what is meant by the word "bycatch". For instance, in some cases all species caught in shrimp trawling other than shrimps could be considered as bycatch. The use of fish ruler as practiced in the Philippines could also lead to the possibility of considering mature-size species smaller than the ruler as bycatch. Generally, complex, multi-species fisheries are difficult to manage through fishing gear methodologies, and other management measures such as temporal and spatial closures are more likely to be. Papua New Guinea has not yet carried out research work related to the biological impact and bycatch by shrimp trawl fisheries. It is a priority for Papua New Guinea to initiate research activities to investigate the quantity and species composition of the bycatch of shrimp trawl fisheries in Papua New Guinea.

#### **5.1.4 Work Plan Year 1 (Philippines)**

28. The representative from the Philippines, *Mr. Rafael V. Ramiscal* presented the work plan of the Philippines for Year 1 (**Annex 8e**), focusing on the strategies and applications for the implementation of the project in the Philippines which include identifying the trawl management units as project sites, introduction of management interventions (zoning and mapping, spatial seasonal closure, registration and licensing, gear specific (trawl) management, effort controls law enforcement), strengthening of the participatory approach, and building up of practical and responsible governance. The representative from Indonesia, *Mr. Endroyono* served as the facilitator for the discussion. The Workshop provided some suggestions, comments and insights on the activities under the work plan of the Philippines, which had been revised during the Working Group Session, for possible integration into the revised results framework.

29. Considering that production of fish meal is an important industry in the Philippines, Thailand, Viet Nam, and Indonesia and that trawl bycatch is commonly used in the fish meal production, a trawl bycatch management plan should be developed to minimize the impacts of fish meal production on the environment and on the economically important species. It has become necessary to demonstrate that bycatch consists mainly of low value fishes with low impacts on the environment and ecosystem, and those juveniles of high value species are not used in the fish meal production or as direct feed for aquaculture. Furthermore, proper preservation of high value fish onboard could also be included in the bycatch management plan to ensure that the fish brought to shore is of adequate quality for human consumption. In this connection, it is also important to examine the economics of preserving good quality fish onboard fishing vessels.

30. The Workshop was informed that in general, the aquaculture in Southeast Asia depends on fish meal produced from Asian fisheries, mainly from trawl fishery but little from purse seine fishery.

Therefore, there is a need to manage trawl fishery properly and reduce bycatch by appropriate management, so that the bycatch converted into fish meal can be certified.

31. The Workshop requested Philippines to consider that the larvae survey may need to continue the whole year and that larvae identification is time consuming. Interim approaches may be an option in identifying sensitive areas, e.g. review of secondary data and tapping local knowledge.

#### **5.1.5 Work Plan Year 1 (Thailand)**

32. The representative from Thailand, *Mr. Suchart Sangchan* presented the work plan of Thailand for Year 1 of the Project (**Annex 8f**) and explained briefly the country's bycatch reduction program. The representative from Papua New Guinea, *Mr. Ian M. Liviko* was facilitator for the discussion. The Workshop provided some suggestions, comments and insights on the activities under the work plan of Thailand which had been revised during the Working Group Session, for possible integration into the revised results framework.

33. The Workshop was informed that the bycatch reduction program of Thailand had been conducting stakeholders meeting to discuss the possibility of enlarging the trawl codend mesh size (MS) from 2.5 cm to 4 cm. In this regard, data collection on bycatch (juveniles, fixed cost, variable cost, value of catch and bycatch) had been ongoing in Chumpon and Prachuab khiri khan Provinces of Thailand. In addition, in the demarcated area in Rayong Province, a meeting had been conducted to announce the location of the project site and the plan to pursue data collection (e.g. fishing gear type, etc.)

34. In the ensuing discussion, the following general suggestions were made with regards to the work plan of Thailand:

- a. Additional activity to review the legal framework for the entire trawl fisheries in Thailand, could be included in the work plan;
- b. Consultation with fishers should be conducted before finalizing the proposed enlargement of the mesh size for trawls. In addition, the structure of the codend such as the twine size and number of meshes around should be considered as these will affect the selectivity of the trawl.
- c. Results of studies on trawl selectivity in Thailand could serve as useful reference for consideration by other participating countries. Information from several experiments using Thai research vessels indicated that increasing MS from 2.5 cm to 3.5 - 4.5 cm could be effective bycatch reduction measures. At present many fishers have already supported the proposed enlargement of MS to 4.0 cm as it had been observed that such measure will not significantly affect their incomes. Reduction of trawler fuel consumption is another important aspect to be considered as an incentive to enlarge mesh size and the assessment could be included in the REBYC-II CTI Project.
- d. There is also a need for investigations on the survival of small fish and juveniles that escape from trawl codend in order to ensure that the increase in trawl mesh size is useful.
- e. In the demarcated area, local stakeholders should be consulted in the development of a master plan before finally mapping the demarcated area. Therefore, a draft map of the area indicating the areas where the proposed activities will be conducted should be presented to stakeholders.
- f. The activities in the work plan should lead to the reduction of bycatch while the establishment of closed area would consequently improve recruitment. Therefore, by taking into account the work plan as an opportunity to validate the readily available research data compiled earlier, measures to improve fish recruitment could be developed.

### **5.1.6 Work Plan Year 1 (Viet Nam)**

35. The representative from Viet Nam, *Mr. Pham Viet Anh* presented the work plan of Vietnam for Year 1 of the Project (**Annex 8g**) and introduced the national project management arrangements which include Kien Giang Province as the implementing agency and also the pilot site for the implementation of the project in Vietnam. The representative from Thailand, *Mr. Suchart Sangchan* served as the discussion facilitator. The Workshop provided some suggestions, comments and insights on the activities under the work plan of Viet Nam which had been revised during the Working Group Session, for possible integration into the revised results framework.

36. During the discussion, the Workshop added the following general suggestions:

- a. The coverage of the Regional technical workshop - mapping, information and data requirements, including the scope of the work plan that the countries could do should be thoroughly discussed. In this regard, the RFU was asked to formulate the scope of the workshop in consultation with the Project management and as much as possible, to engage a consultant with good knowledge in fisheries data collection in the region. Specifically, the scope could cover the following issues: how to assess the trawl fishery, use basic data/info available, use local knowledge, economic valuation to compare the benefit of measures, types of management options in assessing the fishery (closed season, MS regulation), identification of catch. However, in order to cover all these issues, there is a need for harmonization of existing data collection methods used in each country.
- b. On mapping and zoning, the assistance from RFU is necessary even if previous research on mapping have already identified the areas with high fishing effort. Combining information from previous studies as well as data from REBYC-I Project would be useful. Regional organizations and projects, and especially those of FAO, should be requested to provide advice on this activity.
- c. For spatial management the selection of areas could initially be based on the local knowledge of fishers and other stakeholders. The preliminary prioritization may subsequently be adjusted, if necessary, based on more scientific surveys.

## **5.2 Working Group Session**

37. The participants split into subgroups by country to revise their respective work plans based on the comments raised during the discussions. At the end of the session, each participating country discussed the changes made to their respective work plans. The revised work plans were submitted to RFU for consolidation and integration into the revised results framework of REBYC-II CTI.

## **5.3 Wrap-up Session**

38. *Dr. Niklas S. Mattson* summarized the outputs of the deliberations on the annual work plans of the project executing partners which had been harmonized during the working group sessions. He anticipated that with the harmonized work plans, the LOA could be fostered in order that the implementation of the project activities could take off.

# **VI. COMMUNICATIONS STRATEGY**

## **6.1 Communications Strategy Plan for REBYC-II CTI**

39. The representative from FAO/FIRO, *Dr. Susana Siar* presented the Communications Strategy Plan for the Project (**Annex 9**) and specified that two main components of the REBYC-II Project are concerned with communications and thus, are therefore built in the Project, as also indicated in the

objectives of the communications strategy. During the discussion, the Workshop suggested that local government units (LGUs) should be engaged as direct target groups from the planning, implementation until monitoring and evaluation in order to get their cooperation and collaboration throughout the whole process of Project implementation. The involvement of LGUs could positively lead to the formulation of better policies based on the results of the Project. However, the Workshop also noted that implementation of the communications strategy at the national levels would be coordinated by the RFU in collaboration with the FAO Headquarters.

40. The Workshop also suggested that video and promotion poster could be created already in the first year, however presentation of technical results will follow later on. Information, Education and Communication (IEC) activities of the REBYC-I project have produced a number of publications and a DVD distributed to the public.

41. The Workshop was also informed that in order to be able to communicate the issues and outcomes of the Project, technical materials with experiences and lessons learned will be produced. Nonetheless, promotion of the technical results and findings will also be done through the Project website as well as the regional best practices-technical materials which are published in technical document format. In addition, video clips of the measures could be uploaded in social media such as YouTube. However, language issues should also be taken into consideration, especially for the information materials that will be disseminated at the national level. After the discussion, the participants were requested to convey their suggestions to FAO Headquarters in order that these could be included in the final document on communications strategy.

## **6.2 Project Website for REBYC-II CTI**

42. The Project Web-Master, *Ms. Namforn Imsamrarn* introduced the website of the Project including the structure and plans for uploading of materials into the website which had been developed since August 2012. The Workshop also agreed on the domain name of the Project website as [www.rebyc-cti.org](http://www.rebyc-cti.org). The Workshop was requested to inform the RFU webmaster regarding any corrections and modification of the website.

43. LTO thanked the Webmaster for creating the REBYC-II CTI website, and RFU confirmed the launch of the website by the end of November 2012.

44. During the discussion, the Workshop made the following suggestions to improve the structure and contents of the website:

- (a) The logo of GEF should be in full colors on the main page.
- (b) Icons of participating countries should be given more emphasis and made more conspicuous
- (c) On the front page, status of trawl fisheries of each participating country including some relevant issues could be included to raise the awareness of readers on the objectives of the project as well as on the activities of the Project in the sites, which could be derived from the country reports submitted during the Inception Workshop in 2012
- (d) Provisions should be made to allow national websites to link with the Project website as well as the FAO website on global REBYC program which includes past and future activities
- (e) Consider having some materials in the website translated into the national languages of the participating countries
- (f) Header picture could also include people not only fishes and technology to show that the Project is also concerned on the socio-economic conditions of the stakeholders
- (g) Consider changing or revising the header photo profile from time to time based on the progress of the Project
- (h) Animations could also be considered and not necessarily drawn images only, provided that this does not make the website slow to load



### **6.3 Consolidated and Agreed Work Plans**

45. *Dr. Niklas S. Mattson* presented the consolidated and agreed activities for the first year of Project execution (**Annex 10**) which had been classified into main components. In addition, the Workshop was informed that the activities under each work plan would be harmonized with the TORs.

46. During the discussion of the consolidated work plan, the Workshop agreed that the Project should consider producing a brochure by RFU under its work plan, after which this could be translated in various languages of the participating countries. It was also clarified that the participating countries should provide the necessary inputs to the regional technical workshops to be organized by RFU in early 2013.

### **6.4 Common Elements, Process, Roles and Responsibilities of the Letter of Agreement**

47. *Dr. Niklas S. Mattson* summarized the common elements, process, roles and responsibilities of the project executing partners of the Project in accordance with the Letter of Agreement (LOA), the duration of which should not be more than 18 months. Executing partners should be aware of the allowable and non-allowable services, e.g. employment and certain procurements, which should be done by FAO. Based on the conditions for budgeting which follows the result-based budgeting, advance payment (max 30%) will be transferred to executing partners' account upon signing of the LOA with final payment (min 20%) to be transferred upon submission of final report and the Statement of Expenditures (SOE) submitted and satisfactorily cleared. Some flexibility could be considered but should come with strong justification. Since all expenditures will be paid in local currency, budgeting should also be done in local rates. Moreover, for the partner countries that use activity-based administration of funds, funding of the events should be technically cleared by the FAO Lead Technical Officer and RFU, whereupon the FAO Budget Holder will transfer funds to the FAO Representative who will administer the funds based on approved work plan. Funds for travel in the region will also be cleared with FAO, which implies that funds that cannot be transferred to executing partners would be administered by FAO. As part of the LOA to SEAFDEC the RFU will administer funds for regional travel to agreed project events.

48. In the Terms of Agreement (TOA), a detailed description of "services" to be provided including activities/outputs, time plan, and budget should be annexed. Procurement of goods, including non-expendable equipment would normally be done by FAO as well as signing of Personal Service Agreement (PSA) on human resources – personal contract, based on these conditions: International consultants/experts (<11 month/year); National consultants (<11 month/year), and National professional personnel (no time limit).

49. The Project Budget Holder, *Mr. Liao Chongguang (FAO/RAP)* clarified the conditions of payment and stated that local regulations should be followed although for accommodations during local travel could be adjusted as and when necessary. The Workshop was also informed that double billing is not allowed especially when it comes to travel expenses including accommodation. However, in case adjustments are necessary, this should be justified and cleared with local FAO Representative. In summary, all possible expenses should be included in the Budget Plan of the LOA in accordance with the work plan while incidental expenses and adjustments will have to be cleared by FAO.

50. The Workshop was informed that administrative costs during transfer of funds to national institutions could be indicated in the budget plan. The Workshop noted that for activities that last one year, payment for expenses could be divided, based on the preliminary report submitted, e.g. all travel already conducted and the next payment will be made when final results of such activities are submitted. In addition, for local expenditures, the UN local rate could be followed, but only after the commitment of countries to provide in-kind expenses have already been taken into consideration, in which case total days in field and travel should be indicated in the LOA. Therefore, the number of

persons involved in travel including the purpose of the travel, and the responsibility provided by local agencies as well as the total amount to be paid or top-up by FAO based on UN local rate, should be indicated in the budget plan of the LOA.

51. It was also noted that travel authorization is required for travels not included in the LOA and should be cleared with FAO. Specifically for National Technical Officer (NTO) who is hired by FAO, all travels should be authorized and paid by FAO. The same procedure will also be applied with national consultants hired for specific activities. In summary, executing partners should submit very clear work plans together with budget details, which should be specified in the LOA or its equivalent in some countries (i.e. Indonesia, Papua Guinea and (partly) Vietnam where payment is based on FBA for each activity).

## **VII. WAY FORWARD AND FORTHCOMING ACTIVITIES OF REBYC-II CTI**

### **7.1 International Meeting on the ICES-FAO Working Group on Fishing Technology and Fish Behavior (WGFTFB)**

52. Information related to the organization of the International Meeting on the ICES-FAO Working Group on Fishing Technology and Fish Behavior (WGFTFB) planned for 6-10 May 2013 in Bangkok, Thailand was presented by *Mr. Petri Suuronen*.

53. The Meeting will serve as forum for global synthesis of scientific knowledge of fishing technologies, fish behavior and their practical use and implications for management (**Annex 11**). The Meeting will be a great opportunity for the REBYC-II CTI project members to expand and share their knowledge especially regarding the management of trawl fisheries bycatch and parallel reduction of fuel consumption in fisheries. The Workshop expressed the view that representatives from REBYC-II CTI Project could take part in the mini-symposiums led by FAO which will discuss low impact and fuel efficient fishing (LIFE), artificial light as a stimulus in fish capture and selectivity of bottom trawls. The Workshop was informed that the NTOs of the Project will be officially invited to attend the Meeting, while other members especially the National Project Coordinators (NPCs) of the Project could have opportunities to take part in the Meeting provided funds could be made available for their participation.

### **7.2 Proposed Regional Technical Workshop on Strategies for Trawl Fisheries Bycatch Management**

54. The Proposed Regional Technical Workshop: Strategies for Trawl Fisheries Bycatch Management was presented by the Project Technical Advisor for the RFU, *Mr. Isara Chanrachkij*. The Workshop which could have 20-25 participants comprising the NTOs and relevant technical staff, aims to support participating countries on trawl fisheries bycatch management. The Workshop will be organized in collaboration with partners such as SEAFDEC/TD, Japanese Trust Fund, Sida, BOBLME, and RFLP as well as from SFP and IFFO.

55. The Workshop suggested that technically-oriented topics and management aspects could be discussed during this regional technical workshop while those that relate to standard data collection could be incorporated in the proposed workshop of the Project planned to be convened in early 2013. Since the technical workshop will be conducted back-to-back with the ICES-WGFTFB symposium, two days could be arranged for participants to attend the symposium and three days to attend to REBYC-II concerns. However, the Workshop also suggested that at least two participants from each project country would be invited to the workshop of data collection, comprising one technical person and another who is in charge of data collection in the participating countries.

56. The Regional Technical Workshop may be conducted back-to-back with the ICES-WGFTFB Symposium tentatively planned to be held in Bangkok 6-10 May, in which case the REBYC-II CTI workshop could be held 2-4 May or 10-11 May 2013. This would be an opportunity for the partner countries to exchange technical information and experiences with the international experts/specialists that participate in ICES-WGFTFB.

### **7.3 Regional Training-cum-Workshop on Co-management and Locally-based Approaches to Responsible Fisheries**

57. The representative from SEAFDEC/TD, *Ms. Panitnard Taladon* presented the proposed plans for the conduct of a Regional Training-cum-Workshop on Co-management and Locally-based Approaches to Responsible Fisheries, which is proposed to be held in May 2013 for a total of 10 days. In this connection, it was suggested that the schedule could be moved to July 2013, as the Project activities are mostly lumped in May 2013.

58. The Workshop was informed that FAO is developing a standard EAF training course in collaboration with BOBLME, WorldFish Center, and the Coral Triangle Initiative (CTI) on Coral Reefs Fisheries and Food Security. A validation of the training for trainers will be held in January or February 2013 in Thailand for a total period of 5 days. Representatives from SEAFDEC would be invited to attend the validation session as this will discuss how to approach a fishery management plan. This is therefore an opportune time for SEAFDEC staff to bring the standard EAF approach into the proposed Regional Training-cum-Workshop on Co-management and Locally-based Approaches to Responsible Fisheries.

### **7.4 Regional Study Visit**

59. Due to budgetary constraints, the regional study visit will have to be organized back to back with Regional Training-cum-Workshop on Co-management and Locally-based Approaches to Responsible Fisheries. In case the workshop could not be organized in Indonesia or Philippine, the regional study visit may need to be postponed to year 2014.

60. The proposed Regional Study Visit could be conducted in Indonesia or Philippines. However, if held in the Philippines, the regional study visit should be scheduled after the local elections of the Philippines which be held in May 2013.

### **7.5 Steering Committee Meeting**

61. The Steering Committee Meeting of the Project will be held in February 2013, to be coordinated by the RFU. In this regard, the Workshop suggested that the Steering Committee Meeting could be organized back-to-back with the Regional technical workshop - mapping, information and data requirements.

### **7.6 Follow-up Actions**

62. The table on agreed follow-up actions, including the responsible persons/partners and deadlines (**Annex 12**) was presented by the Project Regional Coordinator for REBYC-II CTI, *Dr. Niklas S. Mattson*. During the discussion, it was suggested that the NTO could be a non-government employee or seconded from a government office to the Project, which in the latter case means that the prospective NTO should be on leave from government office and receive no salaries from the government. As regards the progress report, which is a six-month progress report, the standard format developed by FAO should be used. The same format would be used for the next six-month report.

63. While noting that the Regional Workshop Report would be made available before the end of November 2012, the Workshop requested that the first draft of the Workshop Report should be circulated by RFU as soon as possible and preferably immediately after the Workshop. The Workshop adopted the follow-up actions as revised.

64. As for the proposed logo of the Project, the Workshop was informed that RFU prepared four options. After thorough scrutiny, the logo used in this Regional Workshop or No. 2 Option was adopted as the logo for the Project.

## VIII. STUDY VISIT TO RELEVANT FISHERY INDUSTRIES WITH BYCATCH ISSUES

65. A study visit was conducted to two industries in Samut Sakhon Province in Thailand, namely: Prantalay Fish Processing Plant (**Annex 13**) and the Pacific Marine Food Products Co. Ltd (**Annex 23**). The Workshop participants expressed their gratitude to the organizers of the study trip. During the discussions with the managers of these industries, the Workshop noted the concern of the companies on how trawl fisheries bycatch management could be made sustainable by not catching in terms of quantity but more on quality as well as energy optimization for economic reasons but also emphasizing on their compliance with standards and certifications of seafood products. While expressing the concern that trawl fishery could be coming to an end, efforts should be made that fish raw materials are available through other sources. Moreover, the companies have also been making full use of the raw materials which are either fully converted into surimi or fish meal. In some cases, fish meal does not necessarily come from bycatch but from trimmings in processing.

66. The Workshop noted that all catch is fully utilized by these processing industries, but in most cases adjustments are made not only because of bycatch issues but also on fuel efficiency. Although the companies are aware of the issues on bycatch management, improvements of factory facilities may still be necessary. Nevertheless, the Workshop also observed that the actual concept of sustainability may have been somewhat clouded by corporate responsibility. The changes (e.g. in terms of gear or gear modification) may have not been meant for sustainability but rather because of economic reasons as access to fish in many fishing grounds have been relinquished, so they are now exploring fishing grounds in other regions. Nonetheless, the commitment expressed by these industries to resource conservation by ensuring that bycatch is not the targeted catch is very commendable. However, a concern was also raised on whether the activities of processing industries in general are ecologically and environmentally sustainable, considering that the number of vessels that these two particular industries operate could not actually represent the whole trawl industry in the world.

## IX. CLOSING OF THE MEETING

67. Before the formal closing of the Workshop, the representative from FAO/RAP, *Dr. Simon Funge-Smith* thanked the project executing partners for coming to the Workshop and expressing their commitment to work with the Project based on the work plan. He also commended their active participation in the deliberations which led to the success of the Workshop.

68. The Project Regional Coordinator for REBYC-II CTI, *Mr. Niklas S. Mattson* thanked the participants for their cooperation especially in finalizing and harmonizing the work plan for Year 1 of the Project.

69. The Project Technical Advisor for the RFU, *Mr. Isara Chanrachkij* thanked all concerned for their cooperation and support to the Regional Workshop.

70. The REBYC-II CTI Lead Technical Officer, *Mr. Petri Suuronen* thanked SEAFDEC for the preparations and arrangements for the Workshop. He also expressed his gratitude to the Secretariat of the Meeting for their productive cooperation and friendly support.

71. In closing the Regional Workshop, SEAFDEC Deputy Secretary-General *Mr. Kenji Matsumoto* expressed his regrets for not having joined the Workshop because of an equally important commitment of SEAFDEC that needed his presence. Nonetheless, he thanked the participants for their active involvement in the Workshop that led to achieving the desired objectives. He specifically commended the efforts of the Workshop in finalizing and harmonizing the various activities in the work plan as this signals the formal operationalization of the Project. He also commended the conduct of a study visit to relevant factories in Samut Sakhon, Thailand as it must have enlightened the

perceptions of the participants on the utilization of bycatch in the Southeast Asian region. His Closing Remarks appears as **Annex 14**.

**PROVISIONAL PROSPECTUS**  
**FAO/GEF REGIONAL WORKSHOP ON WORK PLANNING – YEAR 1**  
**REBYC-II CTI**



## **PROVISIONAL PROSPECTUS**

### **FAO/GEF REGIONAL WORKSHOP ON WORK PLANNING – YEAR1 REBYC-II CTI**

Bangkok, Thailand, 6-9 November 2012

#### **1. Background**

The Coral Triangle Region of Southeast Asia is one of the world's most biologically diverse, economically productive and potentially vulnerable marine zones. Increasing exploitation pressures and major ecosystem change are particular concern in the region. Also the untargeted capture of fish and non-fish species, commonly called bycatch and discards, is an increasing concern. This part of the catch tends to be poorly monitored and less managed but could have an important impact on fishery resources, habitats and ecosystems. In some fisheries and regions, there is an increasing trend towards retention of the bycatch consisting of juveniles and small-sized fish for use as food for human consumption or for utilization as aqua-feed. This is therefore a complex issue, requiring resource and biodiversity aspects to be tackled alongside human needs and involving a mix of policy, technical and community support measures.

This project – Strategies for trawl fisheries bycatch management (REBYC-II CTI) – will contribute to the more sustainable use of fisheries resources and healthier marine ecosystems in the Coral Triangle and Southeast Asia waters by reducing bycatch, discards and fishing impact by trawl fisheries. It will be executed by the Southeast Asian Fisheries Development Center (SEAFDEC) and the governments of Indonesia, Papua New Guinea, Philippines, Thailand and Viet Nam, in partnership with the private sectors and relevant national, regional and international organizations. The Food and Agriculture Organization of the United Nations (FAO) is the Global Environment Facility (GEF) agency for the project that will be funded jointly by GEF and the implementing and executing partners.

The Project Inception Workshop was organized by FAO and SEAFDEC in Bangkok, Thailand, from 1 to 4 May 2012. During the Inception Workshop all executing partners agreed to further develop the work plans in consultation with colleagues and partners to ensure that these are comprehensive, realistic and that all relevant stakeholders are on board. To follow up the Inception Workshop, The Regional Workshop on Work Planning Year 1 REBYC-II CTI is now being planned and organized by the Regional Facilitation Unit (RFU) stationed at SEAFDEC Training Department, in close collaboration with FAO. The workshop will focus on the harmonization of the detailed work plans developed by all executing partners, and to link these under a common regional framework.

#### **2. Objectives of the Workshop**

1. Present and review each participating country's proposed work plan;
2. Integrate the agreed national work plans for Year 1 into the revised results framework
3. Integrate the agreed regional (RFU/SEAFDEC) work plan for Year 1 into the revised results framework
4. Discuss roles, responsibilities, timeline and targets for Year 1; and
5. Discuss communication strategy and agree on internal communications arrangements.

### 3. Expected Outputs

1. Detailed national work plans reviewed and priorities agreed;
2. Details of the Letter of Agreement (LoA) with each participating country agreed and prepared;
3. Regional work plan agreed and prioritized;
4. Communication strategy discussed and agreed;
5. Roles, responsibilities and timelines for Year 1 agreed.

### 4. Process

#### 4.1. Prior to the workshop

Each National Technical Execution Partner (NTEP) is expected to prepare detailed national work plans for Year 1 in collaboration with their colleagues and country partners. The work plans will follow the format to be provided by the Regional Facilitation Unit (RFU). This work plan will be the basis of the Letter of Agreement between FAO and the NTEP.

All draft national work plans must be submitted to the RFU **three weeks prior to the workshop** and will be circulated to all participants to give time for study and review.

SEAFDEC as the RFU will also prepare a regional work plan which will also be circulated prior to the workshop.

#### 4.2. During the workshop

To enhance collaboration and promote a spirit of shared responsibility, participants will be encouraged to peer-review the draft work plans and a reviewer will be designated to provide specific comments after each presentation. All participants will be encouraged to provide comments with the aim of arriving at realistic and manageable activities, outputs and outcomes. Each NTEP will revise the work plan based on the discussion and comments received. Each NTEP will finalize the work plans during the workshop. The agreed work plan will become the basis for finalizing the LoA. The following table provides details regarding the peer review process:

<b>Presenter</b>	<b>Reviewer/Facilitator</b>
SEAFDEC (regional work plan)	Viet Nam
Indonesia	SEAFDEC
Philippines	Indonesia
Papua New Guinea	Philippines
Thailand	Papua New Guinea
Viet Nam	Thailand

At the end of the workshop, each NTEP will have an agreed work plan and advanced draft LoA for signature. The agreed national work plans will be consolidated and harmonized under the revised results framework. The regional work plan will also be reviewed and discussed during the workshop.

### 5. Date and venue

The Regional Workshop will be convened from 6-9 November 2012, at Jasmine Suite Hotel, Bangkok, Thailand.



## 6. Participants

It is envisaged that the participants for the regional workshop will comprise the following:

1. Representatives from each REBYC-II CTI Participating Country
2. Representatives from FAO
3. Representatives from the SEAFDEC Secretariat and Training Department
4. Representative from Project Partners e.g. SIDA, IFFO, SFP, RFLP and WWF

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**OPENNING STATEMENT**

*By Dr. Chumnarn Pongsri, SEAFDEC Secretary-General*

**FAO/GEF Regional Workshop on Work Planning Year I for REBYC-II CTI**

*6 November 2012, Bangkok, Thailand*

## **OPENNING STATEMENT**

**By**

***By Dr. Chumnarn Pongsri, SEAFDEC Secretary-General***

**FAO/GEF Regional Workshop  
Jasmine Suite Hotel, Bangkok Thailand,  
6 November 2012**

Representatives from the FAO and GEF, representatives from the participating countries in the REBYC II project, distinguished participants, Ladies and Gentlemen, Good Morning.

On behalf of SEAFDEC as Regional Facilitation Unit of REBYC-II CTI, I am indeed very pleased to welcome you all to the Regional Workshop on Work Planning – Year1 which is envisaged to discuss and finalize the Work Plan Year1 both regional and national plan for the REBYC II project.

We must recall that in May 2012, FAO and SEAFDEC organized the inception workshop for this project. During that workshop, Participating countries and SEAFDEC presented a draft of annual work plan and budget plan included with list of National Project Coordinators (NPC) and National Technical Officers (NTO).

As a sequel, we are now in the process of finalization REBYC-II project work plan year 1, Details of the Letter of Agreement as well as the future activities. Please allow me to reiterate what we realized that REBYC-II would focus in the Coral Triangle region of Southeast Asia. As one of the world's most significant and also the most vulnerable marine zones, it is necessary that management measures be adopted to ensure the sustainability of fisheries in the Coral Triangle Region. SEAFDEC as Regional Facilitation Unit is most appreciated to collaborate with our partners in this endeavor and especially for the advancement of the REBYC II project.

To bring this workshop to fruition has been a true team effort. I wish to extend my thanks to those in FAO, SEAFDEC, supporting organization and the partner countries who have worked together to ensure that enduring outcomes will be achieved for the benefit of all.

Finally, please allow me to thank all of you for taking part in this Workshop. With your active participation, we would surely come up with the productive result for Work Plan Year 1 of the activities in the Coral Triangle Region of Southeast Asia under the REBYC II CTI project.

I hereby declare the workshop open.

**PROVISIONAL AGENDA**





## PROVISIONAL AGENDA

- Agenda 1      Opening of the meeting
- Agenda 2      Adopting Agenda
- Agenda 3      3.1 Introduction of Participant  
                  3.2 Background, objectives and expected outputs of the workshop  
                  3.2 Revisiting of the revised project results framework
- Agenda 4      Year 1 work plan presentation and discussion  
                  4.1 Regional work plan,peer review and general discussion  
                  4.2 Indonesiawork plan,peer review and general discussion  
                  4.3 Papua New Guineawork plan,peer review and general discussion  
                  4.4 Philippines work plan,peer review and general discussion  
                  4.5 Thailandwork plan,peer review and general discussion  
                  4.6 Viet Nam work plan,peer review and general discussion  
                  4.7 Working group session: revision of the work plans based on the comments  
                  and discussion and wrap up work plan
- Agenda 5      5.1 Communication strategy: presentation and discussion and  
                  5.2 Project website introduction  
                  5.3Presentation of the consolidated and agreed work plans  
                  5.4Detailed discussion regarding the Letter of Agreement – common elements,  
                  process, roles and responsibilities
- Agenda 6      6.1 Discussion on the way forward and forthcoming activities of REBYC II-CTI  
                  - International Meeting on The ICES-FAO Working Group on Fishing  
                  Technology and Fish Behavior (WGFTFB);  
                  - Regional technical workshop;  
                  - Regional Training-cum-Workshop on Co-Management and Locally Based  
                  Approaches to responsible fisheries;  
                  - Regional Study Visit ;  
                  - Steering Committee Meeting;  
                  - Logo REBYC-IICTI  
                  6.2List of follow up action
- Agenda 7      Closing of the meeting

**Presentation**

**Background, Objectives and Expected Outputs**

*By Mr. Isara Chanrachkij*

**FAO/GEF Regional Workshop on Work Planning Year I for REBYC-II CTI**

**6-9 November 2012, Bangkok, Thailand**

## Background of the Project and Output




**STRATEGIES FOR TRAWL FISHERIES BYCATCH MANAGEMENT (REBYC-II CTI)**

**Agenda 3.2**  
**Background, Objectives and Expected outputs**  
*-INF II-*  
**Regional Facilitation Unit - SEAFDEC**

SEAFDEC  
www.seafdec.or.th

**Habitat damage - Ghost fishing - Marine debris - Discards**



INTERNACIONAL WORKSHOP ON BYCATCH MANAGEMENT AND REDUCTION OF DISCARDS  
DIRECTIVOS INTERNACIONALES PARA LA REDUCCION DE LOS RESIDUOS EN MAR  
DIRECTIVOS INTERNACIONALES PARA LA ORDENACION DE LAS CAPTURAS ACCIDENTALES Y LA REDUCCION DE LOS DESCARTES

**FAO Initiative REBYC (2002-2008)**

**Reduction of Environmental Impact from Tropical Shrimp Trawling through the Introduction of Bycatch Reduction Technologies and Change of Management**

**Objective**

- To reduce capture of immature/juvenile fishes of commercially important species;
- To reduce the harvest of other unwanted bycatch fish and non-fish species

**Output**

Participating countries adopt on the fishing technologies and practices that is environmentally friendly performance and reduction of biological impacts

**Outcome**

Reduction in number of juvenile species caught by shrimp trawlers using bycatch reduction devices (BRDs) compared to trawlers not using such devices

**Additional Outcome**

Improvement national capacities for the management of the shrimp-trawler fisheries and increased cooperation among countries at the regional and global levels.

**FAO Initiative REBYC (2002-2008)**

**Reduction of Environmental Impact from Tropical Shrimp Trawling through the Introduction of Bycatch Reduction Technologies and Change of Management**



**Turtle Excluder Devices (TEDs)**

**Juvenile and Trash Excluder Devices (JTEDs)**

**REBYC (2002-2008)**

**Reduction of Environmental Impact from Tropical Shrimp Trawling through the Introduction of Bycatch Reduction Technologies and Change of Management**

- Multi-species fisheries resources of found in Southeast Asia and the Pacific region
- Types and scale of trawler
- Fisheries resource management
- Bycatch is largely utilised and considered part of the total catch

**Gear modification solutions also need to be supported by appropriate legal and incentive frameworks**

**REBYC-II CTI: Strategies for Trawl Fisheries Bycatch Management**

**REBYC-II CTI: Strategies for Trawl Fisheries Bycatch Management**

FAO/GEF INCEPTION WORKSHOP ON "BYCATCH MANAGEMENT AND REDUCTION OF DISCARDS IN TRAWL FISHERIES"  
SEAFDEC/TD Samut Prakan, Thailand 3 - 6 November 2009

FAO/GEF REGIONAL WORKSHOP ON STRATEGIES FOR FISHERIES BYCATCH MANAGEMENT CTI REBYC-3 PROJECT  
Log-frame/project planning workshop,  
SEAFDEC/TD Samut Prakan, Thailand 4-7 May 2010

FAO/GEF PROJECT INCEPTION WORKSHOP  
Organized by FAO and SEAFDEC in Bangkok, Thailand, from 1 to 4 May 2012



The Project Inception Workshop was organized by FAO and SEAFDEC in Bangkok, Thailand, from 1 to 4 May 2012

**Objective of the workshop :**

- To ensure that there is a common understanding of the Project objectives and outputs and of roles and responsibilities among all partners.
- Agree on next steps with a view to have a detailed work plan for Project implementation, focusing on year 1 – including both national and regional activities.

**The expected outputs of the workshop:**

- Project outcomes/outputs and required inputs clarified
- The roles and responsibilities of the different project partners and stakeholders defined
- The project implementation both at the regional and national levels planned, and
- The processes and indicators for results based management reviewed and the progress reporting agreed.

National Work Plan Year 1: All participating members Formulated

**FAO/GEF PROJECT INCEPTION WORKSHOP  
National Work Plan Year 1: All participating members Formulated**



**FAO/GEF REGIONAL WORKSHOP  
ON  
WORK PLANNING – YEAR1 REBYC-II CTI**

**FAO/GEF REGIONAL WORKSHOP ON WORK PLANNING –  
YEAR1 REBYC-II CTI**

**Objective of the workshop:**

- Agreeing on the details of the regional and national work plans developed by all executive partners;
- Supporting the National Project Coordinators (NPCs) on fisheries management by providing tools for reducing bycatch of target fisheries:
  - o Identify fishing technology modifications, options and alternative fishing technologies;
  - o Discuss and agree selection criteria for fishing zones and spatial-temporal closures (including meshed mapping, fishing effort and sensitive areas/habitats are identified); and
  - o Introduction of the co-management concept and appropriate approaches for bycatch management of target fisheries
- Strengthening Role of Regional Facilitation Unit (RFU) and REBYC II CTI networking on mechanisms

**The expected outputs of the workshop:**

- Agreement on work plans and a regional framework for Year 1, and
- Information on availability of baseline data and on existing interventions in participating countries in terms of reduction of bycatch in target fisheries i.e.,
  - o Fishing technology modifications, options and alternative fishing technologies
  - o Criteria and recommendations for selection and demarcation of prioritized fishing zones/areas and spatial-temporal closures, and
  - o Strengthened partners understanding of the co-management concept and their ability to plan appropriate approaches for bycatch management of target fisheries enhanced
- Set of recommendations to the RFU on upcoming activities, e.g. Regional Technical Workshop, Regional training for trainers on fisheries (co-) management approach to responsible fisheries.

**FAO/GEF REGIONAL WORKSHOP ON WORK PLANNING –  
YEAR1 REBYC-II CTI**

**Objective of the workshop:**

- Present and review each participating country's proposed work plan;
- Integrate the agreed national work plans for Year 1 into the revised results framework
- Integrate the agreed regional (RFU/SEAFDEC) work plan for Year 1 into the revised results framework
- Discuss roles, responsibilities, timelines and targets for Year 1; and
- Discuss communication strategy and agree on internal communications arrangements

**The expected outputs of the workshop:**

- Detailed national work plans reviewed and priorities agreed;
- Details of the Letter of Agreement (LoA) with each participating country agreed and prepared;
- Regional work plan agreed and prioritized;
- Communication strategy discussed and agreed;
- Roles, responsibilities and timelines for Year 1 agreed

**Letter of Agreement (LOA) Regional Facilitation Unit**

# Letter of Agreement (LOA) Regional Facilitation Unit (RFU)



联合国  
粮食及  
农业组织

FOOD AND  
AGRICULTURE  
ORGANIZATION  
OF THE  
UNITED NATIONS

ORGANISATION  
DES NATIONS  
UNIES POUR  
L'ALIMENTATION  
ET L'AGRICULTURE

ORGANIZACION  
DE LAS NACIONES  
UNIDAS PARA  
LA AGRICULTURA  
Y LA ALIMENTACION

منظمة  
الاغذية  
والزراعة  
للأمم  
المتحدة

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## LETTER OF AGREEMENT

Between

the Food and Agriculture Organization of the United Nations ("FAO") and the  
Southeast Asian Fisheries Development Center ("SEAFDEC")  
Bangkok, Thailand

For the execution of the GEF supported project

**"Strategies for trawl fisheries bycatch management"  
(REBYC-II CTI; GCP /RAS/269/GFF)**

### 1. Introduction

The Food and Agriculture Organization of the United Nations (hereinafter referred to as "FAO") and the South East Asian Fisheries Development Center (hereinafter referred to as "SEAFDEC") (together hereinafter referred to as the "Parties") have agreed that SEAFDEC will provide certain services defined in detailed in the attached Annex (the "Services") which forms an integral part of this Letter of Agreement (hereinafter the "Agreement") in support of the project "Strategies for trawl fisheries bycatch management". To enable SEAFDEC to provide the Services, FAO will pay SEAFDEC a total amount not exceeding US\$ 168,200.

### 2. Purpose

- a) The purpose for which the funds provided by FAO under this Agreement shall be used are the following:
- (i) **Objective.** The Services will contribute to the following FAO Organizational Outputs:  
C05G201 - Capacity of Members and their fishing industry (including small scale operators) is increased to improve economic efficiency, reduce dependency on fossil fuels, minimize waste and impacts of fishing operations on the environment through access to technical assistance, studies, analyses and formulation of best practices. Fatalities, injuries and vulnerability are reduced through provision of technical advice and best practices on operational safety associated with design, construction, and operation of harbours, vessels, related equipment and infrastructure, and responding to and preparing for emergencies and transition planning.  
C05P112 - Support to RAP member countries to operate fisheries in a safer, more technically and socio-economically efficient manner, with reduction in environmental impact and compliant with regulatory frameworks

- (ii) **Outputs/outcomes. SEAFDEC will produce, achieve or deliver the following outputs:**
1. Regional workshop on workplan of Year 1 (09-2012)
  2. Regional study visit\*
  3. Desk study on incentives packages\*\*
  4. Review of existing frameworks for managing fishing capacity\*\*
  5. Policy, legal and inst. review\*\*
  6. Regional technical workshop
  7. Dissemination of project results and related information
  8. Training needs assessments
  9. Regional training of trainers on co-management and locally based approaches to responsible fisheries
  10. Facilitation of national level activities/outputs and consolidation at the regional level

\* would require addendum to the Letter of Agreement

\*\*funded through separate FAO contracts

- b) A detailed description of the Services including technical and operational requirements, budget, work plan and timeframe, performance indicators and means of verification, as well as inputs to be provided free-of-charge by SEAFDEC and FAO, if any, are set out in detail in the Annex.

### 3. General Conditions

- a) Funds provided by FAO under this Agreement are to be used by SEAFDEC exclusively for the provision of the Services in accordance with the budget set out in the Annex. Neither SEAFDEC nor its personnel nor any other persons providing the Services on its behalf, will incur any additional commitment or expense on behalf of FAO.
- b) Title to the inputs provided by FAO to SEAFDEC shall remain with FAO until such time these are transferred to the beneficiaries. SEAFDEC shall take all reasonable measures to ensure that inputs provided by FAO reach the intended beneficiaries without delay and in the condition in which they are received. SEAFDEC assumes full responsibility for the storage, handling and management of inputs provided by FAO and shall assume liability for any damage and losses after the inputs come under its physical control, custody or possession.
- c) FAO seeks to ensure that all inputs handed over to SEAFDEC are fit for its intended use. SEAFDEC shall inform and consult with FAO in case the condition of any FAO-supplied inputs is in doubt, or there is a perceived risk of deterioration of the inputs arising from acceptance of the inputs at the handover points. In such cases, FAO and SEAFDEC will mutually agree on the appropriate operational measures to address such risk. Any costs approved by FAO for storage, recuperation, sampling and/or fumigation shall be borne by FAO.
- d) SEAFDEC will be responsible for all activities related to the provision of the Services and the acts or omissions of all employees, agents or other representatives, and authorized subcontractors providing the Services on its behalf. FAO will not be held responsible for any accident, illness, loss or damage which may occur during the provision of the Services or any claims, demands, suits, judgements, arising there from, including for any injury to SEAFDEC's employees, or to third parties, or any loss of, damage to, or destruction of property of third parties, arising out of or connected to SEAFDEC's work or performance under this Agreement.

- e) SEAFDEC shall not utilize funds received under this Agreement to subcontract services or procure items except as specifically provided for in the Annex or as specifically approved in writing by FAO. Any subcontracting arrangement shall in no way relieve SEAFDEC of the responsibility for the provision/delivery of the Services required under this Agreement. Subcontracts or procurement of the items set forth in the Annex shall be procured in conformity with SEAFDEC's own procurement rules and procedures. SEAFDEC confirms that its procurement rules and procedures, and their implementation, ensure that the procurement process is transparent and consistent with generally-accepted principles governing public sector procurement to obtain best value for money. SEAFDEC will ensure that its agreements with any subcontractor include the obligation to maintain appropriate records for a period of five years and FAO's right to review, audit and have access to all documentation and sites related to the activities carried out in connection with this Agreement.
- f) SEAFDEC shall make and thereafter maintain, in compliance with national legislation, provision for adequate insurance to cover such risks as damage to property and injuries to persons, as well as third party liability claims.
- g) The personnel assigned by SEAFDEC to provide the Services are not considered in any respect as being employees or agents of FAO. Nothing in this Agreement or in any document or arrangement relating thereto shall be construed as conferring any privileges or immunities of FAO on SEAFDEC, its personnel or any other persons providing the Services on its behalf.
- h) Nothing in this Agreement or in any document relating thereto, shall be construed as constituting a waiver of privileges or immunities of FAO, or as its acceptance of the jurisdiction of the courts of any country over disputes arising out of this Agreement.
- i) The present Agreement shall be governed by general principles of law, to the exclusion of any single national system of law. General principles of law shall be deemed to include the UNIDROIT Principles of International Commercial Contracts of 2004.
- j) In providing the Services, SEAFDEC shall conform to all national laws applicable to its activities and its relations to third parties, including employees. SEAFDEC shall promptly correct any violations thereof and shall keep FAO informed of any conflict or problem arising in relation to national authorities.
- k) SEAFDEC confirms that it has not engaged in, nor will engage in, any corrupt, fraudulent, collusive or coercive practices in entering into or implementing this Agreement and agrees to adhere to the UN Supplier Code of Conduct which can be viewed at [http://www.un.org/depts/ptd/pdf/conduct\\_english.pdf](http://www.un.org/depts/ptd/pdf/conduct_english.pdf). For the purpose of this Agreement, the following terms shall have the following meanings:



- i) "Fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain, financial and/or other benefit and/or to avoid an obligation.
  - ii) "Coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party.
  - iii) "Collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party.
  - iv) "Corrupt practice" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value whether tangible or intangible to improperly influence the actions of another party.
- l) SEAFDEC shall take all reasonable precautions to avoid any conflict of interest in the implementation of the Services and shall inform FAO without delay of any situation constituting or likely to entail a conflict of interest including any FAO personnel having an interest of any kind in SEAFDEC's activities.
- m) Unless authorized in writing by FAO, SEAFDEC shall not advertise or otherwise make public that it has a contractual relationship with FAO, nor shall SEAFDEC, in any manner whatsoever use the name or emblem of FAO, or any abbreviation of the name of FAO.
- n) All intellectual property rights, including copyright, in the outputs produced under this Agreement are vested in FAO, including, without any limitations, the right to use, publish, translate, sell or distribute, privately or publicly, any item or part thereof. Neither SEAFDEC nor its personnel will communicate to any other person or entity any confidential information made known to it by FAO nor will they use this information for private or corporate advantage. This provision will survive the expiration or termination of this Agreement.
- o) To comply with disclosure requirements and enhance transparency, FAO may release and/or publish the following information about this Agreement: (i) the name and nationality of SEAFDEC; (ii) a brief description and location of the Services provided; and (iii) the amount of this Agreement. SEAFDEC specifically consents to the release and/or publication of such information. FAO will not release or publish information that could reasonably be considered confidential or proprietary.
- p) SEAFDEC shall return to FAO any unexpended funds budgeted and paid by FAO under this Agreement.
- q) This Agreement is not subject to payment by FAO of any levies, taxes, registration duties or any other duties or charges whatsoever. SEAFDEC shall duly pay taxes, duties and other charges in accordance with prevailing laws and regulations applicable to SEAFDEC.
- r) SEAFDEC agrees to undertake all reasonable efforts to ensure that none of the funds received from FAO under this Agreement are used to provide support to individuals or entities associated with terrorism, as included in the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999) located at <http://www.un.org/sc/committees/1267/consolist.shtml>. This provision must be included in all subcontracts or sub-agreements entered into under this Agreement.

#### 4. Reporting and Record Maintenance Requirements

- a) SEAFDEC shall submit to the Responsible Officer named in paragraph 9 below, the Reports listed in the Annex on the dates set forth therein, including a final report consisting of a narrative report and financial report ("Final Report") within 30 days following the completion of the Services. The Final Report must be sufficiently detailed to allow certification of deliverables and of expenditures. The financial report shall be signed and certified as to its correctness by a duly designated representative of SEAFDEC (e.g. executive officer, chief financial officer, chief accountant or similar).
- b) SEAFDEC shall keep accurate financial records and maintain supporting documentation showing the utilization of inputs and funds under this Agreement and any other documentation related to the Services for a period of five years following termination or expiry of the Agreement, during which period FAO, or a person designated by FAO, or the relevant auditing authority (e.g. national audit office) shall have the right, at any time, to conduct reviews and/or audits relating to any aspect of this Agreement. SEAFDEC shall provide its full and timely cooperation with any such review or audit. Full and timely cooperation shall include, but not be limited to, making available employees or agents and granting to FAO or other designated person or relevant authority, access at reasonable times and conditions to SEAFDEC's premises or other sites where documentation related to this Agreement is kept or activities related to this Agreement are carried out.

#### 5. Delays and Termination

- a) The Agreement shall enter into force upon signature by both Parties and shall remain in force until the Services have been satisfactorily provided or until otherwise terminated in accordance with the provisions herein.
- b) SEAFDEC will carry out the Services in accordance with the workplan and within the timeframe set forth in the Annex and shall notify FAO of any delays that will prevent delivery of the Services in accordance with the workplan and within the timeframe set forth in the Annex.
- c) FAO may suspend or cancel all or part of this Agreement, obtain the Services elsewhere and make corresponding adjustments to any payments that may be due to SEAFDEC, if SEAFDEC fails to make delivery, or perform to a standard considered acceptable to FAO. Subject to consultation with SEAFDEC, the determination of FAO, relating to this provision, shall be binding.
- d) If at any time during the course of this Agreement it becomes impossible for the parties to perform any of their obligations for reasons of Force Majeure, that party shall promptly notify the other in writing of the existence of such Force Majeure. The party giving notice is thereby relieved from such obligations as long as Force Majeure persists. For the purpose of this Agreement, the term "Force Majeure" shall mean any unforeseeable exceptional situation or event beyond the Parties' control which prevents either of them from fulfilling any of their obligations under this Agreement, was not attributable to error or negligence on their part (or of their personnel, agents, or other representatives, or authorized subcontractors), and proves insurmountable in spite of all due diligence.

- e) FAO shall have the right to terminate this Agreement, by written notice to this effect, if it considers that continued implementation of the Agreement is impossible or impractical:
  - (i) for unforeseen causes beyond the control of FAO;
  - (ii) in the event of a default or delay on the part of SEAFDEC after written notice by FAO which provides a reasonable period to remedy the default or delay.
- f) In the event of termination as per 5e) above, the following shall apply:
  - (i) termination for unforeseen causes beyond its control, FAO shall complete all payments for expenses which have been incurred by SEAFDEC up to the effective date of termination.
  - (ii) termination due to SEAFDEC's default or delay, SEAFDEC shall refund to FAO any payment already received in respect of Services that have not been performed to a standard considered acceptable to FAO.
- g) FAO shall have the right to terminate this Agreement, by written notice to this effect, if FAO establishes in accordance with its administrative procedures:
  - (i) irregularities, fraud or corruption on the part of SEAFDEC in relation to this Agreement;
  - (ii) a breach of the conflict of interest provision in paragraph 31) above;
  - (iii) a breach of the reporting requirements in paragraph 4 above.
- h) In the event of termination as per g) above, SEAFDEC shall refund to FAO all payments that were made on the basis of the irregularity, fraud or corruption, or as otherwise determined by FAO to be equitable and take other action as deemed appropriate by FAO.

#### 6. Terms of Payment

- a) In full consideration of the services provided by SEAFDEC, FAO will pay and/or reimburse SEAFDEC up to a total amount which represents FAO's maximum financial liability not to exceed:
 

**One hundred and sixty-eight thousand two hundred US dollar (US\$ 168,200)**
- b) The payments will be made after certification by the Responsible Officer of the request(s) for payment as follows:
  - (i) 50,000 upon signature of the present Agreement;
  - (ii) 42,000 upon acceptance by FAO of the report from the Regional workshop to agree on the work plan of Year 1;

- (iii) 42,000 upon acceptance by FAO of the report from the Regional workshop on technical measures;
  - (iv) 34,200 upon acceptance by FAO of the Final Report mentioned under paragraph 4a) above.
- c) The amount set forth in 6a) will be paid in the currency stated above, in accordance with the detailed banking instructions provided by SEAFDEC in 6d).
- d) Detailed Banking Instructions:
- Bank's Name: Bangkok Bank Public Co., Ltd.,  
 Address: Head Office, Foreign Currency Deposit Section, 333 Silom Road, Bangkok 10500 Thailand  
 Account Name: SEAFDEC /OTHERS INCOME  
 Account Number: US. Dollar Saving Account No. 840-101-0018-011924-001  
 Swift code: BKKBTHBK  
 Telephone No.: (662) 2301321, 2301334, 2301657  
 Fax No.: (662) 6312320
- e) SEAFDEC shall submit each request for payment to the address indicated below:  
 Mr. Chongguang Liao, Field Programme Officer, FAO Regional Office for Asia and the Pacific, Maliwan Mansion, Phra Atit Road, Bangkok 10200, Thailand. E-mail: Chongguang.Liao@fao.org
- f) FAO enjoys certain privileges and immunities which include exemption from payment of Value Added Tax ("VAT" or "IVA"), customs duties and importation restrictions.
- g) If SEAFDEC fails to submit the Final Report mentioned in 4a) above no later than 30 days following completion, expiry or termination of this Agreement, FAO may, after provision of due notice of the default, terminate this Agreement without making the final payment.

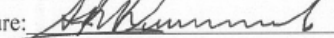
#### 7. Settlement of Disputes

- a) Any dispute between the parties arising out of the interpretation or execution of this Agreement, if not settled by negotiation between the parties or by another agreed mode of settlement, shall be submitted at the request of either party, to one conciliator. Should the parties fail to reach agreement on the name of a sole conciliator, each party shall appoint one conciliator. The conciliation shall be carried out in accordance with the Conciliation Rules of the United Nations Commission on International Trade Law, as at present in force.
- b) Any dispute not resolved by conciliation shall, at the request of either party, be settled by arbitration in accordance with the Arbitration Rules of the United Nations Commission on

International Trade Law, as at present in force. The arbitral tribunal shall have no authority to award punitive damages. FAO and SEAFDEC agree to be bound by any arbitration award rendered in accordance with this article, as the final adjudication of any such dispute.

- c) The parties may request conciliation during the execution of this Agreement and in the period not to exceed twelve months after the completion, expiry or termination of this Agreement. The parties may request arbitration not later than ninety days after the termination of the conciliation proceedings. All dispute resolution proceedings shall be conducted in the language in which the agreement is drafted provided that it is one of the six official languages of FAO (Arabic, Chinese, English, French, Russian and Spanish). In cases where the language of the agreement is not an official language of FAO, the conciliation or the arbitration proceedings shall be conducted in English.
8. Amendments. Any changes or amendments to this Agreement shall be made in writing and on the basis of mutual consent of the signatories to this Agreement.
9. Designation of the FAO Responsible Officer. Mr. Petri Suuronen, Fishery Industry Officer (Lead Technical Officer of the Project), Fishing Operations and Technology Service (FIRO), Viale delle Terme di Caracalla, 00153 Rome, Italy, E-mail [petri.suuronen@fao.org](mailto:petri.suuronen@fao.org), is designated the officer responsible for the management of this Agreement ("Responsible Officer") on behalf of FAO.
10. Entry into force and period of validity. The Agreement will enter into force upon the date of signature by SEAFDEC, by FAO or on 15 August 2012, whichever of the three dates is the latest and will terminate on 30 September 2013

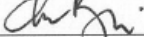
**Signed on behalf of the Food and Agriculture Organization of the United Nations:**

Signature:  \_\_\_\_\_

Date: 3 Sept. 2012

*for* Mr. Hiroyuki Konuma, FAO Regional Representative for Asia and the Pacific

**Signed on behalf of the Southeast Asian Fisheries Development Center:**

Signature:  \_\_\_\_\_

Date: 7 Sept. 2012

Dr. Chumnarn Pongsri, SEAFDEC Secretary-General

SEAFDEC will sign two copies of this Agreement and return one to the Responsible Officer.

**Term of Agreement (TOA) Regional Facilitation Unit**

## Term of Agreement (TOA) Regional Facilitation Unit (RFU)



联合国  
粮食及  
农业组织

FOOD AND  
AGRICULTURE  
ORGANIZATION  
OF THE  
UNITED NATIONS

ORGANISATION  
DES NATIONS  
UNIES POUR  
L'ALIMENTATION  
ET L'AGRICULTURE

ORGANIZACION  
DE LAS NACIONES  
UNIDAS PARA  
LA AGRICULTURA  
Y LA ALIMENTACION

منظمة  
الاغذية  
والزراعة  
للأمم  
المتحدة

### Regional Office for Asia and the Pacific

Maliwan Mansion, 39 PhraArit Rd  
Bangkok 10200, Thailand

Tel. (662) 697-4000  
Facsimile: (662) 697-4445  
E-Mail Address: FAO-RAP@FAO.ORG

### ANNEX 1 TERMS OF AGREEMENT

#### 1. Background

This project – Strategies for trawl fisheries bycatch management (REBYC-II CTI; GCP/RAS /269/GFF) – will contribute to the more sustainable use of fisheries resources and healthier marine ecosystems in the Coral Triangle and Southeast Asia waters by reducing bycatch, discards and fishing impact by trawl fisheries. It will be executed by the Southeast Asian Fisheries Development Center (SEAFDEC), based in Bangkok, Thailand, and the governments in the participating countries Indonesia, Papua New Guinea, Philippines, Thailand and Viet Nam in partnership with the private sector and relevant national, regional and international organisations. The Food and Agriculture Organization of the United Nations (FAO) is the Global Environment Facility (GEF) agency for the project that will be funded jointly by GEF and the implementing and executing partners. The project has a total budget of USD 11,218,600 and will run for four years; it became operational in November 2011, while activities started in April 2012.

The Coral Triangle region of Southeast Asia is one of the world's most biologically diverse, economically productive and potentially vulnerable marine zones. As a result of increasing human population, exploitation pressure, and pollution, a major ecosystem change is a particular concern in the region. Also – as more widely in the global context – the untargeted capture of fish and non-fish species, commonly called bycatch, is an increasing concern. Bycatch includes fish, turtles, and corals and other seabed fauna and flora, and part of this bycatch is discarded back to sea as dead or dying. Bycatch tends to be poorly monitored and not managed but could have an important impact on fishery resources, habitats and ecosystems. In some fisheries and regions in SE-Asia, there is an increasing trend towards retention of the bycatch consisting of juveniles and small-sized fish for use as food for human consumption or for utilization as aquafeed. This is a complex issue, requiring resource and biodiversity aspects to be tackled alongside human needs and involving a mix of policy, technical and community support measures.

Based on the principles of the FAO Code of Conduct for Responsible Fisheries and the Ecosystem Approach to Fisheries (EAF), the project will build on the successes of the 2002-2008 FAO/UNEP/GEF global project "Reduction of Environmental Impact from Tropical Shrimp Trawling through the Introduction of Bycatch Reduction Technologies and Change of Management". It intends to focus on multispecies bottom trawling, where bycatch issues are amongst the most serious, with potentially significant effects on ecosystems and livelihoods. The project aims to address these challenges by promoting sustainable fishing practices and improved trawl management. The project will implement activities and produce tangible results in project areas in the participating countries at the same time as working at the national and regional levels to

improve policy and strategic frameworks and create best practices. The project will also promote the implementation of the “International Guidelines on Bycatch Management and Reduction of Discards” (FAO, 2011) and its results will inform related global initiatives on responsible fishing. This will contribute to a more sustainable use of existing fishery resources, protection of marine habitats and ecosystems, and more secure livelihoods.

Accordingly, the Global Environment Objective of the project is to achieve responsible trawl fisheries that result in sustainable fisheries resources and healthy marine ecosystems in the Coral Triangle and Southeast Asian waters by reduced bycatch, discards and fishing impact on biodiversity and the environment. The project Development Objective is Effective public and private sector partnership for improved trawl and bycatch management and practices that support fishery dependent incomes and sustainable livelihoods.

The project is structured around four interrelated components:

1. The *Policy, legal and institutional frameworks component* will work towards the establishment of national or area specific trawl fisheries bycatch management plans and building institutional capacity for their implementation. The need for adequate legislation and regulations to support the implementation of improved management measures will also be addressed. At the regional level, a bycatch policy/strategy will be developed and project countries will be encouraged to adopt the *International Guidelines on Bycatch Management and Reduction of Discards*.
2. The *Resource management and fishing operations component* will lead to the adoption of more selective fishing gear and practices, provide a basis for implementing zoning of fishing areas and developing spatial-temporal closure management measures, and generate better data on number of vessels and recommendations for fishing effort and capacity management. The management measures will be supported by the identification of incentive packages that promote more responsible fishing. The results from this component will inform the regional bycatch policy/strategy and the national and/or area specific trawl fisheries bycatch management plans.
3. The *Information management and communication component* will include bycatch data collection (at landing sites and onboard vessels), mapping of fishing grounds, establishment of socio-economic monitoring procedures, and means for communicating bycatch data and information (website and information, education and communication – IEC – material). Standardized methods for bycatch data collection will be promoted across project countries.
4. The *Awareness and knowledge component* will address the awareness of and knowledge on trawl fisheries bycatch management issues and how they relate to sustainability, and what measures that are available to make fishing more responsible. Private sector/fishers, policy makers, fisheries managers, officials, extension officers and NGOs will be offered training and workshops to enhance their knowledge on best management practices and responsible fisheries.

## 2. Terms of Reference

### 2.1 Definition of Output(s) and/or Outcome(s)

The planned Services for the agreement are listed in Table 1. Note that funds for LoA Services 3-5 (marked with \*) are likely to be short consulting contracts issued directly by FAO. These contracts they are nevertheless essential and linked to this LoA and the tasks of the RFU, and hence included for completeness (i.e. SEAFDEC will contribute to the



development of TOR's, and also have some coordination with the consultants. SEAFDEC will not have responsibility for delivery these consultancy Services). Please note that the below Services in several cases are composites of activities that may belong to more than one Component. Please cross-reference Table 1 with the revised results framework table (Appendix 7 of the Inception Report). Project Output numbers are indicated in parenthesis in the second column of Table 1.

**Table 1. Services under the Letter of Agreement (one year duration, from signing of the Agreement)**

<b>A. Services of the LoA<sup>1</sup></b>	<b>B. Description/content<sup>2</sup></b>	<b>C. Milestones/indicators</b>
1. Regional workshop on workplan of Year I (10-2012)	<ul style="list-style-type: none"> <li>- Agree on detailed, consolidated work plan (O1.1)</li> <li>- Identify selective trawl gear options or alternatives: work plan (O2.1)</li> <li>- Agree on selection criteria for zones and spat/temp closures and translate into project priorities (O2.2)</li> <li>- Clarifying the options for data collection and expected minimum standards for baseline data (O3.1)</li> <li>- Introduction to co-management (O1.4)</li> </ul>	Workshop report including: <ul style="list-style-type: none"> <li>i. Consolidated workplan</li> <li>ii. Priorities for gear modifications identified and trial/development plans agreed</li> <li>iii. Priorities for mapping fishing effort and sensitive areas identified</li> <li>iv. Minimum data requirements for M&amp;E (preliminary)</li> </ul>
2. Regional study visit <sup>3</sup>	Study visit for the new participating countries to learn from the advances/successes in one of the countries that participated in REBYC-I (tentatively Philippines). This will include observation, discussion on lessons learned and exchange of experiences.	A report on the study visit, including country specific annexes from each observer country on the knowledge and experience gained from the study visit and how the knowledge can be applied to national activities and tasks.
3. Desk study on incentives packages*	Comparative study of other regions (O2.4)	Report on study including identification of potential types of incentives packages
4. Review of existing frameworks for managing fishing capacity*	This will be a desk study and will benefit from cooperation with an on-going SEAFDEC initiative (O2.3)	Report including <u>recommended</u> criteria for management of trawl fishing capacity in project areas
5. Policy, legal and inst. review*	Two selected countries (O1.3)	Review report(s)
6. Regional technical workshop	Sessions on: <ul style="list-style-type: none"> <li>- Management needs assessments for selected fisheries/areas (O1.2)</li> <li>- Selective trawl gear (O2.1)</li> <li>- Zonation/fishing areas (O2.2)</li> <li>- Vessel registration systems (O2.3)</li> <li>- Monitoring and data collection</li> </ul>	Workshop report including <ul style="list-style-type: none"> <li>i. Trial/development plans for the gear modifications with the highest potential agreed</li> <li>ii. Criteria for mapping fishing effort and sensitive areas identified and management plans agreed.</li> <li>iii. Criteria for registration of project areas</li> </ul>

<sup>1</sup> The services may be composed of two or more activities belonging to different Project Components; see also column B; \*, indicates that these are assumed to be FAO contracts

<sup>2</sup> (Ox.y) refers to the resp. Outputs in the REBYC II CTI revised results framework, e.g. (O2.1) refers to Output 2.1

<sup>3</sup> The study visit is subject to further discussions and agreement

A. Services of the LoA <sup>1</sup>	B. Description/content <sup>2</sup>	C. Milestones/indicators
	methods and key project indicators (O3.1, O3.2)	trawlers defined iv. ToR's for standard data collection and monitoring for all project countries agreed
7. Dissemination of project results and related information	- Setup and maintenance of project website (O3.3) - Production of IEC materials (O3.4)	i. Website online and kept up to date ii. Dissemination of IEC materials as and when available
8. Training needs assessments	- TNA for fishers and other relevant stakeholders (O4.1) - TNA for Private sector/fisher champions etc. (O4.3)	TNA report
9. Regional Training-cum-Workshop on co-management and locally based approaches to responsible fisheries	Including selective fishing gears and other improved management options/practices (O4.1, O1.4)	Report from the training event
10. Facilitation of national level activities/outputs and consolidation at the regional level	- Provision of technical assistance and administrative inputs through the RFU to the project countries - Participation in missions - Arrange Project Steering Committee meeting	i. Progress report ii. PSC meeting report

## 2.2 Description of Services

SEAFDEC will act as the Executing Agency for this GEF funded project where FAO is the Implementing Agency. The SEAFDEC Training Department will host the Regional Facilitation Unit and provide substantial co-financing to the project (estimated at US\$ 800,000 over 4 years). Generally, the details of the Services are subject to prior review and agreement with FAO (e.g. workshop agendas, TOR's, curriculum of training course).

The partner countries, Indonesia, Philippines Papua New Guinea Thailand and Vietnam, will execute activities at the national level, and separate LoA's will be signed for this purpose.

The following services will be provided under or contribute to the Agreement (International consultants will be contracted directly by FAO. Nevertheless, the studies listed as items 3-5 are essential for the success of the LoA and are listed here for completeness – SEAFDEC are expected to be involved in formulation of TOR's, monitoring of activities and outputs and in approving deliverables):

### 2.2.1 **Regional workshop to agree on workplan of Year 1**

The Regional workshop will be conducted for 4-5 days in the autumn 2012 in Bangkok, Thailand. An important purpose of the workshop will be the integration of the FAO International Guidelines on Bycatch Management and Reduction of Discards as a key element in the project framework. The workshop will focus on the (O1.1) agreeing of detailed work plan of regional and national activities for Year 1, (O2.1) identifying the gear modifications with the highest potential, options and alternatives, (O2.2) establishing selection criteria and recommendations for demarcating fishing zones and areas for spatial-temporal closure (seabed, fishing effort and sensitive areas/ habitats mapping identified, and

(O1.4) introduction on the co-management concept and approach for trawl fisheries bycatch management. The workshop will be attended by 20-25 participants (3 FAO, 5 SEAFDEC, 10 from five participating countries: NPC, NTO, outside consultant/facilitator and other related institution/ organization). The workshop expected outputs are as following: (i) agreement of Year 1 work plan, (ii) preliminary gear modifications identified and trial/development plan agreed, (iii) priority areas and approaches for mapping fishing effort and sensitive areas identified, and (iv) participants' awareness raised regarding the potential importance of the co-management and other possible locally-based concepts and approaches. The agenda for this workshop will be developed by FAO and SEAFDEC (Estimated budget: USD25,000-30,000).

#### **2.2.2 Regional study visit**

A regional study visit to support the start-up of activities, in particular for the countries that did not participate in REBYC I (Papua New Guinea, Thailand and Vietnam) is under consideration. The intention of a study visit would be to support the new participating countries by first hand observation of the experiences in a successful participating country such as those ongoing in the Philippines. This activity is targeting NPC's and NTO's, and it is expected that they will gain information and lesson learned, and to be encouraged to implement their own on-going activities of REBYC-II CTI. The participants will be requested to submit a report of the study visit that will summarise the knowledge and experience they have gained and how the knowledge fits to, or can be applied to their national project activities. The content and timing of the study visit will be further discussed to ensure it is cost effective and would be done in conjunction with other regional activities.

#### **2.2.3 Desk study on incentives package**

This will be a consultancy to provide an analysis of approaches and experiences in relation to incentives in support of management plans in other regions. The ToR will be developed in close cooperation between SEAFDEC and FAO. SEAFDEC and the RFU will have a key role in guiding the outputs of the consultancy. The consultant will be recruited by FAO – and there is no budget allocated under this LoA.

#### **2.2.4 Review of existing frameworks for managing fishing capacity**

This will be a consultancy to review existing frameworks for managing fishing capacity in order to provide recommendation on criteria for managing fishing capacity of project area trawlers. An on-going SEAFDEC initiative already includes an output regarding management of fishing capacity. The ToR will be developed in close cooperation between SEAFDEC and FAO. SEAFDEC and the RFU will have a key role in guiding the outputs of the consultancy. The consultant will be recruited by FAO, but will coordinate with SEAFDEC – there is no budget allocated under this LoA.

#### **2.2.5 Policy, legal and institutional framework reviews and assessments**

The purpose is to assess the changes that will be required to institute a change in the way policies, decisions and institutions interact and recommend suitable modifications to improve the management of trawl fisheries. This will be carried out by national consultancies in the respective countries. In the first year of operation the intention is to cover at least two countries. The ToR will be developed in close cooperation between the national project staff, SEAFDEC and FAO. SEAFDEC will have a key role in backstopping the national agency in the supervision of the consultancy. The consultants will most likely

be recruited at the national level as part of national level activities, otherwise will be directly contracted by FAO.

#### **2.2.6 Regional technical workshop**

The regional technical workshop will be organized in Bangkok, Thailand, tentatively in December 2012. The workshop will focus on the (O2.1) regional and detailed national plans of work on the fishing trials/demonstration of appropriate trawl modifications and BRDs in the participating countries and (O2.2) identification of the selection criteria and recommendations for demarcating fishing zones and areas for spatial-temporal closures (it is expected that such closures will be identified in at least two project areas/countries), and (O2.3) vessel registration systems. The set of reviewed information baseline on the existing vessel registry system in the SEA will be introduced and the criteria for registration of trawlers in project areas will be defined. There will be about 20-25 participants (3 FAO, 5 SEAFDEC, 10 from five participating countries: NTO's and relevant technical staff, outside consultant/facilitator and other related institutions/organizations, including the private sector). The expected workshop outputs are as following: potential gear modifications/alternatives to be used in the participating countries identified, the work plan for the trials/demonstration of appropriate trawl gear and BRDs agreed, and participants introduced to existing vessel registry systems, with a view to define and agree on criteria for registration of trawlers in the project areas. Another key output will be an M&E framework, including agreement on indicators and related data collection (Estimated budget: USD 25,000-30,000)

#### **2.2.7 Dissemination of project results and related information**

SEAFDEC will develop and maintain a project website where relevant information will be published, including project documents, reports, tool kits/methodologies and news items. The website will be hosted by [www.hostgator.com](http://www.hostgator.com) at an annual cost of US\$ 160. As IEC materials are prepared, SEAFDEC will arrange to disseminate these in suitable formats.

#### **2.2.8 Training needs assessments**

SEAFDEC will carry out training needs assessments for 1) fishers and other relevant stakeholders including government officials and 2) for the private sector/fisher champions. The target for TNA no. 1 is a general training focusing on sustainability coupled institutional issues (i.e. why bycatch reduction is necessary and beneficial, and how it may be implemented) as well as how to communicate this to policy makers. For TNA no. 2 the focus is on the technical options to achieve more sustainable trawl fisheries (i.e. how bycatch reduction can be achieved through technological change or other management measures, but will also include institutional issues) and how this can be communicated to fishers. To institute change it is necessary to ensure that policy and decision makers are made aware of the benefits of, and approaches to bycatch reduction. As part of this TNA activity, SEAFDEC will actively look for opportunities to sensitize high-level officials to the outcomes of the project. This may be through the projects regular activities and in cooperation with e.g. the fishing industry and NGO's. The TOR for the TNA will be developed in close dialogue with FAO.

#### **2.2.9 Regional Training-cum-Workshop on co-management (including local/community based approaches to responsible fisheries), selective fishing gears and other practices**

A regional "training for the trainers" course/workshop will be conducted at SEAFDEC/TD for about 10 days, tentatively in May 2013. The course will focus on fisheries management

including the concept of responsible fisheries and selective fishing gears and practices (BRDs/JTEDs and others), the need to change the management approach towards co-management and locally-based approaches (participatory management), and effective tools and methods to assist the technical officers and extension officers who are expected to work as the trainers and expand the skills and knowledge in their countries on the responsible fisheries and selective fishing gears and practices and onwork planning, monitoring and evaluation. Study trips to communities and fishing villages and familiarization with pilot projects which are applying the co-management and locally-based approach to the fisheries management will be planned/conducted during this training course. The course will give opportunity to participants to learn from experience and lessons learnt in other sites and/or projects through discussion and interaction with project officers, local institutions, communities and fishermen. Opportunities for cooperation with other initiatives will be sought, e.g. the World Bank financed ICZM programme in Vietnam. The curriculum for the training will build upon the results of the TNA (service no. 9, above). The selection of trainers and the content of the training package(s) will be subject to prior review and agreement by FAO. Further, the training materials will subsequently be made available for downloading on the REBYC-II CTI website.

### 2.2.10 Facilitation of national level activities/outputs and consolidation at the regional level

This is the core function of the RFU, and will involve coordination of agreed activities and outputs. The RFU will support the participating countries in the implementation of national activities by facilitating exchange of experiences and provision of advice to address technical as well as institutional issues. The lessons from the national level activities will be consolidated and packaged for project use and for dissemination to third parties. SEAFDEC will also arrange and host the first Steering Committee Meeting that is expected to take place during the current Agreement period.

### 2.3 Work plan and Timeframe (Duration)

The Agreement will enter into force upon signature by both parties with a total duration of 12 Months. Figure 1 shows the draft time plan for the services for year 1.

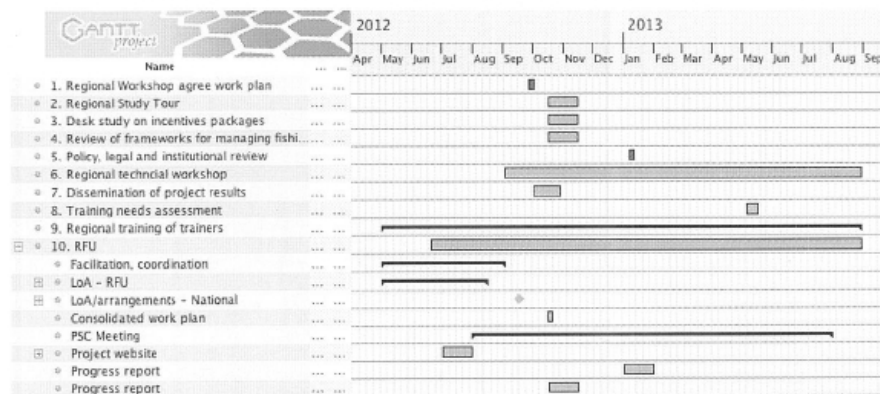


Figure 1. Indicative time plan for services

Progress with other project activities and outputs outside the direct control of SEAFDEC that may influence overall time frame include:

- Planning and preparations at the national level
- Timing of consultancies
- Implementation of activities at the national level

In the event of delays SEAFDEC will provide formal written notification documenting reason(s) for delay(s), request for and justification to extend LoA duration, etc. Any amendments to this Agreement shall be effected in any case only on the basis of written mutual consent by the Parties.

#### 2.4 Monitoring Mechanisms and Reporting Requirements

SEAFDEC will provide:

1. A workshop report following the Regional workshop to agree on work plan of Year 1, planned to be held in October 2012, including a consolidated work plan.
2. A report on the regional study tour (provided that the study tour is funded)
3. A workshop report following the technical workshop, planned to be held in December 2012
4. Training Needs Assessment report(s) relating to project Outputs 4.1 and 4.3.
5. Report from training of trainers, planned for May 2013
6. Website on-line (and maintained)
7. Promotion materials
8. A report of the 1<sup>st</sup> Steering Committee Meeting
9. A final report within 30 days following the completion of the Services under the LoA

The above deliverables will be subject to assessment and technical clearance by FAO.

### 3. **Inputs to be provided free of charge by SEAFDEC**

#### 3.1 List of Inputs

<b>Inputs to be provided</b>	<b>Comments</b>
Project Regional Coordinator	The PRC will be recruited by SEAFDEC under an agreement with GiZ whereby the honorarium is fully covered by the project and GiZ (hence only an in-kind cost for SEAFDEC)
Project Technical Advisor (PTA)	Full time, seconded from SEAFDEC
Regional Administrative Officer	Full time, seconded from SEAFDEC (partly financed by the project)
Technical staff and training specialists	Part-time, in accordance with work plan
Web-master	Part-time, in accordance with work plan
Office space for the RFU	Including utilities such as electricity and internet
Meeting rooms	Including training facilities
Audio-visual production specialists	Part-time, in accordance with work plan
Use of AV equipment	As required, according to work plan

Vehicle including drivers for local transport	In accordance with work plan (for training, workshops and field trips carried out in Thailand)
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### 3.2 Timing of Inputs

Appropriate, timely and sufficient human resources are essential to complete the Outputs of the Agreement. Especially critical is the full-time Project Technical Adviser and the Regional Administrative Assistant, without which the RFU will not function as intended. The PRC, although fully funded by external resources (GEF and GIZ), will be on a contract with SEAFDEC.

Other important inputs include technical experts on e.g. gear technology and co-management, whose inputs will be detailed in the consolidated work plan, and the webmaster.

The timing of inputs will be determined by the consolidated work plan that will be completed at the regional workshop planned for October, and subsequently endorsed by the Project Steering Committee.

In case required inputs are not provided in a timely manner, potential actions are described in the Letter of Agreement.

## 4. **Detailed budget**

The budget (Table 2) is based on cost-rates established by SEAFDEC. Travel costs between the project countries and Thailand were obtained and used to arrive at a representative unit cost. In the case of workshops and training events it was assumed that these would take place in Thailand.

The foreseen disbursement of funds will be as determined follows: maximum 30% upon signature, 25% following approval of the report of the Workshop to agree on the workplan, 25% following the approved report from the SCM, and minimum 20% following the approved final report.

In addition to the budget (Table 2), FAO will manage part of the GEF funds for purposes that will be interdependent with SEAFDEC Services under this LoA, in particular under the following budget codes:

- 5570 – Consultants
- 5650 – Contracts
- 6100 – Non-expendable equipment

The RFU will be directly involved in formulating associated ToR's, monitoring of activities and outputs and approval of deliverables. The non-expendable equipment is principally to enable the operation of the office of Regional Facilitation Unit. For additional information please refer to the REBYC-II CTI Project Document.

**Table 2. Budget for the LoA with SEAFDEC, covering one year of operation**

Code Description	Unit	Unit cost	Quantity	GEF funding	Baby*	Comments
5550 Salaries General Service						
Regional Administrative Assistant	pm	500	3	1,500	5	
Regional temporary assistance	pm	300	4	1,200	1-4	
<b>Subtotal</b>				<b>2,700</b>		
5900 Travel						
Regional travel staff/consultants	Trips	2,000	20	40,000	1-4	
Regional non-project staff	Workshop	22,000	2	44,000	1-4	
Regional non-project staff	SCM	15,000	1	15,000	1-4	
Regional non-project staff	Training	22,000	1	22,000	1-4	
<b>Subtotal</b>				<b>121,000</b>		
5920 Workshops						
Regional workshops	Workshops	4,000	2	8,000	1-4	
Steering Committee Meeting	SCM	2,500	1	2,500	1-4	
<b>Subtotal</b>				<b>10,500</b>		
5920 Training						
Regional training courses	Event	15,000	1	15,000	1	
Regional study tours/field trips	Event	12,500	1	*	1	
<b>Subtotal</b>				<b>15,000</b>		
6000 Expendable equipment						
Miscellaneous office supplies	Lump sum	2,000		2,000	5	
Miscellaneous field supplies	Lump sum	5,000		5,000	5	
<b>Subtotal</b>				<b>7,000</b>		
6300 General operating expenses						
Brochures, leaflets, videos and other communication material	Lump sum	4,000		4,000	4	Few materials y1
PR material	Lump sum	3,000		3,000	4	Few materials y1
Website	Lump sum	1,000		1,000	4	Web host and software
Miscellaneous operating expenses	Lump sum	4,000		4,000	5	
<b>Subtotal</b>				<b>12,000</b>		
<b>TOTAL</b>				<b>168,200</b>		

\*, the inclusion of "Regional study tours/field trips" is subject to further discussion and final decision, and would require an addendum to the LoA.

## 5. Responsible Officer

Mr. *Petri Suuronen*, Fishery Industry Officer, Fishing Operations and Technology Service (FIRO), Viale delle Terme di Caracalla, 00153 Rome, Email [petri.suuronen@fao.org](mailto:petri.suuronen@fao.org), has been designated to manage and monitor the proper implementation of the Agreement on behalf of FAO and to certify to the Budget Holder that the terms of the Agreement have been satisfactorily met and that appropriate payments can be made.

*Petri Suuronen* will monitor the progress of the project and will be the recipient in FAO HQ of the required reports.



**6. Reimbursements**

SEAFDEC will reimburse any overpayments that may have been effected or excess funds, which may remain after completion of the services after submission of the final reports.

**7. Any other relevant information**

To be included here

**REVISED RESULTS FRAMEWORK**

## REVISED RESULTS FRAMEWORK

Impact	Baseline (2010)	Outcomes and outcome indicators
<p><u>Global Environment</u> <u>Objective (GEO):</u> Responsible trawl fisheries that result in sustainable fisheries resources and healthy marine ecosystems in the Coral Triangle and Southeast Asian waters by reduced bycatch, discards and fishing impact on biodiversity and the environment</p>	<p>No regional policy or strategy for trawl fisheries bycatch management but overall regional commitment to sustainable fisheries.</p> <p>Ineffective trawl fisheries management, in particular with regard to bycatch. Where management and regulatory frameworks exist that are specific to trawl fisheries and bycatch (Gulf of Papua Trawl Fisheries Management Plan/Papua New Guinea; draft Fisheries Administrative Order on JTEDs/Philippines; Master Plan for Marine Fisheries/Thailand), provisions are general, focus on turtles and/or not implemented.</p> <p>Limited data on bycatch composition and volumes and the potential impact of trawl fishing on bottom habitats.</p> <p>Inadequate knowledge and awareness of responsible trawl fishing and the measures available for improving management and supporting sustainability.</p>	<p>Agreed regional bycatch policy/strategy is adopted by at least one relevant organization in the project region<sup>1</sup> and national or area specific trawl fisheries bycatch management plans<sup>2</sup> are adopted covering at least a third of all trawlers in the project countries<sup>3</sup>.</p> <p>Measures that manage bycatch and reduce discards, and thereby improve fisheries resources, are implemented for 25% of all trawlers in the project countries. In these fisheries (covered by improved bycatch management measures), bycatch has been reduced by 20% compared to baseline data in year 1 of the project<sup>4</sup>.</p> <p>Standardized data on at least 3 key bycatch and habitat indicators are available in all project countries and inform trawl fisheries and bycatch management planning and implementation at national and regional levels.</p> <p>Enhanced understanding of responsible fishing by private sector/fishers, fisheries managers and decision-makers are supporting participatory management arrangements in all project countries.</p>
<p><u>Project Development</u> <u>Objective (PDO):</u> Effective public and private sector partnership for improved trawl and bycatch management and practices that support fishery dependent incomes and sustainable livelihoods</p>	<p>Management responsibilities for coastal resources are increasingly being decentralized to local governments and collaborative management arrangements are generally being encouraged in project countries. However, capacities for and systematic approaches to management planning and implementation are lacking.</p> <p>Little or no data and information available on bycatch and its importance for incomes and livelihoods.</p>	<p>Institutional arrangements and processes for public and private sector partnerships are in place and supporting trawl fisheries bycatch management in all project countries.</p> <p>The role of bycatch in trawl profitability is understood and measures for how to ensure long-term economic sustainability of trawl fisheries are identified and incorporated into trawl fisheries bycatch management plans in all project countries.</p> <p>Incentives for trawl operators to reduce bycatch are defined and implemented in all project countries and best practices communicated within relevant regional frameworks.</p>

<sup>1</sup>The project region implies the project countries as well as neighboring countries in the Coral Triangle and Southeast Asia region.

<sup>2</sup>A “trawl fisheries bycatch management plan” is understood to be an agreed framework for implementing trawl fisheries management and bycatch reduction measures, including for reduced impact on bottom habitats. This could be, for example, a fishery specific management plan that includes provisions for bycatch and discards, a national regulation or decree on bycatch and discards management applicable more widely, or a local government regulation/management rule that applies to fisheries in a specific region. The appropriate framework will depend on the country and case specific circumstances and can also be a combination of different provisions as long as the overall result provides the necessary policy, legal and institutional provisions for trawl fisheries bycatch management implementation.

<sup>3</sup>The project countries are Indonesia, Papua New Guinea, Philippines, Thailand and Vietnam.

<sup>4</sup>Baseline data will also include clear definition of what type of bycatch the reduction refers to.

Intermediate outcomes	Intermediate outcome indicators	Assumptions	Use of intermediate outcome monitoring
<b>Component 1: Policy, legal and institutional frameworks</b>			
Regional bycatch priorities agreed and bycatch management plans for trawl fisheries in project areas <sup>5</sup> are established and supported by appropriate legislation and institutional arrangements for public and private sector collaboration.	<p>Project partners (countries and SEAFDEC) have agreed on regional bycatch priorities that are in line with the principles of the International Guidelines on Bycatch Management and Reduction of Discards (FAO) and these have been formally presented to the SEAFDEC membership and other relevant regional organizations.</p> <p>At least 40% of all selected trawl fisheries in project areas are covered by comprehensive trawl fisheries bycatch management plans.</p> <p>Institutional arrangements and processes for public and private sector collaboration on management are in place and the trawl fisheries bycatch management plans have been formally approved by representatives from central and local governments and the private sector/fishers.</p>	<p>Political support for regional bycatch policy/strategy.</p> <p>Buy-in from all concerned stakeholders (private sector/fishers, fisheries managers, local governments, etc) to the need for trawl fisheries bycatch management.</p> <p>Capacity available to develop and subsequently implement trawl fisheries bycatch management plans.</p>	<p><u>Year 1 and 2:</u> Assess the level of agreement among countries on regional bycatch policy/strategy contents and priorities, and provide more opportunities for experience sharing/learning/discussions if required. Assess the need for changes in policy, legal and institutional frameworks to support trawl fisheries bycatch management plans and include activities accordingly in years 3-4.</p> <p><u>Year 3:</u> Draft regional bycatch policy/strategy and draft bycatch management plans for trawl fisheries in project areas should be available.</p> <p><u>Midterm review:</u> Assess level of agreement on regional bycatch policy/strategy and interest of relevant regional organizations to adopt. Review progress on establishing trawl fisheries bycatch management plans and suggest solutions/actions for possible barriers/bottlenecks.</p>
<b>Component 2: Resource management and fishing operations</b>			
<p>Management measures, including environmentally friendly fishing gears and practices that reduce bycatch, discards and the impact on biodiversity and the environment, are identified, developed and adapted project areas.</p> <p>Incentives for trawl operators to reduce bycatch are defined in the project areas.</p>	<p>At least one gear modification (e.g. mesh size and/or BRD application, or alternative gear) is developed, tested and agreed appropriate with private sector/fishers, or at least one additional management measure (for example, closed areas/seasons or general effort restrictions) identified and included in the trawl fisheries bycatch management plans. Testing and analysis of these gear modifications/management measures show that they can reduce bycatch by at least 20% (for defined bycatch components and compared with baseline data in Year 1 of the project).</p> <p>Trawl private sector/fishers in project areas have agreed to at least one type of positive incentive in relation to changes in trawl fisheries bycatch management (e.g. reduced – fuel or labour – costs, and/or market based incentives such as price premiums or niche markets).</p>	<p>Private sector/fishers are willing to participate and appreciate the long-term benefits of more responsible fishing over short-term impacts.</p> <p>Monitoring, control and surveillance (MCS) and enforcement structures are in place supporting implementation of management measures.</p> <p>Incentives for applying responsible fishing are available and feasible to implement in project areas.</p>	<p><u>Year 1:</u> Assess the progress on identifying possible management measure solutions and ensure that plans for testing and developing more selective gear in collaboration with private sector/fishers in years 2 and 3 are in place.</p> <p><u>Year 2:</u> Evaluate the possibilities of incentives for more responsible fishing and make plans for incentive package implementation in years 3 and 4 accordingly.</p> <p><u>Year 3:</u> Assess progress towards having recommended management measures and incentive packages finalized and ensure their inclusion in trawl fisheries bycatch management plans.</p> <p><u>Midterm review:</u> Assess coherence between draft trawl fisheries bycatch management plans and recommended gear modifications/management measures and incentive packages. Evaluate threats and opportunities for their implementation and propose supporting activities as required. Make recommendations for how project results can be reflected in regional bycatch policy/strategy.</p>

<sup>5</sup>The project areas include selected geographic regions and trawl fisheries in each project country.

Intermediate outcomes	Intermediate outcome indicators	Assumptions	Use of intermediate outcome monitoring
<b>Component 3: Information management and communication</b>			
<p>Improved data on bycatch and potential fishing ground impact information – collected through standardized methods across all project countries – are available from project areas and inform national/specific area trawl fisheries bycatch management plans.</p> <p>The role of bycatch in trawl profitability is understood and measures identified for how to ensure long-term economic sustainability of trawl fisheries in the project areas.</p>	<p>Basic bycatch and discards data (e.g. total catch composition by main species/species groups, share of low-value and trash fish in total catch, incidence of turtle or similar catches, discards, etc) are available for at least half of all trawl fisheries in project areas.</p> <p>Maps of trawl fishing grounds indicating seabed types and critical bottom habitats available for at least two trawl fisheries in the project areas.</p> <p>Data are available on bycatch values (and its relative share in total revenues) and utilization for all trawl fisheries in project areas.</p> <p>At least 3 indicators, critical for trawl fisheries bycatch management, are identified and processes established for collecting the related data on a regular basis.</p> <p>Project communication material is available and distributed in the project region.</p>	<p>Private sector/fishers are willing to share information and IUU fishing does not influence the completeness or distort data.</p> <p>Enforcement mechanisms are in place and effective for data related regulations (log book etc).</p>	<p><u>Year 1:</u> Assess progress on identifying key data needs and indicators and related data sources and collection methods. Adjust work plans for years 2-4 accordingly as required.</p> <p><u>Year 2 and 3:</u> Assess progress on data collection, verify suitability and cost-effectiveness of methods and choice of indicators and, if needed, adjust the scope and processes for future data collection.</p> <p><u>Midterm review:</u> Review progress on data collection and the feasibility to make processes permanent. Compare data and indicators across countries and evaluate their regional relevance. Assess the relevance of existing communication material and channels. Make recommendations for how to turn project results into best practice for project countries and region (to be reflected in regional bycatch policy/strategy).</p>
<b>Component 4: Awareness and knowledge</b>			
<p>Private sector/fishers, fisheries managers, local governments and other stakeholders have better knowledge on bycatch issues and participate in developing and implementing national/specific area bycatch management plans.</p>	<p>Trawl fisheries bycatch management plans have been developed in consultation with key stakeholders.</p> <p>Higher degree of agreement by fishers to existing regulations.</p>	<p>Increased awareness and improved knowledge can be turned into positive action leading to reduced bycatch and fishing impact.</p> <p>Private sector/fishers are willing and have the time and capacity to work with the project.</p>	<p><u>Year 1:</u> Assess needs for awareness raising, training and capacity building. Design activities accordingly to be implemented in years 2-4.</p> <p><u>Year 2 and 3:</u> Assess progress of awareness and capacity building activities and compare results with expectations. Adjust future activities accordingly as required.</p> <p><u>Midterm review:</u> Review impact of capacity building activities and assess if capacities created are likely to be sufficient for stakeholders to participate in management planning and implementation. Propose corrective actions as required.</p>

**Arrangements for Results Monitoring**

	Target Values				Data Collection and Reporting	
	Baseline	Year 1	Year 2	Year 3	Data Collection Instruments, Frequency and Reports	Responsibility for Data Collection
<b>Component 1: Policy, legal and institutional frameworks</b>						
<b><u>Outputs and targets Year 4 (end of Project):</u></b>						
1.1 The International Guidelines on Bycatch Management and Reduction of Discards recognised by all five project countries and regional bycatch priorities agreed by project partners and presented in published policy/strategy document.	No regional bycatch policy/strategy.	Regional workshop agreeing on intention and work plan.	Draft priorities available.	Draft regional policy/strategy available.	Project website and project reports	Project staff and national counterpart in collaboration with FAO, SEAFDEC and other partners well as relevant stakeholder representatives.
1.2 At least 3 national or area specific trawl fisheries bycatch management plans in the project areas agreed by stakeholders and adopted by relevant authorities.	Elements of relevant management frameworks exist but no comprehensive approach.	Management needs assessment for each fishery/area.	At least 2 draft trawl fisheries bycatch management plans.	2 of 3 draft plans adopted.	Plan documents and meeting minutes	
1.3 Policy, legal and institutional frameworks relevant for trawl fisheries bycatch management reviewed and recommendations for adjustments developed with and agreed in principle by the competent national authorities.	Some relevant regulations exist but not always sufficient and/or implemented.	Policy, legal and institutional framework reviews and assessments completed in 2 project countries.	Policy, legal and institutional framework reviews completed in all project countries.	Recommendations agreed in all project countries.	Project report and meeting (with government) minutes	
1.4 Institutional arrangements (Management Councils) for collaborative trawl fisheries bycatch management established and functioning in accordance with agreed bycatch management plans (output 1.2) in project fisheries/areas in all countries.	Co-management arrangements regrouping different stakeholders exist in some project areas but inadequate capacities.	Temporary consultative groups for project management and stakeholder participation set up. Stakeholder analyses and institutional assessments completed for all project fisheries/areas.	Rules, action plans, membership rules and other institutional definitions drafted for all project fisheries/areas.	Institutional arrangement set up and functioning for 2 out of 5 project fisheries/areas.	Project report and meeting (of collaborative management group) minutes	

	Baseline	Target Values	Data Collection and Reporting	
		Year 4 End of Project	Data Collection Instruments, Frequency and Reports	Responsibility for Data Collection
<b>Component 1: Policy, legal and institutional frameworks - CONTINUED</b>				
<b><u>Intermediate outcomes:</u></b>				
Regional bycatch priorities agreed and bycatch management plans for trawl fisheries in project areas are established and supported by appropriate legislation and institutional arrangements for public and private sector collaboration.		<p>Project partners (countries and SEAFDEC) have agreed on regional bycatch priorities and these have been formally presented to the SEAFDEC membership and other relevant regional organizations.</p> <p>All selected trawl fisheries in project areas are covered by comprehensive trawl fisheries bycatch management plans.</p> <p>Institutional arrangements and processes for public and private sector collaboration on management are in place and the trawl fisheries bycatch management plans have been formally approved by representatives from central and local governments and the private sector/fishers.</p>		
<b><u>Outcome:</u></b>				
Agreed regional bycatch policy/strategy and national or area specific trawl fisheries bycatch management plans that are in line with the International Guidelines on Bycatch Management and Reduction of Discards are adopted and supported by institutional arrangements and processes for public and private sector partnerships.	<p>No regional policy or strategy for trawl fisheries bycatch management but overall regional commitment to sustainable fisheries.</p> <p>Management responsibilities for coastal resources are increasingly being decentralized to local governments and collaborative management arrangements are generally being encouraged in project countries. However, capacities for and systematic approaches to management planning and implementation are lacking.</p>	Regional policy and strategy are adopted by at least one relevant regional organization. National and area specific plans cover at least a third of all trawlers in the project countries and have been agreed by representatives for public and private sector stakeholders.		

	Baseline	Target Values			Data Collection and Reporting	
		Year 1	Year 2	Year 3	Data Collection Instruments, Frequency and Reports	Responsibility for Data Collection
<b>Component 2: Resource management and fishing operations</b>						
<b><u>Outputs and targets Year 4 (end of Project):</u></b>						
2.1 More selective trawl gear and/or alternative (e.g. including actions in 2.2 and/or 2.3) fishing practices used by at least half of the trawlers in project areas.	Some gear regulations exist but poorly implemented and not comprehensive.	Potential gear modifications identified and trial/development work plan drawn up.	Trials have led to selection of suitable gear modifications onboard test vessels.	Modified gear introduced to all trawlers in the selected project areas through demonstrations and training.	Project report. Onboard observations.	Project staff and national counterpart in collaboration with FAO, SEAFDEC and other partners well as relevant stakeholder representatives.
2.2 Selection criteria and recommendations for demarcating fishing zones and areas for spatial-temporal closures are identified in at least 2 project areas/countries (see also output 3.1)	Inshore waters are often reserved for small-scale fisheries but limited use of other spatial-temporal closures.	Priorities for mapping fishing effort and sensitive areas identified.	Maps of fishing effort distribution and location of sensitive areas (such as spawning and nursery grounds) are developed for at least 2 of the project areas/countries.	Recommendations for spatial-temporal closures agreed by project partners and presented to competent authorities for at least 2 project areas/countries.	Maps (GIS/on project website). project reports.	
2.3 Inventory of selected trawl fleets in project areas drawn up and recommendations for fishing effort and capacity management strategy communicated to competent national authorities.	Number of larger vessels often known but small-scale sector is poorly monitored.	Existing vessel registry systems reviewed and criteria for registration of project areas trawlers defined.	50% of all trawlers of selected fleets in project areas included in inventory. Draft recommendations for capacity management agreed with private sector/fishers and other stakeholders in half of the project fisheries/areas.	75% of all trawlers of selected fleets in project areas included in inventory. Draft recommendations for capacity management agreed with private sector/fishers and other stakeholders in all project fisheries/areas.	Vessel inventory. Project reports. Meeting minutes.	
2.4 Agreement has been reached on appropriate incentive packages for all trawl fisheries in project areas.	No or limited information on potential positive incentives.	Potential types of incentive packages identified through desk study of other fisheries/regions.	SWOT analysis and feasibility analyses completed for all project fisheries/areas.	Incentive packages for achieving Outputs 2.1, 2.2 and 2.3 have been identified.	Project reports.	



	Baseline	Target Values	Data Collection and Reporting	
		Year 4 End of Project	Data Collection Instruments, Frequency and Reports	Responsibility for Data Collection
<b>Component 2: Resource management and fishing operations - CONTINUED</b>				
<b><u>Intermediate outcomes:</u></b>				
Management measures, including environmentally friendly fishing gears and practices that reduce bycatch, discards and the impact on biodiversity and the environment, are identified, developed and adapted in project areas.		At least one gear modification (e.g. mesh size and/or BRD application, or alternative gear) is developed, tested and agreed appropriate with private sector/fishers, and at least one additional management measure (for example, closed areas/seasons or general effort restrictions) identified and included in the trawl fisheries bycatch management plans. Testing and analysis of these gear modifications/management measures show that they can reduce bycatch by at least 20% (for defined bycatch components and compared with baseline data in Year 1 of the project).		
Incentives for trawl operators to reduce bycatch are defined in the project areas.		Trawl private sector/fishers in project areas are benefiting from at least one type of positive incentive in relation to changes in trawl fisheries bycatch management (e.g. reduced – fuel or labour – costs, and/or market based incentives such as price premiums or niche markets).		
<b><u>Outcome:</u></b>				
Measures that manage bycatch and reduce discards, and thereby improve fisheries resources and ensure long-term economic sustainability of trawl fisheries, are implemented in combination with incentives in all project countries,. In these fisheries (covered by improved bycatch management measures), bycatch has been reduced.	Ineffective trawl fisheries management, in particular with regard to bycatch. Where management frameworks exist that are specific to trawl fisheries and bycatch (Gulf of Papua Trawl Fisheries Management Plan/Papua New Guinea; draft Fisheries Administrative Order on JTEDs/Philippines; Master Plan for Marine Fisheries/Thailand), provisions are general, focus on turtles and/or not implemented.	Improved management measures are implemented for at least 25% of all trawlers in the project countries.  Bycatch of selected fleets reduced by 20% compared to baseline data in year 1 of the project <sup>1</sup> .		

<sup>1</sup>Baseline data will also include clear definition of what type of bycatch the reduction refers to.

	Baseline	Target Values			Data Collection and Reporting	
		Year 1	Year 2	Year 3	Data Collection Instruments, Frequency and Reports	Responsibility for Data Collection
<b>Component 3: Information management and communication</b>						
<b>Outputs and targets Year 4 (end of Project):</b>						
3.1 Data and data collection methods for bycatch, discards and seabed impact in project areas available and published in relevant national and regional information systems(see also output 2.2).	Limited data available.	TOR for data collection drawn up and standardized methods for all project countries (observer programs, logbook systems, landing site surveys, mapping of fishing grounds) agreed with project partners/ stakeholders.	Data collected from sample trawlers.	Number of trawlers in sample doubled, data collected and analyzed. Standardized data collection methods agreed by project countries.	Published report. At the end of project: Project website.	Project staff and national counterpart in collaboration with FAO, SEAFDEC and other partners well as relevant stakeholder representatives.
3.2 System set up for monitoring of bycatch reduction (volume) as a result of modified gear and improved management and its likely impact on incomes (bycatch value).	No monitoring system.	Key indicators identified and baseline data collected from sample trawlers/fishers.	Design of monitoring system and data collection processes.	Report on likely impacts based on sample trawler information and including recommendations for continued monitoring.	Project report.	
3.3 Project website set up in Year 1 and developed into a regional information sharing mechanism for information on trawl fisheries bycatch management by end of project.	No website or mechanism for regional bycatch data.	Website functional.			Website. User survey.	
3.4 Project IEC material available.	Some relevant IEC material available from SEAFDEC and from REBYC I.	Initial IEC material produced and distributed.		IEC material based on lessons learnt and project results produced and distributed in the project region.	IEC material.	

	Baseline	Target Values	Data Collection and Reporting	
		Year 4 End of Project	Data Collection Instruments, Frequency and Reports	Responsibility for Data Collection
<b>Component 3: Information management and communication – CONTINUED</b>				
<b><u>Intermediate outcomes:</u></b>				
Improved data on bycatch and potential fishing ground impact information – collected through standardized methods across all project countries – are available from project areas and inform national/specific area trawl fisheries bycatch management plans.		<p>Basic bycatch and discards data (e.g. total catch composition by main species/species groups, share of low-value and trash fish in total catch, incidence of turtle or similar catches, discards, etc) are available for at least half of all trawl fisheries in project areas and methods developed for their collection. Trawl fishing grounds data indicating seabed types and critical bottom habitats available for at least 2 of the project areas/countries.</p> <p>Data are available on bycatch values (and its relative share in total revenues) and utilization for all trawl fisheries in project areas.</p> <p>At least 3 indicators, critical for trawl fisheries bycatch management, are identified and processes established for collecting the related data on a regular basis.</p>		
The role of bycatch in trawl profitability is understood and measures identified for how to ensure long-term economic sustainability of trawl fisheries in the project areas.				
<b><u>Outcome:</u></b>				
Standardized data for key indicators, including on economic performance, are available in all project countries and inform trawl fisheries and bycatch management planning and implementation at national and regional levels.	<p>Limited data on bycatch composition and volumes and the potential impact of trawl fishing on bottom habitats.</p> <p>Little or no data and information available on bycatch and its importance for incomes and livelihoods.</p>	Data available for at least 3 indicators and lessons learnt reflected in regional bycatch policy/strategy.		

	Baseline	Target Values			Data Collection and Reporting	
		Year 1	Year 2	Year 3	Data Collection Instruments, Frequency and Reports	Responsibility for Data Collection
<b>Component 4: Awareness and knowledge</b>						
<b><u>Outputs and targets Year 4 (end of Project):</u></b>						
4.1 Fishers and other relevant stakeholders (fisheries managers, local government officials, etc) in project areas have improved their knowledge on bycatch, sustainability issues and collaborative management through training, project information and/or participation in project activities.	Limited knowledge and hence inadequate fisheries management capacities.	Training needs assessment completed.	20 persons trained in each project country.	Additional 20 persons trained in each project country (total 40). An additional 30 persons will have benefited from study tours and participation in project activities.	Project reports. Verification in the field.	Project staff and national counterpart in collaboration with FAO, SEAFDEC and other partners well as relevant stakeholder representatives.
4.2 Regional and national policy and decision-makers have been sensitized with regard to responsible trawl fisheries management through project information and workshops.	While responsible fishing practices generally are on the political agenda, the specific issues with regard to trawl fisheries bycatch management are less well known.	20 participants from the project region have been sensitized about trawl fisheries bycatch management and the project.			Workshop reports.	
4.3 Private sector/fisher 'champions', technical officers and extension workers (government and NGOs) have improved their knowledge on BRDs and other management measures through training (250 persons trained).	Insufficient technical knowledge on available management solutions.	Training needs assessment completed.	20 persons trained in each project country.	Additional 20 persons trained in each project country (total 40).	Project reports.	

	Baseline	Target Values		Data Collection and Reporting	
		Year 4 End of Project		Data Collection Instruments, Frequency and Reports	Responsibility for Data Collection
<b>Component 4: Awareness and knowledge – CONTINUED</b>					
<b><u>Intermediate outcomes:</u></b>					
Private sector/fishers, fisheries managers, local governments and other stakeholders have better knowledge on bycatch issues and participate in developing and implementing national/specific area bycatch management plans.		Trawl fisheries bycatch management plans have been developed in consultation with key stakeholders.  Higher degree of agreement by fishers to existing regulations.			
<b><u>Outcome:</u></b>					
Enhanced knowledge and understanding of responsible fishing by private sector/fishers, fisheries managers and decision-makers are supporting participatory management arrangements in all project countries.	Inadequate knowledge and awareness of responsible trawl fishing management and the measures available for improving management and supporting sustainability	Enhanced capacity and improved awareness in all project countries.			

**DETAILED COMMENTS BY ACTIVITY FOR THE SIX  
EXECUTING PROJECT PARTNERS: RFU, Indonesia, Papua New  
Guinea, Philippines, Thailand and Vietnam**

**Detailed comments by activity for the six executing project partners: RFU, Indonesia, Papua New Guinea, Philippines, Thailand and Vietnam**

**Regional Facilitation Unit**

Act No.	Description	Comments and insights for integration into the revised results framework
Act. 1	Regional Workshop on Work Plan Year I	Completed
Act. 2	Regional Study Visit	Philippines would cooperate with the RFU should be country be chosen as the site for the Regional Study Visit This activity will set a scene to get to the next level especially for new countries participating in the Project The new participating countries of REBYC-II could learn experiences from the Philippines, by conducting study visit to the country to observe how they manage and implement the regulations enacted with the involvement of stakeholders The study visit could be linked with the regional training-cum-workshop in Act. 9
Act. 3	Desk Study on Incentive Packages	Each participating country should conduct roundtable discussions on this, and should be a priority agenda as this will need government support or privilege access, especially that in most cases, incentives could come in terms of economic benefits This should be one main components of the regional project
Act. 4	Review of existing managing fishing capacity framework	RFU to seek support from the participating countries
Act. 5	Policy, legal and institutional review	All participating countries will be covered later, but only two in Year 1
Act. 6	Regional technical workshop - mapping, information and data requirements	Standardizing data collection and monitoring systems should be implemented as soon as possible since the countries will be implementing data collection as part of their activities as early as January 2013, to give enough time for briefing concerned staff who will be involved in the activity Developing a standard format for data collection should be a priority activity of the project For national data collection, needs the framework since there is a need for harmonization of systems RFU to consider developing regional guidelines to reduce the bycatch to help the participating countries in developing their national frameworks
Act. 6		Review the issues during the development of

Act No.	Description	Comments and insights for integration into the revised results framework
(Cont.)		<p>the guidelines</p> <p>The regional Guidelines should be in accordance with the framework of the International Guidelines</p> <p>The Workshop could emphasize not only on the technical aspects but rather more on the concepts and the importance of involving the stakeholders, could be the same forum in Act. 9.</p> <p>Need to have clear objectives of the Workshop</p> <p>Could combine the workshop with some national activities to save resources.</p> <p>Need for minimum data requirements to guide data collection</p> <p>Could be scheduled in 2013 but it could be combined with the International Council for the Exploration of the Sea (ICES)-FTFP to save on time and resources (back to back) but needs to finalize in May 2013 including signing of LOA</p> <p>This activity has linkage with a project implemented by SEAFDEC which include training on information collection</p> <p>On the guidelines for data collection, citing the experiences of MCs, sharing of experiences could be encouraged so that a new format is not necessary but rather on the harmonization of existing data collection procedures and formats.</p>
Act. 7	Dissemination of project results and related information	
Act. 8	Training needs assessment	Selection of stakeholders should be undertaken
Act. 9	Training-cum-workshop on co-management and locally-based approaches to responsible fisheries	<p>Participating countries could involve the LGUs and other stakeholders in sites where the activity will be undertaken as their involvement is important in the project implementation.</p> <p>If the budget for RFU will not be adequate, some additional budget could be sourced</p>
Act. 10	Facilitation of national level activities/outputs and consolidation at the regional level	RFU could provide the resource persons to participating countries in the establishment of the national steering committees and also during implementation of some activities under the project so that the direction will be very clear, and to achieve the objectives and expected outputs.



Act No.	Description	Comments and insights for integration into the revised results framework
Act 1.1.1	<u>Participate in Regional TECHNICAL Workshop on: 'FAO International Guidelines on Bycatch Management and Reduction of Discards and 'FAO-EAF Management Guidelines' (Theoretical Aspects Identification)</u>	
Act 1.2.1	2 <sup>nd</sup> Workshop on identifying current (relevant) indicators for fisheries management in Arafura sea (biological parameters, physical parameters, and existing fishing vessel registration), potential measures to increase selectivity of trawl fishing (Field Aspects Identification)	Indicators will be derived from the project in the Arafura which also collected data relevant to trawl fisheries Conducted in Bahasa Indonesia
Act 1.3.1	Baseline study: Monitoring the impacts of Ministerial Regulation No. 2/2011 in area specific of Arafura Sea Identifying impact of existing types of fishing gears in Arafura Sea	
Act 1.4.1	Establishment of National Working Group	
Act 1.4.2	Establishment of local consultative group	
Act 2.1.1	With Act 1.3.1 (one activity)	
Act 2.2.1	Habitat (and sea bed) mapping and other environmental parameters relevant to fishing activities	
Act 2.3.1	3 <sup>rd</sup> Workshop on Plotting parameter and indicator (of habitat and environment) on map for fishing gears management	
Act 2.4.1	Participate in and contribute to [study of "other regions" (that may be primarily a <u>regional</u> activity under RFU responsibility]	
Act 3.1.1	Standardization of data and data collection methods	
Act 3.2.1	Data collection (monitoring of bycatch reduction)	

Act No.	Description	Comments and insights for integration into the revised results framework
Act 3.3.1	Developing information system (database & website) of the project and bycatch management in Arafura Sea	
Act 3.4.1	Produce information of bycatch management and best fishing practices in Arafura Sea	
Act 4.1.1	With Act 1.4.2 (one activity)	
Act 4.2.1	With Act 1.4.1 (one activity)	
Act 4.3.1	With Act 1.4.2 (one activity)	

## Papua New Guinea

Act No.	Description	Comments and insights for integration into the revised results framework
Act 1.1.1	Participation in regional workshop to develop regional guidelines on bycatch management and reduction of discards	
Act 1.2.1	Desk study on GOPP fishery including biophysical and socio-economic attributes	
Act 1.2.2	Undertake studies/surveys to fill in the gaps identified in Act 1.2.1	
Act 1.2.3	Conduct national multi-stakeholder meeting to convey results from Act 1.2.1 and Act 1.2.2	
Act 1.3.1	Undertake policy review to determine if bycatch management in GOP requires specific management plan or should it form an integral part of GOP fishery management plan	Compute MEY and MSY as reference points for the management
Act 1.3.2	Conduct multi-stakeholder meeting to develop management plan for bycatch based on recommendations from Act 1.3.1	
Act 1.3.3	Develop monitoring and data collection mechanisms	In order to determine the abundance of bycatch, a major survey will be conducted on species composition of the bycatch to determine which are commercially and economically important species and juveniles This should be considered a major activity of the project Information could also be collected from the VMS and logbooks, including the location and species and come up with a map showing the abundance of fishes, bycatch, etc.
Act 1.3.4	Management Plan revised incorporating results from activities undertaken in Year 1 and presented to stakeholders for further consultation and eventual certification	More refined measures can be developed to reduce bycatch
Act 1.4.1	Establish project management group to oversee the implementation of the project	

<b>Act No.</b>	<b>Description</b>	<b>Comments and insights for integration into the revised results framework</b>
Act 1.4.2	Undertake stakeholder analysis and institutional assessment to identify composition of possible MAC members	
Act 1.4.3	Develop TOR for MAC members	
Act 1.4.4	Formalise MAC representation	
Act 2.1.1	Undertake gear selectivity assessment and identify appropriate specifications for GOPPF if required	
Act 2.1.2	Identify a licensed operator to trail the gear including trial plan	
Act 2.1.3	Conduct meetings to seek expert opinion and stakeholder views on the trial result	
Act 2.1.4	Report and document results to contribute to policy formulation on bycatch management	
Act 2.2.1	Undertake annual survey/research in an attempt to review and make recommendations relating to fishing closed area/season (field trip, workshop and mapping)	
Act 2.2.2	Undertake habitat mapping for GOPPF including three mile zone	
Act 2.2.3	Recommendations put forward for consideration during management planning	
Act 2.3.1	Review current VMS registry for all fleets	
Act 2.3.2	Revise all current license conditions to reflect changes	
Act 2.4.1	Undertake further research to assess the feasibility of allowing trawl activities within 3 mile area in an attempt to allow resource owners to utilize bycatch and prawns under formal benefit sharing arrangement	Intended for resource owners Every year survey is conducted to come up with information showing indication of recruitment, where this is coming from and where concentrated Gives indication of areas of spawning and abundance of stocks
Act 2.4.2	As an incentive, trial licenses can be made available for operators to do mid water trawl for finfish outside the management area during prawn closure season as an incentive for installation of bycatch device on trawlers	Intended for resource owners Existing management is reviewed every 3 years Need to have good reason to expand fisheries (many countries adopt by-back scheme) as this could lead to increased bycatch

Act No.	Description	Comments and insights for integration into the revised results framework
Act 3.1.1	Review/revise Observer Programs to develop protocols/forms for trawl fishery data collection	
Act 3.1.3	Develop, update and management database for data entry with trawl fishery	
Act 3.1.4	Review and revise Logbooks, sampling forms/species guides/sampling protocols for data collection in an effort to improve knowledge on bycatch species composition in GOPFF	
Act 3.1.5	Implement trawl fishery logbook data collection program and develop a database for bycatch monitoring and management in GOP	
Act 3.2.1	Data collectors to be deployed onto sample trawlers/fishers during fishing season	
Act 3.2.2	Logbooks and landing data collection	
Act 3.3.1	Collate and formalize all relevant information such as progress reports etc to be sent for publishing	
Act 3.3.2	As project rolls on, provide updates regularly for uploading on to website	
Act 3.4.1	All lined agencies and stakeholders involved in this exercise, share project information through mass media and brochures distribution on bycatch management activities	
Act 4.4.1, Act 4.2.1, Act 4.3.1	Consultative workshop for stakeholders and fishing community, resource owners (an inception workshop to introduce project's information and enhance awareness of relevant stakeholders in GOP fishery)	
Act 5.2.1	Establish a national project steering committee	
Act 5.2.2	Allowance for national technical officer	
Act 5.2.3	Facilitate non-expendable equipments	

## Philippines

Act No.	Description	Comments and insights for integration into the revised results framework
Act 1.1.1	Participate in and contribute to Regional Workshop	
Act 1.2.1	Establish Technical Working Group (TWG) in the selected pilot project site	
Act 1.2.2	TWG formulates pilot fisheries bycatch management plan in consultation with stakeholders	
Act 1.2.3	TWG formulates pilot project implementation plan (that will lead to pilot trawl bycatch management plan) in consultation with stakeholders	
Act 1.3.1	Engagement of National Consultant (Comp 1)	
Act 1.3.2	Seminar-consultation in pilot area (project brief, review status of fisheries current policies/regulations)	
Act 1.4.1	Orientation/Consultation with National Advisory Group (NAG)	
Act 1.4.3	Establish consultative groups for stakeholder participation	
Act 1.4.4	National coordinators (NCs) lead/carry out policy/institutional and trawl fisheries	
Act 1.4.6	Engagement of National Technical Officer (NTO)	
Act 2.1.1	Identify potential gear modifications (could also be provided by through advice from RFU)/alternative fishing gears	For gear modification, alternative gear can be developed with assistance from RFU. Although FAO 237 is already in effect (JTEDS), modification would still be necessary as governance of trawl fisheries differs, the regulation considers the use of JTEDs in bigger boats but for small vessels, there is a need to look carefully at the regulation especially its impacts on the livelihood of small-scale fishers
Act 2.1.2	Prepare a trial development plan	
Act 2.2.1	Fish larval survey	Tap students to study onboard sampling, to check the catch when it comes to shore, shore or port-based surveys by volunteers Since classification of sampled fish larvae could take time (See page 13)
Act 2.2.2	Critical habitat mapping (coral reefs, sea grass, seabed)	

<b>Act No.</b>	<b>Description</b>	<b>Comments and insights for integration into the revised results framework</b>
Act 2.2.2	Engagement of National Consultant (Comp 2)	
Act 2.3.1	Training of field officers on inventory procedures and registration/licensing, registry/database	
Act 2.3.2	Inventory of trawl fishing fleets in project site	
Act 2.4.1	(activity to address indicators, however may be considered primarily a regional output under the RFU responsibility)	
Act 3.1.1	Coordination with collaborators (local academe, LGUs, BFAR field units, boat operators) and preparation of proposals	The choice of local collaborators should consider the potential acceptability of the method introduced for smooth operations (no resistance to change)
Act 3.1.2	Engagement of National Consultant (Comp 3)	Key species which are the most important in the spectrum should be focused to minimize costs
Act 3.2.1	Training of enumerators for trawl catch/bycatch landing survey; researchers/divers for critical area mapping and fisj larvae	
Act 3.2.2	Trawl catch and bycatch landing surveys	
Act 3.3.1	Development of national project webpage	
Act 3.4.1	Production and distribution of IEC materials (posters, flyers, t-shirts, etc.)	
Act 4.1.1	Consultative meetings of TWG in selected pilot project site	
Act 4.2.1	Same as Act 1.4.1	
Act 4.3.1	Training/seminar on BRDs and other management measures	

## Thailand

Act No.	Description	Comments and insights for integration into the revised results framework
Act 1.2.1	Increasing knowledge of the project staff and strengthening bycatch management plan: Resource person for technical assistant and report writing	Consider revising the legal framework with regards to the mesh size for trawlers
Act 1.4.1	Establish National Advisory; orientation of high level national stakeholders group, Meeting-consultation (1 day)	
Act 1.4.2	Local orientation/seminar in 2 provinces (30 participants per province for 2 days)	
Act 2.1.1	Short training course for trawlers and stakeholders before JTED equipment (100 participants, 2 days)	
Act 2.1.2	Short training course and JTED demonstration (30 participants, 2 days)	
Act 2.2.1	Preliminary survey; landing survey, observers program onboard	
Act 2.2.2	Data collection, survey on fishery biology, fishing gear, production, etc.	State of data collection issues is a very important component, RFU should conduct workshop in 2013
Act 2.2.3	Data collection, survey on social economic issues	Includes cost of catch and fuel consumption (operating cost vs income)
Act 2.3.1	Validate existing data; inventory number of trawl fishing fleets in the project area; field work	
Act 2.3.2	Training for standard inventory method (5 man 2 site)	



## Vietnam

Act No.	Description	Comments and insights for integration into the revised results framework
Act 1.1.1	Participate in regional expert meeting for developing regional guidelines and strategy	
Act 1.2.1	Conduct field trips in Kien Giang to gather relevant information and management need assessment.	
Act 1.3.1	Review of legal, policy and institutional frameworks for trawl fisheries management in Vietnam to produce a checklists of compliance shortfalls with the international guidelines	
Act 1.3.2	Initial development of national circular for trawl fishery management in Vietnam	
Act 1.3.3	Circulate the first drafted circular to relevant authorities, fishing industries, and local stakeholders for their consultations	Tap local knowledge to carry out zonation to build up information and develop the scientific based information
Act 1.3.4	Convene a national WS to review and evaluate drafted circular	To include research institutes and academe
Act 1.4.1	Investigation to establish a local/national working group on bycatch mitigation and management	
Act 2.1.1	Development and trial on the appropriate selective fishing gear types (BRD) to reduce bycatch and juvenile of trawl fisheries for Kien Giang's fishing fleets	To review the previous studies on fishing gear selectivity already conducted in the country especially near the project site. Trawls may also have other fishing gears thus there is a need to address this as it can have implications on managing the fisheries.
Act 2.1.2	Review and recommend fishing closed area/season (field trip, workshop and mapping)	
Act 2.2.2	Participate in regional study tour	Need to have scientific based information and research methodology to confirm the closed season/area The 1 <sup>st</sup> steering committee meeting in June is an important activity, but still pending while awaiting final approval of the plan.

Act No.	Description	Comments and insights for integration into the revised results framework
Act 2.3.2	Review of status of trawl fisheries and vessel registration system in Kien Giang Province to recommend effective and sufficient fishing capacity management solutions (this revision is included review of national vessel registration system)	
Act 3.1.1	Develop protocols/forms for trawl fishery data collection	
Act 3.1.2	Conduct training workshop for trawl fishery data collection training	
Act 3.1.3	Develop, update and management database for data entry with trawl fishery	
Act 3.1.4	Implement trawl fishery port sampling data collection program in Kien Giang	
Act 3.1.5	Implement trawl fishery logbook data collection program in Kien Giang	
Act 3.1.6	Support working facilities for local project staff	
Act 3.2.1	Make a contractual service to develop baseline, indicators for M&E system	
Act 3.2.2	Conduct field trip to carry out M&E activities (for staffs of NPSC, three staff x 3 trips)	
Act 3.2.3	Convene a workshop for evaluation of M&E system (baselines and indicators...). This activity will be combined with inception workshop	
Act 3.4.1	Share project information through mass media and brochures distribution on bycatch management activities	
Act 4.3.1	Convene an inception workshop to introduce project's information and enhance awareness of relevant stakeholders in Kien Giang. (The workshop will be combined with Act 2.3.2)	
Act 5.2.1	Establish a national project steering committee	
Act 5.2.2	Recruitment of a national technical officer	

**WORK PLAN YEAR 1 (Regional Facilitation Unit)**

**Work plan Year1 (Regional Facilitation Unit: RFU)  
(Referred to Letter of Agreement Year One)**

<b>A. Services of the LoA<sup>1</sup></b>	<b>B. Description/content<sup>2</sup></b>	<b>C. Milestones/indicators</b>
1. Regional workshop on work plan of Year 1 (10-2012)	<ul style="list-style-type: none"> <li>- Agree on detailed, consolidated work plan (O1.1)</li> <li>- Identify selective trawl gear options or alternatives: work plan (O2.1)</li> <li>- Agree on selection criteria for zones and spat/temp closures and translate into project priorities (O2.2)</li> <li>- Clarifying the options for data collection and expected minimum standards for baseline data (O3.1)</li> <li>- Introduction to co-management (O1.4)</li> </ul>	Workshop report including: <ul style="list-style-type: none"> <li>i. Consolidated work plan</li> <li>ii. Priorities for gear modifications identified and trial/development plans agreed</li> <li>iii. Priorities for mapping fishing effort and sensitive areas identified</li> <li>iv. Minimum data requirements for M&amp;E (preliminary)</li> </ul>
2. Regional study visit <sup>3</sup>	Study visit for the new participating countries to learn from the advances/successes in one of the countries that participated in REBYC-I (tentatively Philippines). This will include observation, discussion on lessons learned and exchange of experiences.	A report on the study visit, including country specific annexes from each observer country on the knowledge and experience gained from the study visit and how the knowledge can be applied to national activities and tasks.
3. Desk study on incentives packages*	Comparative study of other regions (O2.4)	Report on study including identification of potential types of incentives packages
4. Review of existing frameworks for managing fishing capacity*	This will be a desk study and will benefit from cooperation with an on-going SEAFDEC initiative (O2.3)	Report including <u>recommended</u> criteria for management of trawl fishing capacity in project areas
5. Policy, legal and inst. review*	Two selected countries (O1.3)	Review report(s)
6. Regional technical workshop	Sessions on: <ul style="list-style-type: none"> <li>- Management needs assessments for selected fisheries/areas (O1.2)</li> <li>- Selective trawl gear (O2.1)</li> <li>- Zonation/fishing areas (O2.2)</li> <li>- Vessel registration systems (O2.3)</li> <li>- Monitoring and data collection methods and key project indicators (O3.1, O3.2)</li> </ul>	Workshop report including <ul style="list-style-type: none"> <li>i. Trial/development plans for the gear modifications with the highest potential agreed</li> <li>ii. Criteria for mapping fishing effort and sensitive areas identified and management plans agreed.</li> <li>iii. Criteria for registration of project areas trawlers defined</li> </ul>

<sup>1</sup> The services may be composed of two or more activities belonging to different Project Components; see also column B; \*, indicates that these are assumed to be FAO contracts

<sup>2</sup> (Ox.y) refers to the resp. Outputs in the REBYC II CTI revised results framework, e.g. (O2.1) refers to Output 2.1

<sup>3</sup> The study visit is subject to further discussions and agreement

<b>A. Services of the LoA<sup>1</sup></b>	<b>B. Description/content<sup>2</sup></b>	<b>C. Milestones/indicators</b>
6. Regional technical workshop (Cont.)		iv. ToR's for standard data collection and monitoring for all project countries agreed
7. Dissemination of project results and related information	<ul style="list-style-type: none"> <li>- Setup and maintenance of project website (O3.3)</li> <li>- Production of IEC materials (O3.4)</li> </ul>	<ul style="list-style-type: none"> <li>i. Website online and kept up to date</li> <li>ii. Dissemination of IEC materials as and when available</li> </ul>
8. Training needs assessments	<ul style="list-style-type: none"> <li>- TNA for fishers and other relevant stakeholders (O4.1)</li> <li>- TNA for Private sector/fisher champions etc. (O4.3)</li> </ul>	TNA report
9. Regional Training-cum-Workshop on co-management and locally based approaches to responsible fisheries	Including selective fishing gears and other improved management options/practices (O4.1, O1.4)	Report from the training event
10. Facilitation of national level activities/outputs and consolidation at the regional level	<ul style="list-style-type: none"> <li>- Provision of technical assistance and administrative inputs through the RFU to the project countries</li> <li>- Participation in missions</li> <li>- Arrange Project Steering Committee meeting</li> </ul>	<ul style="list-style-type: none"> <li>i. Progress report</li> <li>ii. PSC meeting report</li> </ul>

**WORK PLAN YEAR 1 AND TERM OF REFERENCE  
(Indonesia)**

### Work Plan Year 1 and Term of Reference (Indonesia)

Numbers in square brackets preceded by '#' refers to Indonesia operational plan (Annex 7b)

Output	Activities	Q1			Q2			Q3			Q4		
		M1	M2	M3	M1	M2	M3	M1	M2	M3	M1	M2	M3
<b>COMPONENT 1: POLICY, LEGAL AND INSTITUTIONAL FRAMEWORKS</b>													
<b>Output 1.1:</b> The International Guidelines on Bycatch Management and Reduction of Discards adopted by all five project countries and regional bycatch priorities agreed by project partners and presented in published policy/strategy document.													
Project Indicator year 1: <i>Regional workshop agreeing on intention and work plan.</i>	<b>Activity 1.1.1:</b> Participate in and contribute to Regional Workshop	Dependent on RFU timetable (November 2012)											
<b>Output 1.2:</b> At least 3 national or area specific trawl fisheries bycatch management plans in the project areas agreed by stakeholders and adopted by relevant authorities.													
Project Indicator year 1: <i>Management needs assessment for each fishery/area.</i>	<b>Activity 1.2.1:</b> Assessment of management needs/targets[#4 and #5]												
<b>Output 1.3:</b> Legal and regulatory frameworks relevant for trawl fisheries bycatch management reviewed and recommendations for adjustments developed with and agreed in principle by the competent national authorities.													
Project Indicator year 1: <i>Policy, legal and institutional framework reviews completed in 2 project countries.</i>	<b>Activity 1.3.1:</b> Review of policy, legal and institutional framework of Arafura Sea fishery [#6]												
<b>Output 1.4:</b> Institutional arrangements (Management Councils) for collaborative trawl fisheries bycatch management established and functioning in accordance with agreed bycatch management plans (output 1.2).													

Project Indicator year 1: <i>Temporary consultative groups for project management and stakeholder participation set up. Stakeholder analyses and institutional assessments completed for all fisheries/areas.</i>	<b>Activity 1.4.1:</b> Establish national working groups (NWG) [#1]																		
	<b>Activity 1.4.2:</b> Meeting of NWG to finalize national work plan and budget [#1]																		
	<b>Activity 1.4.3:</b> Establish local project area consultative groups (LCG) for project management and stakeholder participation [#2]																		
	<b>Activity 1.4.4:</b> NWG [or other entity, e.g. LCG or consultant #6] leads/carries out stakeholder analysis and local institutional assessment																		
<b>COMPONENT 2: RESOURCE MANAGEMENT AND FISHING OPERATIONS</b>																			
<b>Output 2.1:</b> More selective trawl gear or alternative (e.g. including actions in 2.2 and/or 2.3) fishing practices used by at least half of the trawlers in project areas.																			
Project Indicator year 1: <i>Potential gear modifications identified and trial/development work plan drawn up.</i>	<b>Activity 2.1.1:</b> Identify potential gear modifications [#4, #5, #6; this may also be part of support/advice from RFU]																		
	<b>Activity 2.1.2:</b> Prepare a trial/development plan [#4, #5, #6]																		
<b>Output 2.2:</b> Selection criteria and recommendations for demarcating fishing zones and areas for spatial-temporal closures are identified in at least 2 project areas/countries.																			



Project Indicator year 1: <i>Priorities and methods for seabed, fishing effort and sensitive areas/habitats mapping identified.</i>	<b>Activity 2.2.1:</b> Identification of priorities for mapping to support management[#4, #5 and #7]													
	<b>Activity 2.2.2:</b> Mapping of Critical areas [#5 workshop, #7]													
<b>Output 2.3:</b> Inventory of selected trawl fleets in project areas drawn up and recommendations for fishing effort and capacity management strategy communicated to competent national authorities.														
Project Indicator year 1: <i>Existing vessel registry systems reviewed and criteria for registration of project areas trawlers defined.</i>	<b>Activity 2.3.1:</b> Review of existing vessel registry [#4]													
	<b>Activity 2.3.2:</b> Identify criteria for registration of project area trawlers [#4, #5, #6]													
<b>Output 2.4:</b> Agreement has been reached on any appropriate incentive packages.														
Project Indicator year 1: <i>Potential types of incentive packages identified through desk study of other fisheries/regions.</i>	<b>Activity 2.4.1:</b> Identify potential incentives packages [#8;study of “other regions” may be primarily a regional activity under RFU responsibility]											TBA (RFU)		
<b>COMPONENT 3: INFORMATION MANAGEMENT AND COMMUNICATION</b>														
<b>Output 3.1:</b> Data and data collection methods for bycatch, discards and seabed impact in project areas available and published in relevant national and regional information systems.														

Project Indicator year 1: <i>TOR for data collection drawn up and standardized methods for all project countries (observer programs, logbook systems, landing site surveys, mapping of fishing grounds) agreed with project partners/ stakeholders.</i>	<b>Activity 3.1.1:</b> Participate in regional training/workshop to standardize methodologies (bycatch/biological assessment /surveys including fish larvae)	Dependent on RFU timetable (January 2013)											
	<b>Activity 3.1.2:</b> Standardize data collection [#9]												
<b>Output 3.2:</b> System set up for monitoring of bycatch reduction (volume) as a result of modified gear and improved management and its likely impact on incomes (bycatch value).													
Project Indicator year 1: <i>Key indicators identified and baseline data collected from sample trawlers/fishers.</i>	<b>Activity 3.2.1:</b> Training of enumerators / observers to collect data for indicators identifies in Activity 3.1.2. [#10]												
<b>Output 3.3:</b> Project website set up in Year 1 and developed into a regional information sharing mechanism for information on trawl fisheries bycatch management by end of project.													
Project Indicator year 1: <i>Website functional.</i>	<b>Activity 3.3.1:</b> Develop and maintain national project webpage [#11]												
<b>Output 3.4: Project IEC material available.</b>													
Project Indicator year 1: <i>Initial IEC material produced and distributed.</i>	<b>Activity 3.4.1:-</b>												
<b>COMPONENT 4: AWARENESS AND KNOWLEDGE</b>													
<b>Output 4.1:</b> Fishers and other relevant stakeholders (fisheries managers, local government officials, etc) in project areas have improved their knowledge on bycatch, sustainability issues and collaborative management through training, project information and/or participation in project activities.													

Project Indicator year 1: <i>Training needs assessment completed.</i>	<b>Activity 4.1.1:</b> Carry out training needs assessment for fishers [#2]													
<b>Output 4.2:</b> Regional and national policy and decision-makers have been sensitized with regard to responsible trawl fisheries management through project information and workshops.														
Project Indicator year 1: <i>20 participants from the project region have been sensitized about trawl fisheries bycatch management and the project</i>	<b>Activity 4.2.1:</b> Identify national policy and decision makers for sensitization [#1]													
<b>Output 4.3:</b> Private sector/fisher ‘champions’, technical officers and extension workers (government and NGOs) have improved their knowledge on BRDs and other management measures through training (250 persons trained).														
Project Indicator year 1: <i>Training needs assessment completed.</i>	<b>Activity 4.3.1:</b> Carry out training needs assessment [#2]													

## TERM OF REFERENCE

### “Strategies for trawl fisheries bycatch management (REBYC-II CTI)” for Indonesia

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#### I. Background

Indonesia, which is (in this project) represented by Arafura Sea is part of Coral Triangle Inivitiaves (CTI) countries has similar characteristics of fisheries within the region. Project document of the REBYC-II CTI has clearly identified that:

- 1) The Coral Triangle area is one of the most biologically diverse, economically productive and potentially vulnerable marine zones in the world;
- 2) An important part of the human population in the region is highly dependent on aquatic resources and other goods and services provided by marine ecosystems. Thus, degradation of the marine environment and depletion of fishery resources threaten biological sustainability and diversity as well as food security and livelihoods;
- 3) Bottom trawling tends to be a relatively efficient, but poorly selective fishing method with potential negative impact on bottom habitats due to its contact with the seabed and associated flora and fauna;
- 4) Fishing also affects ecosystems, habitats and fishery resources beyond the targeted species although the extent of these impacts is often poorly known.

Therefore, responsible trawl fisheries that result in sustainable fisheries resources and healthy marine ecosystems in the Coral Triangle and Southerast Asia waters by reduced bycatch, discards, and fishing impact on biodiversity and the environment is a priority for interventions aiming at safeguarding the environment and promoting more sustainable fishing.

#### II. Baseline data

Global Environment Facility (GEF) identified current baseline of bottom trawl fisheries management in the region as follows:

- 1) ineffective trawl fisheries management, in particular with regard to bycatch;
- 2) limited data on bycatch composition and volumes and the potential impact of trawl fishing on bottom habitats;
- 3) Inadequate knowledge and awareness of responsible trawl fishing and the measures available for improving management and supporting sustainability.

At national level, Indonesia has adopted principles of the global fisheries management into its national regulation. The following legislations on fishing gears have incorporated principles of global fisheries management (such as: Code of Conduct for Responsible Fisheries, and Ecosystem Approach to Fisheries):

- 1) Law No. 31/ 2004 as amended by Law No. 45/ 2009 concerning Fisheries;
- 2) Ministry of Marine Affairs and Fisheries Regulation No. PER.49/MEN/2011 concerning the amendment of Regulation No. PER.14/MEN/2011 on Capture Fisheries Business;
- 3) Ministry of Marine Affairs and Fisheries Decree No. KEP.06/MEN/2010 on Fishing Gears in Indonesia Fisheries Management Area;
- 4) Ministry of Marine Affairs and Fisheries Regulation No. PER.05/MEN/2012 concerning the second amendment of Regulation No. PER.02/MEN/2011 on fishing line and operational zone of fishing gears and fishing auxiliary devices in Indonesia Fisheries Management Area;

The existing management of trawl fishing in Arafura Sea has implemented some measures:

- 1) Trawl fishing is restricted to coastal area of less -10 m bathymetry (PER.02/MEN/2011);
- 2) Mesh size of the cod-end is limited to reduce juvenile by-catches, and TED installation is obligated to reduce marine turtles and other bycatches (PER.02/MEN/2011);
- 3) Prohibited trawler integrated with carrier vessels (PER.49/MEN/2011).

The 1<sup>st</sup> phase of REBYC in Indonesia has concluded the following lesson learnt:

- 1) There is no 'discards' issue in small scale shrimp trawl, all the by-catches are utilized;
- 2) For industrial scale, some of the by-catches are discarded/ released back to the sea due to the limited fish hold;
- 3) Sea demonstrations for the installation of By-catch Reduction Devices (TEDs and JTEDs) have been successfully conducted in Sorong, Ambon, Tual, Merauke, Sibolga, and Tarakan;
- 4) Some difficulties occurred during the installation and operation of shrimp trawl equipped with BRDs and catch record was not satisfactory:
  - The installation of TEDs decreases the total catch (from 206.87 Kg to 148.31 Kg) and main target/shrimp (28.4 Kg to 24.3 Kg),
  - Composition/ percentage of the main target (shrimp) increases (from 13.75 % to 16.41 %)

### **III. Project expectation and strategies in Indonesia**

The project of REBYC-II is expected to establish/ improve trawl fisheries management, including the establishment of management plans taking bycatch and supporting legal and regulatory frameworks into account.

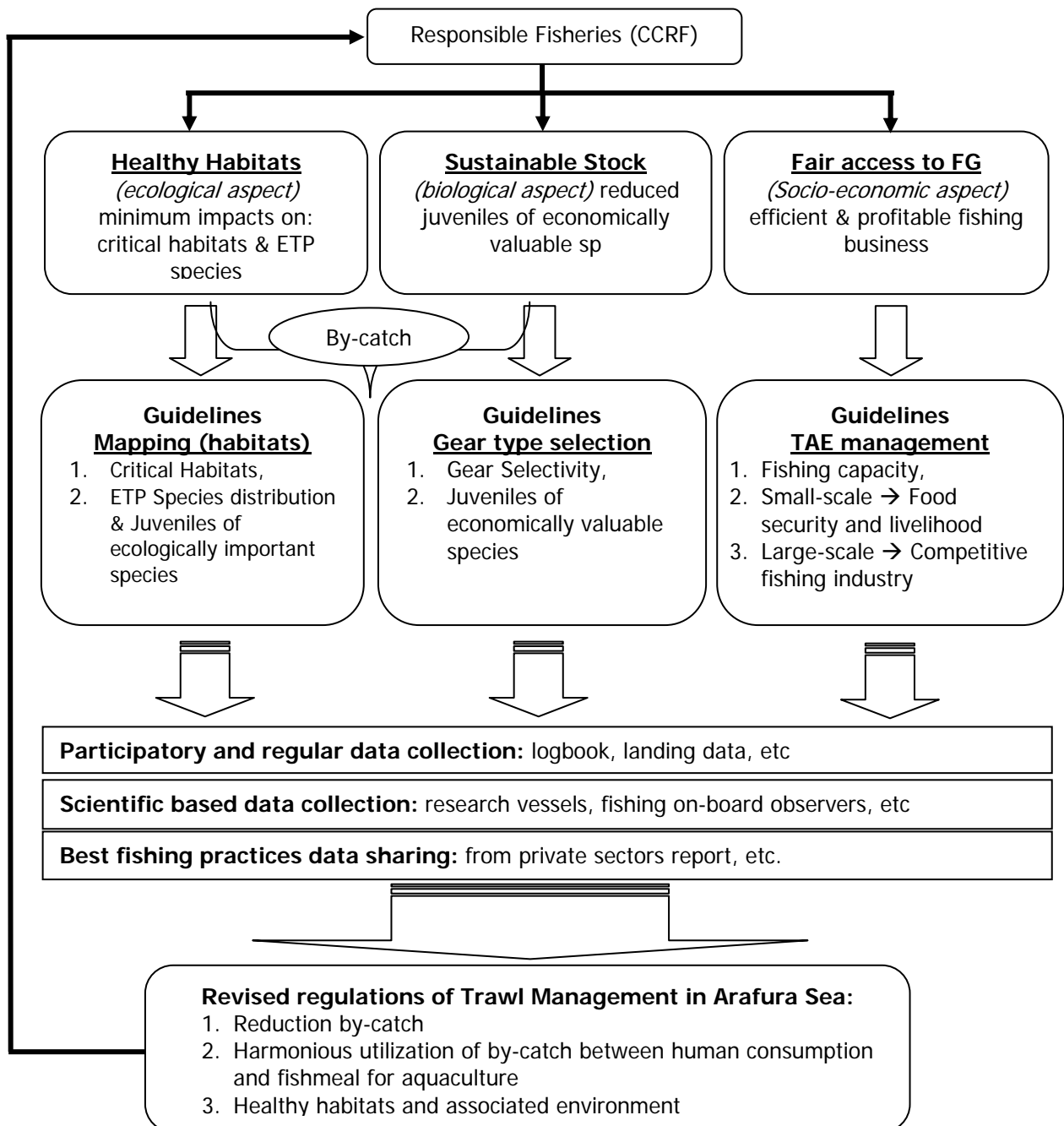
The need to find practical solutions for how to introduce more responsible fishing practices – including bycatch reduction – for both the small-scale trawlers and the larger-scale commercial sector was mentioned. In the small-scale sector, fishing often forms a crucial part of livelihoods and solutions that are commensurate with this reality need to be

sought. For the large-scale sector, incentives for improving fisheries sustainability need to be identified and developed. There is also an interest in identifying good practices that can inform the development of responsible fishmeal standards spearheaded by IFFO.

More specifically, purposes of the REBYC-II CTI project in Indonesia are:

- 1) To revise the existing regulation to promote best management practices for trawls operation in Arafura Sea;
- 2) To develop and improve the concept of "Mapping, Gear type selection, and Total allowable effort management" (MGT-scheme) as a management tool in Arafura Sea Fisheries Management Plan.

A schematic approach is described below:



### 3.1. Targets

Rebyc-II Target in Indonesia

- 1) Establish a National Working Group (NWG) - while assigning some persons to be in charge for particular component of the project - to settle activities effectively;
- 2) Strengthening fishing society for more compliant by-catch management through better collaboration and consultation with stakeholder;
- 3) Support by-catch management plan dependent incomes and sustainable livelihoods.

## IV. Implementation

### 4.1. Organisation

All the activities will be organized by:

- 1) **National Project Coordinator (NPC: Mr. Endroyono)** will be the main contact point for the project and assume overall responsibility of all project activities,
- 2) **National Technical Officer (NTO at interim: Mr. ImronRosyidi)** will provide technical and operational inputs in support of the national project execution. The permanent NTO will be recruited after initial activity is successfully conducted.
- 3) **National Working Group (NWG)**, consisted of (technical staff) of representatives from relevant stakeholder (Governmental institutions, Research centres, Universities, Private sectors, Non-Governmental Organisation, etc). The NWG will support NPC, and technically prepare & conduct the activities.
- 4) **National Consultative Board**, consisted of (head/ high level official) of representatives from relevant stakeholder, is non-institutionalized board. The board will review (give inputs) to the outputs resulted by NWG. The board will be established in national and (possibly) local level.
- 5) **Local Consultative Group** will be key instrument for stakeholder participation in project implementation and will form the basis for the subsequent establishment of permanent and officially recognized Management Council.

### 4.2. Pilot site(s)

There are some potential sites as base for the overall activities, namely: Ambon, Tual, Merauke, and Sorong. However, site selection will be determined during the initial process of the project by assessing potential support and collaboration by local fisheries offices, industries, and communities.

### 4.3. Activities

The project will operate both at local and national levels. Field activities will be carried out at districts/municipalities in adjacent to Arafura Sea (Ambon, Tual, Merauke, and

Sorong) for the development and implementation of more selective gears and effective management measures. Overall, the activities consist of: workshops, expert meetings, desk/field study by consultants, trainings, dissemination, etc.

No	Titles	Activities	Relevant output #	Year		Indicative budget (USD)
				2012	2013	
<b>TOTAL BUDGET</b>						<b>190,439</b>
<b>Procurement</b>						<b>4,600</b>
i	sony compact cyber-shot digital camera (1 unit)	PURCHASING	all		Jan	300
ii	Apple MacBook Pro (1 unit)	PURCHASING	All		Jan	1,800
iii	iPadWiFi + Cellular 32 GB (1 unit)	PURCHASING	All		Jan	1,000
iv	Projector (portable, light and slim)	PURCHASING	All		Jan	1,500
<b>Institutional arrangement</b>						<b>48,622</b>
1	Establishment of National Working Group	COORDINATION/ MEETINGS	1.4, 4.2	July	Jan	22,914
2	Establishment of local consultative group	WORKSHOP and REGULAR MEETINGS	1.4, 4.1, 4.3		Apr-Sept	25,708
<b>National workshops</b>						<b>47,445</b>
3	<b>1<sup>st</sup> workshop:</b> Participate in Regional Workshop on 'FAO International Guidelines on Bycatch Management and Reduction of Discards' and 'FAO-EAF Management Guidelines' (THEORITICAL ASPECTS IDENTIFICATION)	ATTENDING REGIONAL WORKSHOP	1.1		April (TBA by RFU)	7,224
4	<b>2<sup>nd</sup> workshop on:</b> Identifying current (relevant) indicators for fisheries management in Arafura sea (biological parameters, physical parameters, and existing fishing vessel registration), potential measures to increase selectivity of trawl fishing (FIELD ASPECTS IDENTIFICATION)	EXPERT MEETING	1.2, 2.1, 2.2, 2.3, 2.4		Jan	20,332
5	<b>3<sup>rd</sup> workshop on:</b> Plotting parameter and indicator (of habitat and environment) on map for fishing gears management (to resume output of 2 contracts):	WORKSHOP	1.2, 2.1, 2.2, 2.3, 2.4		Nov	19,890
<b>Contracts</b>						<b>42,224</b>
6	Baseline study: - Monitoring the impacts of Ministerial Regulation No. 2/2011 in area specific of Arafura sea - Identifying impact of existing types of fishing gears in Arafura sea	STUDY - BY CONTRACT	1.3, 2.1, 2.3		April-July	20,000
7	Habitat (and sea bed) Mapping and other environmental parameters relevant to fishing activities	STUDY - BY CONTRACT	1.3, 2.2		April-July	15,000
8	Participate in and Contribute to Regional Technical Workshop [study of "other regions" (that) may be primarily a regional activity under RFU responsibility] to identify potential incentives packages	ATTENDING REGIONAL WORKSHOP	2.4		Oct (TBA by RFU)	7,224
<b>Information management and communication</b>						<b>47,547</b>
9	Standardization for data and data collection method	REGULAR MEETING	3.1		Peb-June	22,872
10	Data collection and analysis (monitoring of bycatch reduction)	TRAINING	3.2		July-Dec	10,783
11	Developing information system (database & website) of the project and bycatch management in Arafura sea	TRAINING and DAILY OPERATIONAL	3.3		July-Dec	13,892

## V. Time frame

Overall, the above-mentioned activities will be conducted for 12 (twelve) months: **January 2013 – December 2013 (1<sup>st</sup> year of the project)**

## VI. Budget

Total budget needed by Indonesia to conduct all the activities during year 1 of the project will be **USD 190,439**. The budget will be partially covered by national budget as co-financing.



Overall, the budget can also be presented based on component outputs and kind of expenditure as below:

		COMPONENT 1				COMPONENT 2			
		Output 1.1	Output 1.2	Output 1.3	Output 1.4	Output 2.1	Output 2.2	Output 2.3	Output 2.4
5,300	Salaries professionals	-	-	-	-	-	-	-	-
5,500	Salaries general service	-	-	-	-	-	-	-	-
5,570	Consultants	-	-	-	-	-	-	-	-
5,650	Contracts	-	-	20,000	-	-	15,000	-	-
5,900	Travel	7,224	3,661	-	27,336	3,661	3,661	3,661	10,885
5,920	Training (and workshops)	-	3,239	-	15,320	3,239	3,239	3,239	3,239
6,000	Expendable equipment	-	412	-	1,546	412	412	412	412
6,100	Non-expendable equipment	307	307	307	307	307	307	307	307
6,300	General operating expenses	-	731	-	4,420	731	731	731	731
<b>TOTAL</b>		<b>7,531</b>	<b>8,351</b>	<b>20,307</b>	<b>48,929</b>	<b>8,351</b>	<b>23,351</b>	<b>8,351</b>	<b>15,575</b>

		COMPONENT 3				COMPONENT 4			TOTAL
		Output 3.1	Output 3.2	Output 3.3	Output 3.4	Output 4.1	Output 4.2	Output 4.3	
5,300	Salaries professionals	-	-	-	-	-	-	-	<b>0</b>
5,570	Consultants	-	-	6,186	-	-	-	-	<b>6,186</b>
5,650	Contracts	-	-	-	-	-	-	-	<b>35,000</b>
5,900	Travel	5,715	5,427	-	-	-	-	-	<b>71,234</b>
5,920	Training (and workshops)	14,562	3,345	619	-	-	-	-	<b>50,041</b>
6,000	Expendable equipment	515	1,031	258	-	-	-	-	<b>5,412</b>
6,100	Non-expendable equipment	307	307	307	307	307	307	307	<b>4,600</b>
6,300	General operating expenses	2,079	980	6,830	-	-	-	-	<b>17,966</b>
<b>TOTAL</b>		<b>23,179</b>	<b>11,090</b>	<b>14,198</b>	<b>307</b>	<b>307</b>	<b>307</b>	<b>307</b>	<b>190,439</b>

Jakarta, November 2012

DG of Catpure Fisheries,  
Director of Fishing Vessels and Fishing Gear

National Project Coordinator  
REBYC-II CTI Indonesia,

**Ir. Muhammad Zaini, MM**

**Ir. Endroyono, SE, MM**

## DETAILED ACTIVITIES:

### A. Procurement equipment

The project proposes to purchase some equipment at the first year, namely computer and accessories:

- i) sony compact cyber-shot digital camera (1 unit) : USD 300
- ii) Apple MacBook Pro (1 unit) : USD 1,800
- iii) iPadWiFi + Cellular 32 GB (1 unit) : USD 1,000
- iv) Projector (portable, light and slim) : USD 1,500

### B. Activities for INSTITUTIONAL ARRANGEMENT

- 1) ESTABLISHMENT of NATIONAL WORKING GROUPS:
  - Description : the activities will be:
    - Identification of relevant NATIONAL actors/institutions (government; representatives of artisanal fishers; fishing industry; fish processors; university; NGOs; etc),
    - National planning meetings (Finalisation of National Workplan and Budget, Year 1)
    - Regular meetings
  - Outputs :
    - Decree of the DG of Capture Fisheries
    - National Workplan and Budget Year 1
    - 20 persons (of national policy and decision makers) have been sensitized about trawl fisheries bycatch management and the project
  - Methods : Plenary meeting (brainstorming), candidate nomination by each institution, legalization (DGCF Decree), regular meetings for each groups
  - Participants : 35 persons
  - Time and place : July 2012 – January 2013, in Jakarta
  - Budget : Rp. 222,266,000 (an approximate of USD 22,914)
- 2) ESTABLISHMENT OF LOCAL CONSULTATIVE GROUP:
  - Description :
    - Site pilot identification (options: Merauke, Sorong, Ambon, or Tual); Identification relevant LOCAL actors (gov't; local artisanal fishers; fishing industry; fish processors; university; NGOs; etc); Meetings in LOCAL level
    - Training needs assessment (for fishers) completed
    - Training needs assessment (for technical officers and extension) completed
  - Outputs : Temporary consultative groups for project management and stakeholder participation set up (Decree of the DG of Capture Fisheries for the establishment of local consultative group)
  - Methods : WORKSHOP and REGULAR MEETING - Dissemination (brainstorming meeting), candidate nomination by each

representative, legalization (NPC Decree), regular meetings for each local groups

- Participants : 35 persons
- Time and place : April – September 2013, in Merauke, Sorong, or Tual
- Budget : Rp. 249,370,000 (an approximate of USD 25,708)

### C. Activities for WORKSHOP

3) 1<sup>ST</sup> WORKSHOP: PARTICIPATE IN REGIONAL TECHNICAL WORKSHOP ON 'FAO INTERNATIONAL GUIDELINES ON BYCATCH MANAGEMENT AND REDUCTION OF DISCARDS' AND 'FAO-EAF MANAGEMENT GUIDELINES' (THEORITICAL ASPECT IDENTIFICATION)

- Description : The participation to the regional workshop is an early steps of the project to scrutiny both the guidelines and identify aspects to be referred to in implementing the project (THEORITICAL APPROACH)
- Outputs : Indicators of International bycatch guidelines and EAF guidelines which are relevant to issues of REBYC-II CTI project and accords with characteristics of Indonesia waters (to contribute regional workshop agreeing on intention and work plan).
- Methods : Attending the regional workshop to be conducted by Regional Facilitating Unit (RFU)
- Participants : 4 persons (NPC, NTO/ secretariat, 2 persons representing NWG member)
- Time and place : Bangkok, April 2013 (TBA, to be conform with actual regional workshop)
- Budget : Rp. 70,072,800 (an approximate of USD 7,224)

4) 2<sup>ND</sup> WORKSHOP ON: PARAMETERS AND INDICATORS OF HABITATS TO BE EXPRESSED IN MAP OF TRAWL FISHING GEAR MANAGEMENT IN ARAFURA SEA (FIELD ASPECTS IDENTIFICATION)

- Description : The meeting is to figure out the **baseline data** of parameters and indicators of habitats in Arafura Sea (FIELD ASPECTS)
  - Identify the appropriate and available parameters and indicators habitats (physical and biological characteristics) in Arafura Sea for EAF fisheries management,
  - Identify the appropriate and available parameters and indicators fishing activity (preference of fishing ground, target and non-target species: juvenile of economically valuable and environmentally important, ETP species, etc),
  - Collect the number of fishing vessels by various fishing gears (active, passive, stationary, both the small scale and large scale),

- Determine important and relevant parameters and indicators (critical habitats, spatial-seasonal closure, fishing activity, catch composition, and bycatch hotspots, etc),
  - Develop a data collection method and mechanism that allows the sharing of information from fishermen, and researchers for up-dating base line data in periodically,
  - Review the existing fishing vessels registry and propose potential candidates to collaborate in this project,
  - Potential measures to increase the selectivity of trawl fishing
- Outputs : - Recommendation for consultant in developing methods and mechanisms related data collection parameters and indicators that will be expressed in the map (how to identify, to record, and to report) while meeting the best minimum requirement
- Recommendation for consultant in developing technical guidelines on drawing a zonation map to manage and control trawl fishing activity in Arafura Sea in order mitigate and / or reduce bycatch
  - Recommendation for consultant in reviewing fishing capacity within project areas
  - Recommendation for consultant to evaluate trawl fuel consumption using different mesh size
- Methods : EXPERT MEETING - Scientists (from local universities), researchers (from research centres), and fisheries managers (from local governmental agencies) to expose physical and biological data of Arafura Sea relevant to REBYC-II CTI project
- Participants : 50 persons
- Time and place : Jakarta, January 2013
- Budget : Rp. 197,219,000 (an approximate of USD 20,332)

5) 3<sup>RD</sup> WORKSHOP ON: PLOTTING PARAMETER AND INDICATOR (OF HABITAT AND ENVIRONMENT) ON MAP FOR FISHING GEARS MANAGEMENT (TO RESUME OUTPUTS OF 2 CONTRACTS):

- Description : The activities will be:
- Consultation with NWG for fishing gears selection which is appropriate with available sea bed; fishing gears selection which is appropriate to decrease bycatch; Public consultation on the plan of limitation gears;
  - Workshop on Fishing Gears Management; Drafting Fishing Gears Management;
  - Submitted Draft to Forum Fisheries Communication; Final draft Regulation on Fishing Gear Management

- Presentation of the output of 2 contracts:
  - a. Contract on baseline study: “ministerial regulation 02/2011 impacts” and “fishing gears impacts”
  - b. Contract on “habitat mapping”
- Outputs : Priorities for mapping fishing effort and sensitive areas identified
- Methods : WORKSHOP
- Participants : 50 persons
- Time and place : November 2013
- Budget : Rp. 192,929,000 (an approximate of USD 19,890)

#### D. Activities for CONTRACTS

##### 6) BASELINE STUDY:

- (1) MONITORING THE IMPACTS OF MINISTERIAL REGULATION NO. 2/2011 IN AREA SPECIFIC OF ARAFURA SEA and
- (2) IDENTIFYING IMPACT OF EXISTING TYPES OF FISHING GEARS IN ARAFURA SEA):
  - Description : - Evaluating catch composition and biological parameters of catch using other types of fishing gears and FAD (Mini trawl; Purse Seine with FAD (Rumpon + Light); Long Line; Gillnet; Stationary Gears; Pot & Traps; Light fishing); and fishing operation impact on seabed/environment
  - Developing methods and mechanisms related data collection parameters and indicators that will be expressed in the map (how to identify, to record, and to report) while meeting the best minimum requirement
  - Reviewing fishing capacity within project areas
  - Evaluating trawl fuel consumption using different mesh size
  - Developing technic identify, recording, and reporting the appropriate and available parameters and indicators fishing activity (preference of fishing ground, target and non-target species: juvenile of economically valuable and environmentally important, ETP species, etc),
  - Outputs : - Table of biological (target species) and ecological (including bycatch and environment) impacts - caused by different types of fishing gears operated in Arafura Sea (level of severity based on gears)
  - Policy, legal and institutional framework reviewed and assessed (for social and economic impacts related to the avoid critical habitats and reduction of bycatch)
  - Methods : STUDY BY CONSULTANT
  - Participants : -
  - Time and place : April - July 2013, Municipals adjacent to the Arafura Sea(options: Merauke, Sorong, Ambon, or Tual)

- Budget : Rp. 194,000,000 (an approximate of USD 20,000)

7) HABITAT (AND SEA BED) MAPPING AND OTHER ENVIRONMENTAL PARAMETERS RELEVANT TO TRAWL FISHING MANAGEMENT:

- Description : - Collecting Bathymetry Map; Biological Assesment & Analisis (Minimum Landing Size);  
- Descriptive Analisis Based on Log Book;Workshop on Fishing Zone Criteria;Draft Map of Fisheries Zone  
- Developing technical guidelines on drawing a zonation map to manage and control trawl fishing activity in Arafura Sea in order mitigate and / or reduce bycatch
- Outputs : Maps ofTrawl Fishing Management encompassing information on habitat, parameter biological parameters, critical habitats, spatial-seasonal closure, fishing activity, fishing license, catch composition, ETP species migration
- Methods : STUDY BY CONSULTANT
- Participants : -
- Time and place : April – July 2013, Arafura Sea
- Budget : Rp. 145,500,000 (an approximate of USD 15,000)

8) PARTICIPATE IN AND CONTRIBUTE TO REGIONAL TECHNICAL WORKSHOP [STUDY OF "OTHER REGIONS" (THAT) MAY BE PRIMARILY A REGIONAL ACTIVITY UNDER RFU RESPONSIBILITY] TO IDENTIFY POTENTIAL INCENTIVES PACKAGES

- Description : The participation to the regional workshop is expected to identify relevant socio-economic aspect in regards with the trawl fishing activities and formulate possible incentive packages (both small-scale and large-scale) →need to consider/ elaborate the (cost) efficiency resulted from the use of larger mesh size
- Outputs : Potential type of incentive packages identified
- Methods : Attending the regional workshop to be conducted by Regional Facilitating Unit (RFU)
- Participants : 4 persons (NPC, NTO/ secretariat, 2 persons representing NWG member)
- Time and place : Bangkok, Oct 2013 (TBA, to be conform with actual regional workshop)
- Budget : Rp. 70,072,800 (an approximate of USD 7,224)

**E. Activities for: Information management and communication**

9) STANDARDIZATION FOR DATA AND DATA COLLECTION METHOD

- Description : The activities will be:

- An evaluation to review the existing national logbook system to make any adjustment needed specific for trawl fishing (format of logbook, report and evaluation mechanism from field to central)
  - Drafting of standardized method for data collection and analysis (ON-BOARD: logbook and possibly observer; and IN-LAND: enumerators in sample fishing port)
  - Dissemination and consultation of draft standardized method
  - Finalizing the draft of standardized method for data collection (MGT)
- **Outputs** : TOR for data collection drawn up and standardized methods (observer programs, logbook systems, landing site surveys, mapping of fishing grounds) agreed with project partners/ stakeholders → Standardized data must also cover the collection of biological, environmental, and sosio-economical aspect of trawl fishing (tidaksekedar data tangkapan), however we must also consider the applicability. Therefore, the standardized data must meet **the best minimum requirement:**
- Simple data to be collected by fishers (regularly) – to increase active participatory by industries
  - Scientific data to be collected by research vessels (occasionally)
- **Methods** : WORKSHOP, regular meetings
- **Participants** : 35 persons
- **Time and place** : September 2012 – April 2013, Jakarta
- **Budget** : Rp. 221,859,000 (an approximate of USD 22,872)
- 10) **DATA COLLECTION (MONITORING OF BYCATCH REDUCTION)**
- **Description** : The activities will be:
- Identification of data needed to be collected (in logbook and/or on-board observer):
    - a. Data on vessels (name, GT, ownership, etc)
    - b. Fishing gears (HP, length of head rope, minimum mesh size)
    - c. BRDs installed: TED/ Fish Eye/ Square Mesh Window
    - d. Fishing operation: latitude & longitude of fishing ground, setting per day/night, towing duration, speed & direction of towing
    - e. Catches: target, bycatch (live/dead; kept/discarded)
  - Identification and agreement on sample trawlers/fishers (trawler partnership with project)
  - Meeting with potential partners to conduct data collecting and on-board observer placement

- Recruitment, training, and deployment of enumerators (in landing sites) and observers (on board) for data collection
- Outputs : Key indicators identified and data collected from sample trawlers/fishers
- Methods : TRAINING and DAILY OPERATIONAL
- Participants : 35 persons for enumerators and observers
- Time and place : January - June 2013, municipalities adjacent to Arafura Sea
- Budget : Rp. 104,599,000 (an approximate of USD 10,783)

11) DEVELOPING WEBSITE OF THE PROJECT & BYCATCH MANAGEMENT IN ARAFURA SEA

- Description : The activities will be:
  - Website development
  - Short course for data input operators
  - Website maintenance (data inputs for website)
- Outputs : Websites functional
- Methods : TRAINING and DAILY OPERATIONAL
- Participants : 10 persons
- Time and place : January – June 2013
- Budget : Rp. 134,750,000 (an approximate of USD 13,892)



**WORK PLAN YEAR 1 (Papua New Guinea)**

### Work Plan Year1 (Papua New Guinea)

Components	Output	Activities	Indicator
<b>Component 1.</b> Policy, legal and institutional frameworks	<b>Output 1.1:</b> The International Guidelines on Bycatch Management and Reduction of Discards adopted by all five project countries and regional bycatch priorities agreed by project partners and presented in published policy/strategy document (Indicator year 1: Regional workshop agreeing on intention and work plan)	<b>Activity 1.1.1:</b> Participation on the regional workshop to develop a regional guidelines on bycatch management and reduction of discards	Regional workshop agreeing on intention and work plan. Inception meeting in Bangkok, Thailand from 1st - 6th May, 2012.
	<b>Output 1.2:</b> At least 3 national or area specific trawl fisheries bycatch management plans in the project areas agreed by stakeholders and adopted by relevant authorities.	<b>Activity 1.2.1:</b> Desk top study on GOPP fishery including biophysical and socio-economic attributes,	Year 1: Management needs assessment for each fishery/area. (1) relevant information gathered (2) trip reports produced
		<b>Activity 1.2.2:</b> Undertake studies/surveys to fill in gaps identified in 1.2.1,	
		<b>Activity 1.2.3:</b> Conduct national multi-stakeholder meeting to convey results from activities in 1.2.1 and 1.2.2	
	<b>Output 1.3:</b> Legal and regulatory frameworks relevant for trawl fisheries bycatch management reviewed and recommendations for adjustments developed with and agreed in principle by the competent national authorities.	<b>Activity 1.3.1:</b> Undertake policy review to determine if by catch management in GOP requires specific management plan or should it form an integral part of GOP fishery management plan	
		<b>Activity 1.3.2:</b> Conduct multi-stakeholder meeting to develop management plan for by catch based on recommendations from 1.3.1	
		<b>Activity 1.3.3:</b> Develop monitoring and data collection mechanisms	
<b>Activity 1.3.4:</b> Management Plan revised incorporating results from activities undertaken in year 1 and presented to stakeholders for further consultation and eventual certification.			

<b>Components</b>	<b>Output</b>	<b>Activities</b>	<b>Indicator</b>
<b>Component 1 (Cont.)</b> Policy, legal and institutional frameworks	<b>Output 1.4:</b> Institutional arrangements (Management Councils) for collaborative trawl fisheries bycatch management established and functioning in accordance with agreed bycatch management plans (output 1.2)	<b>Activity 1.4.1:</b> Establish project management group to oversee the implementation of the project;	Year 1: Temporary consultative groups for project management and stakeholder participation set up. Stakeholder analyses and institutional assessments completed for all fisheries/areas.
	<b>Output 1.4:</b> Institutional arrangements (Management Councils) for collaborative trawl fisheries bycatch management established and functioning in accordance with agreed bycatch management plans (output 1.2)	<b>Activity 1.4.2:</b> Undertake stakeholder analysis and institutional assessment to identify composition of possible MAC members	Year 1: Temporary consultative groups for project management and stakeholder participation set up. Stakeholder analyses and institutional assessments completed for all fisheries/areas
		<b>Activity 1.4.3:</b> Develop TOR for MAC members	
		<b>Activity 1.4.4:</b> Formalise MAC representation	

<b>Components</b>	<b>Output</b>	<b>Activities</b>	<b>Indicator</b>
<b>Component 2.</b> Resource management and fisheries operations	<b>Output 2.1.</b> More selective trawl gear or alternative (e.g. including actions in 2.2 and/or 2.3) fishing practices used by at least half of the trawlers in	<b>Activity 2.1.1:</b> Undertake gear selectivity assessment and identify appropriate specifications for GOPPF if required	Year 1: Potential gear modifications identified and trial/development work)
	project areas	<b>Activity 2.1.2:</b> Identify a licensed operator to trial the gear including trial plan	
		<b>Activity 2.1.3:</b> Conduct meetings to seek expert opinion and stakeholder views on the trial result	
	<b>Output 2.1.</b> More selective trawl gear or alternative (e.g. including actions in 2.2 and/or 2.3) fishing practices used by at least half of the trawlers in project areas	<b>Activity 2.1.4:</b> Report and document results to contribute to policy formulation on by catch management	

Components	Output	Activities	Indicator
	<p><b>Output 2.2:</b> Selection criteria and recommendations for demarcating fishing zones and areas for spatial-temporal closures are identified in at least 2 project areas/countries)</p>	<p><b>Activity 2.2.1:</b>Undertake annual survey/research in an attempt to review and make recommendations relating to fishing closed area/season (field trip, workshop and mapping)</p>	<p>Year 1: Priorities and methods for seabed, fishing effort and sensitive, priorities of closed season/area for trawl fishery management recommended</p>
		<p><b>Activity 2.2.2:</b> Undertake habitat mapping for GOPPF including and three mile zone</p>	<p>(1) trip report produced; (2) Better understanding of resource habitats;</p>
		<p><b>Activity 2.2.3:</b> Recommendations put forward for consideration during management planning</p>	<p>(3) knowledge for demarcating fishing zones and areas enhanced</p>
	<p><b>Output 2.3:</b> Inventory of selected trawl fleets in project areas drawn up and recommendations for fishing effort and capacity management strategy communicated to competent national authorities.</p>	<p><b>Activity 2.3.1:</b> Review current VMS registry for all fleets</p>	<p>Year 1, a). Existing vessel registry systems reviewed and criteria for registration of project areas trawlers defined. b): All existing license conditions reviewed and updated</p>
<p><b>Activity 2.3.2:</b> Revise all current license conditions to reflect changes</p>			
<p><b>Component 2 (Cont')</b> Resource management and fisheries operations</p>	<p><b>Output 2.4:</b>Agreement has been reached on any appropriate incentive packages.</p>	<p><b>Activity 2.4.1:</b>Undertake further research to assess the feasibilityof allowing trawl activities within 3 mile area in an attempt to allow resource owners to utilizebycatch and prawns under formal benefit sharing arrangement</p>	<p>Year 1: Potential types of incentive packages identified through desk study</p>
		<p><b>Activity 2.4.2:</b> As an incentive, trial licences can be made available for operators to do mid water trawl for finfish outside the management area during prawn closure season As an incentive for installation of bycatch device on trawlers.</p>	<p>of other fisheries/regions.</p>

Components	Output	Activities	Indicator
<b>Component 3.</b> Information management	<b>Output 3.1:</b> Data and data collection methods for bycatch, discards and seabed impact in project areas available and published in relevant national and regional information systems.	<b>Activity 3.1.1:</b> Review/revise Observer programs to develop protocols/forms for trawl fishery data collection	Year 1: TOR for data collection drawn up and standardized methods for all project countries (observer programs, logbook systems, landing site surveys, mapping of fishing grounds) agreed with project partners/ stakeholders. Report Produced.
		<b>Activity 3.1.3:</b> Develop, update and management database for data entry with trawl fishery	
		<b>Activity 3.1.4:</b> Review and revise Logbooks, sampling forms/species guides/sampling protocols for data collection in an effort to improve knowledge on bycatch species composition in GOPFF	
		<b>Activity 3.1.5:</b> Implement trawl fishery logbook data collection program and develop a database for bycatch monitoring and management in GOP.	
	<b>Output 3.2:</b> System set up for monitoring of bycatch reduction (volume) as a result of modified gear and improved management and its likely impact on incomes (bycatch value).	<b>Activity 3.2.1:</b> Data collectors to be deployed onto sample trawlers/fishers during fishing season.	Year 1: Key indicators identified and baseline data collected from sample trawlers/fishers.
		<b>Activity 3.2.2:</b> Logbooks and landing data collection	
	<b>Output 3.3:</b> Project website set up in Year 1 and developed into a regional information sharing mechanism for information on trawl fisheries bycatch management by end of project.	<b>Activity 3.3.1:</b> Collate and formalize all relevant information such as progress reports etc... to be sent for publishing.	Indicator year 1: Website functional; progress report produced
<b>Activity 3.3.2:</b> As project rolls on, provide updates regularly for uploading on to website			

Components	Output	Activities	Indicator
	<b>Output 3.4:</b> Project IEC material available.	<b>Activity3.4.1:</b> All lined agencies and stakeholders involved in this exercise. Share project information through mass media and brochures distribution on bycatch management activities	Year 1: Initial IEC material produced and distributed. Shared project information/brochures

Components	Output	Activities	Indicator
<b>Component 4.</b> Awareness and knowledge	<b>Output 4.1:</b> Fishers and other relevant stakeholders (fisheries managers, local government officials, etc) in project areas have improved their knowledge on bycatch, sustainability issues and collaborative management through training, project information and/or participation in project activities	4.1.1, 4.2.1, & 4.3.1, Consultative workshop for stakeholders and fishing community, resource owners ( an inception workshop to introduce project's information and enhance awareness of relevant stakeholders in GOP fishery)	Year 1: Training needs assessment completed.
	<b>Output 4.2:</b> Regional and national policy and decision-makers have been sensitized with regard to responsible trawl fisheries management through project information and workshops.		Indicator year 1: participants from the project region have been sensitized about trawl fisheries bycatch management and the project.
	<b>Output4.3</b> Private sector/fisher ‘champions’, technical officers and extension workers (government and NGOs) have improved their knowledge on BRDs and other management measures through training (250 persons trained).		Indicator year 1: Insufficient technical knowledge on available management solutions.

<b>Component 5.</b> Project management	<b>Output 5.2.</b> National coordinator (NC) selected and regional coordination promoted through a project steering committee (PSC) consisting National Coordinator	Activity 5.2.1: Establish a national project steering committee	National project steering committee established
		Activity 5.2.2: Allowance for a national technical officer	a TOR of NTO tasks established
		Activity 5.2.3: Facilitate non-expendable equipment	Laptop for project staffs (2 for local staffs and 4 for central staffs)
			Camera
	Projector machine		

**Work Plan Year 1 (Philippines)**



### Work Plan Year1 (Philippines)

Output	Activities	Q1			Q2			Q3			Q4		
		M1	M2	M3	M1	M2	M3	M1	M2	M3	M1	M2	M3
<b>COMPONENT 1: POLICY, LEGAL AND INSTITUTIONAL FRAMEWORKS</b>													
<b>Output 1.1:</b> The International Guidelines on Bycatch Management and Reduction of Discards adopted by all five project countries and regional bycatch priorities agreed by project partners and presented in published policy/strategy document.													
Project Indicator year 1: <i>Regional workshop agreeing on intention and work plan.</i>	<b>Activity 1.1.1:</b> Participate in and contribute to Regional Workshop	Dependent on RFU timetable (November 2012)											
<b>Output 1.2:</b> At least 3 national or area specific trawl fisheries bycatch management plans in the project areas agreed by stakeholders and adopted by relevant authorities.													
Project Indicator year 1: <i>Management needs assessment for each fishery/area.</i>	<b>Activity 1.2.1:</b> Establish Technical Working Group (TWG) in the selected pilot project site [new]				X								
	<b>Activity 1.2.2:</b> TWG formulates pilot fisheries bycatch management plan in consultation with stakeholders [from 1.4.4]					X	X						
<b>Output 1.3:</b> Legal and regulatory frameworks relevant for trawl fisheries bycatch management reviewed and recommendations for adjustments developed with and agreed in principle by the competent national authorities.													
Project Indicator year 1: <i>Policy, legal and institutional framework reviews completed in 2 project countries.</i>	<b>Activity 1.3.1:</b> Review of policy, legal and institutional framework [new]	X	X	X	X	X	X						
	<b>Activity 1.3.2:</b> Regional seminar/-consultation on current regulations/policies on trawl fisheries [from 1.4.2]				X						X		

<b>Output 1.4:</b> Institutional arrangements (Management Councils) for collaborative trawl fisheries bycatch management established and functioning in accordance with agreed bycatch management plans (output 1.2).													
Project Indicator year 1: <i>Temporary consultative groups for project management and stakeholder participation set up. Stakeholder analyses and institutional assessments completed for all fisheries/areas.</i>	<b>Activity 1.4.1:</b> Orientation/Consultation of high level national stakeholders group; Establish National Advisory (NAG);			X									
	<b>Activity 1.4.3:</b> Establish consultative groups for stakeholder participation			X									
<b>COMPONENT 2: RESOURCE MANAGEMENT AND FISHING OPERATIONS</b>													
<b>Output 2.1:</b> More selective trawl gear or alternative (e.g. including actions in 2.2 and/or 2.3) fishing practices used by at least half of the trawlers in project areas.													
Project Indicator year 1: <i>Potential gear modifications identified and trial/development work plan drawn up.</i>	<b>Activity 2.1.1:</b> Identify potential gear modifications [new; this may also be provided by/through advice from RFU]				X								
	<b>Activity 2.1.2:</b> Prepare a trial/development plan [new]					X	X						
<b>Output 2.2:</b> Selection criteria and recommendations for demarcating fishing zones and areas for spatial-temporal closures are identified in at least 2 project areas/countries.													
Project Indicator year 1: <i>Priorities and methods for seabed, fishing effort and sensitive areas/habitats mapping identified.</i>	<b>Activity 2.2.1:</b> Fish larval survey						X	X	X	X	X	X	
	<b>Activity 2.2.2 Critical habitat survey / mapping</b>						X	X	X	X	X	X	

<b>Output 2.3:</b> Inventory of selected trawl fleets in project areas drawn up and recommendations for fishing effort and capacity management strategy communicated to competent national authorities.														
Project Indicator year 1: <i>Existing vessel registry systems reviewed and criteria for registration of project areas trawlers defined.</i>	<b>Activity 2.3.1:</b> Training of field officers on inventory procedures & registration/licensing, registry/database systems			X										
	<b>Activity 2.3.2:</b> Inventory of trawl fishing fleets in project areas			X	X									
<b>Output 2.4:</b> Agreement has been reached on any appropriate incentive packages.														
Project Indicator year 1: <i>Potential types of incentive packages identified through desk study of other fisheries/regions.</i>	<b>Activity 2.4.1:</b> [please consider activity to address indicator; however this may be considered primarily a <u>regional</u> output under RFU responsibility]													
<b>COMPONENT 3: INFORMATION MANAGEMENT AND COMMUNICATION</b>														
<b>Output 3.1:</b> Data and data collection methods for bycatch, discards and seabed impact in project areas available and published in relevant national and regional information systems.														
Project Indicator year 1: <i>TOR for data collection drawn up and standardized methods for all project countries (observer programs, logbook systems, landing site surveys, mapping of fishing grounds) agreed with project partners/ stakeholders.</i>	<b>Activity 3.1.1:</b> Coordination with collaborators (local academe) and preparation of proposals	X	X	X										
	<b>Activity 3.1.2:</b> Regional training/workshop to standardize methodologies (bycatch/biological assessment /surveys including fish larvae) [from 1.4.2]					X								

<b>Output 3.2:</b> System set up for monitoring of bycatch reduction (volume) as a result of modified gear and improved management and its likely impact on incomes (bycatch value).														
Project Indicator year 1: <i>Key indicators identified and baseline data collected from sample trawlers/fishers.</i>	<b>Activity 3.2.1:</b> Training of enumerators / researchers to collect data for indicators identified in Activity 3.1.2. [from 3.1.3]						X							
	<b>Activity 3.2.2:</b> Trawl catch & bycatch landing surveys[from 3.1.4]							X	X	X	X	X	X	X
<b>Output 3.3:</b> Project website set up in Year 1 and developed into a regional information sharing mechanism for information on trawl fisheries bycatch management by end of project.														
Project Indicator year 1: <i>Website functional.</i>	<b>Activity 3.3.1:</b> Development of national project webpage	X	X	X	X	X	X							
<b>Output 3.4: Project IEC material available.</b>														
Project Indicator year 1: <i>Initial IEC material produced and distributed.</i>	<b>Activity 3.4.1:</b> Production and distribution of IEC materials (posters, flyers, t-shirts, etc)	X	X	X	X	X	X	X	X	X	X	X	X	X
<b>COMPONENT 4: AWARENESS AND KNOWLEDGE</b>														
<b>Output 4.1:</b> Fishers and other relevant stakeholders (fisheries managers, local government officials, etc) in project areas have improved their knowledge on bycatch, sustainability issues and collaborative management through training, project information and/or participation in project activities.														
Project Indicator year 1: <i>Training needs assessment completed.</i>	<b>Activity 4.1.1:</b> Consultative meetings of the TWG in the selected pilot project site [new]						X	X						
<b>Output 4.2:</b> Regional and national policy and decision-makers have been sensitized with regard to responsible trawl fisheries management through project information and workshops.														

<p>Project Indicator year 1: <i>20 participants from the project region have been sensitized about trawl fisheries bycatch management and the project</i></p>	<p><b>Activity:</b> 4.2.1 please consider activity to address indicator]Orientation/Consultation of high level national stakeholders group; Establish National Advisory (NAG) (same as Activity 1.4.1);</p>			X									
<p><b>Output 4.3:</b> Private sector/fisher ‘champions’, technical officers and extension workers (government and NGOs) have improved their knowledge on BRDs and other management measures through training (250 persons trained).</p>													
<p>Project Indicator year 1: <i>Training needs assessment completed.</i></p>	<p><b>Activity 4.3.1:</b> [please consider activity to address indicator] <u>Training/seminar/workshop on BRDs &amp; other management measures</u> in the selected pilot project site [new]</p>					X							

**Work Plan Year 1 (Thailand)**

### Work plan Year1 (Thailand)

Components	Output	Activities	Indicator
<b>Component 1.</b> Policy, legal and institutional frameworks	<b>Output 1.1:</b> The International Guidelines on Bycatch Management and Reduction of Discards adopted by all five project countries and regional bycatch priorities agreed by project partners and presented in published policy/strategy document (Indicator year 1: Regional workshop agreeing on intention and work plan)	<b>Activity 1.1.1:</b> -	
	<b>Output 1.2:</b> At least 3 national or area specific trawl fisheries bycatch management plans in the project areas agreed by stakeholders and adopted by relevant authorities.	<b>Activity 1.2.1:</b> Increasing knowledge of the project staff and strengthening bycatch management plan: Resource person for technical assistant and report writing	
	<b>Output 1.3:</b> Legal and regulatory frameworks relevant for trawl fisheries bycatch management reviewed and recommendations for adjustments developed with and agreed in principle by the competent national authorities.	<b>Activity 1.3.1:</b> -	
	<b>Output 1.4:</b> Institutional arrangements (Management Councils) for collaborative trawl fisheries bycatch management established and functioning in accordance with agreed bycatch management plans	<b>Activity 1.4.1:</b> Establish National Advisory; Orientation of high level national stakeholders group, Meeting-consultation; 1 day	
		<b>Activity 1.4.2:</b> Local orientation/seminar in 2 provinces # 30 participants per province (2 days)	

Components	Output	Activities	Indicator
<b>Component 2.</b> Resource management and fisheries operations	<b>Output 2.1.</b> More selective trawl gear or alternative (e.g. including actions in 2.2 and/or 2.3) fishing practices used by at least half of the trawlers in project areas	<b>Activity 2.1.1:</b> Short training course for trawlers and stakeholders before JTED experiment # 100 participants (2 days)	
		<b>Activity 2.1.2:</b> Short training course and JTED demonstration #30 participants (2 days)	
	<b>Output 2.2:</b> Selection criteria and recommendations for demarcating fishing zones and areas for spatial-temporal closures are identified in at least 2 project areas/countries)	<b>Activity 2.2.1:</b> Preliminary survey Landing survey; observers onboard	
		<b>Activity 2.2.2:</b> Data collection Survey on fishery biology, fishing gear, production etc	
		<b>Activity 2.2.3:</b> Data collection Survey on social economic issues	
	<b>Output 2.3:</b> Inventory of selected trawl fleets in project areas drawn up and recommendations for fishing effort and capacity management strategy communicated to competent national authorities.	<b>Activity 2.3.1:</b> Validate existing data; inventory number of trawl fishing fleets in the project area; Field work	
		<b>Activity 2.3.2:</b> Training for standard inventory method (5 man 2 site)	
	<b>Output 2.4:</b> Agreement has been reached on any appropriate incentive packages.	<b>Activity 2.4.1:-</b>	



<b>Components</b>	<b>Output</b>	<b>Activities</b>	<b>Indicator</b>
<b>Component 3.</b> Information management	<b>Output 3.1:</b> Data and data collection methods for bycatch, discards and seabed impact in project areas available and published in relevant national and regional information systems.	<b>Activity 3.1.1:</b> Comprehensive review; Analysis of existing data by consultant and review report	
	<b>Output 3.2:</b> System set up for monitoring of bycatch reduction (volume) as a result of modified gear and improved management and its likely impact on incomes (bycatch value).	<b>Activity 3.2.1:</b>	
	<b>Output 3.3:</b> Project website set up in Year 1 and developed into a regional information sharing mechanism for information on trawl fisheries bycatch management by end of project.	<b>Activity 3.3.1:</b>	
	<b>Output 3.4:</b> Project IEC material available.	<b>Activity 3.4.1:</b>	

<b>Components</b>	<b>Output</b>	<b>Activities</b>	<b>Indicator</b>
<b>Component 4.</b> Awareness and knowledge	<b>Output 4.1:</b> Fishers and other relevant stakeholders (fisheries managers, local government officials, etc) in project areas have improved their knowledge on bycatch, sustainability issues and collaborative management through training, project information and/or participation in project activities	<b>Activity 4.1.1:</b>	
	<b>Output 4.2:</b> Regional and national policy and decision-makers have been sensitized with regard to responsible trawl fisheries management through project information and workshops.	<b>Activity 4.2.1:</b>	
	<b>Output 4.3</b> Private sector/fisher 'champions', technical officers and extension workers (government and NGOs) have improved their knowledge on BRDs and other management measures through training (250 persons trained).	<b>Activity 4.3.1:</b>	

**WORK PLAN YEAR 1 (Viet Nam)**

### Work Plan Year1 (Viet Nam)

Components	Output	Activities	Indicator
<b>Component 1.</b> Policy, legal and institutional frameworks	<b>Output 1.1:</b> The International Guidelines on Bycatch Management and Reduction of Discards adopted by all five project countries and regional bycatch priorities agreed by project partners and presented in published policy/strategy document (Indicator year 1: Regional workshop agreeing on intention and work plan)	<b>Activity 1.1.1:</b> Participation on the regional workshop to develop a regional guidelines on bycatch management and reduction of discards	
	<b>Output 1.2:</b> At least 3 national or area specific trawl fishery bycatch management plan in the project areas agreed by stakeholders and adopted by relevant authorities. (Indicator year 1: Management needs assessment for each fishery/area)	<b>Activity 1.2.1:</b> Conduct a field trips in KienGiang to gather relevant information and management need assessment	1. Relevant information gathered 2. A trip report produced
	<b>Output 1.3:</b> Legal and regulatory frameworks relevant for trawl fisheries bycatch management reviewed and recommendations for adjustments developed with and agreed in principle by the competent national authorities	<b>Activity 1.3.1:</b> Review of legal, policy and institutional frameworks for trawl fisheries management in Vietnam to produce a checklists of compliance shortfalls with international guidelines for bycatch management and reduction of discards of FAO and regional	1. Legal, policy and institutional frameworks reviewed; 2. Necessary recommendations to reform national legal, policy and institutional frameworks
		<b>Activity 1.3.2:</b> Initial development of national circular for trawl fishery management in Vietnam	The circular drafted
		<b>Activity 1.3.3:</b> Circulate the first drafted circular to relevant authorities, fishing industries, and local stakeholders for their consultations	The first drafted circular circulated for consultation
		<b>Activity 1.3.4:</b> Convene a national WS to review and evaluate drafted circular	1. Workshop report produced; and 2. The first draft of circular reviewed and review

Components	Output	Activities	Indicator
<b>Component 2.</b> Resource management and fisheries operations	<b>Output 2.1.</b> More selective trawl gear or alternative (e.g. including actions in 2.2 and/or 2.3) fishing practices used by at least half of the trawlers in project areas (Indicator year 1: Potential gear modifications identified and trial/development work)	<b>Activity 2.1.1:</b> Development and trial the appropriate selective fishing gear types (BRD) to reduce bycatch and juvenile of trawl fisheries for KienGiang’s fishing fleets	1. Suitable fishing gear types to reduce bycatch for trawl fleets in KienGiang recommended 2. Suitable fishing gear types tried and installed in fishing vessels 3. Trawl fishery fisher's awareness on use of alternative fishing gears enhanced
	<b>Output 2.2:</b> Selection criteria and recommendations for demarcating fishing zones and areas for spatial-temporal closures are identified in at least 2 project areas/countries) Indicator year 1: Priorities and methods for seabed, fishing effort and sensitive	<b>Activity 2.2.1:</b> Investigation of priorities for fishing closed area/season	1. Consultancy report produced
		<b>Activity 2.2.2:</b> Conduct regional study tour	1. Trip report produced; 2. Good experiences learnt; 3. Knowledge for demarcating fishing zones and areas enhanced
	<b>Output 2.3:</b> Inventory of selected trawl fleets in project areas drawn up and recommendations for fishing effort and capacity management strategy communicated to competent national authorities. Indicator year 1: Existing vessel registry systems reviewed a	<b>Activity 2.3.1:</b> In desk study for development of term of reference for consultant(s)	
		<b>Activity 2.3.2:</b> Review of status of trawl fisheries and vessel registration system in KienGiang Province to recommend effective and sufficient fishing capacity management solutions (this revision is included review of national vessel registration system)	1. Current status of trawl fishery in KienGiang reviewed and revised; 2. Vessel registration system reviewed and appreciated fishing capacity management systems recommended
	<b>Component 3.</b> Information management	<b>Output 3.1:</b> Data and data collection methods for by catch Indicator for year 1: TOR for data collection drawn up and standardized methods	<b>Activity 3.1.1:</b> Develop protocols/forms for trawl fishery data collection
<b>Activity 3.1.2:</b> Conduct training WS for trawl fishery data collection training			1. Workshop report produced; 2. A trawl fishery data collection system established;
<b>Activity 3.1.3:</b> Develop, update and management database for data entry with trawl fishery			A database developed
<b>Activity 3.1.4:</b> Implement trawl fishery port sampling data collection program in KienGiang			Port sampling collected for at least 30-40% of total landings per month

Components	Output	Activities	Indicator
<b>Component 3.</b> Information management ( <b>Cont.</b> )	<b>Output 3.1 (Cont.):</b> Data and data collection methods for by catch Indicator for year 1: TOR Indicator for year 1: TOR for data collection drawn up and standardized methods	<b>Activity 3.1.5:</b> Implement trawl fishery logbook data collection program in KienGiang	50% of trawl fishery fleets delivered and 30% returned to local authorities
		<b>Activity 3.1.6:</b> Support working facilities for local project staffs	1. Equipments purchased
	<b>Output 3.2:</b> Setting up of M&E system	<b>Activity 3.2.1:</b> Make a contractual service to develop baseline, indicators for M&E system	2. Baseline of trawl fishery produced; 3. Indicators for m&e established
		<b>Activity 3.2.2:</b> Conduct field trip to carry out M&E activities (for staffs of NPSC, three staffs x 3 trips)	Project activities managed and evaluated
		<b>Activity 3.2.3:</b> Convene a workshop for evaluation of M&E system (baselines and indicators...). This activity will be combined with inception workshop	1. workshop report produce 2. M&E system established
<b>Output 3.4:</b> Project IEC material available.	<b>Activity 3.4.1:</b> Share project information through mass media and brochures distribution on bycatch management activities	Shared project information/brochures	
<b>Component 4.</b> Awareness and knowledge	<b>Output 4.3:</b> Increase understanding by policy makers, fishery managers, officials, extension officials and NGOs on responsible trawl fisheries and management	<b>Activity 4.3.1:</b> Convene an inception workshop to introduce project's information and enhance awareness of relevant stakeholders in KienGiang. (The workshop will be combined with activity 2.3.2)	Workshop report produced
<b>Component 5.</b> Project management	<b>Output 5.2.</b> National coordinator (NC) selected and regional coordination promoted through a project steering committee (PSC) consisting National Coordinator	<b>Activity 5.2.2:</b> Allowance for a national technical officer	A TOR of NTO tasks established
		<b>Activity 5.2.3:</b> Facilitate non-expendable equipments	Laptop for project staffs (2 for local staffs and 4 for central staffs)
			Camera Projector machine

## Vietnam ANNUAL WORK PLAN

**Narrative description by component** (*activities, participants, responsible actors and output targets to be achieved during the year*)

### **Component 1: Policy, legal and institutional frameworks**

This component is implemented through some main activities as follow:

**Activity 1.2.1:** Conduct a field trip in KienGiang to gather relevant information and management need assessment

DECAFIREP will conduct a field to the project area to collect more information on trawl fisheries as well as to negotiate with local authorities in order to implement the project activities (implementation of data collection) in the area. In addition, the trip is also to discuss suitable mechanisms to collaborate between DECAFIREP and Sub-DECAFIREP in the future on trawl fisheries management at the province. Staffs involved including NTO, NPC, a scientist and a manager together with two local staffs in KienGiang province. The output of the activity is a trip report providing information on status of trawl fisheries in KienGiang province (e.g. number of fishing vessels by gear types, estimates of annual catch data, fishing efforts of trawl fisheries, etc.).

**Activity 1.3.1:** Review of legal, policy and institutional frameworks for trawl fisheries management in Vietnam to produce checklists of compliance shortfalls with international guidelines for bycatch management and reduction of discards of FAO and regional

A consultancy task will be contracted to local consultant(s) to review legal, policy and institutional frameworks on trawl fisheries management of Vietnam in the light of regional/international requirements. A clear and practical TOR of this consultancy task will be developed by NPC/NTO to recruit local consultant(s) following the FAO's guidelines. A main objective of this activity is to produce a checklist of compliance shortfalls in legislation system of Vietnam and to recommend suitable reforms in the future. Information of this consultancy report can also be used as input information on development of national Circular to manage trawl fisheries at the national level.

**Activity 1.3.2:** Initial development of national circular for trawl fishery management in Vietnam

Continue to last activity, there will be another consultancy task to be carried out to develop a national Circular to manage trawl fisheries. FAO under advising of DECAFIREP will select a local consultant to develop the Circular. The outcome of the consultancy service will be a first draft of the Circular. Then the first draft of the Circular will be circulated to relevant national agencies and stakeholders for their review using **activity 1.3.3** below.

**Activity 1.3.3:** Circulate the first drafted circular to relevant authorities, fishing industries, and local stakeholders for their consultations

As a normal procedure on development of any legal documents in Vietnam, the Circular will be circulated to relevant agencies within D-FISH and MARD for their consultations in order to improve the first draft. This activity will need no cost to conduct and its outcome is a adopted Circular commented by national agencies and relevant stakeholders.

**Activity 1.3.4:** Convene a national WS to review and evaluate drafted circular

The next step is to conduct national and/or local workshops to consult further comments on the drafted Circular by local participants and international experts (SEAFDEC and FAO, if possible) to complete the Circular. As constraint on availability on first year budget there is only one workshop to be convened in this year. The outcome of these series of the workshop is to provide a final Circular to submit to Vietnam's Government for approval.

**Activity 1.4.1:** Investigation to establish a local/national working group on bycatch mitigation and management

A National Working Group with about 7-8 people mainly coming from Government staffs will be established. NWG established will support the NPC/NTO for proper project implementation. NWG are also responsible for involving reviewing activities to ensure that project implementation meet the expected outcomes of indicators. A meeting of working group member will be convened to discuss on how better implement the project and manage trawl fisheries in the project area.

## **Component 2: Resource management and fisheries operations**

**Activity 2.2.1:** Development and trial the appropriate selective fishing gear types (BRD) to reduce bycatch and juvenile of trawl fisheries for KienGiang's fishing fleets

Some selective fishing gear types to reduce bycatch and juvenile of trawl fisheries have been investigated in some other countries. However, in order to apply effectively and significantly in Vietnam, there is a need to provide more investigations to test on which types are relevant to trawl fisheries in Vietnam in general and in KienGiang in particular. A on board trial will be conducted by a local Fisheries Institute of Vietnam (research institute or fisheries university) to find out a suitable gears to reduce bycatch of trawl fisheries in Vietnam. These potential gear types can then be applied as alternative fishing gears to reduce bycatch. This task will be developed through a contractual service contracted between FAO and the local agency. The outcomes of the consultancy activity will be used as input information to develop the national Circular on managing trawl fisheries in Vietnam.

**Activity 2.2.2:** Review and recommend fishing closed area/season (field trip, workshop and mapping)

Overcapacity is obviously considered to be present not only in trawl fisheries but also in other fisheries in Vietnam. The main objective of this activity is to reduce fishing capacity using input control management measure. Fishing closed area/season will be recommended to limit fishing effort on trawl fisheries in KienGiang. This activity will also use outputs under **Activity 2.3.2** below to find out fishing grounds or sensitive habitats/ecosystems influenced by trawl fisheries. These areas will then be considered to limit fishing capacity.

**Activity 2.3.2:** Review of status of trawl fisheries and vessel registration system in KienGiang Province to recommend effective and sufficient fishing capacity management solutions (this revision is included review of national vessel registration system)

The activity will provide information on the actual fleet size in trawl fisheries in KienGiang. The inventory will involve both DECAFIREP field officers and local government unit personnel who will be responsible for the conduct of inventory in their respective areas. The project will provide support for their travel and other budget as maybe necessary.

It is expected that the status of trawl fisheries in KienGiang province's such as the size of trawl fleets in trawling areas, catch data, fishing seasons, etc. are documented in the first year of project implementation. The outputs of this project will also be used to recommend fishing closed areas/seasons on the trawl fisheries in KienGiang province.

### **Component 3: Information management and communication**

#### **Activity 3.1.1:** Develop protocols/forms for trawl fishery data collection

Regional protocols and data collection forms to collect trawl fisheries data will be developed by FAO/RFU/SEAFDEC. However, there is a need to review for easy implementation and more applicable in the case of Vietnam. Therefore, it is necessary to review and develop the national protocols/forms for trawl fisheries data collection in Vietnam. The output of this activity will be a manual on data collection of the trawl fisheries in Vietnam and relevant sampling protocols/forms.

#### **Activity 3.1.2:** Conduct training WS for trawl fishery data collection training

Data collection of the trawl fisheries will be conducted by a local supervisor and enumerators recruited from fishery staffs of Sub-Department of Capture Fisheries and Resources Protection (Sub-DECAFIREP) under supervision of the project staffs (NTO) and other DECAFIREP's staffs if necessary. However, before starting to collect trawl fisheries data, it is necessary to conduct a three day-training workshop to train for both the local supervisor and the enumerators on how to sample and implement other activities under a contract with DECAFIREP. All methods of sampling, for instance, port sampling, unloading and logbook programs must be introduced and trained for local staffs in Sub-DECAFIREP. The aim of the training is to introduce protocols/forms to the enumerators and local supervisor to be familiar with data collection activities. The training will be involved by FAO/RFU/SEAFDEC with technical support, if available. Targeted participants are local fisheries staffs from KienGiang province and other provinces where there is intention to expand trawl fishery data collection activity in the next stage.

#### **Activity 3.1.3:** Develop, update and management database for data entry with trawl fishery

Currently, DECAFIREP is developing a fisheries database for all its fisheries. However, in order to apply for trawl fisheries, it is very necessary to develop and update new queries for more suitable with trawl fisheries of Vietnam. In addition, FAO/RFU/SEAFDEC may develop a regional database to control and manage collected trawl fisheries data and distribute to the project implementation countries. If so, Vietnam then will use this database and there is no need to develop own database.

#### **Activity 3.1.4, 3.1.5:** Implement data collection with port sampling, unloading and logbook data for trawl fisheries in KienGiang

This activity must be integrated with **Activities 3.1.1 and 3.1.2** above, after development of protocols/forms and providing training on data collection, DECAFIREP will contract to its Sub-DECAFIREP and recruit the trained fisheries staffs to sample data immediately. The port sampling will only be conducted at some landing sites of the province by two local staffs. All protocols/forms to collect port sampling data will be followed as regional standards with some slight adjustments in order for more relevant to the trawl fisheries of Vietnam. In addition, logbook data collection will also implemented by mentioned two fishery staffs under the supervision of a local supervisor and NTO if needed.

#### **Activity 3.1.6:** Support working facilities for local project staffs

Some expenditure equipment will be supplied for data collection activities of local fishery staffs such as rules, weight, rainy coats... These facilities will be purchased by DECAFIREP if required by Sub-DECAFIREP.

#### **Activity 3.2.1:** Make a contractual service to develop baseline, indicators for M&E system



M&E of progress in achieving project results and objectives must be done based on the targets and indicators established in the Project Results Framework. Good M&E systems and procedures are fundamental for providing information for management decisions and for fulfilling oversight functions. The project management M&E system will include indicators and be developed in such a way that it is also useful to the national project management board for tracking further progress on bycatch reduction and improved trawl management. Moreover, it will facilitate learning and generation of knowledge that can support further actions in KienGiang and the wider area

**Activity 3.2.2:** Convene a workshop for evaluation of M&E system (baselines and indicators...).

This activity will be combined with inception workshop on **Activity 4.3.1**

#### **Component 4: Awareness and knowledge**

**Activity 4.3.1:** Convene an inception workshop to introduce project's information and enhance awareness of relevant stakeholders in KienGiang. (The workshop will be combined with **Activity 3.2.2**)

In order to implement effectively and successfully the project in Vietnam in first year, it is necessary to review and revise this developed first year work plan by national stakeholders at the local and community level. Throughout this revision, a final work plan for the first year will be created more realistically. Therefore, a national planning workshop to review and amend the first year work plans for more realistic is very necessary and important. During the workshop, collaboration planning among national partners will also be discussed to inform relevant agencies on their detail roles and responsibilities in the project implementation.

The workshop aims to:

- ✓ Introduce the project to the key stakeholders of the project in Vietnam (objectives, significances and importance of implementing the project in Vietnam especially in KienGiang province);
- ✓ Review and amend work plan of the project for the first year;
- ✓ Enhance collaboration ability among national partners during implementation of the project at local and central level;
- ✓ Define roles and responsibilities among relevant agencies during the implementation of the project.
- ✓ Prepare contracts to DARD/Sub-DECAFIREP KienGiang for data collection of trawl fisheries including work to be done, budget to be requested, human resources requested, etc.

**COMMUNICATIONS STRATEGY  
STRATEGIES FOR TRAWL FISHERIES BYCATCH  
MANAGEMENT (REBYC II CTI)**  
*By Dr. Susana Siar*

## **Communications Strategy**

### **Strategies for trawl fisheries bycatch management (REBYC II CTI)**

*By Dr. Susana Siar*

Communication is essential to REBYC II CTI implementation and success. Of the four project components, two are directly concerned with communication:

- Component 1: Policy, legal and institutional frameworks
- Component 2: Resource management and fishing operations
- Component 3: Information management and communication
- Component 4: Awareness and knowledge

The environmental and development objectives of the project cannot be met without paying attention to communication – whom to communicate, what are the messages, when to communicate and how?

**Global environment objective:** Responsible trawl fisheries that result in sustainable fisheries resources and healthy marine ecosystems in the Coral Triangle and Southeast Asian waters by reduced bycatch, discards and fishing impact on biodiversity and the environment

**Project development objective:** Effective public and private sector partnership for improved trawl and bycatch management and practices that support fishery dependent incomes and sustainable livelihoods

#### **OBJECTIVES OF THE COMMUNICATIONS STRATEGY**

This communications strategy will help all project partners to communicate effectively with each other and with those outside of the project. This is expected to create better relationships among project partners and facilitate the visibility of the project. The communications strategy will ensure that all relevant stakeholders are able to receive, exchange, and disseminate information in an appropriate, efficient and timely manner.

This communications strategy has the following objectives:

- Enhanced coordination and collaboration among all project partners after the first year of work plan implementation and throughout the project life
- Policy changes toward responsible trawl fisheries adopted at the national and regional levels before the end of the project
- Findings, lessons and experiences from the project are being used to improve trawl fisheries management measures by project partners and policy makers

#### **TARGET GROUPS AND AUDIENCES – WITH WHOM TO COMMUNICATE**

The target audiences are those who are directly involved in the project implementation at the national and regional levels (Table 1). Those who are not directly involved but could be crucial in achieving the project outcomes are also included as target audiences.

Table 1. Target audiences for the communications strategy.

	<b>National</b>	<b>Regional and Global</b>
<b>Directly involved in project implementation</b>	<ul style="list-style-type: none"> <li>• National executing partners</li> <li>• Local Government Units</li> <li>• Private sector – fishers and their organizations; vessel owners and their organizations; processing and marketing sectors</li> <li>• Academic and research institutions</li> </ul>	<ul style="list-style-type: none"> <li>• Private sector – regional and global organization partners</li> <li>• Co-financing partners</li> </ul>
<b>Not directly involved but could be crucial to achievement of project outcomes</b>	<ul style="list-style-type: none"> <li>• Policy and decision makers</li> <li>• Domestic consumers</li> </ul>	<ul style="list-style-type: none"> <li>• Other GEF-funded projects in the region</li> <li>• Regional political and economic inter-governmental organizations</li> <li>• Regional and global non-governmental organizations</li> <li>• Consumers of seafood products</li> <li>• Donor countries</li> </ul>

## KEY MESSAGES – WHAT TO COMMUNICATE

The following are the three core messages that need to be delivered:

### For target audiences directly involved in project implementation:

**Message 1:** Trawl fisheries management, including bycatch reduction, is more than technology change – it involves institutional, resource management and incentive measures, as well as fishing community and industry participation.

**Message 2:** Public-private partnership is crucial to the achievement of the development and environment objectives of the project.

**Message 3:** Information generated from science and local knowledge is important for determining impacts of management measures and advocating for policy changes.

**For target audiences not directly involved:** The resource and livelihoods sustainability issues in trawl fisheries need to be addressed through a combination of policy framework, resource management measures and incentives, as well as fishing community, industry and consumer participation.

## TOOLS AND ACTIVITIES – HOW TO COMMUNICATE THE KEY MESSAGES

The above messages can be delivered in different ways to the target audiences as shown in Table 2.

Table 2. Delivering the key messages to the target audiences.

<b>Target groups</b>	<b>Tools/Activities/Channels</b>	<b>When</b>
All target audiences	Project website	Project lifetime and beyond
	Social media	Project lifetime
	DVD/video/video clips	From Year 1
	Poster	From Year 1
All partners	Project brochure	Beginning of project implementation
	e-Newsletter	Twice a year
	Technical advisory materials and publications	From Year 1
	Success stories publication	Once a year
	DVD/video/video clips	From Year 1
National partners	Lessons learned publication	From Year 3
	Participation in events of partners	As the opportunity arises
	Roundtable with partners	Once a year
	Articles in national magazines and major dailies	As needed
National policy and decision makers and regional political and economic inter-governmental organizations	Radio and television interviews	As needed
	Policy brief	From Year 2
Private sector and co-financing partners at the regional/global levels	Roundtable	Once a year

Some of the communications products may need to be translated into the local languages, as necessary.

## **MONITORING AND EVALUATING RESULTS**

At the regional level, SEAFDEC as the Regional Facilitation Unit is responsible for implementing and monitoring the communications strategy. However, it is necessary to identify at the national execution partner level the person/staff that would be responsible for supporting the implementation of the communications strategy. While it is understood that the national project coordinator and national technical officer can speak on behalf of the project, it would be useful to identify other potential speakers from the implementing partners who could be asked to participate in other communications activities when the need arises.

The following measures could be used to monitor the success of the communications strategy:

- Contribution by partners to stories, articles in project website and publications
- Number of requests for publications, posters and DVDs/videos
- Number of references to project achievements and outputs in the literature and national media
- Agreement on and formulation of a regional bycatch strategy
- Agreement on and formulation of local/national trawl fisheries management plans

**REBYC-II CTI PROJECT ACTIVITIES YEAR 1**

**REBYC-II CTI Project Activities Year 1.** The list of activities was collated from national work plans and each of the national work plans contains additional detail - the purpose here is to summarize the foreseen activities by RFU and the five participating countries. The list contains activities that represents a subset of the full Results Framework, and cannot be fully interpreted in isolation.

## **COMPONENT 1: POLICY, LEGAL AND INSTITUTIONAL FRAMEWORKS**

**Output 1.1:** The International Guidelines on Bycatch Management and Reduction of Discards adopted by all five project countries and regional bycatch priorities agreed by project partners and presented in published policy/strategy document.

*Project target year 1: Regional workshop agreeing on intention and work plan.*

RFU 1.1.1: Conduct regional workshop to agree on detailed, consolidated work plan

INS 1.1.1: Participate in and contribute to Regional Workshop

PNG 1.1.1: Participation on the regional workshop to develop a regional guidelines on bycatch management and reduction of discards

PHI 1.1.1: Participate and contribute to Regional Workshop

THA 1.1.1: Participate and contribute to Regional Workshop.

VIE 1.1.1: Participation on the regional workshop to develop a regional guidelines on bycatch management and reduction of discards

**Output 1.2:** At least 3 national or area specific trawl fisheries bycatch management plans in the project areas agreed by stakeholders and adopted by relevant authorities.

*Project target year 1: Management needs assessment for each fishery/area.*

RFU 1.2.1: Conduct regional WS on management needs for selected fisheries/areas (TWS 1)

INS 1.2.1: Assessment of management needs/targets [#4 and #5]

PNG 1.2.1: Desk top study on GOPP fishery including biophysical and socio-economic attributes



PNG 1.2.2: Undertake studies/surveys to fill in gaps identified in 1.2.1

PNG 1.2.3: Conduct national multi-stakeholder meeting to convey results from activities in 1.2.1 and 1.2.2

PHI 1.2.2: Establish Technical Working Group (TWG) in the selected pilot project site

PHI 1.2.3: TWG formulates pilot project implementation plan (that will lead to pilot trawl bycatch management plan) in consultation with stakeholders

THA1.2.1: Undertake the formulation of trawl fishing gear management measure in project area (Fishing gear selectivity)

THA1.2.2: Undertake the formulation of trawl fishing ground management measure in project area (Zoning)

VIE 1.2.1: Conduct a field trips in KienGiang to gather relevant information and management need assessment

VIE 1.2.2: Prepare field trip report

**Output 1.3:** Legal and regulatory frameworks relevant for trawl fisheries bycatch management reviewed and recommendations for adjustments developed with and agreed in principle by the competent national authorities.

*Project target year 1: Policy, legal and institutional framework reviews completed in 2 project countries.*

RFU 1.3.1: Policy, legal and inst. Review in two countries (consultancy)

INS 1.3.1: Review of policy, legal and institutional framework of Arafura Sea fishery [#6]

PNG 1.3.1: Undertake policy review to determine if by catch management in GOP requires specific management plan or should it form an integral part of GOP fishery management plan

PNG 1.3.2: Conduct multi-stakeholder meeting to develop management plan for by catch based on recommendations from 1.3.1

PNG 1.3.3: Develop monitoring and data collection mechanisms

PNG 1.3.4: Management Plan revised incorporating results from activities undertaken in year 1 and presented to stakeholders for further consultation and eventual certification.

PHI 1.3.1: Engagement of National consultant (Comp1)

PHI 1.3.2: Seminar/-consultation in pilot area (project brief; review status of fisheries current policies / regulations

THA 1.3.1: Consultancy to review the national law and regulation for trawl fisheries

VIE 1.3.1: Review of legal, policy and institutional frameworks for trawl fisheries management in Vietnam to produce a checklist of compliance shortfalls with international guidelines for bycatch management and reduction of discards

VIE 1.3.2: Initial development of national circular for trawl fishery management in Vietnam

VIE 1.3.3: Circulate the first drafted circular to relevant authorities, fishing industries, and local stakeholders for their consultations

VIE 1.3.4: Convene a national WS to review and evaluate drafted circular

**Output 1.4:** Institutional arrangements (Management Councils) for collaborative trawl fisheries bycatch management established and functioning in accordance with agreed bycatch management plans (output 1.2).

*Project target year 1: Temporary consultative groups for project management and stakeholder participation set up. Stakeholder analyses and institutional assessments completed for all fisheries/areas.*

RFU 1.4.1: -

INS 1.4.1: Establish national working groups (NWG) [#1]

INS 1.4.2: Meeting of NWG to finalize national work plan and budget [#1]

INS 1.4.3: Establish local project area consultative groups (LCG) for project management and stakeholder participation [#2]

INS 1.4.4: NWG [or other entity, e.g. LCG or consultant #6] leads/carries out stakeholder analysis and local institutional assessment

PNG 1.4.1: Establish project management group to oversee the implementation of the project;

PNG 1.4.2: Undertake stakeholder analysis and institutional assessment to identify composition of possible MAC members

PNG 1.4.3: Develop TOR for MAC members

PNG 1.4.4: Formalize MAC representation

PHI 1.4.1: Orientation/Consultation with National Advisory Group (NAG);

PHI 1.4.3: Establish consultative groups for stakeholder participation

PHI 1.4.4: NCs lead/carry out policy/institutional and trawl fisheries review

THA: 1.4.1: Meeting of stakeholders to establish the Advisory Groups and Steering Committee Members

VIE 1.4.1: Establish a local/national working group on bycatch mitigation and management

## **COMPONENT 2: RESOURCE MANAGEMENT AND FISHING OPERATIONS**

**Output 2.1:** More selective trawl gear or alternative (e.g. including actions in 2.2 and/or 2.3) fishing practices used by at least half of the trawlers in project areas.

*Project target year 1: Potential gear modifications identified and trial/development work plan drawn up.*

RFU 2.1.1: Conduct regional technical WS on selective trawl gear (TWS 1)

INS 2.1.1: Identify potential gear modifications [#4, #5, #6; this may also be part of support/advice from RFU]

INS 2.1.2: Prepare a trial/development plan [#4, #5, #6]

PNG 2.1.1: Undertake gear selectivity assessment and identify appropriate specifications for GOPPF if required

PNG 2.1.2: Identify a licensed operator to trial the gear including trial plan

PNG 2.1.3: Conduct meetings to seek expert opinion and stakeholder views on the trial result

PNG 2.1.4: Report and document results to contribute to policy formulation on by catch management

PHI 2.1.1: Identify potential gear modifications [new; this may also be provided by/through advice from RFU] / alternative fishing gears

PHI 2.1.2: Prepare a trial/development plan [new]

THA: 2.1.1: Conduct trawl fishing trial of Mesh size selectivity: Two experiment (Otter board trawl and pair trawl) 4 fishing boats (private sector) will be hired for each experiment. Data collection will be conduct analysis and report.

THA: 2.1.2: Two Stakeholder consultation workshops: Pre-experiment for announcement and post-experiment for result dissemination

THA: 2.1.3: Formulation of management plan in process

VIE 2.1.1: Development and trial the appropriate selective fishing gear types (BRD) to reduce bycatch and juvenile of trawl fisheries for KienGiang's fishing fleets

**Output 2.2:** Selection criteria and recommendations for demarcating fishing zones and areas for spatial-temporal closures are identified in at least 2 project areas/countries.

*Project target year 1: Priorities and methods for seabed, fishing effort and sensitive areas/habitats mapping identified.*

RFU 2.2.1: Conduct regional technical WS on Zonation/fishing areas (TWS 1)

INS 2.2.1: Identification of priorities for mapping to support management [#4, #5 and #7]

INS 2.2.2: Mapping of Critical areas [#5 workshop, #7]

PNG 2.2.1: Undertake annual survey/research in an attempt to review and make recommendations relating to fishing closed area/season (field trip, workshop and mapping)

PNG 2.2.2: Undertake habitat mapping for GOPPF including and three mile zone

PNG 2.2.3: Recommendations put forward for consideration during management planning

PHI 2.2.1: Fish larval survey

PHI 2.2.2: Critical habitat mapping (coral reef, sea grass, seabed)

THA 2.2.1: Review existing data related with project area (data: fisheries, economic social environment and etc.)

THA 2.2.2: Stakeholder consultation (Pre activities of data collection activity for announcement)

THA 2.2.3: Data collection strengthened on the recruitment, fish larvae, fishing gear type, catch, dominant species, socio-economic aspect (1 year)

VIE 2.2.1: Investigation of priorities for fishing closed area/season

VIE 2.2.2: Participate in regional study tour

**Output 2.3:** Inventory of selected trawl fleets in project areas drawn up and recommendations for fishing effort and capacity management strategy communicated to competent national authorities.

*Project target year 1: Existing vessel registry systems reviewed and criteria for registration of project areas trawlers defined.*

RFU 2.3.1: Review of existing frameworks for managing fishing capacity (consultancy)

RFU 2.3.2: Conduct regional technical WS on Vessel registration systems (TWS 1)

INS 2.3.1: Review of existing vessel registry systems [#4]

INS 2.3.2: Identify criteria for registration of project area trawlers [#4, #5, #6]

PNG 2.3.1: Review current VMS registry for all fleets

PNG 2.3.2: Revise all current license conditions to reflect changes

PHI 2.3.1: Training of field officers on inventory procedures & registration/licensing, registry/database systems

PHI 2.3.2: Inventory of trawl fishing fleet in pilot site

THA 2.3.1: Validate existing data and inventory of trawl fishing fleets in the project areas. (Pilot area of mesh size selectivity experiment: Prachuab Khirikhan and Chumporn Province)

THA 2.3.1: Validate existing data and inventory for mapping in the project areas. (Pilot area of Zoning: Trat Province)

VIE 2.3.1: In desk study for development of term of reference for consultant(s)

VIE 2.3.2: Review of status of trawl fisheries and vessel registration system in KienGiang Province to recommend effective and sufficient fishing capacity management solutions (this revision is included review of national vessel registration system)

**Output 2.4:** Agreement has been reached on any appropriate incentive packages.

*Project target year 1: Potential types of incentive packages identified through desk study of other fisheries/regions.*

RFU 2.4.1: Desk study on incentives packages (consultancy)

INS 2.4.1: Identify potential incentives packages [#8; study of “other regions” may be primarily a regional activity under RFU responsibility]

PNG 2.4.1: Undertake further research to assess the feasibility of allowing trawl activities within 3 mile area in an attempt to allow resource owners to utilize bycatch and prawns under formal benefit sharing arrangement

PNG 2.4.2: As an incentive, trial licenses can be made available for operators to do mid water trawl for finfish outside the management area during prawn closure season as an incentive for installation of bycatch device on trawlers.

PHI 2.4.1: -

THA 2.4.1:-

VIE 2.4.1: -

### **COMPONENT 3: INFORMATION MANAGEMENT**

**Output 3.1:** Data and data collection methods for bycatch, discards and seabed impact in project areas available and published in relevant national and regional information systems.

*Project target year 1: TOR for data collection drawn up and standardized methods for all project countries (observer programs, logbook systems, landing site surveys, mapping of fishing grounds) agreed with project partners/ stakeholders.*

RFU 3.1.1: Conduct regional technical WS on Monitoring and data collection methods and key project indicators (TWS 1)

INS 3.1.1: Participate in regional training/workshop to standardize methodologies (bycatch/biological assessment /surveys including fish larvae)

INS 3.1.2: Standardize data collection [#9]

PNG 3.1.1: Review/revise Observer programs to develop protocols/forms for trawl fishery data collection

PNG 3.1.3: Develop, update and management database for data entry with trawl fishery

PNG 3.1.4: Review and revise Logbooks, sampling forms/species guides /sampling protocols for data collection in an effort to improve knowledge on bycatch species composition in GOPFF

PNG 3.1.5: Implement trawl fishery logbook data collection program and develop a database for bycatch monitoring and management in GOP.

PHI 3.1.1: Coordination with collaborators (local academe, LGUs, BFAR field units, boat operators) and preparation of proposals

THA 3.1.1: Data collection, analysis, size composition, proportion of catch, bycatch from mesh size expansion (area of data collection in PrachaubKhirikarn and Chumporn province)

THA 3.1.2: Data collection, analysis, size composition, proportion of catch, bycatch from zonation (area of data collection in Trat province)

VIE 3.1.1: Develop protocols/forms for trawl fishery data collection

VIE 3.1.2: Conduct training WS for trawl fishery data collection training

VIE 3.1.3: Develop, update and management database for data entry with trawl fishery

VIE 3.1.4: Implement trawl fishery port sampling data collection program in KienGiang

VIE 3.1.5: Implement trawl fishery logbook data collection program in KienGiang

VIE 3.1.6: Support working facilities for local project staffs

**Output 3.2:** System set up for monitoring of bycatch reduction (volume) as a result of modified gear and improved management and its likely impact on incomes (bycatch value).

*Project target year 1: Key indicators identified and baseline data collected from sample trawlers/fishers.*

RFU 3.2.1: -

INS 3.2.1: Training of enumerators / observers to collect data for indicators identifies in Activity 3.1.2. [#10]

PNG 3.2.1: Data collectors to be deployed onto sample trawlers/fishers during fishing season.

PNG 3.2.2: Logbooks and landing data collection

PHI 3.2.1: Training of enumerators for trawl catch/bycatch landing survey; researchers/divers for critical area mapping & fish larvae

PHI 3.2.2: Trawl catch & bycatch landing surveys

THA 3.2.1: Conduct field survey data analysis and prepare annual report Year1

VIE 3.2.1: Make a contractual service to develop baseline, indicators for M&E system



VIE 3.2.2: Conduct field trip to carry out M&E activities (for staffs of NPSC, three staffs x 3 trips)

VIE 3.2.3: Convene a workshop for evaluation of M&E system (baselines and indicators). This activity will be combined with inception workshop

**Output 3.3:** Project website set up in Year 1 and developed into a regional information sharing mechanism for information on trawl fisheries bycatch management by end of project.

*Project target year 1: Website functional.*

RFU 3.3.1: Setup and maintenance of project website

INS 3.3.1: Develop and maintain national project webpage [#11]

PNG 3.3.1: Collate and formalize all relevant information such as progress reports etc... to be sent for publishing.

PNG 3.3.2: As project rolls on, provide updates regularly for uploading on to website

PHI 3.3.1: Development of national project webpage

THA 3.1.3: Develop project webpage through the official website of Central Marine Fisheries Fisheries Development Center (CMDEC)

VIE 3.3.1: Development of national project webpage

**Output 3.4: Project IEC material available.**

*Project target year 1: Initial IEC material produced and distributed.*

RFU 3.4.1: Produce IEC materials

INS 3.4.1: -

PNG 3.4.1: All line agencies and stakeholders involved in this exercise. Share project information through mass media and brochures distribution on bycatch management activities

PHI 3.4.1: Production and distribution of IEC materials (posters, flyers, t-shirts, etc)

THA 3.4.1: Postpone for the second year (after finalized result of Activities 2.1.2, 2.2.2)

VIE 3.4.1: Share project information through mass media and brochures distribution on bycatch management activities

## **COMPONENT 4: AWARENESS AND KNOWLEDGE**

**Output 4.1:** Fishers and other relevant stakeholders (fisheries managers, local government officials, etc) in project areas have improved their knowledge on bycatch, sustainability issues and collaborative management through training, project information and/or participation in project activities.

*Project target year 1: Training needs assessment completed.*

RFU 4.1.1: TNA for fishers and other relevant stakeholders

INS 4.1.1: Carry out training needs assessment for fishers [#2]

PNG 4.1.1: Consultative workshop for stakeholders and fishing community, resource owners ( an inception workshop to introduce project's information and enhance awareness of relevant stakeholders in GOP fishery)

PHI 4.1.1: Consultative meetings of the TWG in pilot project site

THA 4.1.1: same as Activity 2.1.2

THA 4.1.2: same as Activity 2.2.3

VIE 4.1.1: -

**Output 4.2:** Regional and national policy and decision-makers have been sensitized with regard to responsible trawl fisheries management through project information and workshops.

*Project target year 1: 20 participants from the project region have been sensitized about trawl fisheries bycatch management and the project*

RFU 4.1.2: Carry out training on co-management and locally based approaches to responsible fisheries, including selective fishing gears

INS 4.2.1: Identify national policy and decision makers for sensitization [#1]

PNG 4.2.1: Combined with 4.1.1

PHI 4.2.1: Same as Activity 1.4.1

THA 4.2.1: Same as Activity 1.4.1

VIE 4.2.1: -

**Output 4.3:** Private sector/fisher 'champions', technical officers and extension workers (government and NGOs) have improved their knowledge on BRDs and other management measures through training (250 persons trained).

*Project target year 1: Training needs assessment completed.*

RFU 4.3.1: TNA for Private sector/fisher champions etc

INS 4.3.1: Carry out training needs assessment [#2]

PNG 4.3.1: Combined with 4.1.1

PHI 4.3.1: Training / Seminar on BRDs & other management measures

THA: 4.3.1: Same as Activity 1.4.1

THA: 4.3.2: Same as Activity 2.1.2

THA: 4.3.3: Same as Activity 2.2.3

VIE 4.3.1: Convene an inception workshop to introduce project's information and enhance awareness of relevant stakeholders in KienGiang.  
(The workshop will be combined with activity 2.3.2)

**PRESENTATION**

**The Symposium ICES-FAO WGFTFB Bangkok 2013**

*By Mr. Petri Suuronen*

**FAO/GEF Regional Workshop on Work Planning Year I for REBYC-II CTI**

**6-9 November 2012, Bangkok, Thailand**

# The Symposium ICES-FAO WGFTFB Bangkok 2013

## ICES-FAO Working Group on Fishing Technology and Fish Behaviour (FTFB)

Bangkok, Thailand, 6-10 May 2013



Petri Suuronen  
FAO/FIRO

FAO/GEF REBYC-II CTI Regional Workshop on Work Planning, Bangkok 6-9 Nov 2012

## What is ICES?

- The International Council for the Exploration of the Sea (ICES) has 20 member countries.
  - All coastal states bordering the North Atlantic and the Baltic Sea.
- ICES coordinates and promotes research on
  - oceanography
  - marine environment and ecosystems
  - living marine resources (fisheries)
- ICES is a network of more than 1600 scientists from 200 institutes linked by an intergovernmental agreement to add value to national research efforts.
  - The knowledge is developed at ICES into unbiased advice to help the member countries to properly manage their oceans and fisheries.

## What is FTFB?

- The ICES Working Group on Fishing Technology and Fish Behavior (WGFTFB) has been an active expert group since 1960s.
- A primary objective of the FTFB is the incorporation of fishing technology issues and expertise into management advice including:
  - impacts of fishing on the environment
    - gear selectivity
    - bycatch mitigation
    - habitat impacts
  - fish capture behaviour
  - alternative fishing technologies
  - energy use and saving
  - unaccounted fishing mortality



Photo: Marine Laboratory, Scotland

## FAO and ICES collaboration

- A fruitful working relationship on fish capture technology for many years.
  - Reflects a strong desire by members to broaden global participation!
  - FAO projects have contributed to the body of knowledge developed under the FTFB.
- FTFB was given a global mandate in 2002 → a joint Working Group with the new title ICES-FAO WGFTFB.
  - In 2011, ICES and FAO elaborated the arrangements and defined the purpose of their relationship at the WGFTFB.
  - FAO agreed to co-chair the WGFTFB and host the meetings every third year in the location chosen by FAO, beginning in 2013.
- The Working Group is now truly global and the Bangkok 2013 meeting is the first FTFB meeting to be hosted by FAO (*in close collaboration with SEAFDEC*).

## The FTFB 2013 meeting in Bangkok

- Provides a forum for global synthesis of scientific knowledge of fishing technology, fish behaviour and their practical use and implications for management.
- Consists of three mini-symposia over three days, followed by two days of the ordinary program of work (topic groups, etc).
- About 70 participants expected:
  - 50 % from ICES countries
  - 50 % mostly from Asia region but also Latin America and Africa.
- Organized in close collaboration with SEAFDEC → in Bangkok
  - Choice of the meeting location reflects the importance of SE Asia in terms of numbers of vessels and leading role in many fields of fisheries.

## Goal and objectives of the meeting

A global synthesis of fishing technology and its effective use:

- Evaluation of potential to reduce fishing impacts on the environment
- Review advances in technology and analytical methods used to study these effects
- Foster new partnerships between scientists and technologists from developed and developing economies

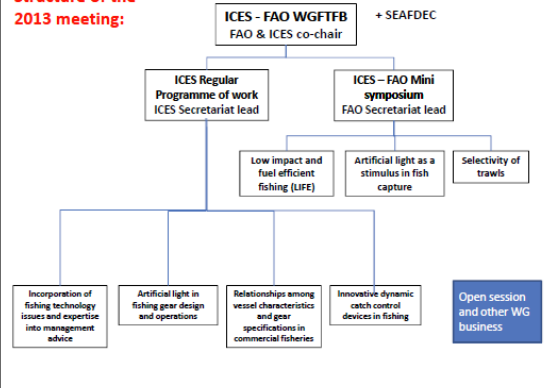
A forum for discussion how to achieve sustainable use and effective management of resources.

### Role of REBYC-II CTI

- The meeting will be a great opportunity for the REBYC-II project members to:
  - Expand and share their knowledge.
  - Strengthen the relationships and take advantage of synergies resulting from the global nature of FTFB.
  - Learn more of different cultural and socio-economic conditions of fisheries and how they may affect the solutions
- Common problems in world fisheries often requires common solutions
  - information sharing, networking, bring the best together
- SEAFDEC and in particular Mr. Bundit have made a remarkable work to make this meeting happen in SE Asia!



### Structure of the 2013 meeting:



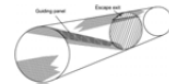
### Mini-Symposia arrangements

Mini-symposia will draw upon the unique regional expertise available in SE Asia. Each mini-symposia will be led by teams of conveners and include keynote addresses by notable experts. The possibility of a special journal issue arising out of these mini-symposia is being investigated.



### Low Impact and Fuel Efficient Fishing (LIFE)

- cost-effective next generation fishing technologies
- modification/replacement of high-impact and fuel-hungry fishing techniques and practices
- energy efficient fishing vessel design
- barriers for adoption of LIFE fishing practices
- policy and socio-economic aspects
- research directions



Conveners: Dr. Thomas Catchpole (UK), Dr. Yoshiki Matsushita (JP), Mr. Bob Marlen (NL)  
 Key note: Director J W Valdemarsen, Norway (CRISP)

### Impacts of bottom trawl fishing

- In addition to removals of target and non-target species, trawling activities may impact the environment through:
  - direct physical contact with critical habitats
  - GHG emissions
  - pollution
- Sea bed impact depends on:
  - physical characteristics of the gear
  - where, when and how the gear is being operated
  - extent and rate of fishing
- Short-term vs long-term effects!



### Bottom trawling is heavily dependent on fossil fuel

- Globally, about 0.6 litres of fuel is used per kg fish landed.
- Passive fishing gear generally require 0.1 - 0.4 litres/kg.
- Bottom trawls typically require 0.7 - 1.5 litres/kg.
- Bottom seines rank between passive and towed gears (*high variability*).



### Use of artificial light as a stimulus on fish behavior in fish capture (LIGHT)

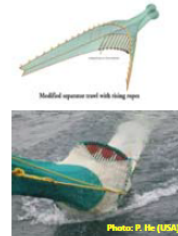
- physics and measurement of artificial light in water
- design and engineering of artificial lights
- promotion of energy efficient light sources
- biology of vision
- behavioural responses of fish to artificial light
- application of artificial light in fisheries
- novel and innovative approaches



Conveners: Dr. Mike Breen (Norway), Dr. Heui-Chun An (Korea), Prof. I. Zhou (China)  
Key note: Prof. T. Arimoto, Japan (Tokyo University of Fisheries)

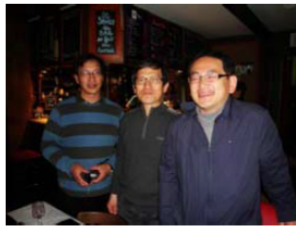
### Selectivity of trawls in multispecies and crustacean fisheries (SHRIMP)

- species and size selectivity – new technologies and approaches
- future of bycatch reduction in multi-species trawl fisheries
- alternative fishing practices for tropical shrimp trawl fisheries
- balanced harvest vs. selective fishing
- social and market implications



Conveners: Prof. P. He (USA), Mr. Budit Chokesanguan (SEAFDEC) + Lat. Amer. expert  
Key note: TBD

### Topic groups of the ICES-FAO FTFB Working Group in 2013



These topic groups will be a mix of continuing topic groups, and new ones.

### Topic Groups

1. Incorporation of fishing technology issues and expertise into management advice
  - Work based on the questionnaire exercise carried out since 2005/2006.
2. Artificial light in fishing gear design and operation
  - Evaluates present and future applications of artificial light in fishing gear design and operations.
3. Relationships among vessel characteristics and gear specifications in commercial fisheries
  - Investigates relationships among vessel characteristics and gear specifications in commercial fisheries.
  - Models and describes relations between engine power and gear-size characteristics .
4. Innovative dynamic catch control devices in fishing
  - Reviews the fisheries, conditions, and impact on mortality where dynamic catch control can be an advantage and consider recent improvements towards commercial development.

Please join this interesting meeting with interesting people!



Thank you!

### Annex

#### Terms of References of Topic Groups



**FOLLOW-UP ACTION  
REBYC-II CTI Year 2012-2013**

## Follow-up Action REBYC-II CTI Year 2012-2013

Action	Responsibility	Deadline/status
<b>Technical aspects</b>		
TOR's and specialists for technical workshop on data collection	RFU, Petri, Simon, NPC's	16 November 2012
Develop simple, standardized field classification tool for trawl bycatch fish species/groups (e.g. 5 main commercial species and x no. of functional groups)	Consultant	Before Feb 2012 data collection workshop
Critical areas, hotspots – identification and mapping, management planning and options, local knowledge, socio-economic, . –What is already available at national level.  TOR for mapping objectives and methodologies	RFU, NPC's  Consultant	23 November 2012  Before Feb 2012 data collection workshop
Guidance on addressing gender aspects	Susana	31 December 2012
Submit (trawl) data collection forms being used in each country to RFU	NTEP	31 December 2012
Website is online	RFU Webmaster	30 November 2012
Invite to SCM Hold SCM	RFU	Min 4 weeks in advance February 2013
Set up tracking of co-financing, also for initiatives outside project frame [e.g. Thai programme/study to increase mesh size – should include cost estimates]	RFU	30 November 2012
Timing of regional events - Technical WS (need data standardization early) - Co-management TR - Study visit (to PHI) - FAO/ICES gear technology symposium	Petri, RFU	- late February - - July 2013 - Same as co-management - May 2013
Selection/recruitment of NTO's	NPC's, RAP/Liao, FAO/UNDP Rep's	Nomination by 16 Nov 2012
Finalize work plans	NTEP's, RFU	16 Nov 2012
Finalize budgets	NTEP's with RFU	16 Nov 2012
Complete draft LOA's including TOA	RFU, NM, RAP, FAO Reps	23 Nov 2012
Activities and budget proposals (non-LOA)	NTEP's, RFU	16 Nov 2012
Submit country progress report to RFU	NTEP (RFU provide template)	1 <sup>st</sup> week of January 2013
Distribute (current) workshop report	RFU	Before end of Nov 2012

Notes: ETP species = endangered, threatened or protected species

**INFORMATION NOTES**  
**THE STUDY TRIP SAMUT SAKHON PROVINCE**

## **Information Notes on the study trip to Samut Sakhon Province**

8 November 2012

### **Union Frozen Products**

The company was established in 1978 and produces the Prantalay brand of seafood products which is sold in the Thai domestic market and also exported to USA, Japan, Australia and Europe. The company-owned trawlers are fishing in the waters of Oman, Yemen and Mauritius. They used to fish in the PNG-part of Arafura Sea but now is only fishing within the Indonesian side. All the catch of their trawlers is landed. The crew comes from the Northeast of Thailand, Myanmar, Cambodia and Laos. UFP has found it difficult to recruit fishing crew from nearby fishing villages because the locals would rather work in the factories than stay at sea for two straight years. UFP trains their crew on how to maintain the good quality of the catch on board.

Fuel is a big issue in trawling, and most trawling operations are not profitable anymore. They have increased the mesh size of their trawls to reduce fuel consumption as well as the amount of trash fish being caught. They have also converted some of their trawlers to purse seiners.

They fished for lanternfish in Iran for two years but stopped due to the political situation. At that time, the production was 1 200 tonnes per day and the trawler stayed at sea for two years. Lanternfish is found in very deep water and has a very short life cycle. There exists an abundant resource between Iran waters and Oman Sea.

### **Pacific Marine Food**

The company is producing seafood products such as surimi, fish fillets and squid for export to Taiwan and Japan from raw materials (red sea bream and croakers) harvested from the Gulf of Thailand and the Andaman Sea. The by-products from surimi production such as fish heads and fish wastes are used for preparing fish meal and sold to feed mills. The company does not own any trawlers and sources their raw materials from fish brokers. From 100 kg of fresh fish, only 20-25 kg gets converted to surimi, whereas 16 kg goes to fish meal for domestic shrimp farming. The company produces 600-700 tonnes of fish meal per month which is sold to feed mills for 25 baht per kg. This fish meal has a low protein content of 50-55 percent.

All of the workers involved in processing (removing the fish head) are women, whereas tasks that entail carrying and moving load are done by men. The women are paid by weight, so those who work faster get a higher pay. Some women can finish 350 kg and some 500 kg, during a 10 hour work shift (8 hours regular working day plus 2 hours of overtime).

**CLOSING STATEMENT**

*By Mr. Kenji Matsumoto, SEAFDEC Deputy Secretary-General*

**FAO/GEF Regional Workshop on Work Planning Year I for REBYC-II CTI**

*9 November 2012, Bangkok, Thailand*

## **Closing Statement**

***By Mr. Kenji Matsumoto, SEAFDEC Deputy Secretary-General***

**FAO/GEF Regional Workshop on Work Planning Year I for REBYC-II CTI  
9 November 2012, Bangkok, Thailand**

Distinguished Guests from the Participating Countries of the REBYC-II CTI Project;  
Representatives from FAO Headquarters and RAP;  
Resource Persons for this Regional Workshop;  
My Colleagues from SEAFDEC, and  
The designated staff for the Regional Facilitation Unit of the Project;  
Ladies and Gentlemen, Good afternoon!

First of all, please allow me to express my regrets for not having joined you from the beginning of this important Regional Workshop due to an equally important commitment of SEAFDEC which had to be fulfilled. However, please be assured that I have kept myself abreast of the progress of Workshop through our colleagues from SEAFDEC.

While this Regional Workshop is coming to an end, we would wish to thank all of you for your very active participation during the deliberations. I was informed that during the first two days of this Workshop, you were able to review and harmonize your respective work plans of the project executing partners, which could be one of the very critical outputs of this Workshop. With the final work plan as the lifeline of the Project, SEAFDEC looks forward to its immediate implementation to enable the Project to develop and promote the strategies for trawl fisheries bycatch management which is very vital in this very sensitive area of our region. Our continued endeavors to uphold the efforts in preserving and conserving the fishery and marine resources in the most delicate Coral Triangle of Southeast Asia could be our legacy to the stakeholders of this very vital area of our region.

At this juncture, please allow me to inform you that we are very much impressed with the efforts of all concerned in finalizing the work plan as well as in setting the timeline and targets of the Project. Being aware that the implementation of the Project has been put off many times, we are therefore happy that this Workshop had come up with the concrete plans, majority of which are scheduled to start in January 2013, ensuring us that the Project would be formally launched very soon.

The field trip that you had undertaken yesterday must have exhibited a real picture of how bycatch as products from trawl fisheries is turned into fish meal which is mainly intended to support aquaculture in our region. Perhaps during your trip yesterday, you posed a question on the actual species that comprise the bycatch. Since nobody could have possibly provided you with the very valid reply to such perceptions, we could do our part to complete the puzzle by working towards the reduction of bycatch especially from trawl fisheries through proper bycatch management. With such an ambitious target, this Project could easily give the answer to our question. Let us therefore work diligently for the successful implementation of the REBYC Project to achieve that goal.

Lastly, please be assured that SEAFDEC would do our best to sustain the implementation of the Project, as also expressed by the SEAFDEC Secretary-General at the Opening of this Workshop. Thank you once again for your active participation during this Regional Workshop of the REBYC-II Project, and allow me now to close this Workshop. Good day!