



# ACTION PLANS

OF THE SULU SULAWESI MARINE ECOREGION

Volume 3: Sub-Committee on Sustainable Fisheries



The process of developing the Action Plans of the Trinational Committee for the Sulu Sulawesi Marine Ecoregion was supported by the Coral Triangle Support Partnership.





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**Volume 3: Sub-Committee on Sustainable Fisheries**

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SSME Priority Conservation Areas Vision Map courtesy of WWF-Philippines

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### Malaysia

Mr. Paul Basintal, Sabah Parks

### Philippines

Ms. Sandra Arcamo, Bureau of Fisheries and Aquatic Resources  
Ms. Lynette Laroya, Parks and Wildlife Bureau, Department of Environment and Natural Resources

*Participants, Writeshop on Sustainable Fisheries  
26-27 September 2009*

### Indonesia

Dr. Wudianto, Centre for Research in Capture Fisheries

### Malaysia, Department of Fisheries, Sabah

Mr. Rayner Stuel Galid  
Mr. Lawrence Kissol

### Philippines, Bureau of Fisheries and Aquatic Resources, Department of Agriculture

Dr. Mudjekeewis Santos  
Francisco Torres, Jr.

*Participants, Writeshop on Threatened, Charismatic, and Migratory Species  
28-30 September 2009*

### Indonesia

Ms. Ahsanal Kasasiah, Ministry of Marine Fisheries and Foreign Affairs  
Mr. Matheus Halim, World Wide Fund for Nature, Indonesia

### Malaysia, Department of Fisheries, Sabah

Mr. Rayner Stuel Galid  
Mr. Lawrence Kissol

### Philippines

Mr. Renato Cruz, Department of Environment and Natural Resources  
Dr. Mudjekeewis Santos, Bureau of Fisheries and Aquatic Resources  
Mr. Edwyn Alesna, Bureau of Fisheries and Aquatic Resources  
Mr. Romeo Trono, Conservation International-Philippines

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## FOREWORD



To ensure effective protection and sustainable development of the Sulu Sulawesi Marine Eco-region (SSME), the Governments of Indonesia, Malaysia and the Philippines entered into a Memorandum of Understanding (MOU) on 13 February 2004. The signing of the MoU was one of the highlights in the Side Events of the 7<sup>th</sup> Conference of Parties of the Convention on Biological Diversity held in Kuala Lumpur, Malaysia. The three countries essentially agreed to adopt the eco-region approach to conservation that will facilitate the realization of the four fundamental goals of biodiversity conservation which are: representation, sustainability of ecological processes, viability of species, and resiliency, which are embodied in the Eco-region Conservation Plan (ECP).

The ECP for SSME is a product of region-wide consultations across the three countries involving the stakeholders and various experts from the resource managers, academe, up to the policymakers. The ECP contains objectives that would allow the conservation of the coastal and marine resources of the Region without having to sacrifice the livelihood of the people. This involves ten objectives that the ECP hopes to attain in alignment to its 50-year vision.

The signing of the MoU led to the creation of the Tri-National Committee for the SSME. Subsequently, the Committee had its 1<sup>st</sup> Meeting on 01 March 2006 in East Kalimantan, Indonesia and created the Sub-Committees, namely: Threatened, Charismatic and Migratory Species; Sustainable Fisheries; and Marine Protected Areas (MPAs) and Networks. The respective Sub-Committees met in 2007 and elected their respective Chairpersons, developed their Terms of Reference (TORs) as well as their Work Plans for the implementation of the ECP.

The publication and launching of the Work Plans of the Sub-Committees was approved by the SSME Tri-National Committee during its Fourth Meeting in Batam, Indonesia in July 2009. The publication is a priority because it will not only keep the stakeholders informed and reminded of the work for the SSME but as well be a useful tool to attract potential donors.

This Booklet includes the Work Plan of the Sub-Committee on Sustainable Fisheries, its achievements, and the lessons learned in its implementation in the past three years. The lessons learned from previous programs that have been implemented in the Region will be useful to countries in the Coral Triangle in meeting the targets, particularly in *Goal No. 2: Ecosystem approach to management of fisheries and other marine resources fully applied*, of the Regional Plan of Action and the corresponding National Plans of Actions on the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CFF).

A handwritten signature in blue ink, appearing to read 'Theresa Mundita S. Lim'.

THERESA MUNDITA S. LIM

Director

Protected Areas and Wildlife Bureau

Department of Environment and Natural Resources

Chairman, Sulu Sulawesi Marine Ecoregion Tri-National Committee

CY 2009-2011

## CONTENTS

I.	The Sulu-Sulawesi Marine Ecoregion	1
II.	Vision	2
III.	Objectives	3
IV.	The Sub-Committees of the SSME – the driving forces for marine conservation	4
V.	Action Plan of the Sub-Committee on Sustainable Fisheries	6
VI.	Lessons Learned in the Implementation of the Action Plans	11
VII.	Achievements of the Countries in Implementing the Action Plan of the Sub-Committee	16
VIII.	Subcommittee on Sustainable Fisheries and in the Coral Triangle Initiative	16
	Annex 1. Terms of Reference of the Sub-Committee on Sustainable Fisheries	17
	Annex 2. Achievements of the Countries in Implementing Activities in the Action Plan	20

### I. The Sulu-Sulawesi Marine Ecoregion

The Sulu Sea and Sulawesi Sea are twin seas formed by the movement of submarine plates from the north and south hemispheres of the earth. The plates brought with them numerous species; some of which thrived in the warm seas and survived; while some evolved with the lowering and rising of the marine waters.

The Sulu-Sulawesi Seas cover about 1 million square kilometers in area. It is considered as the global center of tropical marine diversity, supporting the highest number of coral reef fishes, demersal fishes, corals, turtles, and algae (DeVantier, et. al, 2004). The mangrove forests, the seagrass beds, the coral reef, the coastal and offshore waters are richest in number of species in the tropics.

These coastal and marine ecosystems are productive because of nutrients brought in by rivers from land as well as nutrients from the deep sea that are brought up by currents. The cold waters from the deep also cool the surface waters, preventing coral reefs from bleaching, weakening, or dying. Conserving the area is an insurance against loss of species due to climate change.

The bounty of these seas provides food and livelihood to about 50 million people living along the coastline of Sulu-Sulawesi Marine Ecoregion (SSME). There are many threats, however, that undermine the food security and livelihoods of these people. Overfishing reduces the populations of fishes, mollusks, sea cucumbers to unproductive levels. Destructive fishing practices destroy coral reefs as habitats and kill young and old of all fishes. Organic pollution and sediment pollution from land slowly cover seagrass beds and coral reefs. More frequent and intense storms bring more freshwater to coastal waters, drastically lowering the salinity of coastal waters and killing organisms with low tolerance to changes in salinity. These storms also cause rivers to swell and carry organic substances and sediments to sea, increasing the stress to seagrass beds and coral reefs.

The Governments of Indonesia, Malaysia, and the Philippines signed a Memorandum of Understanding to conserve the SSME during the 7<sup>th</sup> Conference of the Parties to the Convention on Biological Diversity held in Kuala Lumpur in 2004. The Ecoregion Conservation Plan was ratified by the three countries in 2006. The Countries subsequently established the Trinational Committee and three Sub-committees to implement the three programs of work:

- Threatened, Charismatic, and Endangered Species
- Sustainable Fisheries
- Marine Protected Areas and Networks.

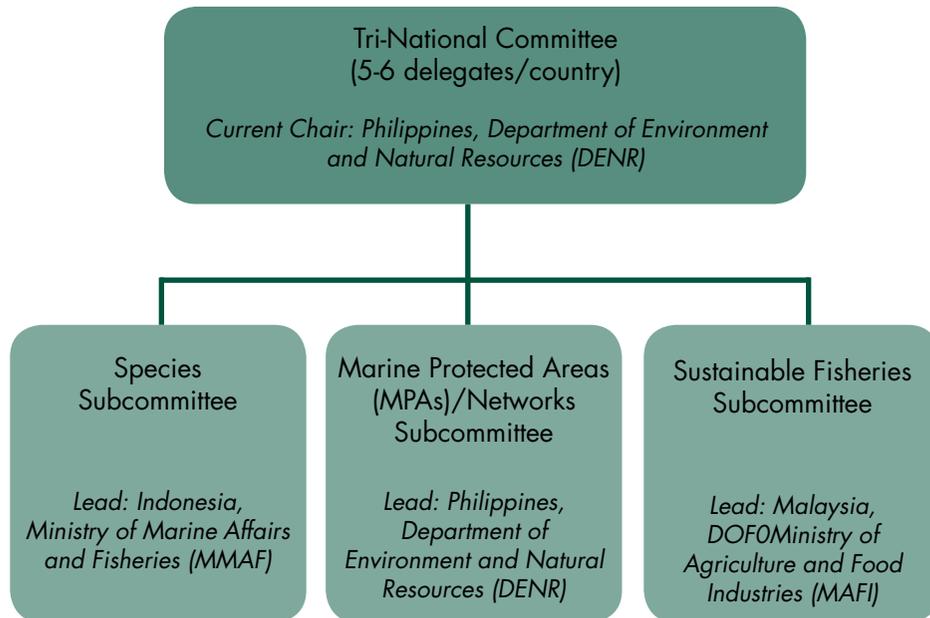
This volume contains the Action Plan of the Sub-Committee on Threatened, Charismatic, and Migratory Species, as well as the achievements and lessons learned in the past three years of country-wide implementation. With SSME recognized as a priority seascape in the Coral Triangle, the lessons from the implementation will be useful to countries in the Coral Triangle Initiative in meeting the Target in Goal # 5: threatened species status improving.



#### 4. The Sub-Committees of the SSME – the driving forces for marine conservation

The Trinational Committee was formed in 2006 immediately after the ratification of the Memorandum of Understanding by Indonesia, Malaysia, and the Philippines. The Trinational Committee then formed the Sub-Committee on Threatened, Charismatic, and Migratory Species; Sub-Committee on Sustainable Fisheries; and Sub-Committee on Marine Protected Areas and Networks. Each Sub-Committee is led by a country and guided by Terms of Reference. The Sub-Committee on Threatened, Charismatic, and Migratory Species is led by Indonesia, the Sub-Committee on Sustainable Fisheries by Malaysia, and the Sub-Committee on Marine Protected Areas and Networks by the Philippines.

The Sub-Committees implement an Action Plan to meet the objectives and vision of the Ecoregion Conservation Plan. The Sub-Committees report on achievements of the three countries in meeting their respective Action Plans. The Sub-Committees are in turn assisted by the Technical Working Groups that are formed in each country. The governance structure of the Trinational Committee and its Sub-Committees is illustrated below.



#### History of implementation of the SSME Ecoregion Conservation Plan

Following the Biodiversity Visioning and Ecoregion Conservation Planning (ECP) in 2001, three programs of work was developed in order to operationalize the 10 objectives in the ECP. These programs of work are the:

- Threatened, Charismatic, and Endangered Species
- Sustainable Fisheries
- Marine Protected Areas and Networks (MPAs/N).

The SSME Ecoregion Conservation Plan was agreed upon by the governments of Indonesia, Malaysia, and the Philippines at the 7th Conference of the Parties to the Convention on Biological Diversity in Kuala Lumpur, Malaysia in 2004. The Memorandum of Understanding for the implementation of the SSME ECP was ratified by the legislatures of the three countries over the next two years. The Tri-national Committee of the SSME and the Sub-Committees for the implementation of the three (3) programs of work were subsequently formed and their respective Terms of References formulated.

#### History of the implementation of the Action Plan of the Sub-Committee on Sustainable Fisheries

The history of the implementation of the Action Plan of the Sub-Committee on Sustainable Fisheries officially began in 2006 at the First Meeting of the Sub-Committee. The Action Plan was implemented with country activities but a collaborative, joint regional research project for fisheries management was desired from the start. The Sulu-Celebes Sea Sustainable Fisheries Management Project, a full-sized project funded by the Global Environment Facility and to be implemented with the United Nations Development Programme, is a milestone in the life of the Sub-Committee. This is the first regional project in which Indonesia, Malaysia, and the Philippines will be able to work together for marine fisheries. The project will run from 2009 to 2013.



prevailing issues in marine fisheries by applying ecosystem-based management in order to attain sustainability of marine fishery resources (Annex 1).

The workplan was prepared by technical representatives of Indonesia, Malaysia, and the Philippines to meet the objectives of the Sub-Committee and its mandated program of work. The workplan is implemented by each country and the progress of work is reported at the annual meeting. The first report of activities was reported in the Annual Meeting of 2008. At the Second Meeting of the Sub-Committee, the workplan was slightly revised.

At the workshop to prepare this document in September 2009, the strategies to implement the workplan was derived from the Terms of Reference. The workplan approved in 2009 is valid to 2012, the same timeframe of the validity of the Memorandum of Understanding. As such, the Focal Points of the Sub-Committee added the timeframe of the workplan. The strategies and activities of the Sub-Committee are presented here as the Action Plan of the Sub-Committee.

### 5.3. Action Plan of Sub-Committee on Sustainable Fisheries

**Goal: Formulation of policies on, and development and implementation of, sustainable fisheries, aquaculture, living aquatic resources exploitation, trade, and livelihood systems in the SSME**

#### Objectives:

Objective 1: Collaborate to develop a harmonized fisheries management regime for tunas and small pelagic (sardines, mackerel, round scads, anchovies, etc).

Objective 2: Collect and collate baseline information on groupers, humphead wrasse, other live reef fish trade (LRFT) species as well as marine ornamentals; study cross-border trade of groupers, humphead wrasse and other LRFT species as well as marine ornamentals; exchange information on each country's policies and legislation on LRFT; work towards the voluntary adoption by traders of a proposed Code of Practice and for sustainable LRFT; conduct an in-depth study on the chain or custody in LRFT to generate a basis for more effective policies.

Objective 3: Assess and formulate policy on the incidence of turtles as by-catch in capture fisheries (longline, trawl nets, gill nets, lift nets).

Objective 4: Determine the status and issues of illegal, unregulated, and unreported (IUU) fishing along the borders of SSME and implement joint and parallel monitoring, controlling, and surveillance to effectively address cross-border IUU fishing.

Objective 5: Conduct joint and parallel population studies on shared fish stocks, specifically on tunas and other highly migratory species as well as small pelagic; share information on existing legislation and policies on the management of tuna and small pelagic; implement joint and parallel research on the artificial propagation of high value species for aquaculture as an alternative to wild catch; share information and data on shared fish stocks and data on shared fish stocks and aquaculture research; implementation collaborative oceanographic surveys in the SSME .

Objective 6: Develop joint pilot projects in establishing experimental farms for the culture of high-value seaweed species other than *Kappaphycus* and *Eucheuma* species, and the establishment of integrated multi-species (e.g., mollusks, sea cucumbers, siganids, and other invertebrates) seaweed farms; jointly develop and share improved quality seed stocks for seaweed farms; implement and adopt Best Management Practices (BMP) among aquaculture smallholders; and rehabilitate abandoned shrimp farms for other sustainable aquaculture uses.

Objective 7: Develop and implement a common communication strategy to increase public awareness on the issues and threats to sustainable fisheries and its implementation; implement public education and awareness programmes on particular issues as these relate to sustainable fisheries, aquaculture, living aquatic resources exploitation and trade.

Objective 8: Assess the status of turtle predation in seaweed farms in the three countries.

Objective 9: Promote the regeneration, rehabilitation, and restoration of degraded coastal wetlands including abandoned shrimp farms, degraded coastal wetlands, degraded forest reserves and other coastal areas.

Objective 10: Conduct an assessment for the needs of human resource development to address gaps in capabilities for effective sustainable fisheries management; develop and implement capacity-building programs based on the needs identified in the assessment mentioned above; organize reciprocal programs among the three countries for capacity building where the host country will train stakeholders from the other two countries in their respective fields of expertise and strengths as it related to sustainable fisheries, aquaculture, living aquatic resources exploitation, trade and livelihood systems.

Objective 11: Find ways and means to raise internal and external funds to implement the programs and projects identified under the Sub-Committee on sustainable Fisheries, including from international conservation organizations.

#### Strategies

1. Reviews and consolidation of technical advice and recommendations previously presented in various forms by organizations and experts as the basis to formulate new recommendations for policy development.

2. Provision of technical advice and recommendations to support effective implementation of regional and global agreements related to sustainable fisheries, aquaculture, living aquatic resources exploitation, trade and livelihood systems such as but not limited to:

- CBD – Convention on Biological Diversity
- UNCLOS – United Nations Convention on the Law of the Sea
- CITES – Convention on International Trade in Endangered Species of Wild Fauna and Flora
- CMS – Convention on Migratory Species
- Ramsar Convention – Convention on Wetlands
- IOSEA – Indian Ocean and South East Asia Marine Turtle Conservation and Management
- BIMP-EAGA – Brunei-Indonesia-Malaysia-Philippines East Asia Growth Area

3. Identification of research priorities, collaborative management initiatives and harmonized approaches on sustainable fisheries, aquaculture, living aquatic resources exploitation, trade and livelihood systems in the SSME to form the basis for technical advice and recommendations for policy development and implementation.

4. Provision of advice on the implementation, coordination, and monitoring of projects and activities identified under research priorities, collaborative management initiatives, and harmonized approaches for sustainable fisheries, aquaculture, living aquatic resources exploitation, trade and livelihood systems.

5. Coordination of advice of the management and sharing of data and information on sustainable fisheries, aquaculture, living aquatic resources exploitation, trade and livelihood systems as the basis to develop technical advice and recommendations for policy development and implementation.

**Action Plan<sup>1</sup> of the Sub-Committee on Sustainable Fisheries  
2009 to 2012**

*The notation for each year indicates whether the Activity is a priority of the country.  
I – Indonesia; M – Malaysia, P – Philippines*

Programs	Activity	Year			
		2009	2010	2011	2012
1. Collaborative fisheries management	Collaborate to develop a harmonized fisheries management regime for tunas and small pelagic species (sardines, mackerel, round scads, anchovies)	I,M,P	I,M,P	I,M,P	I,M,P
2. Trade in Live Reef Fishes and Marine Organisms	2.1. collection and collation of baseline information on groupers, humphead wrasse, other Live Reef Fish Trade (LRFT) species as well as marine ornamentals  2.2. study on cross-border trade of groupers, humphead wrasse, and other LRFT species as well as marine ornamentals  2.3 exchange of information on each country's polices and legislation on LRFT  2.4 work towards the voluntary adoption by traders of a proposed Code of Practice for sustainable LRFT  2.5 conduct an in-depth study on the chain of custody in LRFT to generate a basis for more effective policies	I,M,P	I,M,P	I,M,P	I,M,P

<sup>1</sup> The workplan of each Sub-Committee is considered as the Action Plan as these are the scheduled plan of action towards achieving sustainable fisheries, within the context of the Sulu-Sulawesi Marine Ecoregion Conservation Plan.

Programs	Activity	Year			
		2009	2010	2011	2012
3. Fisheries by-catch	Assessment and policy formulation on the incidence of turtles as by-catch in capture fisheries (long-line, trawl nets, gill nets, lift nets)	I,M,P	I,M,P	I,M,P	I,M,P
4. Illegal, Unregulated, and Unreported (IUU) fishing	4.1 determine the status and issues on IUU fishing along the borders of SSME 4.2 joint and parallel monitoring, controlling, and surveillance (MCS) to effectively address cross border IUU fishing	I,M,P	I,M,P	I,M,P	I,M,P
5. Fisheries Research	5.1 Joint and parallel population studies on shared fish stocks specifically on tunas and other highly migratory species as well as small pelagic  5.2 information-sharing on existing legislation and policies on the management of tuna and small pelagic  5.3 joint and parallel research on the artificial propagation of high-value species for aquaculture as an alternative to wild catch  5.4. information and data-sharing on shared fish stocks and aquaculture research  5.5 collaborative oceanographic surveys in the SSME	I,M,P	I,M,P	I,M,P	I,M,P
6. Sustainable Aquaculture	6.1 develop joint pilot projects in establishing experimental farms for the culture of high value seaweed species other than <i>Kappaphycus</i> and <i>Eucheuma</i> species, and the establishment of integrated multi-species seaweed farms (e.g., mollusks, sea cucumbers, siganids, and other invertebrates)		M,P	M,P	M,P
7. Awareness programmes	7.1 develop a common communication strategy to increase public awareness on the issues and threats to sustainable fisheries and its implementation  7.2 implementation of public education and awareness programmes on particular issues as these relates to sustainable fisheries, aquaculture, living aquatic resources and exploitation, and trade		I,M,P	I,M,P	I,M,P

Programs	Activity	Year			
		2009	2010	2011	2012
8. Marine turtle and seaweed farm interactions	Assessment and status of turtle predation in seaweed farms in the three countries		I, M	I, M	I, M
9. regeneration, rehabilitation, and restoration of degraded coastal wetlands	9.1 regeneration, rehabilitation, and restoration of degraded wetlands including abandoned shrimp farms, degraded coastal wetlands, degraded forest reserves and other coastal areas		I,M,P	I,M,P	I,M,P
	9.2 information and experience sharing on regeneration, rehabilitation, and restoration of coastal wetlands				
10. capacity-building for stakeholders	10.1 conduct an assessment for the needs of human resources development to address gaps in capabilities for effective sustainable fisheries management	I,M,P	I,M,P	I,M,P	I,M,P
	10.2 develop and implement capacity building programs based on the needs identified in the assessment				
	10.3 reciprocal programs among the three countries for capacity-building where the host country will train stakeholders from the other two countries in their respective fields of expertise and strengths as it relates to sustainable fisheries, aquaculture, living aquatic resources exploitation, trade, and livelihood systems				
11. Funding	Find ways and means to raise internal and external funds to implement the programs and projects identified under the Sub-Committee on Sustainable Fisheries, including international conservation organizations	I,M,P	I,M,P	I,M,P	I,M,P

## 6. Lessons Learned in the Implementation of the Action Plan

### Lessons Learned in Preparing the Sulu-Celebes Sea Sustainable Fisheries Management Project<sup>2</sup>

The Sulu- Celebes Sea Sustainable Fisheries Management Project is the first regional, collaborative project in the Sub-Committee on Sustainable Fisheries and in the Trinational Committee, in general. The Sulu-Celebes Sea Sustainable Fisheries Management (SCS SFM) Project is funded by the Global Environment Facility (GEF) through its implementing agency, the United Nations Development Programme. The SCS SFM Project is for four (4) years, beginning 2009 to 2014. The scope of the project includes the following:

- Component 1 – Conducting a Transboundary Diagnostic Analysis of Marine Fisheries
- Component 2 – Strategic Action Planning
- Component 3 – Institutional Strengthening at various levels of governance
- Component 4 – Demonstrating ecosystem-based management of small pelagic fisheries
- Component 5 – Managing Knowledge Gained in the Project

The development of the Sulu-Celebes Sea Sustainable Fisheries Management (SCS SFM) Project is an activity in the Workplan of the Sub-Committee. The implementation of the project will also achieve the objective of applying the ecosystem-based management of fisheries, particularly the small pelagic fisheries, the intent of countries to work in a collaborative project, the plan to conduct research for management, and the desire to raise funding for the activities in the Workplan.

The SCS SFM ushers in a management concept that needs to get traction in fisheries management agencies and a whole range of benefits to the implementation of the Action Plan of the Sub-Committee. It is thus important to share the following lessons learned surrounding the project.

It is important to participate in regional and international conferences to publicize the workplan, achievements, and needs of the Sub-Committee. Donors attend conferences and gather information on potential projects and partnerships. The effort of Conservation International to highlight the Sulu-Sulawesi Seascape Project in consonance with the SSME Ecoregion Conservation Plan and to promote the SSME tri-national cooperation stimulated the interest of representatives of the Global Environment Facility (GEF) and UNDP in attendance to a regional conference. This resulted in generating GEF support for the preparation the SCS SFM project proposal.

- The governance mechanism set in place for the implementation of the Action Plan is feasible. Conservation International-Philippines, an NGO member of the Sub-Committee on Sustainable Fisheries prepared the concept note in consultation with Philippine Head of Delegation to the Tri-National Committee and with the Chair of the Sub-Committee for Sustainable Fisheries. The approval of the concept note and the availability of the preparatory grant for project development was reported by the Sub-Committee to the Trinational Committee, which tasked the Sub-Committee to pursue project development.

<sup>2</sup> Prepared by Annadel S. Cabanban, Project Document Preparation Coordinator and National Consultant for Malaysia for the Project Preparation Grant implementation

The Sub-Committee created a Technical Working Group for GEF project development and appointed CI to coordinate the activity.

- The project development employed collaborative and consultative processes from selection of country-level and international consultants, in-country consultations to the conduct of tri-national writeshops. The consultants were identified by the Sub-Committee and endorsed by CI to the United Nations Office for Programme Support. Consultation with stakeholders was facilitated by the Fisheries Department of each country.
- Special sessions of the Technical Working Group of the Sub-Committee for the purpose of reviewing and refining the proposal were held with participation of UNDP. All matters for decision were elevated by the Sub-Committee to the Tri-National Committee. The project will now be implemented by the Sub-Committee under their mandate.

The formation of a Technical Working Group (TWGs) of the Sub-Committee is an important step in the project development. The TWG has the mandate of the governments and the focus to review project designs, provide information, contribute insights, and facilitate government decision to commit and mobilize resources for project development and implementation.

#### **Lessons learned on partnership with the shrimp industry in mangrove forest rehabilitation, Tarakan, Indonesia<sup>3</sup>**

The importance of mangrove forests in shrimp production is at the forefront of the ongoing project by a multi-sectoral stakeholder group in Tarakan, East Kalimantan. World Wide Fund for Nature-Indonesia facilitated a partnership among the government of East Kalimantan, shrimp-farmers, and the shrimp export industry to reduce the environmental and social impacts of shrimp aquaculture. The project began in 2006. One strategy of the project is to increase the area of Tarakan Mangrove Reserve from 9 hectares to 21 hectares. The Tarakan Mangrove Reserve provides ecosystem services as nursery sites of shrimps as well as habitat of the proboscis monkey, which is endemic to Borneo.

Working with the fisheries and aquaculture industry to address an environmental issue is beneficial for the conservation. The companies<sup>4</sup> supported the rehabilitation of mangrove forests and have provided financial support for the replanting activity. Fifty two thousand saplings of mangroves have been planted as of 2009. A monitoring tower for the rehabilitated mangrove forest in Bom Panjang, Tarakan was constructed by the companies<sup>5</sup> and a consumer group.<sup>6</sup> The growing mangrove saplings are now hosting four species of migratory waterbirds. The leadership of the private sector in engaging in environmental issues is the most important key to the success of this project.

<sup>3</sup> Imam Musthofa Zainudin – Fisheries Program Leader, WWF-Indonesia

<sup>4</sup> Seafood International Indonesia, Nichirei Fresh, Ganko Food Service

<sup>5</sup> PT Mustika Minanusa Aurora, Marusen Suisan Co. Ltd.

<sup>6</sup> Customer Nicherei Fresh, Inc.

#### **Lesson learned in partnerships in with stakeholders in the Live Reef Fish Trade, Indonesia**

Live coral reef fishes, particularly groupers and humphead wrasse, are important commodities from coral reefs. The export of these fishes to Hong Kong, mainland China, Taiwan, and Singapore has caused the decline of their populations on coral reefs. World Wide Fund for Nature-Indonesia has begun a project to enhance the social, economic and biological sustainability of the live reef fish trade (LRFT). This includes the following activities:

- Undertaking baseline biological and socio-economic studies (livelihood value-chain analysis);
- Undertaking gap analyses and reviewing current practices against acknowledged best practice standards under the International Standard for the Trade in Live Reef Food Fish;
- Supporting the application of best practices for the capture and trade in live reef fish through financial incentives and comparative studies that demonstrate positive socio-economic outcomes from adopting a more sustainable business model ; and
- Implementing at least two (2) pilot projects with best practices being implemented by LRFT company partners and being recognized by market buyers in Hong Kong and China.

Collaboration with two stakeholders in implementing the project has yielded results. The study for updating information on live reef fish trade was carried out in 17 provinces of Indonesia in collaboration with the Indonesian Reef Check Network. A related study on live grouper fishery was also been conducted in Berau, East Kalimantan in collaboration with WWF-Denmark. The data gathered by these conservation groups will help guide management interventions to conserve the live reef fishery.

The other group of stakeholders that WWF-Indonesia is collaborating with is that of the exporters of live reef fishes. WWF-Indonesia, in support of the National Plan of Action of Indonesia in the Coral Triangle Initiative, is in the process of building a partnership with one of the biggest live grouper exporters in Indonesia.<sup>7</sup> The company agreed to conduct a pilot project to promote sustainable live grouper fishery in Berau, East Kalimantan, Sulawesi Sea and three other sites in Indonesia.<sup>8</sup> The activity that is planned for Berau, East Kalimantan is consistent with the activity in the workplan of the Sub-Committee on Sustainable Fisheries of the SSME. A Memorandum of Understanding between WWF and the company is now being developed towards the sustainability of the live reef fish trade.

<sup>7</sup> P. T. Pulau Mas Bali

<sup>8</sup> Wakatobi, Southeast Sulawesi, Kei Island, Maluku, and Cenderawasih Bay, West Papua

### Lesson learned in Implementing CITES regulations on Humphead Wrasse in Sabah, Malaysia<sup>9</sup>

Signatories to the Convention on International Trade of Endangered Species (CITES) are required to institute regulations on exports of endangered species. Malaysia (as well as Indonesia and the Philippines) is a signatory to the Convention and, as such, is required to take necessary actions to regulate the export of the first coral reef fish that was assessed as endangered in 2004 (Red List, International Union for the Conservation of Nature) and is listed in Appendix 2 of CITES. The humphead wrasse (*Cheilinus undulatus*) is endangered because of harvesting for the live reef fish trade. The Department of Fisheries of Sabah has begun to respond to regulations in 2006 and is continuing its commitment towards achieving the sustainability of the live reef fishery.

The Department of Fisheries of Sabah, in collaboration with TRAFFIC-Southeast Asia and World Wide Fund for Nature-Malaysia, with the support of the cage-operators and exporters, conducted the Non-Detrimental Finding Study (NDF) which is required to establish a national export quota. This is the first NDF Study on endangered fishes in Malaysia. The collaboration was the perfect combination of stakeholders of the management agency (DoF-Sabah), conservation science (WWF-Malaysia), enforcement assistance (TRAFFIC-SEA), and support of the live reef fish industry (the resource-users) towards the survival of the humphead wrasse and the sustainability of its trade. The NDF Study has provided the scientific information required by DoF-Sabah in formulating the total ban in the export of humphead wrasse from Sabah to other parts of Malaysia and to overseas markets. The ban will take effect on January 2010. It has led to the formation of the association of traders in Sabah that can be linked to the network of exporting and importing countries of humphead wrasse (Indonesia, Malaysia, and Hong Kong).

The conduct of the NDF Study for humphead wrasse has ancillary benefits. The capacity of the stakeholders of the live reef fishery and trade has improved in the process of conducting the NDF. Enforcement personnel were trained in species identification of CITES-listed reef fishes and oriented with the procedures for handling regulated exports of CITES-listed species. This training and orientation, held in Sandakan in March 2008, provided a good foundation for implementing the newly gazetted Act 686 on the International Trade in Endangered Species (otherwise known as the CITES Act for Malaysia) at the end of 2009.

<sup>9</sup> Lawrence Kissol, Fisheries Officer, Department of Fisheries, Sabah, Malaysia and Annadel S. Cabanban, Proprietor and Senior Marine Ecologist, ASC Ecological and Engineering Solutions, Philippines

### Lessons Learned from the Bureau of Fisheries and Aquatic Resources, Philippines<sup>10</sup>

The Bureau of Fisheries and Aquatic Resources (BFAR) of the Philippines has initiated several programs in compliance with international agreements and in accordance with the implementation of the Action Plan of the Sub-Committee on Sustainable Fisheries. BFAR is implementing the programs with the local government units, research institutions, academe, and the commercial fishing industry. Some lessons learned in the early stages of implementation are shared here.

#### By-catch Reduction Program: Adoption of circular hooks and Turtle Excluding Device (TED)

The by-catch of marine turtles, marine mammal, sharks and seabirds in commercial fishery is one of the threats to marine biodiversity. In 2008, BFAR began the By-catch reduction program: Adoption of circular hooks and turtle-excluding device (TED). There is no information or analysis on the success rate of the by-catch reduction tools in Philippine waters so BFAR conducted experimental longline fishing operations using circular hooks in Philippine waters to determine its effectiveness. This information will be useful in convincing members of the commercial fishing industry to adopt this device. Seminars and workshops were conducted with stakeholders on the adoption of circular hooks and TEDs in their fishing operations. The implementation is, thus far, hampered by the difficulty in monitoring of the use of circular hooks and TEDs because of lack of personnel and funds.

#### National Plan of Action for Sharks

Sharks are another group of fishes whose populations have dwindled worldwide due to the harvesting of their fins or as by-catch in fishing operations. BFAR is currently drafting the National Plan of Action for Sharks. The project will identify the number of shark species in the country, their geographic location, biology and population, and will establish guidelines in the assessment, management and conservation of sharks in the Philippines. The diversity and distribution of sharks are already available from studies in the 1990s; however, information on shark fishery is scant and difficult to collect.

#### Philippine Fisheries Observers Program

The Philippine Fisheries Observers Program is a very recent initiative to record catch and by-catch of Commercial Fishing Vessels in the Western and Central Pacific Ocean. Deployment of observers has commenced on September 2009. There is a need to train more observers to implement the program and to quickly establish the data management system, composing of a database and analytical procedures for observers' data.

<sup>10</sup> Mujeekewis Santos and Edwyn Alesna, Bureau of Fisheries and Aquatic Resources, Philippines

## 7. Achievements of the Countries in Implementing the Action Plan of the Sub-Committee

The Sub-Committee on Sustainable Fisheries has achieved a significant milestone in the successful application for a grant for a full-sized project from the Global Environment Facility International Waters Program, Coral Triangle Initiative Southeast Asia. It is an important achievement to receive a grant on the Sulu-Celebes Sea Sustainable Fisheries Management Project because this project will put in place regional policies for transboundary stocks of marine fishes shared among Indonesia, Malaysia, and the Philippines; strengthen national institutions to enable them to manage fisheries better and in consideration of the coastal and marine ecosystems; and establish demonstration sites for the implementation of ecosystem-based management of small pelagic fisheries. This is the first phase of an inherently long process and investment for sustainable fisheries.

The Sulu-Celebes Sea Sustainable Fisheries Management Project is also a very important vehicle to implement strategies in the Action Plan. The project will involve the conduct of collaborative research for fisheries management on the biology and ecology of some small pelagic fishes. Policy review pertaining to marine fisheries will also be done. Policies, institutions, and enforcement will be strengthened in order to address the prevailing illegal, unregulated, and unreported fishing in the Sulu-Sulawesi Seas.

At the national level, particularly at the sites, the SCS SFM Project allows implementation of other activities of the Action Plan at national levels. Fisheries management, i.e., regulation of harvesting levels and monitoring of catch levels, will be implemented. By-catch of small-pelagic fishing operations can also be undertaken in conjunction with monitoring of catches. In addition, mangrove rehabilitation may be considered in developing integrated coastal management at demonstration sites in Tarakan, Indonesia; Semporna (for the southeast fishing management zone), Malaysia; and Zamboanga (for the fishing ground in Celebes Sea), Philippines.

## 8. Subcommittee on Sustainable Fisheries and in the Coral Triangle Initiative

The Action Plan of the Sub-Committee on Sustainable Fisheries is consistent with Goal #2 of the Coral Triangle Initiative, which is the full application of the ecosystem approach to management of fisheries and other marine resources. The Action Plan promotes ecosystem-based management of fisheries (see Objectives in earlier section) and contains specific activities that contribute to implementing steps to consider the ecosystems that support marine fisheries, research and monitoring for fisheries policies and regulations, as well as the livelihood of coastal communities and fishing industry. The Action Plan is a holistic response of the governments of Indonesia, Malaysia, and the Philippines to meet the targets of the Coral Triangle Initiative and the Millennium Developmental Goals towards improving status of marine fish stocks by 2015 and improving the socio-economic condition of coastal communities dependent on them. The GEF-approved Sulu-Celebes Sea Sustainable Fisheries Project will be implemented under the Coral Triangle Initiative.

## ANNEXES

### Annex I. Terms of Reference of the Sub-Committee on Sustainable Fisheries

#### Terms of Reference of the Sub-Committee on Sustainable Fisheries of the Sulu-Sulawesi Marine Ecoregion

#### 1. Official Designation

The Sub committee on Sustainable Fisheries of the Sulu Sulawesi Marine Ecoregion (SSME) is composed of the representatives of designated government officials as well as experts and/or specialists from non-government organizations, research and/or academic institutions of the Republic of Indonesia, Malaysia and the Republic of the Philippines endorsed by their respective National Focal Authorities.

#### 2. Mandate

The mandate of the Sub committee on Sustainable Fisheries originates from the decision taken by the SSME Tri-National Committee at its first meeting held in Balikpapan, Indonesia, 1<sup>st</sup> March 2006. The Sub committee on Sustainable Fisheries was established under the auspices of the Tri-National Committee to address management and technical issues that relates to sustainable fisheries, aquaculture, living aquatic resources exploitation, trade and livelihood systems in the region and provide technical advice and recommendations for policy development and implementation.

#### 3. Duties and Responsibilities

The Sub committee on Sustainable Fisheries, on its behalf or jointly with other two Sub committees (i.e. Sub Committee on Endangered, Charismatic and Migratory Species and Sub Committee on Marine Protected Areas (MPAs) and Priority Conservation Areas), shall serve, in general, as a forum to provide technical advice and recommendations to the SSME Tri-National Committee for the formulation of policies, development and implementation on sustainable fisheries, aquaculture, living aquatic resources exploitation, trade and livelihood systems in the SSME. These will be achieved through, but not limited to the following:

- 3.1. Review of existing policies and programs on sustainable fisheries, aquaculture, living aquatic resources exploitation, trade and livelihood systems.
- 3.2. Provision of technical advice and recommendations for the development and implementation of new policies and programs on sustainable fisheries, aquaculture, living aquatic resources exploitation, trade and livelihood systems.
- 3.3. Review and consolidation of technical advice and recommendations previously presented in various forms by organizations and experts as the basis to formulate new recommendations for policy development.
- 3.4. Provision of technical advice and recommendations to support effective implementation of regional and global agreements related to the sustainable fisheries, aquaculture, living aquatic resources exploitation, trade and livelihood systems such as, but not limited, to CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora), CMS

(Convention on the Conservation of Migratory Species), IOSEA (Indian Ocean and South East Asia Marine Turtle Conservation and Management), Ramsar Convention (Convention on Wetlands), CBD (Convention on Biological Diversity), UNCLOS (United Nation Convention on the Law of the Sea) and BIMP-EAGA (Brunei-Indonesia-Malaysia-Philippines East Asia Growth Area) at national or SSME levels.

- 3.5. Identification of research priorities, collaborative management initiatives and harmonized approaches on sustainable fisheries, aquaculture, living aquatic resources exploitation, trade and livelihood systems from the SSME to form the basis for technical advice and recommendations for policy development and implementation.
- 3.6. Provision of advice on the implementation, coordination and monitoring of projects and activities identified under research priorities, collaborative management initiatives and harmonized approaches mentioned under para 3.5 above.
- 3.7. Coordination of the management and sharing of data and information on sustainable fisheries, aquaculture, living aquatic resources exploitation, trade and livelihood systems as the basis to develop technical advice and recommendations for policy development and implementation.

#### 4. Sub Committee Composition

##### 4.1 Chairmanship

The Sub Committee shall elect its Chair from representatives of the members of the Sub Committee. The Chair shall serve the tenure of two years and shall be elected at a regular Species Sub Committee meeting. The Chair shall oversee all aspects of the work progress of the Sub Committee.

In the event where the Chair is temporarily incapacitated, the Sub Committee members shall appoint an Acting Chair to take over the functions of the Chair for the duration in which the Chair is unable to perform his/her duties.

##### 4.2 Membership

Each country may nominate up to maximum five persons for the membership of the Sub-Committee. When it is deemed necessary, depending on the issues being addressed, the Chair of the Sub-Committee, by the consent of the members may invite external experts to assist the Sub Committee in its works.

##### 4.3 Focal Person

Members from each country shall appoint one focal person for each country to facilitate communication and coordinate activities within each country and between member countries.

#### 5. Meetings

A regular Sub-Committee meeting shall be convened once a year prior to regular meeting of the Tri National Committee to minimize travel and meeting costs where possible.

An intercessional meeting may, however, be called by the Chair when necessary, and with prior consultation with all focal persons of the member countries.

In each meeting of the Sub-Committee, it may also include observers from inside or outside the three countries, the number of which shall be decided before every meeting by each country. Observers who wish to attend any of the Sub Committee meetings shall be endorsed by the National Focal Authorities. Both numbers and names should be communicated to the Chair prior to the meeting.

The Chair shall participate in the meetings of the Tri National Committee and/or of related agreements and organization that the Tri National Committee deem relevant to SSME work.

#### 6. Working Mechanism

The Sub Committee shall, as much as possible, conduct its communication primarily through electronic means to minimize costs.

The Secretarial works of the Sub-Committee shall be borne by the Chair who may establish its own Secretariat or request the assistance of the secretariat of Tri-national Committee, when necessary.

Reports of activities, technical advice and recommendations, and all other information generated from the work of Sub Committee shall be submitted to the Chair of the Tri-National Committee through its secretariat in electronic format. The Chair shall maintain and manage copies of all reports and information related to the Sub Committee work.

#### 7. Financial Arrangements

To ensure the continuity of the Sub-Committee's activities, member countries shall endeavor to allocate and/or raise their own funds, or through the Tri-national Committee or through direct mobilization of additional resources from relevant organizations.



## Annex 2. Achievements of the Countries in Implementing Activities in the Action Plan

### Indonesia

- Rehabilitation of mangrove forests in Tarakan, East Kalimantan – 4,000 saplings have been planted (see Lessons Learned section)
- Various research on migration of small pelagic fish (SEAFDEC) and tuna and skip-jack by tagging
- Monitoring of tuna in Sulawesi, 2008 onwards (West Central Pacific Fisheries Council)
- Implementation of best practices in shrimp aquaculture in Kalimantan, Sulawesi Sea
- Passing of the resolution on by-catch of marine turtles at the 5th IOSEA Meeting
- Certification of trade on some ornamental coral reef fishes

### Malaysia

- Non-detrimental Study for humphead wrasse for regulation of exports
- Research on migration of small pelagic fish by tag-recapture technique (SEAFDEC)
- Training of Department of Fisheries staff and fishing boat operators on the use of Turtle Excluder Device to reduce by-catch of trawling operations
- Strengthening of enforcement on poaching of marine resources with the Malaysian Maritime Enforcement Agency
- Compliance of deep-sea vessels in installing gadgets to allow Vessel Monitoring System
- Engagement of trawl fishing operators in the trial use of Turtle-Excluder Device to gather data on by-catch for the purpose of fishery policy formulation (through Marine Research Foundation-Department of Fisheries Sabah-CI partnership)

### Philippines

- Finalization of the Philippine Tuna Management Plan and initiation of work to incorporate ecosystem-based management principles in the Plan
- Adoption by League of Municipalities of the concept of coastal resource management
- Various research projects to support fisheries management: biology and ecology of juvenile tunas for regulation of fishing in Fish Aggregating Devices; assessment of handline fishery for regulation of IUU fishing;

### Ecoregion-level

- Dialogue with neighboring countries on to reduce IUU fishing by Hainan