REBYC
Reduction of Environmental Impact from Tropical Shrimp Trawling, through the introduction of By-catch Reduction Technologies and Change of Management
(EP/GLO/201/GEF)

INDONESIA

DISSEMINATION OF TURTLE EXCLUDER DEVICES (TEDs) INSTALLATION ON SHRIMP TRAWL NET IN INDONESIA

"Promoting The Awareness of Fisheries Shrimp Trawl Industry towards The Sustainability Fisheries"

Jakarta, March 1st, 2006

DIRECTORATE GENERAL OF CAPTURE FISHERIES
MINISTRY OF MARINE AFFAIRS AND FISHERIES
REPUBLIC OF INDONESIA
2006

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

FINAL REPORT

DISSEMINATION OF TURTLE EXCLUDER DEVICE (TEDs) INSTALLATION ON SHRIMP TRAWL NETS IN INDONESIA

"Promoting The Awareness of Fisheries Shrimp Trawl Industry towards The Sustainability Fisheries"

A Collaboration Project Between Directorate General of Capture Fisheries and FAO-GEF Project (FAO Symbol EP/GLO/201/GEF)

Jakarta, March 1st, 2006

DIRECTORATE GENERAL OF CAPTURE FISHERIES
MINISTRY OF MARINE AFFAIRS AND FISHERIES
REPUBLIC OF INDONESIA
2006

ACKNOWLEDGEMENT

First of all, we would like to express our sincere thank to the honourable:

1. Mr. Wilfried Thiele (Senior Fishery Industry Officer, FAO-Rome)
2. Mr. Janne Fogelgren (Project Operations Coordinator, FAO-Rome)
3. Mr. Man Ho So (FAO Representative in Indonesia)
4. Mr. Benni Sormin (FAO Representative in Indonesia)
5. Mr. Steve Eayrs (Australian Maritime College)
6. Mr. Kevin Lee (Australian Fleet Manager)
7. Mr. Thobias Glucksman (U.S. Embassy)

for their valuable advice and participation in the meeting 'Dissemination of Turtle Excluder Device (TEDs) Installation On Shrimp Trawl Nets' in Indonesia which was successfully held on March 1st in Jakarta, Indonesia.

The meeting aimed to demonstrate the advantages of TEDs installation for the Indonesian shrimp trawl industries. We expect by this kind of dissemination of information the shrimp trawl managers will realize the importance of TED installation on their trawl net, especially for the long term period.

The meeting was successfully conducted as a result of collaboration among all of the committees (both steering and organizing committee), Directorate General of Capture Fisheries, FAO – Rome, FAO Rep in Indonesia, Faculty of Marine Science and Fisheries, Bogor University of Agriculture (IPB) and Fishing Technology Development Centre Semarang. We greatly appreciate their participation and support.

Jakarta, March 2006
Directorate of Fishing Vessels and Fishing Gears

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WELCOME SPEECH
DIRECTOR OF FISHING VESSELS AND FISHING GEARS
Ir. DEDY H. SUTISNA, MS

Assalamu 'alaikum Warohmatullahi wabarakatuh...

Yang kami hormati:

Bapak Direktur Jenderal Perikanan Tangkap, Mr. Husni Mangga Barani

FAO-Roma: Mr. Wilfried Thiele, Mr.Janne Fogelgren

FAO Representative in Indonesia: Mr. Man Ho So, Mr. Benni Sormin

Our guest, speakers from Australia: Mr. Steve Eayrs, Mr. Kevin Lee

Ketua Sekolah Tinggi Perikanan Jakarta

Dekan FPIK Institut Pertanian Bogor

Kepala Biro Kerja sama dan Perencanaan Luar Negeri

Kepala Pusat Riset Perikanan Tangkap

Direktur Kapal Pengawasan, Ditjen. P2SDKP

Pejabat Eselon II Lingkup Ditjen. Perikanan Tangkap

Para hadirin, undangan dan peserta Desiminasi Penggunaan Turtle Excluder Devices (TED) pada Pukat Udang

Ladies and Gentlemen

First of all on behalf of the organizing committee dissemination of TEDs on shrimp trawl with the title "Promoting the awareness of fisheries shrimp trawl

industry towards the sustainability fisheries", I would like to express our greatest gratitude to all participants for joining in this opening ceremony.

Secondly, praise be to our God the most merciful and beneficent for bringing us together in this room. I hope this meeting will be held as scheduled.

Director General of Capture Fisheries and all of the participants,

Fishing practice using trawl nets in Indonesia has been ongoing since 1982. It happened at the same time with the issue of Presidential Decree no 85/1985. The industrial shrimp has been conditionally licensed with installing a selective device Bycatch Excluder Device (BED). The objective of BED is to reduce the bycatch without loss of shrimp. Trawl nets equipped by BEDs only operated in the Arafura sea and adjacent waters.

The regulation of installing BEDs in trawl nets was made by the Ministry of Agriculture no 930/Kpts/Um/12/1982, implementing Presidential Decree no 85/1982 and Director General of Fisheries Decree no IK.010/S3.8075/82 concerning the design of shrimp trawl nets equipped with BEDs.

Based on those regulations the design of shrimp trawls consists of a demersal seine net equipped with a BED. The design and specification of BEDs can be modified when further research found appropriate designs of BEDs to manage fisheries resources at national level. In implementing these regulations internalization and supervision to all stakeholders is needed. For this reason, it has become a basic consideration to carry out this dissemination of information.

Director General of Capture Fisheries and all of the participants,

I would like to convey the report about the FAO-GEF activities such as:

The Indonesian Government in this term, the Directorate General of Capture Fisheries in cooperation with FAO of the United Nations through the FAO-GEF Project "Reduction of Environmental Impact from Tropical Shrimp Trawling, through the Introduction of the Bycatch reduction Technologies and Change of Management" (FAO Symbol EP/GLO/201/GEF). Since 2002 some activities have

been conducted for the development of environmentally friendly trawl fisheries, with the output from this project, to legalize the standard of BEDs which are appropriate for Indonesian waters.

Several activities in 2005 were:

1. **Problem Identification Concerning By-catch**, through introduction and demonstration of the *By-catch Reduction Devices* (TEDs/JTEDs) in Sorong, Ambon, Tual, Sibolga dan Merauke;
2. **Meeting and Workshop**, project evaluation for both national and regional in SEAFDEC-Bangkok and International in Mexico;
3. **Baseline Study of BRDs,** Symposium on Present Status of Trawl In Indonesia *"Discover The Eco-Friendly Trawl in Indonesia Waters".*

Moreover some activities have not yet been implemented and have become a work plan of the FAO-GEF Project for the beginning 2007 such as:

1. Advanced, Baseline Study of BRDs
2. Development / Adaptation of BRDs technologies (Optimalisation and Experimental Trial)
3. Field Demonstration of New Technologies
4. Introduction of Appropriate BRDs Technology to Shrimp Fishing Fleets (Implementation Stage, Training/ Workshop of BRDs, Legalizing for The Concept of BRDs Standardization)
   a. Dissemination of results (dissemination for industrial fisheries companies, advertising : leaflets, posters, pocket books, etc)
   b. Meeting, workshop (legalizing for BRDs standardization, project evaluation)

These activities will be conducted in 2006 as the proposal is conveyed through FAO Representative in Indonesia.

1. Advanced, **Baseline Study of BRDs** such as: Establishment "Fishing Gear and Method of Trawl in Indonesia" and "Training Course on Audio Visual Production";
2. Dissemination installing of TED for shrimp trawl industries ; DISSEMINATION OF TURTLE EXCLUDER DEVICES (TEDs) INSTALLATION ON SHRIMP TRAWL NET IN INDONESIA "***Promoting The Awareness of Fisheries Shrimp Trawl Industry towards The Sustainability Fisheries" ;***
3. Experimental fishing environmentally friendly shrimp trawl in east Kalimantan waters.
4. Development in design and construction of Eco-friendly trawl fisheries which suitable for characteristic of Indonesian waters.

On this occasion, we would like to invite the FAO-GEF team to evaluate, along with us, the activities which have been carried out and also to agree on those being proposed.

Director General of Capture Fisheries and all of the participants,

Moreover as an organizing committee in this event, I would like to make some comments about the meeting in Merauke in December 2005:

This dissemination was a recommendation and implementation from "Training Introduction and Demonstration of using By catch reduction device". Mr Thiele reported that the implementation of BEDs is not being used properly and can create problems in the field. However, in Australia, TEDs have been used voluntarily by the fisherman in order to maintain the sustainability of the resources. Hence, we need to emphasise the importance of BEDs in shrimp trawl fisheries to fishing crew and also fisheries companies.

The objectives of the Dissemination of Turtle Excluder Device (TEDs) Installation on Shrimp Trawl nets in Indonesia are:

a. Explanation of installing TEDs for environmentally reason;
b. Explanation of installing TEDs for utilization of resources in the long term;
c. Explanation of installing TEDs for monitoring of resources.

The target of this activity is the implementation of environmentally friendly fishing technology to sustain marine resources:

a. To reduce incidental catch and endangered species such us turtle, porpoise, dolphin, sea lion, rays and shark:
b. To increase export opportunities by ending the US embargo against shrimp produce in Indonesia
c. To exclude the by-catch which may reduce sorting time and cost.
d. May reduce protected marine animals

'Dissemination of turtle excluder device (TEDs) Installation on Shrimp Trawl nets in Indonesia' was conducted for one day on 1 March 2006 with the participants consisting of:

✓ Company/ Stakeholders	:	30 orang
✓ Sekolah Tinggi Perikanan Jakarta	:	2 orang
✓ IPB	:	3 orang
✓ BBPPI Semarang	:	2 orang
✓ Biro Perencanaan & KLN	:	1 orang
✓ Ditjen P2SDKP	:	1 orang
✓ Pusat Riset Perikanan Tangkap	:	2 orang
✓ Eselon II Lingkup Ditjen Perikanan Tangkap	:	5 orang

And I would like to note that resource persons at this meeting are:

✓ Mr. Wilfried Thiele	(FAO-Roma)
✓ Mr. Janne Fogelgren	(FAO-Roma)
✓ Mr. Steve Eayrs	(Ahli dari Negara Australia)
✓ Mr. Kevin Lee	(Australian Fleet Manager)
✓ Mr. Tobias Glucksman	(Perwakilan dari Kedubes AS)
✓ Mr. Daniel Monintja	(IPB)
✓ Mr. Ari Purbayanto	(IPB)

- ✓ Mr. Purwanto (Ditjen P2SDKP)
- ✓ Mr. Sukirdjo (HPPI)

Finally I would like to invite the director general of capture fisheries to give advice and to open the 'DISSEMINATION OF TURTLE EXCLUDER DEVICE (TEDS) INSTALLATION ON SHRIMP TRAWL NETS IN INDONESIA with the theme "*Promoting The Awareness of Fisheries Shrimp Trawl Industry towards The Sustainability Fisheries*" officially.

Wassalaamu 'alaikum Warahmatullahi wabarokaatuh

Jakarta, 01 Maret 2006

Direktur Kapal Perikanan dan Alat Penangkap Ikan

DEDY H SUTISNA

ONE-DAY MEETING ON AWARENESS PROMOTION OF TURTLE EXCLUDER DEVICE (TED) UTILIZATION IN SHRIMP INDUSTRY OF INDONESIA
Jakarta, 1 March 2006

Opening remarks from FAO

Honourable Director General for Capture Fisheries (Ministry of Marine Affairs and Fisheries); Senior Officers of the Ministry; FAO Fishery Senior Officers and Experts, Indonesian fisheries company managers;
Distinguished participants, ladies and gentlemen.

It is a great pleasure for me to welcome you to this very important meeting: the One-day Meeting on the 'Awareness Promotion of TED Utilization in Shrimp Industry of Indonesia'. I am of the opinion that the utilization of the TED is something that we cannot delay in order to sustain fishery resources in the long term. Therefore, I am delighted to see good attendance at the meeting today.

Ladies and gentlemen,

Since ancient times, fishing has been a major source of food and a provider of employment and economic benefits to those engaged in this activity. For a long time the wealth of aquatic resources was assumed to be an unlimited gift of nature. However, with increased knowledge and the dynamic development in the last decades we must recognise that aquatic resources, although renewable, are finite and need to be managed in a responsible way. In the Code of Conduct for Responsible Fisheries, FAO sets out principles and international standards of behaviour for responsible practices with a view to ensuring the effective conservation, management and development of living aquatic resources, with due respect for the ecosystem and biodiversity.

One source of stress on the marine environment, which is of growing international concern, is the impact from capture fisheries , hence the need to develop, promote and implement environmentally sound technology and practices in the marine fisheries

sector, so as to prevent loss of biodiversity and habitat degradation, is very important. In a world with increasing demand for food, the sustainable use of natural resources is a major challenge. Over the past decade it has become clear that marine production is not unlimited, and it is estimated that the marine harvest cannot be increased much above its present level of approximately 85 to 90 mill tonnes. Environmental impacts that are a threat to marine production are other issues of increasing global concern. In the marine environment such impact might range from climatic changes, pollution, to detrimental impact of the fisheries themselves.

The research work carried out and documents produced by the participating countries under this Project clearly showed the extreme complexity of the by-catch problem, the nature of which varies much from country to country, with many different aspects being closely associated, for instance: biology, ecology, fishing technology, fish utilization and marketing, sociology, economy, management/ regulation/ legislation, communication/ outreach, conflicts between shrimp trawlers and artisanal fishermen. Our Meeting today does not attempt to deal with all aspects at the same time, but aims to assist the fishing industry and fishermen in Indonesia in the introduction and use of by-catch reduction technologies in their shrimp trawl fisheries.

Major objectives of this meeting are to discuss and review trawl development in the world and specifically to learn something from Australian and United States' experience on this matter. A successful outcome of this meeting very much depends on how the fishing industry perceive problems related to shrimp exploitation, and if they decide that they have a problem, and also indicate their willingness to commit themselves to do something about it.

With the problem of fish by-catch, particularly of juvenile food-fish, identified as a priority area for mitigation, research aimed at developing efficient and practical solutions has begun in several developed countries. However, because research and development requires substantial financial and human resources, it will tend to be restricted to those countries with a strong economy.Therefore, the intervention of GEF,

among others, through this Project, is very welcome to support efforts by a number of less fortunate developing countries in four major regions of the world in order to resolve a common problem.

Furthermore, various studies have attempted to estimate the amount of fish that is discarded in marine fisheries. These studies, supported by additional information, indicate that shrimp trawl fisheries are those fisheries with the most severe problem with discards. In the national reports elaborated on during the preparatory phase of the project, the discard practice and the capture of juveniles, were indicated as the matters of main concern. In fact, the situation with regard to discards is very variable from one country or region to another. Some countries have developed a system to retain and market all of the catch, whereas others discard nearly everything.

Ladies and gentlemen,

Lastly, I would like to underline that shrimp resources are abundant in many tropical countries and their exploitation has developed a very economical fishery in many of these countries. The demand for shrimp on the global market thus generates significant export incomes for countries exploiting these resources. As shrimp is such an international commodity, market reactions can to a large extent impact the way shrimp is exploited. A concrete example of such market reaction is the US ban on shrimp imports if a device to exclude turtles is not used where such animals occur on the shrimp fishing grounds. However, to implement new technologies or other management systems without the people directly involved will not be successful.

With these opening remarks I will, on behalf of FAO, express a real hope that during the meeting we will have fruitful discussions towards taking a first step to reduce the environmental stress of shrimp trawl fisheries and in the long term contribute to increased production.

I wish you a successful meeting.

OPENING REMARKS
DIRECTOR GENERAL OF CAPTURE FISHERIES
HUSNI MANGGA BARANI

Distinguished Guests :

FAO-Roma: Mr. Wilfried Thiele, Mr.Janne Fogelgren

FAO Indonesia Representative: Mr. Ma Ho So, Mr. Benni Sormin

Our guest, speakers from Australia: Mr. Steve Eayrs, Mr.Kevin Lee

Ketua Sekolah Tinggi Perikanan Jakarta

Dekan FPIK Institut Pertanian Bogor

Kepala Biro Kerjasama dan Perencanaan Luar Negeri

Kepala Pusat Riset Perikanan Tangkap

Direktur Kapal Pengawasan, Ditjen. P2SDKP

Pejabat Eselon II Lingkup Ditjen. Perikanan Tangkap

Para hadirin, undangan dan peserta Diseminasi Penggunaan Turtle Excluder Devices (TED) pada Pukat Udang

Ladies and Gentlemen,

In this favourable opportunity, let's praise our god for his mercy enabling us to gather today in the opening ceremony of Dissemination of TED implementation on Shrimp Trawl Fisheries in Indonesia.

To our special guests from FAO-Rome, (Mr. Wilfried Thiele and Mr. Janne Folgelgren) and also from Australia, (Mr. Steve Eayrs and Mr Kevin Lee), welcome to Indonesia. I thank you and appreciating your participation, cooperation, and support of the Indonesian Government in relation to

conducting a series of activities on "***Reduction of Environmental Impact of Tropical Shrimp Trawling, through the Introduction of By-Catch Reduction Technologies and Change of Management".***

I also thank and appreciate all the participants for joining this seminar at Borobudur Hotel, Jakarta.

Ladies and gentlemen,

Fishing practice using trawl nets in Indonesia legally started in 1982. It happened at the same time as the issue of the presidential decree No. 85/1985 on the use of trawl nets. Further regulation was to regulate the trawl construction, which had to implement the fish separating device known as the By-catch Excluder Device (BED).

Considering the effectiveness of this fishing gear, the development of this fishery is being continued. Furthermore, the demand on fish and shrimp export from catch is high, and the capture fisheries sub-sector has become attractive to businessmen. However, the government is aware that there are still many problems that burden the businessmen, which need support from the government.

Ladies and gentlemen,

The regulation on the use of fish separating devices is based on the consideration that the fishing activity using shrimp trawl in tropical areas, generally caught various by-catch species in large quantities in comparison to target species. The by-catch is made up of young or juvenile fish, and less economically valuable fish which are mostly sent back to the sea, including protected species such as turtle, porpoise, etc. Fishing practice with large amounts of the by-catch may have a negative impact on the sustainability of fish resources.

The adoption of fish separating device technology or by-catch reduction technology (BRD) will maintain the sustainability of fish bio-diversity. As the result, we will have an opportunity to utilize the fish resources in for a longer time. This means that it will increase the fishing productivity and export value, especially for developing country like Indonesia. A recently developed fish separating device is the TEDs (Turtle Excluder Devices) and JTEDs (Juvenile and Trash-fish Excluder Device).

However, if there is a decrease in shrimp catch as the target species is still occurring due to the use of BRDs as mentioned before, it is perhaps because the installation and operation procedure is not done according to the standard procedure. That is the reason why it is so important to carry out this dissemination of information today in this comfortable environment.

Ladies and gentlemen,

The development of this fishing gear has become important to the Indonesian Government, particularly the Directorate General of Capture Fisheries, in order to analyse fish resources and other protected marine biota. Moreover, the Indonesian Government has ratified the Code of Conduct for Responsible Fisheries. As consequence, we have a commitment to following "the rules of the game" especially the role on conservation of marine living resource.

The Directorate General of Capture Fisheries, in collaboration with FAO, has conducted some activities in order to minimise the environmental impact of the shrimp trawl through Project FAO-GEF "*Reduction of Environmental Impact from Tropical Shrimp Trawling, through The Introduction of By-catch Reduction Technologies and Change of Management* (FAO Symbol EP/GLO/201/GEF)**.** These activities are very important and in line with the regulations of Fisheries Law No. 31/2004, and the Vision and Mission of the Directorate of Capture Fisheries.

Vision:
The capture fisheries business will be able to increase people prosperity, competitiveness, and utilization of the resources in an efficient and sustainable way.

Mission:
1) Controlling the utilization of fish resources,
2) Increasing fishermen's income and their prosperity,
3) Increasing quality and added value of fisheries products,
4) Supplying animal protein food, raw material for industry, and exports,
5) Creating a conducive environment for capture fisheries business development,
6) Creating work and business opportunity productively,
7) Increasing human resource quality,
8) Developing fisheries institution and regulation,
9) Increasing national income from non-taxation (PNBP) and pure regional income (PAD),
10) Increasing good governance in fisheries development,
11) Promoting the fish resources to strengthening the nation unity.

Ladies and gentlemen,

By paying attention to some factors as mentioned before, I hope the fishing business stakeholders will actively participate in conservation and fisheries resource management by implementing an environmentally friendly fishing gear. An effort to develop the environmentally friendly fishing gear is the use of trawl nets equipped with fish separating devices.

Through this dissemination of information, it is expected that all participants will gain knowledge through interaction with resource persons both from the local experts and foreign experts (FAO and AMC). I hope from learning about trawl fisheries management in several countries, which will be presented in this seminar, will give us the inspiration to implement it in Indonesia. It is clear that, the importance of the use TEDs on shrimp trawls can be understood

together so that the management of shrimp trawls, which are suitable to CCRF, can be achieved.

Finally, to all participants, I'd like to express my thanks for your time, which has made attending this seminar possible. May God guide us so that this seminar can be successful and have a successful output as expected.

The last but not least, to all participants, enjoy following the meeting on the Dissemination of Turtle Excluder Devices (TEDs) Installation on Shrimp Trawl Net in Indonesia "*Promoting the Awareness of Shrimp Trawl Industry towards the Sustainability Fisheries".*

Wassalammu 'alaikum Warohmatullahi Wabarakatuh

Jakarta, 01 Maret 2006

Director General of Capture Fisheries

1. INTRODUCTION

1.1. Background

Implementing The Code of Conduct for Responsible Fisheries (CCRF), some countries and international fisheries organizations have committed to putting selective fishing gear as a priority in exploiting the fisheries resources. One way to reduce such an undeliberated catch of species is by installing By Catch Reduction Devices (BRDs: Turtle Excluder Devices/ Juvenile and Trash Excluder Devices).

The U.S. shrimp import embargo which went into affect on May 1st, 1996, stipulates that fishing methods used in shrimp capture in harvesting countries should inflict no harm on marine turtles. Public law 101 – 162 section 609, enacted by Congress in 1989, requires that nations who wish to export shrimp to the United States adopt regulations governing the incidental capture of sea turtles comparable to those of the U.S., and that the average rate of incidental capture be comparable to the incidental rate of capture by U.S. vessels. The clear intent of this law is to encourage nations to adopt regulations requiring TEDs on all shrimp trawling fishing vessels in waters shared with five sea turtle species (keep's ridley, hawksbill, loggerhead, green and leatherback).

The principal need is to solve the environmental and economic problem resulting from the capture and then the discard of unwanted catch and by-catch (of juvenile food fish in particular, but also of invertebrates, and even turtles in some areas) by commercial shrimp trawl fisheries.

Indonesia, together with other participating countries in FAO/GEF Project, with regard to the present shrimp exploitation, have committed to changing the shrimp trawl fishery by introducing more environmentally-sound fishing technologies and practices. Therefore, the sustainable fisheries resources management could be reached in Indonesia, through:

- adopting the by-catch reduction devices by commercial shrimp trawling fisheries;
- increasing co-operation among stakeholders in research on and management of shrimp (and fish) resources;
- improving management of shrimp trawl fisheries in Indonesia;

The Indonesian Government through The Presidential Decree Number: 85 / 1982 has obligated the shrimp trawl fisheries to install By-catch Reduction Devices/ Turtle Excluder Devices. Nevertheless, it is necessary to keep on disseminating and training the regulation to fishermen in order to get the best performance.

Regarding to the above background, we would like to conduct a DISSEMINATION OF TURTLE EXCLUDER DEVICES (TEDs) INSTALLATION ON SHRIMP TRAWL NET IN INDONESIA "*Promoting The Awareness of Commercial Shrimp Trawl Fisheries towards The Sustainability Fisheries".*

1.2. Objectives and Purpose

1.2.1. Objectives

The objective of the dissemination to promote the awareness of commercial shrimp trawl fisheries through:

a. Explanation on environmental reasons for TED installation;
b. Explanation on economical reasons for TED installation;
c. Explanation on mid and long-term advantages of TED installation;
d. Explanation on TED installation surveillance;

1.2.2. Purposes

The purpose is to reduce discards of fish captured by shrimp trawlers, primarily by introducing selective fishing gear technologies:

a. to reduce capture of immature/juvenile fish of commercially important species;
b. to enlarge the export market opportunity (to remove the shrimp embargo to U.S.);
c. to reduce the harvest of other unwanted by-catch, so as to reduce the cost involved in catching, handling, sorting and disposal of this low-value component;
d. to reduce the capture of unwanted by-catch of non-fish species, like turtles.

1.3. Funding

This meeting was financed by FAO/GEF Symbol EP/ GLO/ 201/ GEF Project.

2. PROJECT IMPLEMENTATION

2.1. Project Materials

The materials for Dissemination of Turtle Excluder Device (TEDs) Installation on Shrimp Trawl Net in Indonesia, consist of:

a. Overview of Trawl Development in The World *(Mid and Long-term Advantages of TED Installation)* .
b. *Learning from neighbouring countries:* Shrimp Trawl Management in Australia.
c. The Advantages of TEDs and BRDs from Australian Industries Perspective.
d. TEDs Installation and Implementation for Indonesian Shrimp Trawl Industry.
e. Indonesia Law and Surveillance on TEDs Installation.
f. United States TEDs Regulation in The Pasific Area.
g. The University Role on TEDs Research in Indonesia.

Beside those are, all the participants were also given some other materials as follows:

a. Copy of VCDs (3 titles);
b. Posters; Promoting the TED installation for shrimp trawl net (2 pictures);
c. Leaflet; Guidance for proper TED installation.

2.2. Project Methods

This meeting is a general explanation and extension project to the Indonesian shrimp trawl managers. To reach the above objectives and purposes, the applied methods, are:

2.2.1. Explanation and Extension by the speakers

The dissemination was designed to brief a general TED installation explanation to the participants. Particularly, each speaker gave a more detailed description on environmental and economic advantages. It also compared two different experiences on TED installation both in Australia and Indonesia. Furthermore, legal instruments have been regulated (either by the local/Indonesian government or US government) and their surveillance also explained.

2.2.2. Discussions

After the briefing, all the participants had a chance to ask for more detailed explanation, to give suggestions or opinions on the related topic. Using this method, it is expected that the participants will get a clear understanding of the above mentioned objectives and purposes. Although there were some criticisms, especially from the shrimp trawl industries

association (Mr. Sukirdjo, HPPI), eventually almost all of the participants understood and realized the need for TEDs installation on shrimp trawl nets.

2.3. Time and Place

The Disseminationn of Turtle Excluder Devices (TEDs) Installation on Shrimp Trawl Net in Indonesia with the topic *"Promoting the Awareness of Commercial Shrimp Trawl Fisheries towards the Sustainability Fisheries",* was held on:

Day/ Date : Wednesday/ March 1st , 2006
Time : 08.00 Indonesian Western Time
Tempat : Borobudur Hotel, Jakarta

The meeting was officially opened by Secretary General of Ministry of Marine Affairs And Fisheries (Mr. Andin H. Taryoto). Other speeches were also made by:

a. FAO Rep. in Indonesia (Mr. Man Ho So);
b. Director of Fishing Vessels and Fishing Gears (Mr. Dedy H. Sutisna).

2.4. Speakers, Resource Persons, Committee and Participants

The speakers attending during the meeting were experts: state government officers, lecturers from the university and private sectors. They were either local or foreign experts.

No	**Name**	**Institutions**
1	Wilfried Thiele	*FAO – Rome*
2	Steve Eayrs	*Australian Maritime College*
3	Mr. Kevin Lee	*Australian Fleet Manager*
4	Tobias Glucksman	*U.S. Embassy in Indonesia*
5	Andin H. Taryoto	*Secrt. General of MOMAF*
6	Nilanto P	*Secretary of DGCF – MOMAF*
7	Dedy H Sutisna	*Dir of Fishing Vessels & Fishing Gears, DGCF-MOMAF*
8	Parlin Tambunan	*Dir of Fisheries Resources*
9	Haryadi Priyanto	*DG of Fisheries Resources Surveillance*
10	Daniel R. Monintja	*Bogor University of Agriculture*
11	Ari Purbayanto	*Bogor University of Agriculture*
12	Sukirdjo	*Association of Shrimp Trawl Industries (HPPI)*

Furthermore, the meeting was also supported by resource persons, members of the National Steering Committee:

No	**Name**	**Institutions**
1	Suardoyo	*Head of Fishing Technology Development Centre, Semarang*
2	Suhariyanto	*Fishing Gears Engineer of Fishing Technology Development Center, Semarang*
3	RB. Mulyanto	*Fishing Gears Engineer of Fishing Technology Development Centre, Semarang*

The organizing committee of this meeting was supported by the staff of Sub Directorate of Liability and Construction for Fishing Gears with the secretariat address: Jl. Medan Merdeka Timur No. 16 (16th floor) Jakarta Pusat, tel no: (+62-21) 3519070 ext 1641 and fax no: (+62-21) 3520726. Meanwhile, the steering committee was supported by The National Steering Committee of FAO-GEF Project Reduction OF Environmental Impact from Tropical Shrimp Trawling, through The Introduction of By-Catch Reduction Technologies and Change of Management (FAO Symbol EP/GLO/201/GEF).

The participants of this meeting, especially from shrimp trawl industries, are: PT. Tri Kusuma Graha; PT. Sinar Abadi Cemerlang; PT. Dwi Bina Utama; PT. Maprodin; PT. Tofico; PT. West Irian Fisheries Industry; PT. Nusantara Fishery; PT. Alfa Kurnia; PT. Irian Marine Product Development; PT. Mina Kartika; PT. Hasuda; PT. Nalendra Raya Bhakti; PT. Pusaka Bahari; PT. Pelagis Samudera Lestari; PT. Bonecom.

2.5. Closing

The Dissemination of Turtle Excluder Devices (TEDs) Installation on Shrimp Trawl Nets in Indonesia with the topic "*Promoting The Awareness of Commercial Shrimp Trawl Fisheries Towards The Sustainability Fisheries*", was closed on the same day (Wednesday, March 1st, 2006) at 4.30 Indonesian Western Time.

3. DISCUSSIONS AND EVALUATIONS

3.1. Discussions

Due to the explanations from all the speakers and suggestions/ opinions occurring duringthe meeting, we can sumarize some points regarding the targeted project.

3.1.1. Outputs

a. Dissemination of TED installation to Indonesian shrimp trawl industries could be held through the direct 'spreading' of ideas (speakers, leaflets, posters);

b. A film describing the underwater TEDs performance could be watched by participants;

c. A forum for expressing perspectives from each stakeholder could be held.

3.1.2. Outcomes

a. The shrimp trawl industries could be stimulated to make some creations for conserving the environment and its living biotas;

b. A new conciousness occured among the shrimp trawl industries on TEDs installation;

c. Some perspectives of each stakeholder could be identified.

3.1.3. Benefits

a. A willingness to conduct a little research among shrimp trawl industries;

b. The increase of TEDs installation among shrimp trawl industries.

3.1.4. Impacts

a. Turtles and other marine biotas can be conserved (environmental advantages);

b. A more profitable business (economical advantages);

c. A sustainable fisheries can be obtained.

3.2. Monitoring and Evaluation

According to the monitoring and evaluation during the meeting there were no significant changes between the implementation and the proposed project. A few small changes were; the Director General of Capture Fisheries, the person who was previously expected to open the dissemination officially, was replaced by the Secretary General of the Ministry of Marine Affairs and Fisheries. Also, there were more speakers than initially expected from the shrimp trawl industries (local/ Indonesian Shrimp Trawl Association and Australian Fleet Manager).

4. CONCLUSIONS AND RECOMMENDATIONS

4.1. Conclusions

The Dissemination of Turtle Excluder Devices (TEDs) Installation on Shrimp Trawl Net in Indonesia with topic *"Promoting the Awareness of Commercial Shrimp Trawl Fisheries towards the Sustainability Fisheries"* had been conducted in Borobudur Hotel Jakarta for one day.

The speakers consisted of experts from different backgrounds, either local or foreign experts who shared their experiences and represented their perspectives.

With regards to the dissemination of information, the participants, especially from shrimp trawl industries, were challenged to prove their thesis on the advantages of TED installation.

4.2. Recommendations

1) A new paradigm needs to be introduced to shrimp trawl industries that installing TEDs has important objectives such as conserving the environmental and marine biotas;
2) Nevertheless, the correct installation of TEDs will open a new larger export markets to US;
3) Some advanced research and engineering work on TEDs construction which is appropriate with Indonesian waters needs to be conducted;
4) Collaboration and coordination between stake holders; government, researchers, shrimp trawl industries, fishermen, NGOs needs to be improved;
5) While waiting for the appropriate TEDs, the use of the available design and construction regulated by USA is recommended;

Annex 1 : Name of Participants

No	Name	Institutions
1	Is Sjafruddin	PT. Maprodin
2	Makmur Prawira K	PT. Tri Kusuma Graha
3	Suryadi	PT. Sinar Abadi Cemerlang
4	M. Imronie A.	PT. Sinar Abadi Cemerlang
5	Dede Solehudin	Bureau of Foreign Affairs, MOMAF
6	Eko Budiharto	Directorate of Capture Fisheries Licence, DGCF
7	Jap. Tungga, SH	PT. Maprodin
8	Mertha	PT. Tri Kusuma Graha
9	Ir. Any Suharti	PT. Tofico
10	M. Riyanto	Bogor Agriculture Institute
11	Sukirjo	Shrimp Trawl Industries Association/ HPPI
12	S. Bambang M.	PT. Dwi Bina Utama
13	Prof. John Haluan	Bogor Agriculture Institute
14	Dr. Mulyono S. Baskoro	Bogor Agriculture Institute
15	Wudianto	Marine Fisheries Research Centre
16	Nisfawati	Directorate of Fishing Port
17	Ronny I. Wahyu	Bogor Agriculture Institute
18	Ratna D.S.	PT. Alfa Kurnia Fish Enterprise
19	S. Sutarman	PT. Alfa Kurnia Fish Enterprise
20	Panghutan Simanjuntak	Directorate of Fishing Vessels and Fishing Gears
21	Suharto	Jakarta University of Fisheries
22	Yustinus Edy P	Directorate of Foreign Marketing, DG P2HP - MOMAF
23	Martono	PT. Dwi Bina Utama
24	Endang R.	PT. Irian Marine Product Dev.
25	L. Soetrisman	PT. Pusaka Bahari
26	Utarso	PT. Pusaka Bahari
27	I. Lusiana	HPPI
28	Hardi	Data, Information and Statistics Centre, MOMAF
29	Tachmid	PT. Bonecom
30	Joni Junaidi	Directorate of Inspector Vessels
31	Ibrahim P.	HNSI
32	Endroyono	Directorate of Capture Fisheries Development
33	Haryadi Priyanto	Directorate of Fisheries Resources Surveillance
34	Annu	METRO TV
35	Chandra	METRO TV
36	Prof. Daniel R. Monintja	Bogor Agriculture Institute
37	Subhat Nurhakim	Capture Fisheries Research Center

No	Name	Institutions
38	Suardoyo	BPPI Semarang
39	Tobias Glucksman	US Embassy
40	Ari Purbayanto	Bogor Agriculture Institute
41	Suhariyanto	BPPI Semarang
42	Wilfried Thiele	FAO Rome
43	Fogelgren	FAO Rome
44	So, Man Ho	FAO
45	Kevin Lee	Australia
46	Benni Sormin	FAO
47	Steve Eayrs	AMC
48	Parlin Tambunan	Dit. Of Fisheries Resources, DGCF
49	Ibrahim Ismail	Dit. Of Fisheries Infrastructure, DGCF
50	Andin H. Taryoto	Secretary General of MOMAF
51	Eka Purnama	Dit. Of Fishing Vessels and Fishing Gears
52	Novitri Hasanah	Dit. Of Fishing Vessels and Fishing Gears
53	Agoestinneke R	Dit. Of Fishing Vessels and Fishing Gears
54	Nomensen L	Dit. Of Fishing Vessels and Fishing Gears
55	Imron R	Dit. Of Fishing Vessels and Fishing Gears
56	Muklis	Dit. Of Fishing Vessels and Fishing Gears
57	R.B. Mulyanto	Dit. Of Fishing Vessels and Fishing Gears
58	H. Darkum	Dit. Of Fishing Vessels and Fishing Gears
59	Jainur Manurung	Dit. Of Fishing Vessels and Fishing Gears