FISHCODE

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REPORT ON A CONSULTATION WITH STAKEHOLDERS ON THE FISHERIES MANAGEMENT PLAN FOR SMALL-PELAGIC FISHERIES OF THE WEST COAST OF PENINSULAR MALAYSIA

PENANG, MALAYSIA

19-20 FEBRUARY 2001





FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

ROME, JUNE 2001

GCP/INT/648/NOR Field Report F-17 (En)

FISHCODE

MANAGEMENT

FAO/NORWAY PROGRAMME OF ASSISTANCE TO DEVELOPING COUNTRIES FOR THE IMPLEMENTATION OF THE CODE OF CONDUCT FOR RESPONSIBLE FISHERIES

SUB-PROGRAMME F: ASSISTANCE TO DEVELOPING COUNTRIES FOR IMPROVING THE PROVISION OF SCIENTIFIC ADVICE FOR FISHERIES MANAGEMENT

REPORT ON A CONSULTATION WITH STAKEHOLDERS ON THE FISHERIES MANAGEMENT PLAN FOR SMALL-PELAGIC FISHERIES OF THE WEST COAST OF PENINSULAR MALAYSIA

PENANG, MALAYSIA 19-20 FEBRUARY 2001

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS ROME, JUNE 2001

PREPARATION OF THIS DOCUMENT

This report presents a summary of the proceedings and the main results of a consultation with stakeholders on a fisheries management plan for small pelagics for the west coast of peninsular Malaysia, held at the Vistana Hotel in Penang, Malaysia, from 19 to 20 February 2001.

It is a follow-up to FAO/FISHCODE, 2000. Report of the Workshop on the Fisheries Management Plan for the Small-Pelagic Fisheries of the West Coast of Peninsular Malaysia. Swiss Garden Resort, Damai Laut, Lumut, Perak, 7-10 August 2000. FAO/FISHCODE Project GCP/INT/648/NOR: Field Report F-13 (En). Rome, FAOP: 38p.

This meeting was conducted in Malay (Bahasa Malaysia) and all original discussion material and reports were also produced in Malay. This English version of the report was produced by Ms Chee Phaik Ean, modified by Dr Purwito Martosubroto and put in its final form by Mr Siebren C. Venema.

ACKNOWLEDGEMENTS

Gratitude and thanks go to Dr Purwito Martosubroto of FAO and Mr Mark Elmer of Queensland Fisheries Service, on short-term consultancy with FAO, for their continued support to the project. Last but not least, appreciation and thanks go to FISHCODE Project Manager Mr George Hanek and former Project Manager Mr Siebren Venema.

FAO/FISHCODE

Report on a consultation with stakeholders on the fisheries management plan for smallpelagic fisheries of the west coast of peninsular Malaysia, Penang, Malaysia, 19-20 February 2001.

FAO/FISHCODE GCP/INT/648/NOR Field Report F-17 (En). Rome, FAO, 2001.34p.

SUMMARY

The report contains the proceedings and results of a consultation with stakeholders in the fishery for small-pelagic fish of the west coast of peninsular Malaysia of a Fisheries Management Plan for that fishery, that was drafted in August 2000 by staff of the Department of Fisheries of Malaysia with assistance of the FISHCODE Project (see FISHCODE Field Report No. F-13).

The comments of the stakeholders were laid down in a table with agreed resolutions and in detail per working group in Appendix 8. These comments will be incorporated into a second draft of the Fisheries Management Plan that will be presented to representatives of the fishing industry before it is finalised and implemented.

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1. INTRODUCTION

The Consultation with Stakeholders on a Fisheries Management Plan for Small Pelagics, held at Penang, Malaysia, from 19-20 February 2001, was the third workshop under the DOF/FAO/FISHCODE Sub-Project on the Small Pelagic Fisheries on the West Coast of Peninsular Malaysia. Its main objective was to facilitate inputs from stakeholders in the Draft Management Plan for the Small Pelagic Fisheries on the West Coast of Peninsular Malaysia that was prepared by a core group of Officers from the Department of Fisheries Malaysia (DOF) at a workshop in August 2000. This draft management plan was published in English by FISHCODE in December 2000 as Appendix F of Field Report 13¹. The working document at this workshop was a version in Bahasa Malaysia of that document.

Furthermore, in preparation for this workshop, a briefing on the need for fisheries management and the draft management plan was given to selected Fisheries District Officers in January 2001. This was done with a view to train staff of DOF so that they are able to facilitate discussion with the stakeholders, the majority of whom are fishermen with a low educational level.

The workshop provided opportunities for the stakeholders to get involved directly in the process of formulating the fisheries management plan, aiming at reducing any communication gap that might exist between fishers and fishery managers.

The workshop also provided a forum to discuss and confront the problem of overfishing of the small pelagic fish stock(s).

The draft management plan as adjusted during this third workshop is to be further discussed and strengthened by incorporating the knowledge and aspirations of industry. Through this process any management measures to be adopted will be the result of negotiations with all stakeholders, including the industry. A system of evaluation and review of the plan will be discussed as part of the process in the management plan formulation.

The stakeholders participating in this third workshop were fishers from the States of Kedah/Perlis, Penang, Perak and Selangor, operating mainly purse seines, trawls and drift nets. Cooperation was sought of the Extension Division of DOF, Fisheries Development Authority of Malaysia (FDAM) and the National Fishermen Association (NEKMAT) to determine suitable participants for this workshop. All participants were provided with copies of the draft plan before the workshop. A total of 42 persons, including 13 stakeholders (fishermen) attended the workshop. A list of participants is provided in Appendix 1.

¹ FAO/FISHCODE, 2000. Report of the Workshop on the Fisheries Management Plan for the Small-Pelagic Fisheries of the West Coast of Peninsular Malaysia. Swiss Garden Resort, Damai Laut, Lumut, Perak, 7-10 August 2000. FAO/FISHCODE Project GCP/INT/648/NOR: Field Report F-13 (En). Rome, FAO: 38p.

2. PROCEEDINGS OF THE WORKSHOP

2.1 Coordination and Workshop Programme

The workshop was organised by a team of Officers from DOF headed by the Project Coordinator. The workshop's programme is given in Appendix 2. The whole workshop was conducted in Bahasa Malaysia (the main language of the fishermen).

2.2 **Opening Ceremony**

Mr Ismail bin Awang Kechik, Director of Research, opened the workshop on behalf of the Director General of Fisheries Malaysia, at 9.00am on 19 February 2001 at Vistana Hotel, Penang. The Director General of Fisheries stressed on the need for proper fisheries management involving the participation of stakeholders towards achieving sustainability of Malaysia's fisheries resources. He also expressed his support for the development of fisheries management plans, in particular the one for the small pelagics. He also thanked FAO and the FISHCODE Project for the support rendered for the development of management plan for the Small Pelagic Fisheries of the West Coast of Peninsular Malaysia. The opening speech is in Appendix 3.

Dr Purwito Martosubroto of FAO, in his welcome address, thanked the Department of Fisheries Malaysia for organizing this workshop. He further stressed the importance of developing fisheries management plans as an important step towards achieving sustainable fisheries. He was glad to note the full support and interest of the Department of Fisheries of Malaysia and stakeholders in this respect (Appendix 4).

2.3 Lectures

Two lectures were delivered as an introduction to the workshop. These were "Introduction to Fisheries Management" by Dr Purwito Martosubroto (Appendix 5) and "Fisheries Management Plans" by Ms Thalathiah Saidin.

2.4 Formation of Working Groups and Briefing

To ensure full participation of stakeholders in the discussion, the participants were divided into four Working Groups (Appendix 6). Each group had a Working Group Facilitator to lead and guide the discussion. All groups were requested to study the draft management plan and give comments. On the first day discussions were confined mainly to Section 1 (Description of the Fishery), Section 2 (Status of Small-Pelagic Fish Stocks), Section 6 (Research and Stock Assessment)) and Section 4 (Management Objectives). On the second day Section 5 (Operational Management), Section 7 (MCS), Section 8 (Consultation with Stakeholders), Section 9 (Post-Harvest Sector) and Section 10 (Review of Plan) were discussed (see Appendices 7 and 8 and the sections of draft management plan in FISHCODE Field Report no.13).

Mr Mark Elmer, the FAO consultant, gave a briefing and had a discussion with the Working Group Facilitators the night before the workshop began. During this discussion, the important sections of the draft plan to which more discussion should be directed were determined and agreed upon. He also provided the Working Group Facilitators with a list of lead questions (Appendix 7) to help direct the discussion along. These questions were used by all the

Working Groups. Mr Mark Elmer also provided the Workshop with copies of 15 different fisheries management plans from Australia as reference material.

Mr Mark Elmer and Dr Purwito Martosubroto also participated in the discussions of all the Working Groups and gave guidance and comments.

2.6 Working Group Reports

At the end of the first day of the workshop, a plenary session was held when Working Group Facilitators presented the comments and proposals to the draft plan from their group. A short discussion followed. A similar plenary session was held after the second day's Working Group discussion. A summary of the group presentations is given in Appendix 8.

2.7 Final Plenary Session and Drafting of Workshop Resolutions

This session was co-chaired by Mr Ismail bin Awang Kechik, Director of Research and Dr Purwito Martosubroto of FAO. Mr Elmer provided comments on the proceeding of the workshop and was pleased with the active participation of fishers and other stakeholders. The workshop generated a set of resolutions as listed in Table 1 below.

2.8 General Comments

This workshop proceeded very smoothly and in a very friendly, cordial and open environment. All participants from DOF, the fishing industry, local universities, FDAM (extension service), NEKMAT (fisher's organization) and ICLARM took part actively and openly in all discussions. This consultation process was indeed very useful and it provided the support for the formulation and of the fisheries management plan that can hopefully be implemented in the near future.

2.9 Conclusion

Another step in the process of development of the fisheries management plan was achieved through consultation. The active discussion and the willingness to consult at this workshop, demonstrated the support from the stakeholders in the formulation of the management plan for the small pelagic fisheries. The objectives of this workshop were achieved. It is hoped that this plan together with the process of updating and adjusting to local conditions, will be further improved and implemented.

2.10 Closing Ceremony

The workshop was closed by Mr Ismail bin Awang Kechik, Director of Research, who emphasized the importance of cooperation and consultation in fisheries management. He also expressed his gratitude to FAO/FISHCODE for the support in the form of funds and expertise in the implementation of this project.

TABLE 1.WORKSHOP RESOLUTIONS REGARDING THE FISHERYMANAGEMENT PLAN FOR SMALL-PELAGICS OFF THE WEST COAST OF
PENINSULAR MALAYSIA

a) Species of small pelagic fish

Agreed to include anchovies, rainbow runner, mullets and pomfrets. The hilsa shad and threadfin should not be included because they are diadromous species.

b) Fishing appliances

Anchovy purse seines are to be included. Drift nets should be classified by type of net e.g. single layered or trammelnet.

c) Amendments to draft plan

Amendments should be made to the draft plan, taking into consideration comments and views presented during this workshop. These include all sections of the draft plan including Objectives and Operational Management.

d) Collection of scientific information

Detailed scientific information should be collected and updated by DOF.

e) Issue on biodiversity

The issue on biodiversity should be included in this plan.

f) Performance indicators using the year of implementation as the base year of reference

- Increase or decrease in catch rates.
- Increase or decrease in size of fish caught.
- Composition of small pelagics in catch maintained or increased.
- Number and size of fishing vessels maintained or reduced.
- Fishing capacity maintained or reduced.
- Biodiversity index maintained or reduced.
- Standard of living of fishers raised above poverty line.
- Increase or decrease in number of unlicensed fishing vessels.
- Decrease in number of conflicts among fishers.
- Increase in the involvement and role of fishing communities and stakeholders in fisheries management.
- Increase in the use of modern technology among fishers.

g) Review of plan

This plan should be reviewed at least once in two years.

h) Implementation methodology and process

This plan will be amended and circulated to all stakeholders present at this workshop and a period of three months is anticipated to solicit comments. Further amendments will be made if necessary before the implementation of this plan. (A flow chart showing the implementation process will be prepared.)

i) Members of the coordination committee

- It is agreed that the Department of Environment be represented in this committee.
- The chairperson can invite one or more advisor(s) from the fisheries management related sector to sit in this committee.
- Representatives of fishers operating fishing appliances such as fish purse seines, trawls, drift nets, anchovy purse seines should be in this committee.

j) Awareness building

More publicity on this management plan should be given to increase exposure and understanding of this plan among stakeholders before it is implemented.

LIST OF PARTICIPANTS DOF/FAO/FISHCODE CONSULTATION WITH STAKEHOLDERS ON A FISHERIES MANAGEMENT PLAN FOR SMALL PELAGICS PENANG, MALAYSIA, 19-20 FEBRUARY 2001

Stakeholders

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Mr Heng Soon Liang No. 97 Bagan Utara 34250 Tanjung Piandang Perak

Mr Khairuddin bin Abas F15 Rungkup Kecil 36100 Bagan Datoh Perak

Mr Beh Wong King No. 26A Jalan Besar 32300 Pulau Pangkor Perak

Mr Noordin bin Che Embon 103, L, 8 Kg. Ulu 06600 Kuala Kedah Kedah

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Mr Romly bin Sabu 302 Kuala Sungai Baru 02700 Simpang Empat Perlis

Stakeholders

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PROGRAMME

DOF/FAO/FISHCODE CONSULTATION WITH STAKEHOLDERS ON A FISHERIES MANAGEMENT PLAN FOR SMALL PELAGICS VISTANA HOTEL, PENANG 19-20 FEBRUARY 2001

Date	Start	End	Programme					
18.2.01			Participants check-in at Vistana Hotel.					
19.2.01			Opening Ceremony					
	0800	0850	Registration of participants.					
	0900	0915	Welcome address by FAO Project Leader					
	0915	0930	Address and Official Opening by Director General of Fisheries.					
	0930	0945	Photo session					
	0945	1030	Coffee break					
			Workshop					
19.2.01	1030	1100	Introductory Lecture on Fisheries Management					
	1100	1200	Introduction to the Draft Management Plan					
	1200	1230	Break-up into Working Groups for Discussion					
	1230	1400	Lunch					
	1400	1530	Working Group Discussions					
	1530	1600	Coffee break					
	1600	1700	Working Group Discussions					
	1700	1730	Presentation by Group Facilitators					
	2000	2200	Official Dinner					
20.2.01	0830	1030	Working Group Discussions					
	1030	1100	Coffee break					
	1100	1200	Working Group Discussions					
	1200	1230	Presentation by Group Facilitators					
	1230	1400	Lunch					
	1400	1530	Presentation by Group Facilitators continued					
	1530	1600	Coffee break					
	1600	1700	Plenary Discussion on Draft Resolutions					
20.2.01	1700		Closure of Workshop					

TEXT OF SPEECH BY DATO' HASHIM BIN AHMAD DIRECTOR GENERAL OF FISHERIES MALAYSIA DELIVERED BY MR ISMAIL BIN AWANG KECHIK DIRECTOR OF RESEARCH FISHERIES RESEARCH INSTITUTE

AT THE OFFICIAL OPENING OF THE DOF/FAO/FISHCODE CONSULTATION WITH STAKEHOLDERS ON A FISHERIES MANAGEMENT PLAN FOR SMALL PELAGICS PENANG, 19-20 FEBRUARY 2001

Bismillahirrahmanirrahim

Dr Purwito Martosubroto, Project FAO/FISHCODE, Ms Choo Poh Sze representing the Director of Research, Officers from the Department of Fisheries Malaysia and the Fisheries Development Authority of Malaysia, Representatives of State Fishermen and Area Fishermen Associations, Honourable guests, Workshop participants, Ladies and gentlemen.

Good morning.

First of all I would like to take this opportunity to extend the sincere apology of the Director General of Fisheries, Dato' Hashim bin Ahmad, for not being able to be here this morning to officiate this function as scheduled. I believe that with his experience and interest in fisheries management, he had wished that he would be able to be here to interact with all of you at an intellectual meeting like this.

I take pleasure now to read to you the text of the speech of the Director General.

First of all let us be thankful to Allah S.W.T. for his mercy to allow us to be gathered here this morning for the Official Opening of this Workshop on Fisheries Management Plan: Consultation with Stakeholders. I would like to thank the organizers for inviting me to say a few words to a distinguished audience who has wide experience and knowledge in the field of fisheries.

To our foreign guests, I bid you a very good morning and a warm welcome to Penang, the Pearl of the Orient. Dr Purwito is no stranger to the Department. He has been instrumental in the execution of the FAO/FISHCODE Regional Project on Small Pelagics involving Malaysia, Indonesia and Thailand.

Mr Mark Elmer, the project expert on the formulation of fisheries management plans from Australia, who is with us here today, was also here last year to assist in the preparation of the draft management plan for the small pelagics.

Ladies and gentlemen.

We are all aware that small pelagic fish like *Rastrelliger* and scads are important because they contribute to the protein needs of our country. Malaysia is lucky to be endowed with productive waters and small-pelagic fish resources, especially on the west coast of Peninsular Malaysia.

The landings of pelagic fish in 1997 were around 120,000 tonnes and valued at RM330 million. Therefore the sustainable management of these resources is given priority. In view of the importance of the small pelagic fisheries to the economy of our country, the Department of Fisheries Malaysia with the help of FAO, has undertaken to formulate a fisheries management plan specifically for the small pelagic fisheries on the west coast of Peninsular Malaysia.

The main objective of the DOF/FAO/FISHCODE Project on Small Pelagic Fisheries is to prepare the best management plan that is implementable for the west coast of Peninsular Malaysia.

In the process of preparation of this plan, the participation of stakeholders has been given emphasis. This was initiated through the workshop held in May 1999.

Ladies and gentlemen,

The Department of Fisheries Malaysia is always aware and sensitive to the views of stakeholders even before the formulation of this management plan. However it is only the approach to obtain input that had probably differed.

In this context, the effort made through this project to adopt a two-way consultation process is most applaudable and this could well serve as a pilot project for the formulation and implementation of management plans for other fisheries.

Ladies and gentlemen,

We all know that fisheries resources are dynamic natural resources. In the natural process, stock increases through reproduction and growth are balanced by decreases in stocks through mortality.

The use of added technology and high fishing capacities have led to the exploitation of fish stocks above their Maximum Sustainable Yields (MSY). It is therefore important that exploitation rates and fishing mortalities of fish stocks be controlled so that they are not over-exploited. The most effective way to control exploitation rates is through licence and fishing appliance limitation.

Licence limitation together with control of vessel size, horse power of engines and zonation of fishing grounds which are currently enforced by the Department of Fisheries Malaysia have shown encouraging results. This can be seen in the stable marine fish production of around

one million tonnes harvested from areas less than 30 nautical miles from shore over the last five years.

This is the success achieved by the Department in her effort to control exploitation through strict licensing over the last 10 years.

Coastal fisheries resources contribute to a large proportion of the fish landings in the country. In fact they contribute to approximately 90% of the total marine landings. Because of this high contribution, the sustainability of fisheries resources from the area less than 30 nautical miles from shore is of utmost importance to the Department.

The Department is aware that continuous increasing fishing pressure if uncontrolled, will negatively affect fish stocks. The quality of catch over the last 10 years has changed. The sizes and types of fish landed have also changed. Certain species of fish have declined in quantity and size. This is of seriously concern to the Department.

As a government agency responsible for management, control and conservation of fisheries resources in the country, the Department of Fisheries Malaysia has taken various management measures some of which may not be totally acceptable by fishing communities.

Although the Department controls exploitation through licensing, the Department has also to adopt the precautionary approach in fisheries management. This is essential to prevent overcapitalisation and overfishing. Fishing communities do not find it too difficult to understand the precautionary approach in fisheries management although this concept is quite complicated.

In the formulation of fisheries management plans, economic activities should be balanced by biological constraints. In biological terms, only a portion of the fish stock should be exploited and a proportion of the stock should be left for reproduction. This spawning stock should be sufficient to reproduce young fish to support the future fishery.

Fisheries resources like any other natural resource should be managed properly to avoid extinction.

An assessment of fish stocks conducted in 1987 showed that both demersal and pelagic fish resources were being exploited at the optimal level.

To avoid over-exploitation, the Department of Fisheries Malaysia had placed a moratorium on all new fishing licences in the area below 30 nautical miles from shore. This measure had to be implemented because the inshore breeding and nursery grounds of fish need to be conserved.

In 1998/1999 another assessment showed that the demersal fish resources were over-exploited and have significantly declined. However the pelagic fish stocks appear to be in a more healthy state.

In fisheries management, biological limits for harvest of fish stocks should be understood by the fishing communities. This aspect will be explained through the implementation of the management plan for small pelagics.

Ladies and gentlemen,

The legislation to support and implement proper fisheries management towards achieving sustainability is embodied in the Fisheries Act 1985. The Act was amended in 1993 in line with the implementation of the Malaysian Exclusive Economic Zone. This amendment also encompassed the aspirations of the fishing communities. Under the Fisheries Act certain Rules and Regulations were also gazetted to further strengthen sustainable fisheries management.

Besides the Fisheries Act 1985, the Department is also implementing fisheries management in line with the provisions of the FAO Code of Conduct for Responsible Fisheries.

Though this workshop also it is hoped that the concept of sustainable fisheries management will be introduced. Also responsible fisheries management will now adopt a more bottom-up approach involving stakeholders and a two-way consultation process will be emphasised. The process for the formulation and implementation of a fisheries management plan for small pelagics is a new approach that is being introduced. This process is being practiced by developed countries like Japan and Australia, but before the implementation of the plan, stakeholders will be given sufficient exposure and understanding.

The involvement of stakeholders in this workshop is important because of their role as implementers and mediators for this management plan. The staff of the Department of Fisheries had been briefed on the importance of the management of the small pelagic fishery.

The Department of Fisheries hopes that the participants of this workshop and all other stakeholders right down to the grass-root level will cooperate to ensure the successful implementation of this fisheries management plan.

The close cooperation between other agencies like FDAM and the Department of Fisheries will be further enhanced through the implementation of this management plan.

Before I end my speech, I would like to express my sincere thanks and appreciation to FAO especially Dr Purwito Martosubroto, who has helped to provide exposure and guidance to the staff of the Department and for his effort in the successful implementation of this project. This has boosted the confidence of the Department staff to jointly implement this management plan with the stakeholders.

Our gratitude and deepest appreciation also go to FAO for facilitating the successful implementation of this project.

I would also like to take this opportunity to thank Mr Mark Elmer for his effort in disseminating his expertise and experience in the formulation of the Draft Management Plan for the Small Pelagic Fishery of the West Coast of Peninsular Malaysia. I hope you will enjoy your stay here in Penang and please find time to explore and savour the beautiful island of Penang.

Last but not least I have high hopes that this management plan will be successful. I also hope that you will be able to achieve your objectives set for this workshop. This workshop will be able to serve as a catalyst to foster closer cooperation between the Department of Fisheries

Malaysia and the stakeholders of the small pelagic fisheries to achieve sustainable management.

With Bismillahirrahmanirrahim, I declare this workshop open.

Thank you and Assalamualaikum Wabarakatuh.

FAO ADDRESS

DELIVERED BY DR PURWITO MARTOSUBROTO

AT THE OFFICIAL OPENING OF THE DOF/FAO/FISHCODE CONSULTATION WITH STAKEHOLDERS ON A FISHERIES MANAGEMENT PLAN FOR SMALL PELAGICS PENANG, 19-20 FEBRUARY 2001

Mr Ismail Awang Kecik, representing the Director General of Fisheries, guests, fellow participants, ladies and gentlemen.

It is a great pleasure for me to be here and to participate in this important workshop to discuss the draft management plan of the small pelagic fisheries of the west coast of peninsular Malaysia. This workshop is the follow-up of the first and the second one organized earlier as collaborative activities between the Department of Fisheries of Malaysia and FAO through the FAO/FISHCODE Project funded by the Government of Norway. Owing to his tight schedule, Dr George Hanek, the Project Manager, is not able to be with us to participate in the workshop, however he conveys his regard to you all and wishes for successful deliberations.

You are aware that world fishery resources have continued receiving greater pressure in this era owing to the increased demand for protein as a result of growing population and also of the rise global trade. Even though, fish belong to renewable resources, they have their limit in their capacity in regeneration of the population to ensure perpetual exploitation. Therefore, fishing without consideration on the state of the resources could lead to overfishing as has been shown by many examples of fisheries in the world ocean including in our region. Overfishing in the Gulf of Thailand is a good example. FAO, in cooperation with its member states has developed the Code of Conduct for Responsible Fisheries as guide for members to ensure sustainable fisheries. The FISHCODE Project is aimed to assist member countries in implementing the Code and adoption of the concept for developing fisheries management plan is a good start in the process to ensure a good management in fisheries. For many developing countries, a tradition to develop a management plan is still lacking and therefore the experience is nearly non-existence. In this present workshop we will learn from the experience of the neighbouring country Australia through the participation of our colleague, Mr Mark Elmer, a fisheries manager from the Queensland Fisheries Service, who has been involved in developing management plan for various fisheries in Australia. He informed me that almost 70% of the fisheries in Australia have a management plan and the Government of Australia has targeted that by 2003 all fisheries in Australia have to have a management plan.

We have learned that developing a management plan in fisheries is an important step of the long and continued processes of strengthening management in an effort to ensure sustainability of the fisheries. A management plan is not static but dynamic and therefore a workshop like this will not end to this point but will continue through time for the benefit of strengthening of the plan. Participation of stakeholders in the development of the plan is a prerequisite to ensure that their rights and obligations are taken into account for the sake of protecting their interests for current and future generations.

I take the opportunity at this occasion to extend my gratitude and appreciation to the Director General of Fisheries, Dato Hasjim Ahmad (through the courtesy of Mr Ismail) and all the staff of the Department of Fisheries, in particular Ms Chee Phaik-Ean and Ms Thalathiah Saidin who have been much involved not only in the organization of the workshop but also in promoting the concept of fisheries management plan and in elaborating the plan that was firstly put in place in 1999. You may be aware that the FISHCODE project will end in August this year, but I believe Malaysia, even without the assistance of FISHCODE, will be able to take care of the follow-up activities relating to the plan. Finally, I wish you success in your deliberations in the coming days.

Purwito Martosubroto FISHCODE Project

INTRODUCTION TO FISHERIES MANAGEMENT²

Purwito Martosubroto

TO HAVE A GOOD GRASP OF FISHERIES MANAGEMENT SEVERAL QUESTIONS MIGHT BE ADDRESSED:

- What is fisheries management?
- Why do we need fisheries management?
- How to conduct fisheries management?

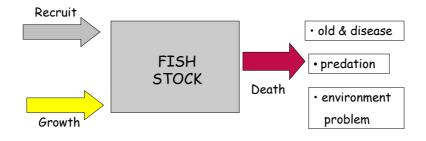
Fisheries management deals with resources and people exploiting the resources

IMPORTANT FEATURES OF FISH RESOURCES

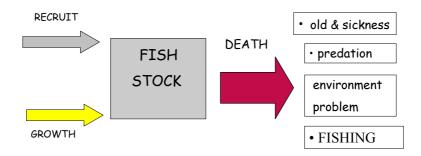
- Do not belong to anyone (as long as still in the water)
- Live in aquatic medium which is not penetrable by eye sight
- Always moving
- Relatively strong species interaction (compared to terrestrial species)
- Renewable resources but not inexhaustible
- Aquatic medium is not static

² Converted from a Powerpoint presentation

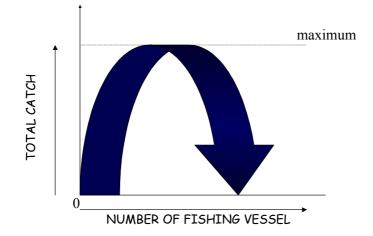
CONDITION OF STOCK WITH NO FISHING



CONDITION OF STOCK WITH FISHING



ROUGH REPRESENTATION OF THE IMPACT OF FISHING



WHAT IS FISHERIES MANAGEMENT?

Definition:

The integrated process of information gathering, analysis, planning, consultation, decision-making, allocation of resources and formulation and implementation, with enforcement as necessary, of regulation or rules which govern fisheries activities in order to ensure the continued productivity of the resources and accomplishment of other fisheries objectives.

• What required for fisheries management?

• Information on fish stock (species, distribution, quantity, etc)

· Information on fishing fleet & fishery industry:

- number & kind of fishing gear and vessel
- number of fishers, processing units, landing site, etc.
- · cost of fishing operation
- · price of fish by size and quality

• Management measures

• MCS scheme

HOW TO CONDUCT FISHERIES MANAGEMENT?

• DEVELOP A FISHERIES MANAGEMENT SYSTEM:

- How to obtain data and information?
- Licensing system
- Control mechanism
- Distribution of authority between Central/Federal and Provincial/State Government
- Consultation between Government and other stakeholders

• DEVELOP A FISHERIES MANAGEMENT PLAN

- On the basis of type of fisheries (demersal, pelagic, shrimp, tuna)
- On the basis of area (west coast, east coast, etc.)
- On the basis of main fishing gear (trawl, gillnets, etc.)
- Develop by government and other stakeholders
- It has a dynamic feature (being continued process)
- To be published (for transparency)
- Subject to regular evaluation
- The amount of budget is proportional to the value of fisheries

A Fisheries Management Plan is the backbone of Fisheries Management

Fisheries Management without a Plan is like

a Car without Steering Wheel

MEMBERS OF WORKING GROUPS

Group 1

Group 2

Ms Thalathiah Saidin (Facilitator) Mr Ruslan Muhid Mr Arif Razali Mr Sharum Yusof (Rapporteur) Mr Zainuddin Abd. Wahab Mr Romly Sabu Mr Lee Yen Leong Mr Talib Pin Prof. Nik Mustapha Raja Abdullah Ms Tan Geik Hong

Group 3

Mr Husin Ibrahim (Facilitator) Mr A. Haris Hilmi A. Arshad (Rapporteur) Ms Maznah Othman Mr Abdullah Md. Dan Mr Heng Soon Liang Mr Khairuddin Abas Mejar (B) Mohamad Baharom Mr Nordin Che Embon Mr Hj. Mohamed Ismail Mr Abu Talib Ahmad (Ketua Pencatat) Mr Mohd. Zin Saad (Facilitator) Mr Alias Man (Rapporteur) Mr Chandrasegeran a/l Tharumalingam Ms Norhanida Daud Mr Ishak Ismail Mr Ibrahim Che Ros Mr Jusoh Awang Mr Saad Budi Dr Kuperan Viswanathan

Group 4

Mr Wang Yok Han (Facilitator) Ms Mahyam Mohd. Isa (Rapporteur) Ms Azwa Abd. Haimd Mr Beh Wong King Mr Mohd. Ismail Ahmad Mr Zainuddin Hj. Noor Mr Khairuddin Abu Bakar Prof. Ahyauddin Ali Ms Chee Phaik Ean

QUESTIONS FOR WORKING GROUPS

Day 1 (19 February 2001)

DESCRIPTION OF THE FISHERY (Section 1)

- 1. Is the "description" clear enough so that all readers know what the plan covers?
- 2. Have any fishing groups been missed?

THE STATUS OF THE SMALL PELAGIC FISH STOCKS (Section 2) and RESEARCH AND STOCK ASSESSMENT (Section 6)

- 3. Do you agree with the assessment that the fishery is overfished? Yes/No/Why?
- 4. What management issues need further research?

MANAGEMENT OBJECTIVES (Section 4)

5. What are the four most important objectives? Why? Have any been missed?

PLENARY REPORT – DAY 1 SESSION

Day 2 (20 February 2001)

OPERATIONAL MANAGEMENT (Section 5)

- 6. Do the rules now in use cover all the management objectives?
- 7. What rules are working the best now?
- 8. If fishing effort had to be more restricted, what approach/es (licences, area/season closures, etc.) would industry prefer?

MONITORING, CONTROL AND SURVEILLANCE (MCS) (Section 7)

9. Will we need to collect new/more information to monitor progress towards objectives?

CONSULTATION WITH STAKEHOLDERS (Section 8)

- 10. Who must/should be involved?
- 11. How should it work?

REVIEW OF PLAN (Section 10)

- 11. How is the plan measured? By whom? How often?
- 12. How do we handle outcomes that are unfavourable?

PLENARY REPORT – DAY 2 SESSION (MID-DAY)

RESULTS OF WORKING GROUP DISCUSSIONS ON SECTIONS OF THE DRAFT MANAGEMENT PLAN

Section	Торіс	Group	Comments by each working group
1	DESCRIPTION OF THE FISHERY		
1.2	Species of Small Pelagic Fish	1	1. Kembung, hardtail scad, selar scads, small tuna, roundscad, sardines, anchovies, rainbow runner, mullets.
			2. Anchovies are included because they are a group of small pelagic fish, the resource is declining and catches have declined. For the anchovies, a description of the fishery and catch statistics need to be included in Section.3. For Sections 2-10 no additions required since these are also relevant to the anchovy fishery.
1.2	Species of Small Pelagic Fish	2	To include chacunda shads, mullets and anchovies.
1.2	Species of Small Pelagic Fish	3	In paragraph 1, to include "and other species that are more seasonal like pomfrets, mullets and threadfins."
1.2	Species of Small Pelagic Fish	4	1. Anchovies should be included into this management plan.
			2. The list of small pelagic fish is acceptable. For other species like pomfrets and threadfins, the same management measures can be followed.
			3. Although the boundaries of the fishing grounds for small pelagics have been defined, these fish are also caught outside the stated boundaries e.g. in Indonesian waters.
			4. The landings of kembung are not seasonal because they are caught throughout the year.
			5. Small kembung are caught in inshore areas (Zone A) by fish purse seines from Kuala Kedah to Penang.
			6. Fish purse seines contribute to a high catch rate of kembung in comparison to the trawl but in total, trawls catch more kembung because there is a lage number of trawlers.
			7. A management plan for anchovies should be included in this plan.
1.3	Fishing Area	1	Waters from Perlis to Selangor.

Section	Торіс	Group	Comments by each working group
1.3	Fishing Area	2	To limit this discussion to the area <30 nautical miles from shore.
1.4	Fishing Appliances	1	Fish purse seine, trawl, drift net (green drift net with meshes of 1 ³ / ₄ inches and operated by a crew of 8), monofilament nets (one-layered net for kembung and shrimps, trammel net for shrimps, 2 inch meshes for kembung, 1 inch meshes for mullets).
1.4	Fishing Appliances	2	More concern for one-layered drift net for fish. Trawl and "Apollo" nets should be reduced or banned in Zone B. Push nets should be banned.
1.4	Fishing Appliances	3	In paragraph 2, one additional sentence to be included. "Presently there are no mesh size controls except for the trawl."
	Fish Purse Seine	3	1. In paragraph 1, one additional sentence to be included. "However there are also some fish purse seines, mainly from Kedah/Perlis, that have meshes that are of the same size as the meshes used in anchovy purse seines."
			2. In paragraph 3, one additional sentence to be included. "There are also fishers using high intensity spotlights and these may have a negative impact on fish stocks."
	Trawl	3	Although trawls give high landings they destroy resources.
	Driftnets	3	Currently drift netters are given additional licences including licences for dredging carpet clams in Zone A. Dredging destroys the environment and therefore these dredges should not be classified as traditional fishing appliances.
1.5	Socio-economic Information	1	 Should include the Area Fishermen's Association and the number of members. Should include Fishermen's Commentations and
			2. Should include Fishermen's Cooperatives and their membership number.
			3. Should include fishing appliances by fishing port.
1.5	Socio-economic Information	2	To discuss marketing aspects.

Section	Торіс	Group	Comments by each working group
2	STATUS OF THE SMALL PELAGIC FISHERY RESOURCES	1	Declining resources a) Are there control measures? b) Are there controls on spawning seasons? c) Awareness/extension programmes d) Licence limits - use of fishing appliances like trawl that are destructive, mesh sizes e) Fix the minimum size of capture f) Identify the resource (terubok)
2	STATUS OF THE SMALL PELAGIC FISHERY RESOURCES	2	 Stock assessments to be conducted at least once in 3 years. Landings decrease but the population increases. The size of fish caught is getting smaller.
2	STATUS OF THE SMALL PELAGIC FISHERY RESOURCES	4	 There is insufficient information on spawning grounds. DOF should conduct more in-depth research to determine spawning time/season. According to the knowledge of Kedah fishers, the spawning grounds of kembung are in inshore, muddy areas and spawning occurs during northeast monsoon (November to March). Small kembung (35 tails/kg) are usually caught illegally by fish purse seiners in inshore areas (Zone A). Basing on this it is probable that kembung breeds in inshore areas with muddy bottoms. It is agreed that pelagic fish resources are declining and these have been exploited beyond the MSY level. One of the possible causes for this is trawling that could have destroyed breeding grounds. There are also fish purse seines that fish illegally for small kembung in inshore waters.
3	JURISDICTION	1	There are no provisions in the Fisheries Act 1985 to prohibit fishing of under-sized fish.
3	JURISDICTION	2	 Enforcement of the Fisheries Act 1985 should involve all stakeholders. Increased enforcement. The problems of piracy and intrusion by foreign fishers should be highlighted because these are getting more serious. Regulations on the use of spotlights should be enforced.

Section	Торіс	Group	Comments by each working group
3.2	Department of Fisheries of Malaysia (DOF)	3	To increase awareness building and education of stakeholders in fisheries management plans.
4	MANAGEMENT OBJECTIVES		
4.1	Biological Objectives	1	1. Maintain biodiversity
			2. Information on stock migration
			1. Information on spawning seasons.
4.1	Biological Objectives	3	1. To replace "Sustain" with "Ensure" in the first objective.
			2. Delete the second objective.
4.2	Ecological Objectives	2	The issue of pollution to be given more attention
4.2	Ecological Objectives	3	1. To ensure that the use of selective fishing appliances, methods and practices that reduce wastage.
			2. Delete the second objective
4.3	Social Objectives	1	1. Fishers who wish to leave fishing should be given alternatives. Training should be given to these fishers.
			2. Optimise the use of human resources.
			3. Importance of end-users.
			4. Demographic information of fishers.
			5. Training in skills to be given to fishers / Improve skills (Skilled skippers)
			6. Training in handling of modern equipment.
4.3	Social Objectives	3	1. Objective 6 should be amended to read "To ensure a continuous supply of fish basing on an optimal level of fishing."
			2. In Objective 7, delete "so that the use of human resources is optimised".
			3. To replace Objective 9 with "To create a smart partnership between the Government and the industry."
4.4	Economic Objectives	2	1. An efficient marketing system is essential.
			2. To explore post-harvest technologies for value- added products

Section	Торіс	Group	Comments by each working group
4.5	Education and Training Objectives	2	1. Training should be provided in fishing equipment maintenance.
			2. Training should be in line with current technologies.
			3. Training in other fields provided to children of fishers.
			4. Training should be provided until a certain level of skill is achieved (skipper).
			5. Instructions in the use of equipment (GPS, Sonar) should be translated.
4.5	Education and Training Objectives	3	Another additional Objective is proposed. "To ensure that up-to-date information on the development of methodologies and requirements in selective fishing gear be disseminated to fishers through close cooperation."
4.5	Education and Training Objectives	4	1. There is general agreement for the objectives to ensure the sustainable utilization of small pelagic stocks, operators do not lose money and the supply of fish is sustained.
			2. However the most important objective which should be highlighted is the Education and Training Objective. If education and training are given at an early stage, the awareness / responsibility for conserving pelagic fish resources will be instilled. This will indirectly facilitate the process of acceptance of the objectives as outlined in this plan.
4.6	Compliance	3	The whole Section 4.6 should go under Section 10.
5	OPERATIONAL MANAGEMENT		
5.1	Registration of Fishers	4	Agree with the present zonation. A more effective method should be put in place to control the resources in Zone A because this is the spawning/breeding area.
5.2	Zone Controls on Vessels, Appliances and Vessel Ownership	1	 Review the fishing capacity in Zone B and reduce capacity. Review the policy for approving the building of large fishing vessels Anchovy purse seines operating (night) in Zone A.

Section	Торіс	Group	Comments by each working group
5.2	Zone Controls on Vessels, Appliances and Vessel Ownership	2	1. Small fish purse seines should not be allowed in Zone A for all States including Penang.
			2. Danish seines ("Kengka") should not be allowed to operate in Zone A.
			3. Zone A should be increased from 5 to 7 nautical miles from shore.
			4. Closed area (<2 nautical miles) for selected mangrove areas.
5.2	Zone Controls on Vessels, Appliances and Vessel Ownership	3	1. Zone A – The area less than 5 nautical miles from shore is reserved for fishers using traditional gear and vessels less than 40 GRT. However these vessels can operate in any Zone.
			2. Zone B – Delete "allowed to operate".
			3. Zone C – More than 12 nautical miles from shore for commercial vessels above 40 GRT but less than 70 GRT and using the trawl and fish purse seine.
			4. Zone C2 – Delete "allowed to operate".
5.2	Zone Controls on Vessels, Appliances and Vessel Ownership	4	In Section 5.2, Zone A is not reserved only for traditional fishing gear if anchovies are included. Anchovy purse seines should be included in Zone A.
5.3	Area Controls on Fishing Adjacent to States	1	To add "and within boundary limits".
5.3	Area Controls on Fishing Adjacent to States	3	Vessels operating in Zones A and B can only fish in waters of the State where their vessels are registered.
5.4	Appliance Controls	1	To add: "Anchovy purse seines should be prohibited from operating during the spawning season of kembung."
5.4	Appliance Controls	3	1. The following fishing appliances should be prohibited:
			Pair trawl, push net, drift nets with meshes >285mm,
			fishing with electricity or explosives, fishing appliances that are not licensed, spotlights >30Kw.
			2. All fishing appliances used should have licences.
			3. The minimum mesh size for fish purse seine and drift net should not be <38mm.
			4. The use of spotlights in Zones A and B should be prohibited.

Section	Topic	Group	Comments by each working group
5.4	Appliance Controls	4	Sub-section 5 should read "Trawls and fish purse seines".
5.5	Controls on Vessels	1	1. Control capacity and no new licences for fishing vessels be issued except for Zone C2.
			2. Increase enforcement.
5.5	Controls on Vessels	3	1. Sub-section 3 – Vessels should be inspected, registered and licensed before the commencement of operations and re-inspected for the purpose of licence renewal.
			2. Sub-section 4 – Delete "Approvalin Zones A and B."
			3. Sub-section 5 – To add in at the end of the first sentence " with the colour defined for the State."
			4. Sub-section 6 – Every vessel must have its registration number engraved on both sides of its hull at the bow end of the vessel.
5.5	Controls on Vessels	4	1. Does not agree with first part of Sub-section 5. No increase in commercial fishing gear licences should be given but there should be an increase for traditional fishing gear like drift net. Drift nets that are operating illegally now should be licensed.
			2. The most efficient means of control in terms of priority are:
			a) Zone controls on vessels, appliances and vessel-ownership.
			b) Closed areas to fishing activities.
			c) Non-legislative strategies e.g. increase in the number of artificial reefs and prohibition of sand-mining.
5.6	Areas Closed to	2	To review artificial reefs:
	Fishing		a) Artificial reefs should be expanded to increase their area.
			b) Develop co-management.
5.6	Areas Closed to Fishing	3	1. Fishing should be prohibited in the area 2 nautical miles from gazetted islands just like in Marine Parks.
			2. Fishing should be prohibited within 1 nautical mile of the center of artificial reefs that have been approved and built.

Section	Торіс	Group	Comments by each working group
5.6	Areas Closed to Fishing	4	The most effective way to reduce fishing effort is Closed Season. DOF should determine the spawning season and close this season for one to two months. It is suggested that prior notice be given (1 year).
5.7	Foreign Fishing	3	1. Control on the use of foreign crew on board local fishing vessels.
			2. Non-Malaysians should not be allowed to work on board Zone A and Zone B local fishing vessels (except anchovy purse seines). For Zones C and C2 commercial fishing vessels, foreign crew can be allowed with special approval from the Director General of Fisheries Malaysia.
5.8	Non-Legislative / Voluntary Management Strategies	1	Co-management.
5.8	Non-Legislative / Voluntary Management Strategies	3	Delete this Section.
5.9	Licence Fees	3	1. With the proposed deletion of Section 5.8, the numbering should be altered for all subsequent Sections. The proposed title for this Section is Fishing Vessel / Appliance Licences.
			2. To add in "Every fishing vessel and appliance should be licenced before it can be operated" in Sub-section 1.
			3. Delete Sub-section 2.
5.10	Legislation	3	Delete this whole Section.
6	RESEARCH AND STOCK ASSESSMENT		
6.1	Fishery Objectives	1	1. Objective 1: To determine optimal utilization and cost-effective strategies.
			2. Objective 2: "To determine the optimal capacity" instead of "To optimize capacity".
			3. Delete Objectives 3 & 4.
6.1	Fishery Objectives	2	1. Destruction of habitat (land)
			2. Change in currents affect the distribution of fish.
			3. Requires further studies.

Section	Торіс	Group	Comments by each working group
6.1	Fishery Objectives	3	All Fishery Objectives be deleted.
6.2	Current Biological, Ecological Research and Stock Assessment Programmes	1	Resource surveys be conducted once in 5 years.
6.2	Current Biological, Ecological Research and Stock Assessment Programmes	3	To delete the first sentence of the second paragraph: "Informationupdated."
6.3	Socio-Economic research	1	 Spawning season for kembung and anchovies. Define resource and fishing areas for terubuk. Suitability of mesh sizes. Control on the size of fish marketed. Control on the size of fish caught.
6.5	Research Issues	1	 Spawning season for kembung and anchovies. Define resource and fishing areas for terubuk. Suitability of mesh sizes. Control on the size of fish marketed. Control on the size of fish caught.
7	MONITORING CONTROL AND SURVEILLANCE (MCS)		
7.2	Existing Capacity	1	 It is proposed that the title of this Section be changed to "Enforcement of Existing Capacity". In the third paragraph of this Section, add in "Penang" after Kuala Kedah.
7.3	Operational Approach	1	To add in "Joint patrols should be increased".
7.3	Operational Approach	3	It is proposed that the use of VTMS should be widened to provide the following functions that are helpful to fishers. a) Internet facilities b) Weather forecasting c) Market information
7.4	On-going Data Collection	1	To add in "The involvement of FDAM should be increased".

Section	Торіс	Group	Comments by each working group
8	CONSULTATION WITH STAKEHOLDERS		
8.1	Consultation Process	1	1. Paragraph 2 – to add "State Fishermen's Association", "Syarikat-syarikat Kerjasama" to be changed to "Cooperatives".
			2. Paragraph 4 should be amended in consultation with FDAM.
	Organisations	3	 Delete "and other registered Fishermen's Associations" in the second paragraph. Delete paragraphs 3 and 4. All "interested parties" should be replaced by "stakeholders".
Pro	Process	1	1. DOF to conduct dialogues/discussion with fishers, interested parties and stakeholders at a local level once a year. This is to provide exposure and understanding in fisheries management. This will also build the spirit of kinship and tolerance so as to reduce differences of opinions on the need for fisheries management.
			2. Delete No. 2.
			3. Delete "Minister of Agriculture" in No. 5.
			4. Delete No.6.
	Process	3	1. Delete "or other registered Fishermen's Associations" in paragraph 2.
			2. Delete paragraphs 3 and 4.
			3. "Interested parties" to be replaced with "stakeholders".
	Process	4	To insert "and other registered Fishermen's Associations" after Area Fishermen's Cooperatives in Sub-section No. 2.
8.2	Provision of Information to Stakeholders	4	Agrees with this Section and proposes that this information be placed in the DOF website.
8.3	Improving Public Awareness	1	DOF should continuously educate stakeholders on sustainable fisheries management. FDAM is also encouraged to get involved in education programmes for fishing communities.
8.3	Improving Public Awareness	4	Scientific information should be disseminated to target groups from time to time through magazines/oral transmissions.

Section	Торіс	Group	Comments by each working group
9	POST-HARVEST SECTOR		
9.1	Fish Handling	1	 The design of fish purse seine vessels should be studied so that they can be fitted with RSW. RSW technology should be studied so that installation costs can be reduced.
9.3	Management Implications	4	1. During periods of peak catches of kembung, the wholesale price is very low (RM0.80/kg) and this is not profitable. Sometimes kembung fish is sold as trash because there is no market. It is proposed that DOF helps in the development of new technology for processing kembung and other pelagic fish into value-added products.
			2. Cold room facilities should be increased at landing sites to cater for excess catch. With these facilities, the price of fish can be controlled and there will be continuous fish supply (during closed seasons).
10	REVIEW OF PLAN	1	Stakeholders should include representatives from fishers operating each fishing appliance e.g. trawl, fish purse seine, drift net, anchovy purse seine.
10	REVIEW OF PLAN	2	 The representation from FDAM in the Coordinating Committee should be increased from 1 to 2. The representatives from stakeholders should be increased from 8 to 16.
			 3. Collection of data (indicators) for review should include: a) Total catch b) Number of fishing days c) Number of fish/kg d) Operating costs e) Price of fish f) Fishing grounds g) Type and number of offences (provided by enforcement agencies) h) Other studies (conducted by FRI, universities e.g. Socio-economic studies) Items a) – f) is to be provided by fishers / representatives.

10	REVIEW OF PLAN	3	Performance indicators with reference to status at time of implementation.
			a) Increase/decrease in catch rate.
			b) Increase/decrease in size of fish caught.
			c) Catch composition maintained/improved.
			d) Number of vessels decreased/increased.
			e) Fishing capacity decreased /increased.
			f) Biodiversity index maintained/increased.
			g) Fishers' standard of living above poverty line /maintained.
			h) Number of unlicensed fishing vessels reduced or increased.
			i) Resource related conflicts among fishing communities reduced/increased.
			j) Fishers' involvement in fisheries management increased/decreased.
			k) Up-to-date technology use increased/maintained.