

DEEPFISHMAN Management And Monitoring Of Deep-sea Fisheries And Stocks

Project number: 227390

Small or medium scale focused research action Topic: FP7-KBBE-2008-1-4-02 (Deepsea fisheries management)

Stakeholder workshop Lisbon, 4 December 2009

Title: Stakeholder workshop, Lisbon, 4 December 2009Case study report

Due date of deliverable: Additional deliverable not scheduled in the project

Actual submission date:

Start date of the project: April 1st, 2009

Duration : 36 months

Organization Name of lead coordinator: Ifremer

Dissemination Level: PU (Public)

Date: 14 December 2009

Research project 2009-2012 supported by the European Union, Seventh Frame Work Programme

Stakeholder meeting Friday 4 December

1. - Introduction

The aim of this stakeholder workshop was to meet stakeholder from Spain and Portugal. Invitations were distributed since September and several stakeholders expressed their intention to join the workshop. The workshop was then organised during the case study meeting of the project and the venue of the meeting was set in Lisbon, which appeared as a location where a significant audience would be willing to join.

During all the workshop, presentations and discussions were made in English, Portuguese and Spanish (no interpreters were hired), as sub groups were necessary for the work expected between project scientists and stakeholders. Most of the workshop was moderated by Pascal Lorance (Ifremer, France) and Ivone Figueiredo (IPIMAR, Portugal). The workshop was held at IPIMAR, it started at 9:30 and closed at 5:00.

The project aim, structure and consortium was first presented and the agenda of the day was shortly discussed. The Deepfishman case studies of major interest to the audience were presented:

- Case study 3c, Portuguese artisanal fishery for black scabbardfish in ICES subarea IXa;
- Case study 3a, Fishery for red seabream in the Strait of Gibraltar
- Case study 5, fishery for Greenland Halibut in NAFO area.

For the agenda of the day, it was proposed to have an open discussion after the introduction and presentation of the project, to present the cognitive maps method and then to build up cognitive maps with stakeholders, and to have another discussion after the cognitive maps session for discussion of the outcome and continuation of the morning session and to discuss further exchange with and contribution of stakeholders. The comments and questions raised by stakeholders during open discussion sessions are given below in section 2, replies for project scientists are shortly given in section 3, the work with the cognitive maps is described in section 4 and plans for further work is given in section 5.

2. Open debate with stakeholders

Following introduction and presentations, a first session was dedicated to an open hearing of stakeholder views. The debate was structured with 3 questions. Text in square brackets [] have been added to the report to provided context on the aspects developed by stakeholders.

2.1. Question 1: who are stakeholders in deep-water fisheries?

For this question, the identification of the Deepfishman stakeholder community from the stakeholder meeting held in Brussels (29-30 June 2009) was presented and it was discussed

whether it was complete, what was missing. A few comment were made. Stakeholders considered obvious that the European Commission and national administrations are important stakeholders to have in the project all well as the the fishing industry, organisation of producers and fishing community that lives from the fishery (for local fisheries). Regional advisory council (RACs) were also considered essential.

2.2. Question 2: what are stakeholder's needs and interest from the project?

Monica Verbeek: the main expectation from Deepfishman is an improved management of deep-water fisheries.

Sara Reis Gomes: one problem is the incompleteness of catch data because fish are not landed whole, some are gutted, headed or filleted. This induces unreliable data in terms of number and weight of fish caught from the stock. Another problem is stock identity; black scabbardfish stock should be dealt with as a whole, not only as parts of the stock. The maturity stages by area for this stock is also an aspect to take into account, North of Madeira black scabbardfish are immature.

[black scabbardfish is the main deep-water species exploited at Madeira, the current understanding is that there is one single large population in the Northeast Atlantic while assessment is made for several unit (ICES VI and VII; ICES IXa, CECAF (Commission for Eastern Central Atlantic Fisheries) area 34 1 2]

Juan Manuel Liria: It is important to have exchanges between people that have data [stakeholders] and those that use it [Deepfishman scientists]. It is important to include Fishermen's knowledge. Simple ways for organizing data exchanges need to be defined (this is especially important for socio-economic data). Management rules should be more practical and take account of the socio-economic aspect.

Carlos Macedo: the association ArtesanalPesca has been collaborating with Ipimar for several years, self-sampling in the artisanal fishery is carried out (within EU project LOT1). The association is keen to know more about the dynamics of species and to contribute to Deepfishman. The case study [CS3c, Portuguese fishery for black scabbardfish in ICES subarea IXa] should not be limited to the Portuguese area, the whole stock area should be considered. Efforts were made by the national administration to make fishery sustainable.

António Cabral: there are problems with stock assessments. Unreliable assessments have conditionned TACs. This impacts the sector. Widely changing TACs cause problems, the fishing industry prefers stable TACs because they allow to plan the fishing activity. Reductions in TACs should be slow and planned rather than abrupt.

João Correia: interested in two aspects:

- 1) all elasmobranchs should be included in TAC species list. In 2009, the TAC for deepsea sharks was fished in July, which led to misreporting of deep-sea sharks species as other elasmobranch species that are not TAC managed;
- 2) fleet size reduction is now much talked about, the project should address the aspect of effort/fleet reduction and the interaction between fleet size and fishing efficiency. Fishermen and NGOs are working together on this topic.

Cristina Rosa: the management of deep-water fishery at EU level needs to consider what is the best way to manage stocks. Different types of fleets (artisanal, industrial) exploit the same stocks. Bycatch of shark is a problem. From 2010, there is 0 TAC for deep-sea sharks, this leads to discards. This is not a good way to manage the resource (discards are not profitable to anyone, catch data are lost). Thie project should consider this issue.

Monica Verbeek: two questions (1) On the socio-economic aspect, there are published articles stating that deep-water fisheries are not economically viable. It would be good to have more detailed results on economic viability, i.e. what kind of fisheries (high seas, coastal, small-scale,....) is more suitable. What will be the impact of increasing fuel costs on these fisheries? (2) On the biodiversity aspect, what will be done about biodiversity in Deepfishman? In the high seas vulnerable habitats are mapped, is something similar going to be done in Deepfishman?

Luís Calaça : Relationship with fishermen are important. Fishermen need to learn and profit from research, fishermen are interested in viable resource Scientific result should reach fishermen. Legislation doesn't take regional differences or differences between artisanal and industrial fisheries into account, artisanal fisheries might loose out. Longline fisheries are selective, which make them different from trawling. Different measures should be adopted. EC management measures at exaggerated

2.3. Question **3:** Management regime: opinions from stakeholders. Two aspects of this question were discussed: (1) What is wrong with current management?; (2) What should be part of better management?

(1) What is wrong with current management?

Monica Verbeek: everything is wrong. But this is a difficult question ; implementation of TACs was rather arbitrary in terms of which species was included in the regulation, there are problems with mixed fisheries. TACs are set based on little information and only for some species. Fisheries have expanded despite over passing precautionary limits. TACs were set too high to limit fisheries; these deep-water fisheries are very data poor fishery. Then the requirements are to know more about (i) stock size, effort deployed etc, (2) on the management side, to be precautionary, limits need to set much lower. Currently, the fishing capacity is too high, when we don't know what kind of fishing level species can sustain.

Sara Reis Gomes: in the future there is a need to differentiate between fishing strategies, e.g deep water trawling is a problem for habitat. Advices on less damaging fishing methods are expected.

Portuguese administration (name not recorded on participant list): deep-water effort has been frozen since 2003 in ICES area and NEAFC, so there is no longer expansion of fisheries, or only due to insufficient enforcement. Management based on effort can be difficult for mixed fisheries, hence it would be good for the project to consider TAC, effort management and transferable rights altogether. Such an approach could be suitable for the NAFO Greenland halibut fishery [i.e. Case Study 5 in Deepfishman].

Monica Verbeek: in NEAFC landings have increased three-fold since effort limitation was implemented, so there must be something wrong with effort management;

João Correia: Recent literature point towards ITQ as a successful management strategy eg abalone in Australia and numerous examples worldwide; so would like the project to consider ITQs.

Manuel Liria: No ultimate solution exists, each case needs a particular solution; for mixed fisheries effort management might be suitable but then the question arises how to measure effort ; TAC lead to discards ; fishermen want to maximise profit within effort limits.

Carlos Macedo : two points 1) problem of TAC for deep-water species. Sustainable levels of catch need to be known, taking into account all fisheries components exploiting the actual stock 2) ITQ: seen from artisanal fisheries, ITQ is not the best measure. There are examples of small fishery in Iceland that disappeared due to large companies buying ITQs from artisanal fisheries.

(2) What should be part of better management?

What will be done for biodiversity : data limited, can respond to stakeholder views, know less on biodiversity when stock biology, VME,

Manuel Liria: in NAFO area Spanish administration is mapping vulnerable areas (results expected in 2011), has already done so in other areas ; results (footprint) seem to indicate that trawls avoid areas with corals and sponges

Monica Verbeek : differentiation of life history traits mentioned, until now all species have been treated in a similar manner, it would be good if project could contribute to provide insights into different species and suitable management measures (what kind of exploitation levels for which species?);

3. Information from project scientists (given as replies to stakeholder questions)

The overarching concern from all categories (NGOs, fishing sector, administration ...) of stakeholders about suitability of management matches to central aim of Deepfishman: develop a management and monitoring framework for deep-water fisheries in the Northeast Atlantic. Integrating the views of stakeholders is here essential.

In respect to management again, the relationship between fleet capacity and fishing effort is one of the aspect that the project might take into account.

Stock identity: this question was raised mainly with respect to black scabbardfish. For this species the project will review stock identity. Further stock identity studies (included or not in the deepfishman) are on-going based upon genetics and other methods, the outcome from these studies will be included in the management and monitoring framework developed by the project. The project will develop models and analyses to assess the most likely stock structure and do assessment at stock level.

Zero TAC and by-catch of shark: this is an issue identified also by the project scientist. Aspects that the project plans to consider are (i) the sustainability of by-catch for species which landings are banned (0 TAC); (ii) integration of the management of these vulnerable species into the management and monitoring framework.

Socio-economic aspect: the project aims at assessing the economic part of deep-water fishery in the national economic picture (value chain, supplying industry,...) and project the economic impact of changes in management.

Biodiversity: the project aims at defining biodiversity indicators suitable for management using all available data (scientific survey, on-board observation, landings and effort statistics). Nevertheless, data on biodiversity are limited. Biodiversity aspects developed in Deepfishman will be in strong relationship with on-going work in the EU project CoralFISH. Strongly related to biodiversity is an approach of an ecosystem impact assessment of deep-water fisheries.

4. Cognitive maps

The aim and the method for cognitive maps was presented to the audience, then seven groups of stakeholders and project scientist were organised to draw seven cognitive maps to be used to identify what is important in deepwater ecosystems/fisheries and what are the main issues. Each group comprised stakeholders and scientists from the project who drew and coded the maps according to stakeholders' views (Table 1).

Stakeholder group	Stakeholders	Deepfishman scientists
Scientists	Laura Wise	Sveinn Agnarsson
	Alberto Murta	Leonie Dransfeld
	Filipe Rodrigues	Dimitrios Damalas
NGOs	Monica Verbeek	Phil Large
	Rita Sá	Pascal Lorance
	João Correia	
Administration	Sara Reis Gomes	Juan Gil
Fishery (NAFO	Antonio Cabral	Fernando Gonzalez
greenland halibut)	Juan Manuel Liria	Ricardo Alpoim
Fishey (artisanal,	Manuel Pacheco	Inês Farias
Azores, red seabream)		
Fishery (artisanal,	Luis Calaça	Ivone Figueiredo
Sesimbra, black	Carla Rato	Guzman Diez
scabbardfish)	Carlos Macedo	
	<u>Tiago Cagita</u>	
Fishery consultant	Luis Ambrosio	Verena Trenkel

Table 1. Groups organised for cognitive maps drawing.

Cognitive maps were drawn in sub-groups for one and half hour. A short debriefing session gave the following feed back:

- overall the exercise was felt interesting and stakeholders are keen to see the result of the analysis.;
- groups were different in numbers. One group with only one interviewee found it difficult and though that larger groups might be easier and was concerned of the impact on the analysis of different number of participant per group. This aspect can be accounted for in the analysis;
- it was more difficult than expected, it was good to limit time otherwise will go on for ever;
- it is difficult to describe relationships. It is important to well define bubbles as this determines links and later on it can turn out that it is difficult to define links if bubbles are not well defined;
- an analysis of differences across groups/maps should be interesting;
- the view may be different according to the group and main focus chosen, i.e. for the red seabream fishery the main focus was put on areas closed to fishing;
- the maps have been mainly drawn for the current situation [this was not intentional but derived from the descriptive aspect suggested by Deepfishman scientists].
 Stakeholders suggested that this approach could be used to define future desirable situation.

The cognitive maps require further analysis. Electronic copies were drawn (Figures 1-4). Different groups of stakeholders put the emphasis on different aspect (e.g. socio-economy or ecosystem) and some maps suggest clear views form stakeholders about the possible managements at case study level (Figures 1-4). A full analysis is required, the analysis is not to be carried out based upon the graphical representation but upon the list of elements (bubbles) and interactions (direction, strength and time frame) identified by stakeholders. Nevertheless the maps suggest different emphasis from different stakeholders groups and different management perspective according to case studies.

Figure 1. Cognitive maps by case study fishery, Azorean fishery for red seabream (stakeholder from the fishing sector), and Madeiran deep-water fishery (stakeholder for the administration).







Figure 3. Cognitive maps by case study fishery. Stakeholders from the fishing sector, Greenland Halibut fishery in the NAFO area and Portuguese black scabbardfish fishery. NAFO Greenland halibut



Figure 4. Cognitive maps by on the management of deep-water fishery from a fishery consultant.



Fishery consultant

5. Future stakeholder meeting

It appeared that following to this workshop, stakeholders were keen to meet the project again. The option of a future stakeholder meeting in April 2011 was discussed. At this period one year before the end of the project, it will be possible to present a draft monitoring and management framework and there will be still time to integrate view from stakeholders into it.

This stakeholder workshop in 2011 would be larger as stakeholders from the workshops in Brussels and Lisbon might be keen to join again and further works with stakeholders will be made at case study level. The participation of the EC at this 2011 workshop will be required. This is a significant change from the Deepfishman plan for stakeholder workshops as scheduled in the Deepfishman contrat with the EC (Deepfishman, annex II, Description of the Work (DoW) pages 51-52) so that it needs to be agreed by the EC. Nevertheless, it is an improvement to hold a stakeholder workshop one year before the end of Deepfishman rather than closer to the end when it would be more difficult to take into account of stakeholder comments.

6. Any other business

The website and wiki sites were presented and stakeholders were invited to visit these to keep informed of what is going-on in the project and to access to reports and other products. The web-based questionnaire was presented and a paper version in Portuguese will be distributed to a few stakeholders to whom it is more convenient.

Annex 1: list of participants

Annex 1.1. Stakeholders

Name	Organisation	Stakeholdertype	Country	e-mail, telephon
Luís Calaça	Coopescamadeira	Fishing Industry (catching)	Portugal	00351291230317
Manuel	Porto de Abrigo do	Fishing Industry	Portugal	00351296201550
Pacheco	Propesca CRL	(catching)		
Luis Ambrosio	PROBITEC S.L.	Fishing Industry (catching)	Spain	lambrosio@probitec.com
Carla Rato	AAPLCLZO	Fishing Industry (catching)	Portugal	aaplclzo@sapo.pt
Filipe	Escola Superior de	Student	Portugal	filipe.shoter@gmail.com
Rodrigues	Turismo e Tecnologias			
	do Mar, Peniche			
Sara Reis	DSIP - Direcção	National (Regional)	Portugal	sararg.dsip@gmail.com
Gomes	Regional de Pescas da Madeira	Administration		
Manuela Corvo	DGPA - Direcção Geral	National	Portugal	mcorvo@dgpa.min-agricultura.pt
	de Pescas e	Administration	Ŭ	
	Aquacultura			
António Cabral	ADAPI	Fishing Industry (catching)	Portugal	adapi.pescas@maiol.telepac.pt
Juan Manuel	CEPESCA	Fishing Industry	Spain	mliria@iies.es
Liria		(catching)		
Carlos Macedo	ArtesanalPesca	Fishing Industry (catching)	Portugal	artesanalpesca@mail.telepac.pt
Tiago Cagita	Câmara Municipal de Sesimbra	Local Government	Portugal	pescas.ruralidade@cm-sesimbra.pt
Rita Sá	LPN / PONG-Pesca	NGO	Portugal	pongpesca@gmail.com; rita.sb.sa@gmail.com
Monica Verbeek	Seas At Risk	NGO	Portugal	mverbeek@seas-at-risk.com
Maria Cristina	DGPA - Direcção Geral	National	Portugal	crosa@dgpa.min-agricultura.pt
Rosa	de Pescas e	Administration		
	Aquacultura			
Carla Frias	DGPA - Direcção Geral de Pescas e	National Administration	Portugal	<u>cfrias@dgpa.min-agricultura.pt</u>
	Aquacultura			
Emilia Batista	DGPA - Direcção Geral	National	Portugal	ebatista@dgpa.min-agricultura.pt
	de Pescas e	Administration		
	Aquacultura			
Teresa Moura	IPIMAR	Scientist	Portugal	tmoura@ipimar.pt
Alberto Murta	IPIMAR	Scientist	Portugal	amurta@ipimar.pt
Laura Wise	IPIMAR	Scientist	Portugal	lwise@ipimar.pt
Cristina Rosa	DGPA	Administration	Portugal	
João Correia	Fishery school director and founder of APECE, elasmobranch protection association	NGO	Portugal	mail@apece.pt

Annex 1.2:	Deepfishman	scientists.
------------	-------------	-------------

Name	Organisation	Country	email
Sveinn Agnarsson	University of Iceland	Iceland	sveinnag@hi.is
Ricardo Alpoim	Ipimar	Portugal	ralpoim@ipimar.pt
Dimitrios Damalas	HCMR	Greece	shark@ath.hcmr.gr
Guzman Diez	Azti-Tecnalia	Spain	gdiez@suk.azti.es
Leonie Dransfeld	Marine Institute	Ireland	leonie.dransfeld@marine.ie
Inês Farias	Ipimar	Portugal	ifarias@ipimar.pt
Ivone Figueiredo	Ipimar	Portugal	ivonefig@ipimar.pt
Juan Gil	IEO	Spain	juan.gil@cd.ieo.es
Fernando Gonzalez -	IEO	Spain	fernando.gonzalez@vi.ieo.es
costa			
Phil Large	Cefas	UK	phil.large@cefas.co.uk
Pascal Lorance (project	Ifremer	France	pascal.lorance@ifemer.fr
coordinator)			
Lionel Pawlowski	Ifremer	France	lionel.pawlowski@ifemer.fr
Verena Trenkel	Ifremer	France	verena.trenkel@ifemer.fr

Annex 2 : invitation



Management and Monitoring of deep-sea Fisheries and Stocks

Stakeholder Workshop 4 December 2009 Lisbon

Deepwater fisheries pose particular difficulties for management. Target species are difficult to assess and they are generally vulnerable to overfishing. The EU project DEEPFISHMAN will develop a range of strategy options for the management of deepwater fisheries in the NE Atlantic that will take account of these factors. Firstly, the aim will be to identify new and more effective assessment methods, reference points, control rules and management strategies to be used in the short term, making better use of available data. Secondly, a reliable long-term framework will be developed for which additional data needs will be specified in order to fill current information gaps to achieve reliable long-term management requirements. This work will be developed by examining a range of case studies selected to reflect the diverse characteristics of the different types of deepwater fishery. The socio-economic profile and projected impact of the management strategy options will be examined. The project outputs will aim to provide robust guidelines for deepwater fisheries management suitable for adoption within the Common Fishery policy.

The workshop will provide short descriptions of the three-year project tasks and partners.



Annex 3



Preliminary agenda for the Stakeholder meeting Friday 4 December 2009, Lisbon

9:00- 9:30 welcome

9:30- 10:00 Introduction to the project Deepfishman. P. Lorance (project coordinator)

10:00 - 10:30 Case studies of interest to stakeholders present at the meeting

10:30 – 10:45 Presentation of cognitive maps tools (V. Trenkel)

10:45-11:15: Coffee break

11:15 - 12:30 Building cognitive maps with stakeholders

12:30 – 13:00 Marine strategy framework directive, relationship with deepfishman Presentation from P. Lorance

13:00- 14:00 lunch break

14:00-15:00 Questionnaire to deep-sea fisheries stakeholders Questionnaire to be distributed and filled in by stakeholders

15:00-15:30 Stakeholder analysis

Open discussion about :

- who are the stakeholders in deep-water fisheries (stakeholder present at the workshop to make list of other stakeholders of importance to the project?
- stakeholders needs and interest
- Management regime : opinions from stakeholders

15:30-16:00 Coffee Break

16:00-16:30 Stakeholder analysis (continued)

16:30-17:00. Contribution of stakeholders to the project

- organizing the communication with stakeholders
- how stakeholder can contribute to the project

17:00-17:30 Wrap up

Annex 4: Opening presentation of the project

















Immediate intere	st	Consequential interest
Fisheries Managers:	International and European: RFMOs, EU Council of Ministers and EU Commission, National and Local governments, POs	
Policy advisors:	European, National	
Marine Scientists		Gear researchers an developers
Vessel Owners:	in deep-sea fisheries, and in other fisheries	Fishers: Vessels Owners an Crew
Environmental NGOs		
Processors Marketing	8	Processors & Marketing
Consumers		Fishing Communities







QUESTION 3

Management regime : opinions from stakeholders

DEEPFISHMAN Stakeholder workshop Lisbon, 4 December 2009

Annex 5: Presentation of the Case study Portuguese fishery for black scabbardfish











DEEPFISHMAN Portuguese fishery for black scabbardfish in IX DEEPFISHMAN Portuguese fishery for black scabbardfish in IX Fleet characterization Species characterization Black scabbardfish • No. vessels: 14 Aphanopus carbo Lowe, 1839 • Length-over-all: 17.3 ± 2.7 m (1) · Habitat: bathypelagic • Engine's power: 238.6 ± 82.7 HP (1) • Depth: 200-1700 m • Tonnage: 43.3 ± 26.5 (1) • Feeding: fish · Gear: longline Reproduction: Total annual catch: ~3400 ton (in 2007) [INE, 2008] Spawning from September to December • No. hooks: 5500-9000 Determinate fecundity - the standing Soaking time: 1-2 days stock of vitellogenic oocytes is fixed • Depth: 600-800 fathom (1000-1400 m) prior to the onset of spawning period; · Landings: 3x/week

Ripe individuals only caught in Madeira and Canary Archipelagos



Objectives

DEEPFISHMAN

2. To draw lessons from the current management and monitoring frameworks for deepwater species used internationally, to identify strengths and weaknesses

(1) In 2004, according to Machado & Figueiredo (2008)

3. To examine and trial stock assessment methods not previously used or not fully developed for use on deep-water stocks.

Objectives

- 4. To examine appropriate biological reference points and harvest control rules for deep-water stocks.
- 5. To explore catch data from appropriate case study fisheries for trends in biodiversity and to identify protocols for monitoring biodiversity (of both vertebrates and invertebrates) in the deep-water ecosystem.
- 6. To develop a range of strategic options for the exploitation of deep-water stocks and ecosystems
- 7. To develop a socio-economic profile of selected fisheries and to evaluate projected socio-economic impacts of management strategy options as applied both through a short- and long-term management framework.

DEEPFISHMAN 1. To review

- i. salient characteristics of the deep-water environment in the NE Atlantic;
- ii. the major features of selected fisheries (this will require input from the Industry and the collation and analysis of socio-economic data);
- iii. the life history characteristics and vulnerability to fishing of the stocks/species targeted in these fisheries;
- iv. the current availability of fisheries, ecosystem and biological data;
- v. the current methods used for monitoring, assessing and managing the state of stocks;
- vi. the current state of deep-water stocks in the NE Atlantic
- vii. the outcomes and guidelines from the Commission of the European Communities, specific RTD programme "Specific Support to Policies", SSP-2004-22745 "Probabilistic assessment, management and advice model for fishery management in the case of poor data availability" (POORFISH) of relevance to deep-water stocks.

Annex 6: presentation of the method for cognitive maps

















9





Cientistas (Leonie & Dimitros)