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³ The initials of the revising individual in capital letters

Report from
Stakeholder Round Table Discussion
on RFMS

Held in Brussels 15-16 October 2013

November 2013

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PARTICIPANTS & AGENDA

LIST OF PROJECT PARTICIPANTS

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| | |
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| Fernando Nieto Conde. Unit C.2 Fisheries Conservation and Control Atlantic and outermost regions. | |
| Juan Pablo Pertierra, Unit C.2 Marine. | DG Environment |
| Mr. Barrie Deas – Private Shipowners | Advisory Committee for Fisheries and Aquaculture (ACFA) |

| | |
|---|--|
| Clara Ulrich – National Institute of Aquatic Resources | Scientific, Technical and Economic Committee on Fisheries (STECF) |
| Benoit Guerin – Secretariat | South Western Waters Regional Advisory Council (S.RAC) |
| Poul Degnbol – Head of Advisory Programme | International Council for the Exploration of the Sea (ICES) |
| Mogens Schou – Chair of SCAR-FISH and Aquamind partner | Standing Committee on Agricultural Research (SCAR) |
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| Domitilla Senni– The Pew Charitable Trusts | OCEAN 2012 |
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| Cristina Rosa | DGPA |
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| Andy Paine – Former EAOW Programme Director | Centre for Environment, Fisheries and Aquaculture Science (CEFAS) |

AGENDA

| | |
|-------------|---|
| 13:00-14:00 | Welcome |
| 14:00-14:10 | Welcome & Opening Speech: The EcoFishMan project. Anna K Daniëlsdóttir, MATIS |
| 14:10-14:20 | Introduction of participants |
| 14:20-14:30 | Goals and tools for this session. Rosa Chapela, CETMAR |

THE VISION: RESPONSIVE FISHERIES MANAGEMENT SYSTEM (RFMS) [14:30-17:00]

| | |
|-------------|--|
| 14:30-14:50 | Introduction to the Responsive Fisheries Management System. Michaela Aschan/Kåre Nielsen UIT |
| 14:50-15:00 | Discussion |
| 15:00-15:15 | Coffee Break |
| 15:15-15:30 | The RFMS in-depth, from theory to practice. Michela Ascan / Kåre Nielsen, UIT |

- 15:30-15:40 Discussion
- 15:40-15:45 Dynamics for the Round Table. Jose Luis Santiago, CETMAR

FILLING GAP IN RFMS

- 15:45-16:55 Round Table Discussion. Jose Luis Santiago, CETMAR
- 16:55-17:00 Main remarks and framework for the next working session. Rose Chapela, CETMAR.
- 19:30 Social Dinner

ACHIEVING THE VISION [8:30-12:00]

- 08:30-08:35 Goals and tools for this session. Rosa Chapela, CETMAR

ECOFISHMAN MANAGEMENT PLANS, DEVELOPMENT AND RESULTS. HOW WORKS THE RFMS?

- 08:35-08:45 Icelandic demersal mixed fishery: Lessons learned. Jónas R. Viðarsson, MATIS
- 08:45-08:55 Portuguese crustacean bottom trawl fishery: Learning by implementing. Cristina Silva, IPMA
- 08:55-09:05 North Sea mixed demersal bottom trawl fishery: Learning by doing. Alan Baudron, U. ABDN
- 09:05-09:15 Mediterranean mixed demersal trawl fishery: Lessons to learn. Antonello Sala, CNR-ISMAR
- 09:15-09:30 Discussion. Jose Luis Santiago, CETMAR
- 09:30-09:50 Indicators and GIS. Some examples and lessons learned. Fatima Borges, IPMA and Petter Olsen, NOFIMA
- 09:50-10:15 Debate. Jose Luis Santiago, CETMAR
- 10:15-10:30 Coffee-break
- 10:30-10:45 Assessment Framework: Evaluation of the Management Plans. Ólavur Gregersen, SYNTESA
- 10:45-10:55 Discussion
- 10:55-12:00 Creating the pathways towards a RFMS in Europe. Jose Luis Santiago, CETMAR
- 11:50-12:00 Conclusions. Sveinn Margeirsson, MATIS
- 12:00-13:00 Social Lunch

1. SUMMARY OF THE ROUND TABLE DISCUSSION

Brussels, Belgium – October 15th and 16th, 2013.

EcoFishMan brings together public administrations, fishing organizations, advisory agencies and key scientists to improve the feasibility of an innovative management system for European fisheries, named Responsive Fisheries Management System (RFMS). The system is adaptive, results-based and ecosystem-based, and seeks to reduce micro-management through greater involvement of stakeholders in the management process.

The meeting was organized to assess the viability of the RFMS to resolve the challenges of European fisheries management⁴. A SWOT⁵ analysis summarizes the stakeholders’ insights:

| Strengths | Weaknesses |
|--|---|
| <ul style="list-style-type: none"> - Results-based approach - Responsible approach; increase of self-control for the industry - Transparency - Concrete and achievable objectives - Guidelines for elaborating MP and implementation - Independent audition of performance - Possibility of cost-recovery in the process - Participatory process - Simplicity of the system - Adaptive management system | <ul style="list-style-type: none"> - Flow of information - Limited controllability of outcome targets (uncertainties and operators’ capacity) - Costly system - Socio-economic data underrepresented - Lack of ex-ante evaluation for the management plan - Voluntary system preclude a level-playing field - Shifting from prescriptive management rules to prescriptive documentation - Restrictive autonomy in the definition of strategies by operators - Absence of meaningful incentives within the system |
| Opportunities | Threats |
| <ul style="list-style-type: none"> - Improvements in patterns of behavior - Integration of the value-chain - Reversing the burden of proof - Pilot implementation within CFP - Combination of sustainability dimensions (environmental, economic, social) | <ul style="list-style-type: none"> - Willingness of operators to join “the party” - Availability of data - Overcapacity as key for managing fisheries - Lack of Auditor’s independence - Diversity in quota management among Member States - Multinational context - Integrated Policy Frameworks at EU level |

The final RFMS’ prototype builds on the Round Table Discussion outcomes. An attainable results-based alternative for fisheries will be presented in February 2014, including a roadmap to implement this new approach in Europe.

⁴ Further description of the Round Table Discussion is detailed in the minutes.

⁵ Strengths, Weaknesses, Opportunities and Threats.

2. PRESENTATIONS OF THE RFMS – DAY 1

“Introduction” by Anna Kristín Daniélsdóttir, Project Coordinator - Matis.

Anna Kristín Daniélsdóttir summarised the project conditions, the project management structure and outlined the problems of the EU Common Fisheries Policies as pointed out in the Green Paper:

- Weakness of policy objectives
- Short sighted decision making system
- Absence of responsibility for industry and stakeholder groups

In general problems within the EU fisheries relates to:

- Fleet overcapacity
- Discard

The aim of ECOFISHMAN is to develop a Responsive Fisheries Management System (RFMS) that will contribute to reform the Common Fisheries Policies (CFP).

The RFMS will be based on results-based management principles and therefore accounts for stakeholder requirements as well as ecological, economic, legal and social factors.

Decision making in the RFMS has a Top-Down (objectives) and Bottom-Up (operational implementation) approach.

Anna Kristín explained that the outcome of EcoFishMan is a new fisheries management system that involves improved cooperation and mutual understanding between policy makers and industry stakeholders. Several stakeholder meetings and workshops have already been held in the individual case study areas and the current stakeholder meeting is organized as a round table discussion on RFMS and the present challenges.

“Goals & tools” by Rosa Chapela – CETMAR.

Rosa Chapela summarised the work since 2011 (project start March 2011) with regard to design and proof of concept and testing of the three prototypes.

The goals for the current round table discussion are to discuss the following in relation to RFMS prototype III:

- Relevance
- Responsiveness
- Consistency
- Proper working of key functions

In addition, to identify gaps and potential improvements for the final Prototype IV.

Rosa Chapela outlined the content and the form of the workshop and explained how the stakeholders will benefit from the participation. The discussions will hopefully help strengthen the final RFMS prototype and increase the feasibility of the RFMS.

2.1 THE VISION: RFMS

“Introduction to the RFMS” by Michaela Aschan and Kåre Nielsen – UIT.

The RFMS is developed by EcoFishMan and the system, which is result-based, adaptive and ecosystems-based, intends to reduce micro-management by involving users.

In order to obtain results-based management in fisheries, acceptable impact has to be defined as a starting point. Users need to find means to meet the stipulated requirements and document the effectiveness of the means.

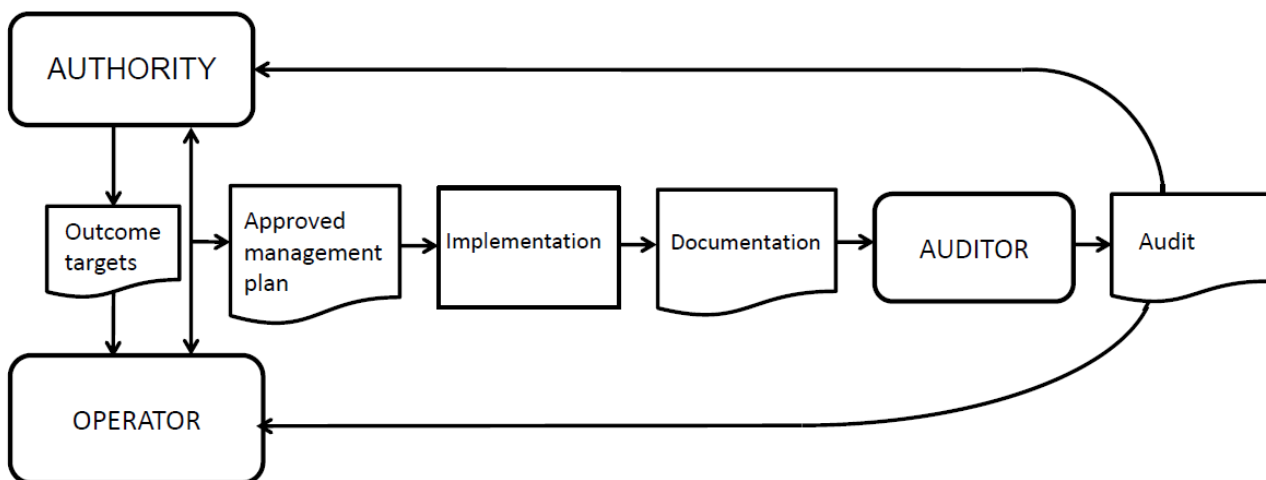
The background for developing the RFMS is the CFP review (Green Paper 2009) which high lighten vague policy objectives, short-term focus, insufficient industry responsibility and poor industry compliance as main challenges.

The generic RFMS concept presents the following division of roles:

1. Authorities
Define specific and measurable requirements (outcome targets);
2. Operators
Find ways to achieve requirements and provide documentation;
3. Auditors
Check if requirements are met;

The process is illustrated below.

The Generic RFMS Concept:



An example is discussed and the New Zealand Rock Lobster Industry Council is presented as a possible model case (<http://www.nzrocklobster.co.nz>).

The rationale behind RFMS is the top-down and bottom-up approach as well as a cost-efficiency incentive for operators. Responsiveness is ensured by adaptation to local conditions and mechanisms for evaluation and revision.

Kåre stressed that there are still challenges to deal with:

For the Operators: Commitment and organisational capacity?

RFMS as a voluntary alternative ...

For the Authority: Delegation of power acceptable?

The delegation is conditional ...

For the Auditor: How to ensure credibility?

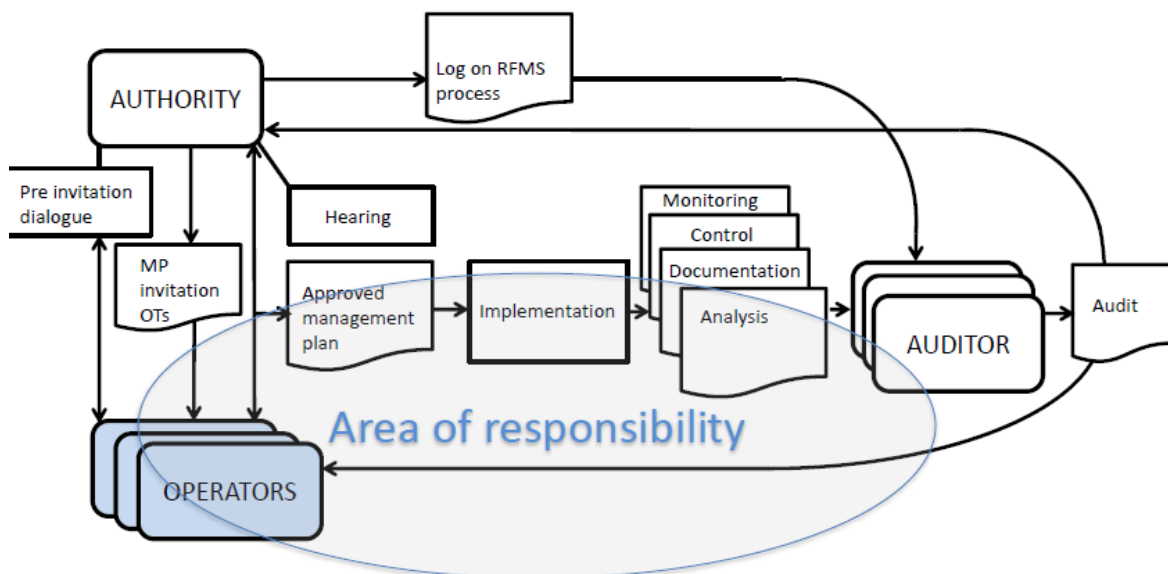
Independence and professionalism ...

Other complications are related to the mixed fisheries and gear types used in different nations. Possible solutions are a flexible RFMS adaptable to different scales or contexts.

“From concept to practice” by Michaela Aschan and Kåre Nielsen – UIT.

In an ideal world, RFMS contains a reversed burden of proof compared to the current EU fisheries management system. RFMS ensures cost recovery and strong resource user organizations. Ideally, the governance context is simple with no legal constraints and fisheries are simple and profitable. However, challenges relate to the shift in burden of proof, a multinational context, mixed fisheries and governance structures at different scales as well as legal constraints.

The generic RFMS concept is illustrated above and upgraded to Prototype III the concept is illustrated as follows:



Examples with the Icelandic lump sucker fisheries as a starting point to the NS RAC's Nephrops fisheries are illustrated with regard to nationality; RFMS authority level and OT dimension (biological, economic, social and cultural).

The legal perspectives of RFMS are put up to discussion: Delegation of responsibility of MP's by CFP institutions, MP's as civil law contracts, and strengthen RFMS by legal definition on a long term.

Finally, Kåre Nielsen and Micheala Aschan suggest moving towards RFMS in Europe as a voluntary alternative, making a gradual shift of management and research tasks to operators. There is a need for European role models and RFMS requires dedicated authorities and operators. It is an institutional puzzle implementing RFMS.

2.2 SUMMARY OF QUESTIONS, COMMENTS AND REPLIES

Q: How to handle the problem of mixed fisheries, multiple users, nations etc.?

A: MP could include only part of the operators, but better to aim at MP that includes all operators. It is possible to make a MP for a limited area, but again should aim for covering the whole area.

Q: What is management unit? Definition of scale?

A: .. It looks like an Eco-label management system ...Different solutions or systems have been chosen to individual areas – aim for flexibility. There are Problems related to international collaboration, the RFMS has potential to be adapted to individual situations, but requires change in attitudes.

Q: The system looks good! Authorities set the targets, how do you make sure that the targets are set in a correct way?

A: We have developed a new concept but the basic work to set targets is not changed. Decision on OTs should be taken at lowest level possible. Important to have good dialogue with operators and early, prior to MP1.

Q: NZ case study not a corollary! Have you looked anywhere else than NZ? More realistic cases?

A: We will present European examples later.

Q: You have gone far in the scientific process. Others work in reforming the policy as well and implementing it. Why not ask the North Sea RAC for cooperation in developing the system?

A: Pelagic RAC have been consulted. They were not happy about it. They are happy with their existing system. Demersal fisheries is the greatest problem and focus should be on that.

COM: It is a costly system and I think you have to agree for one system. Targets should be measurable and under control of the operator. Only a few targets are available today. Very few OTs are directly measurable and controllable by the operators. The system has to take care of uncertainties; to what extent it is fully controlled by operators. To what extent can you be responsible as an operator?

COM: The path to outcome targets such as no discards is long and complicated.

2.3 FILLING THE GAPS

“Dynamics for the Round Table” by Jose Luis Santiago – CETMAR.

Jose presented a set of questions to the Round Table for achieving an overview on the RFMS Prototype III.

- 1) Is RFMS an acceptable approach?
- 2) Do you know examples that resemble RFMS?
- 3) Would you like to include any other institution for the role of authority?
- 4) Which authority would be most relevant for shared stocks in an EU region?
- 5) How to ensure sufficient organisational capacity and commitment of operators in RFMS?
- 6) Do you have any suggestions on how the objectivity and independence of the auditor can be reinforced?
- 7) Do you have any idea how cost recovery principles should be introduced?
- 8) Could cost recovery be widely implemented or do you think it should be done case by case?
- 9) If RFMS is voluntary... what should be the minimum coverage (% resource share) for a MP to be meaningful and worth pursuing? How can its support be enhanced?
- 10) How to facilitate sufficient dialogue between Authority and Operator within the CFP?
- 11) Do you have any ideas to complement or revise the proposed steps to develop a MP?
- 12) How to ensure sufficient transparency of the RFMS process?

2.4 THE ROUND TABLE DISCUSSION

Is RFMS an acceptable approach and known examples resembling RFMS?

(Question 1&2)

- Mike In Scotland we have “conservation credits” as an example. It seems to work on a voluntary basis (agreement) between the industry and the authorities.
Penalties for bad behavior
More fishing days if behave well
- Benoit We would like to have examples from the south. Low stakeholder involvement is a major problem everywhere, issue of dialogue, attendance of stakeholders. E.g. no shows in Iceland (large fishing boats sector of the fleet)

- Clara There are European examples of RFMS like arrangements (recovery plans etc). I think more and more focus is on the South as we have seen in STECF reports. More and more proposals for management plans are coming from the south
- Grímur We are skirting around the main issue. There is over capacity in the industry – it is not sustainable.
One extreme: Give all the resource to the operators (i.e. fully private)
Other extreme: Top down from Brussels
As an example the industry should find a solution. The authorities should leave it up to the industry - the rights AND the responsibilities.
- Kåre EcoFishMan approach: Mixed top-bottom. In our proposed system, Authorities set OTs from the top; Operators/industry is left to find the best way to achieve goals. The top-down approach fits well with the notion of representative democracy; elected representatives are policy makers. RFMS in addition includes an element of participative democracy – bottom-up. And it has an element of economic governance – incentives.
- Cristina Portuguese Sardine fishery managed in good cooperation between one large organization that cover all fishermen and the authorities. They update the plan every 6 months
Agreement with Spanish government for Spanish boats to comply. Harvest control rules (HCR) consolidated by ICES. In contrast, the hake and Nephrops recovery plan, where the EU reviews the recovery plan, does not work
- Mogens You need to consider the MSY and the discard ban in order to implement a management plan (and not much else).
Political pressure to go through – can be initiated in Brussels or at other levels, such as RACs for instance. Advice: don't pile up questions for the Commission.
Prepare the management plan yourselves.
- Mike A comment on the Nephrops group. I was chairing the group and I think it was good. We met 5 skippers and it is up to the Commission to accept the plan. Who is the authority is not important, as long as the process is sound. Important to create the MP in an inclusive way.

Questions about the need for a new management authority?

(Questions 2 & 3)

- Clara We do not need another authority in my opinion.
- Benoit We should have new structures for cooperation.
- Barrie It depends on scale
- Mogens The North Sea RAC should actually be able to send in a MP for the Commission approval. Only a few people have the needed competences – these competences are in the RACs.
- Miguel All should be on a level playing field – that is important.

- Mike The Authority should create the plan?
- Michaela The Authority set the outcome targets.
- Andy We only have a few persons with the expertise – it is important to make a system that is easier to manage.

Operator, organizational capacity and commitment – which authority would be most relevant?

(Question 4)

- Poul You can build the capacity up if needed. Right now it is not but if needed it will be made.
- Loretta GFCM rather than EU.
- Clara Backlog of MPs to be approved and implemented; Council of Ministers – problems.
- Benoit We as small organizations have a lack of capacity; not prepared for new structures. It could be done at an EU scale.
- Mogens Possible to single out a single fishery and ask the regional organizations to prepare a MP; need for regional cooperation. But relatively few civil servants in the Ministries.
- Miguel Easy for Sardine fishery, not so for more complex fisheries. How do you keep a level playing field for all if there are some doubts on authority? Need to know what we need to control before you can make suggestions.
- Mike Need to define authority; authority creates plan or rubber stamps. Commission have ultimate authority.
- Andy Pool of people advising is the same; need to make it easier, but human resources are limited.
- Grímur Iceland has the lowest cost of control in Europe. Why? Because it is rights based – everyone is watching everyone else. The issue of rights to the resource is fundamental and has not been discussed within the group.

Operators, how to ensure sufficient organizational capacity and commitment of Operators in RFMS?

(Question 5)

- Poul They will acquire the capacity if you set up the system; up to now, it has not been required that they have this capacity.
- Clara Diminishing rewards, price of good compliance (e.g. discards reduction).
- Mike Until you get a cost-recovery business model, difficult to get into this if you are in the red. Answer: Consolidation of industry.
- Benoit Small-scale fishery lack capacity.

Cost recovery: How could this be implemented? Could it be widely implemented? Should it be case by case?

(Question 7 & 8)

- Michaela In the Icelandic case, we identified a lot of existing fees that they paid. Collecting fees is a way of identifying funds for cost recovery. Can use for research.
- Poul Disagrees with the idea of asking the industry whether it is interested in paying or just redistributing in fees. In other sectors of the economy, the industry has to pay. Would the public pay the oil industry for exploration research?
- Mogens There are some examples of cost recovery. It must be done on case by case. Economic interest and cost recovery goes together.
- Grimur This should be widely implemented. Final consumer pays for the cost. We agree that there should not be any subsidies for the industry.
- Clara The money goes to the public to make the stock assessment. It is not a fee but payment for work done.
- Benoit The industry (fishermen) need to understand what they are paying for.
- Poul I agree with Clara. I think your ambition about cost recovery is too low. I think fishermen should pay to utilize the resource.
- Mike It is not just about cost recovery but also about playing your part. Just the costs for the industry to participate in EU meeting could cover the science.
- Barrie How can the industry be encouraged to participate? To “pay” is probably not the way. Different incentives were suggested. Paying resource rent – cost recovery is logical. It should be implemented at all levels i.e. level playing field.

Coverage – is there a minimum % coverage for a MP to be meaningful and worthwhile?

(Question 9)

- Poul It depends of the outcome targets. Should be 100%, otherwise if you can't control biological aspects such spawning biomass and related OTs.

RFMS processes – how to facilitate sufficient dialogue between authority and operator (s)?

(Question 10)

- Clara Pelagic RAC discussed/reviewed who had initialized different initiatives (management plans). As long as all had been involved it did not matter who started. Success if three parties involved: Scientists, Managers and Operators. Failure if one is missing i.e. good governance.
- Domitilla Operators should be stakeholders, i.e. more inclusive the better.
- Mogens Choose one fishery and its management plan and start with that. Look at restrictions. Build management plan from scratch. Or take another and build a MP that fits with CFP.

- Benoit It is always good to have the initiative from the authorities. We asked the commission to lead some work but they declined.
- Mike Nephrops - all were involved in what we did. What was before is not important. The next stage is important.
- Mogens In the new system the commission can adopt a proposal, without going to parliament and council – today it is not possible.
- Joost Multiannual plan has to be prepared with the stakeholders. Council and parliament must approve. The future CFP. The multi annual plan is proposed by the commission. Some can have a regional plan other not. I think it is important to include everyone – also the ones that does not have a voice.
- Cristina We must take the easiest fisheries first. MP should be based on all participants.

Transparency – how to insure this?

(Question 12)

- Grimur It is essential. All landings must be available for all species every day. Where caught and when. Species and sizes information on the catches should be available on the internet every day.
- Loretta Do you expect an ex ante evaluation?
- Jose Luis Olavur will go through it tomorrow.
- Benoit There are legislative blocking points for transparency. If lack of quota, then no incentive to comply with providing actual catch data i.e. if you want to defend your interests, then you should not be transparent.
- Mike Problem of confidentiality. But isn't it down to the auditors? An audited system is in my opinion transparent.
- Andy I think the question is wrong. The *process* must be transparent. There are many people who do not believe that the process is transparent or fair i.e. it largely political. It should be open to all and everyone should understand the process.
- Poul We do not have a transparent process and there is a major problem with getting the data we need. The main advantage of the RFMS is availability of data. In my mind in this “reverse burden of proof” other organizations (for instance NGOs) should have access to ensure transparency. We still have cases where we do not have access to data in Europe. RFMS would benefit transparency.
- Grimur Need to record what was caught, where, discards, by-catch (e.g. numbers of sea gulls caught in hooks, numbers of seals caught in nets) i.e. important for ecosystem based management. Why should fishermen give this information? Only if no race for fish! i.e. if there is competition for fish, then they will not give information. The three R's: Responsive, Results, Rights.

Poul Reiterated the problem of lack of or inaccessible data and stated that there was data manipulation at the national level in some countries.

Jose summarized the day. Following questions were not or poorly addressed:

- Question 6: Do you have any suggestions on how the objectivity and independence of the auditor can be reinforced? (mainly because the presentation of the auditor role would be the following day)
- Question 11: Do you have any ideas to complement or revise the proposed steps to develop a MP?

“Main remarks and framework for the next working session” by Rosa Chapela – CETMAR.

Rosa sums up with regard to Prototype III and in general.

3. ACHIEVING THE VISION (CASE STUDIES) – DAY 2

“Goals & tools for this session” by Rosa Chapela – CETMAR.

The aim is to link the RFMS Prototype III to the case studies indicators.

The EcoFishMan case studies include the following fisheries:

1. Iceland demersal mixed fishery
2. Portuguese crustacean bottom trawl fishery
3. North Sea mixed demersal bottom trawl fishery
4. Mediterranean mixed demersal trawl fishery

The case studies are described with regard to:

- Current situation of the fishery
- Management Plan invitation
- Management Plan
- Results
- Conclusions and lessons learnt

3.1 CASE STUDIES

“CS1: Icelandic mixed demersal fishery” by Jónas R. Viðarsson – MATÍS.

Jónas explained the process of the Icelandic case study, which is based on the spiral development model.

As a starting point, the situation of the Icelandic mixed demersal fisheries is organized with a ITQ system, micromanaged, top-down management and little stakeholder involvement.

The management plan invitation meeting addressed some key policy objectives in relation to RFMS (a-e). 28 possible Outcome Targets were suggested.

NASBO (National Association of Small Boat Owners) participated in the meeting – this influenced the focus and resulted in fewer OTs.

The Management Plan compared to the current management system:

- One RFMS for all small hook vessels
- Roughly 12% distributed to quota holders and 5% allocated to a quota bank run by NASBO
- The quota bank a tool to assist with meeting OTs

Results from the simulations

- Not all OTs could be simulated
- Simulations run over a 10 year period (2013-2022)
- Main results:
 - o 5 out of 9 biological OTs were simulated and 4 of them were reached, but 1 fell slightly below target
 - o 2 out of 5 social OTs were simulated and both were reached
 - o 3 out of 4 economic OTs were simulated and all 3 were reached

Conclusions and lessons learnt:

- Implementing the RFMS is plausible
- Important to have proper incentives for the operators to take part
- Uncertainties, if large fleet segments are not part of the RFMS
- Not possible to simulate/model everything

“CS2: The Portuguese Crustacean bottom trawl fishery” by Cristina Silva – IPMA.

Target species are Rose shrimp, Norway lobster and blue whiting. Area is SW and S of mainland coast.

Management plan invitation; goals regarding sustainability, settlement and employment, implementation of RFMS. Performance indicators: CPUE index, Fishing mortality (CPUE index), Logbook availability, % discard, on-board training, stability (EBITDA). Documentation requirements are listed.

MPO => MP2 involves stakeholder involvement, no effort increase (approval needed), MP alternative to RP and applied to all operators based on objectives and targets for this fishery:

- Main species sustainability
- Discards progressive elimination
- Improve quality of data

Technical measures must be kept. All operators have to provide documentation for MP monitoring and compliance. Incentives could be fishing days + extra quota. Corrective measures (closures) to ensure MP objectives.

PM simulations: The model simulates the population dynamics of main species, the fleet behaviour and catches and the economic results.

Results: Zero discards main species, Revenue increased with no restrictions in by-catch landings.

Future adjustments needed to improve the simulation model.

Conclusions and lessons learnt:

- Operators reluctant to discard ban in the new CFP. Doubts implementation and feasibility.
- More work and proximity with stakeholders needed.
- The same rules must apply to ALL operators for MP to be successful.
- The EU Recovery Plan not setting clear objectives for Norway lobster plan.
- Need to cover all catches to get a real perception of the stock status. All operators must be involved in the MP and provide data.

“CS3: North Sea mixed demersal bottom trawl fishery” by Alan Baudron – U. ABDN.

Main issues CFP:

- Discards and mixed fishery BUT single species approach.

Management initiatives:

- Conservation credits scheme (collaboration)
- Catch quota management (fully documentation)
- Emerging multispecies and ecosystem approach
- Efforts towards the development of new management systems – RFMS

BBC News: “Scottish fishermen numbers fall by 5%”

Management Plan Invitation:

Issues to address => Target MSY fishing mortality, achieve zero discards by 2019, achieve sustainable economic growth and stability in landings, balance between a productive, efficient fishery and number of jobs, promote local fish processing.

Challenges => To promote self-management and restore confidence in decision-making, Management Plan designed for a component of the fishery only.

Management Plan and Main rules: Fishing license cannot be sold or transferred, no days at sea restrictions, FMSY approach to determine quotas and more.

Transition from MP0 to MP1. Most elements already in place. New features: No days at sea restrictions, extra quotas, fully documented fishery, no discards, self-management of stakeholders.

Modelling framework: FishRent in relation to FishSUMS.

- FMSY and FMEY

Values illustrated for several species.

Conclusions and lessons learnt:

- Burden of proof is transposed to skippers but we still need regulations on access and planning
- The seasonality of species must be taken into account
- Achieving zero discards seems unrealistic
- Appropriate sanctions are needed
- Clear incentives are needed
- Developing a MP for only one component no success. A MP for the demersal mixed fishery could be developed for the North Sea region, then adapted for each operator and reviewed every 3 years.

“CS4: Mediterranean mixed demersal trawl fishery” by Antonello Sala – CNR-ISMAR.

Current management: Effort control, no TACs implemented.

Two rights-based management strategies:

1. TAC => Bluefin Tuna => ICCAT
2. TURF => Clam => Co.Ge.Vo.

Useful where fishing activities target a single stock. In the Mediterranean mainly artisanal, multi-specific and multi-gear effort quotas are more appropriate management tools.

Small pelagic trawl. MP proposal for small pelagic fisheries in Adriatic.

MP0 bottom trawl – Specific objectives, indicators, baseline and reference points within Biological, Economic and Social dimension.

MP Invitation. RFMS agencies, Authority, Operators and Assessors.

List of OTs within biological ($F_{0.1}$ as proxy of FMSY, discard rates ...), economic (EBITDA ...) and social dimension (average wage ≥ 1).

Criticalities Mediterranean case study: Multinational – Italy, Slovenia and Croatia - shared fish stocks.

Rome December 12 => Simulation Case study 4, RFMS prototype IV

“Indicators, examples and lessons learned” by Fatima Borges – IPMA.

Indicators => measure the performance of outcome targets.

Four dimensions: Economic, Ecological, Governance and Social.

- Economic – TAC, taxes, subsidies, profit, earnings before interests etc.
- Ecological – Species, biomass, SSB, CPUE, discards, fishing mortality etc.
- Governance – Monitoring research, adaptive participative compliance
- Social – Training, newcomers, jobs, wages, local communities rights and protection

Concrete examples of indicators listed for each Case Study.

“GIS work, examples and lessons learned” by Petter Olsen – NOFIMA.

Data collection and visualization.

Objectives:

- Collect data for describing effects of a fisheries management system in case study areas
- Collate data into database for quantitative analysis, simulation and decision support
- Develop and test GIS based decision support system for minimizing negative impact by visualizing the interactions and geographical aspects of data.

Examples data for Icelandic, Portuguese and North Sea case.

A GIS interface will be developed based on the EcoFishMan simulation model

- Impact of changing parameters e.g.:
 - Quota allocation
 - Resource tax
 - Harvest rates
 - Fish prices

Lessons learned – 1

- Data availability varies and the quality of visualization depends on data availability
- Simple maps showing historical data useful tools when communicating with stakeholders
- Pilot cases have requested these maps as well

Lessons learned – 2

- The data harmonization and GIS work has become much visible than anticipated
- GIS visualization work is important as a communication tool and for engaging stakeholders
- Simulation and “What if” capability is needed for the GIS application to be an operational tool in the RFMS development and deployment process.

3.2 SUMMARY OF QUESTIONS, COMMENTS AND REPLIES

- Clara If longline/handline fleet interested in Iceland, why did they not participate?
- Mike Big fleet irresponsible?
- Andy What do you think the incentives are? More quota?
- Loretta Do you use a unique simulation model for all studies? Did you take into account uncertainties and externalities, such as fuel costs?
- Answers Petter and Sveinn:
- Each study has its own model.
- We would like to use fuel prices in the “what if” scenarios, and interest rates as well.
- It is not a complete simulation model –we simulate one parameter at a time and kee everything else fixed.
- Benoit Please think about the different trends we will present. How are you reporting information (spatial) on the maps. Why are stakeholders interested in the maps?
- Petter It depends on each specific case study. We use data provided to us by partners. We present maps coordinates, VPS, or what is available. It was a surprise for us why people want them. We did not anticipate the importance of the maps. Maybe it is because information is displayed in an attractive way.
- Mike Fishermen used to visual information. Communication to our members work best in the form of maps etc. The fishermen are used to work with maps and graphical output. Fishermen do not like text and function best with visual information.
- There is no mention of market here. Missing component that should be included?
- More important to tell fishermen how bad things will be if they don’t move in the right direction, rather than tell them how good things will be.....
- Johannes I am pleased to be here, but participants should have been provided with handouts of the ppt presentations. The value chain should be included.
- I was pleased to see the development of the modeling.
- I also agree with the issue of transparency of the data.
- Big question: will such a system be able to handle the main issue: amount of resource available? I doubt it....
- Greater technological advances will necessarily mean less and less fishermen in the future.
- Clara Conflict between economic efficiency and social issues/goals e.g. Iceland: large vessels vs. smaller longliners and handliners.
- Uncertainty about the policy issue. What are the main objectives we should pursue?

- Joost Yes - this will always be a big dilemma. Resource and conservation issues. Environmental and economic sustainability. There are different opinions within the different member countries. When you choose a certain route you exclude some. Be aware of that and also of inclusion and exclusion of different groups.
- Very complex situation in Europe, different realities.
- I like the case studies because they describe the different fisheries.
- Juan Pablo The new CFP is much more environment oriented. The case studies need to be “polished” in terms of environmental concerns. I don’t see environmental inputs e.g. birds, habitats.
- The North Sea case: different conservation status of different species: implication for fishing mortality rate (F). How to weigh the conservation status of different species.
- The MSY approach works on the economic yield only. There might be a negative economic effects from other fisheries...
- Alan We are using a multi-species model (predator-prey) for the North Sea case study; eventually hope to estimate partial F’s.
- Kåre Yesterday we discussed outcome targets. Outcome targets for environment are a problem because the operator is not fully in charge of it. i.e. individuals only impact a small part of the for example a particular habitat. Some outcome targets could be made for the operators.
- Good environmental status has to remain with the authority
- Benoit Not sure if there can be a shared authority – top vs. regional?
- Joost I can give you some ideas about how I see the future CFP. I see many options to include more elements in it in the future. The law is just the starting point.
- Grimur I have seen a case about the Japanese fisheries. The average age of fishermen is 60 years. Poorly paid jobs? I would like reflections on that in an EU context? How does average fishing job compare with other jobs?
- Socio-economics: more jobs per ton of fish for small boats.
- I was disappointed that the big Icelandic vessels did not participate.
- We have to take the economic issues into account to a higher degree.

3.3 SUMMARY OF AUDIT FRAMEWORK

“Assessment Framework: Evaluation and CBA” by Ólavur Gregersen – SYNTESA.

Focus is on evaluation of Management Plans (EMP) and potentially to conduct relevant cost-benefit analysis (CBA)

The Audit Framework consists of EMP + CBA.

Classic Assessment vs. Audit Framework:

| Classic Assessment | Audit Framework |
|---|--|
| Adjustable at the end of each year | Dynamic / responsive system of resource utilization |
| Narrow focus on stock assessment | Broad assessment based on relevant aspects of biology, ecology, economy and legislation |
| Single species / multispecies approach, biological indicators | Ecosystem-based approach, diversity of biological, social, legal and economic indicators |
| Stakeholders involved as lobbyists | Stakeholder involvement high |
| Burden on scientists to prove impact | Burden on stakeholders in interaction with authorities to prove impact |

The Auditor's area of responsibility is illustrated in figure "The RFMS generic concept – prototype III".

RFMS Audit Framework:

- The implementation of MP
 - o Documentation system conformance
 - Audit the systematic collection of data to provide input for the indicators related to the outcome targets (OTs)
 - Audit the min. criteria for reliable data
 - o Sensitivity analysis
 - Establish a baseline for evaluation of MP's performance
 - Compare the effects of the MP through sensitivity analysis
- Performance evaluation
 - o Effectiveness performance, informs about the performance of the MP
 - ID and classification of impacts
 - o Compliance, analyses the quality of the reported information
 - Information control
 - o MP effects, evaluates the impact of the MP in socioeconomic terms

Different methods will be applied in each case study area.

Concrete example of Audit Framework for RFMS in each case study:

- Step 1: PM implementation
- Step 2: Performance evaluation

3.4 SUMMARY OF QUESTIONS, COMMENTS AND REPLIES

Andy The Auditor must be totally independent.

The framework is very similar to the MSC framework.

Who are the auditors? Who will assign the auditors? EU or authorities assign auditors and do not interfere in their evaluation.

- The auditor has to be instituted soon, otherwise results will all go back on the shelf in the European Commission.
- Olavur It is within the scope of the project to make a roadmap for implementation. We will address that.
- Grimur Within Eco-label it is a third party independent auditor. MP evaluation is an essential part of it and the biggest problem. EcoFishMan will do that.
- Poul I would like the framework to be developed further. Importance of precautionary approach. Need to consider situations where don't have the data or data not worth collecting.
- Miguel I have concerns about the details. Is a pilot monitoring program included?
- Olavur Effectiveness evaluation – we are dependent on what is chosen as outcome targets. It could be economic and/or social targets. In order to test it we should test it in a limited area in Europe. Then independent auditor issue (who – and are they really independent) will then be included as well.
- In some areas of Europe, social goals may be more important than economic.
- Would be good to test it for a limited area and species in Europe.
- The Big discussion: who would be the auditor?
- Loretta Will Ex ante evaluation be done? Is it up to the auditor? Why is it not possible to do cost-analysis in the Mediterranean case study?
- Olavur Should not be Ex-ante.
- The auditor will make the evaluation / do the sensitivity analysis.
- It was decided early in the project to do conduct multi criteria analysis for the Mediterranean and not an economic cost benefit analysis. This is mainly due to timing of the Mediterranean case study in the project, and also a concerns about availability and quality of data.
- Loretta But there is economic data available.
- Johannes Requirement of independence of auditors is clear.
- The consumer and NGO should also be included and informed. I think that getting data is very important. The operator's data are sensitive – maybe by providing the maps, the fishermen will be more willing to participate and give good data.
- There should be a time delay: auditor should have access to the data first.
- Mike What if you are trying to fit it into the wrong system? Can you do a risk analysis of the system?
- Olavur We have the pre-assessment in the system. EU has a large variety of fisheries.

4. CREATING THE PATHWAYS TOWARDS A RFMS IN EUROPE

“Creating the pathways towards a RFMS in Europe” by Jose Luis Santiago – CETMAR.

Based on the Spiral model Jose sums up the stakeholder interaction process in EcoFishMan.

The information regarding prototype III needs to be processed and discussed further.

Partners discuss “Doubts and favourites” in groups and “Concerns and new ideas/improvements” are discussed in expert groups.

4.1 DOUBTS

Group A:

- Incentives are stated but sanctions should be listed as well.
- We have seen that there are some missing points in the management plan.
- Voluntary system or forced- that we discussed as well.
- We would like a plan from each region from implementation (mapped or organized).
- New incentives?
- MP should include broader group of stakeholders.
- Scale of MP: region? Fleets?
- How to score the fleet on social, economic and environmental issues?
- Trade-offs
- Should it be voluntary?
- Different initiatives, region by region.
- Share responsibility among operators dependent of the specific task; assign tasks to operators, stakeholders, etc.
- Rapid response mechanism
- If you want it work you must make alliances with the industry. Be a part of the CFP implementation. Make a system that can fit into the coming CFP.

Group B

Caution:

- We want to get away from centralized management. No trust between the different parties (industry, authorities, EU). Different systems in each member countries.
- We cannot make the rules – the politicians must do that.
- Legally define the fishing rights – it is a 20 investment and they need to know the perspective.
- Politicians need to define what they want (profit or other?)

Eureka:

- Proper incentives.
- Importance of legally defined fishing rights; long-term rights.
- Remove competition for fish: industry will have no secrets; make data available on the internet,

Group C

- My own flag- operators are not all the stakeholders. Remember this.
- Marketing chain is not included.
- Communication to the public is missing.
- Environmental effects not sufficiently covered in any of the cases we have seen.
- Data: all stakeholder has the obligation to provide validated data that can be available for all.
- Challenge in refinement of the CFP in relation to discards – zero discards policy in 5 years?
- We do not see any real incentive to taking up RFMS – there are no clearly identified incentives.
- Market reasons- MSC is joined because of market access – no reason to join RFMS.

EcoFishMan group

The following favorites were selected for elaboration: 1) transparency, 2) simplicity; 3) independent auditors. Kåre, Jonas and Olavur addressed the issues:

Kåre:

- Transparency fundamental for the RFMS framework.
- It is important to communicate to the public and to the market side.

- How to ensure participation?
 - Creating strong incentives
 - Communicate to stakeholders
 - If producers' organization has more than 50% of a fishery, can it extend the rules to cover all the resource?
 - How will RFMS fit into the new CFP? We are working on this and have got a lot of support about how to do that here at this meeting.

Jonas:

- Case studies different methods CCTV etc. have been mentioned.

Olavur:

- Audit doubts: independence and how to work with compliance.
- Securing independence: One way could be to use the current business auditor system as an example: A number of auditors will be certified (by the authority) and the operators can choose between several for conducting the audition of the MP in question.
- Three components of Compliance Index:
 - Completeness
 - Time related: delivery times of reports
 - Source: number of reports expected
- Explained how the scoring function works. (Traffic light system):
 - >85: green; no intervention
 - 65-84: yellow; can intervene
 - <65: red; revision of management plan

“Conclusions” by Sveinn Margeirsson – MATIS.

Sveinn makes concluding remarks and states that there is a need for the right incentives and a balance between biological, economic and social goals. There is a need for alliances; science has been isolated from management and from industry too long. In addition, we need to cooperate with the rest of the world – Russia as well. Important to focus on implementation.

4.2 RECOMMENDATIONS & CONCLUSIONS

The Expert Advisory Group (EAG) consisting of Grimur Valdimarsson (Iceland), Johannes Pálsson (Norway) and Andrew I. L. Payne (United Kingdom) provided a brief note following the roundtable discussion meeting. The content of the brief is presented below re-structured in observations, recommendations and conclusions:

Observations:

The meeting was not based on work packages, as previous stakeholder meetings of the project had been, but was directed towards rolling out the RFMS as currently designed, with a view to making it more acceptable and hopefully worthy of formal EU implementation in future, in some if not many fisheries. To do this, the four case studies (Icelandic demersal mixed; Portuguese crustacean bottom trawl; North Sea mixed bottom trawl; Mediterranean mixed demersal) were presented to show, in terms of the RFMS, that they could implement such a system, and also where there might be some failings. Further, there was a brief presentation on indicators and GIS, an important perspective in terms of the ecological utility of the system, and a fascinating presentation of how management plans could be evaluated in terms of the assessment framework, which revealed broad stakeholder interest too in gaining access to the mapped outputs from the system.

It is clear now that the RFMS has been designed with a view to being sufficiently adaptable to merit its serious consideration as a tool by several EU fisheries that might benefit from its use in future. In other words, the project team has taken seriously previous EAG concerns that the RFMS design should focus not only on the four case studies incorporated in the project (all are different) but on EU fisheries continent-wide.

The RFMS is showing itself adaptable to all fishery conditions, stable, decreasing and increasing/recovering. In particular, it is showing itself capable of dealing with the various complexities associated with different areas. The complex North Sea system in particular exemplifies how the RFMS approach can work optimally and perhaps can act as a good test platform for implementation. The system is also gratifyingly not too technical for industry stakeholders to be able to comprehend what it is trying to achieve.

Recommendation #1: Need of policy objectives

Further consideration is still necessary on how to incorporate more effectively some of the economic, societal/social and ecosystem/habitat indicators relevant across Europe (e.g. in terms of the Marine Strategy Framework Directive). In that respect the EAG is of the opinion that there is an urgent need for politicians to set out their fishery policy objectives clearly, so that the indicators can be constructed accordingly: Does policy aim for

- a profitable and competitive food production sector in the globalized marketplace,
- a tool for maximizing employment in EU coastal areas,
- or something in between?

Without the objectives being stated clearly up front, it will very difficult to design the framework to evaluate desirable outcomes.

Recommendation #2: Peer-review through publications

The EAG states that they feel some of the findings would benefit from careful peer-review that can likely only be achieved through publication.

Recommendation #3: Need to clarify the organisation of the Auditor role

Management plan evaluation is still going to be a serious challenge, especially in terms of ensuring continuity (of audit norms) and the integrity and unbiased nature of those selected to carry out the audit task.

Discussions at the meeting indeed stressed the importance of:

- any audit being totally and demonstrably independent,
- to count on being able to access all necessary data for the evaluation,
- to ensure that quality feedback is allowed to be made back to the operator,
- and to stimulate transparency of the process between all parties.

Also, will the auditor have scientific, economic or legal training? In all likelihood, there will be need for some knowledge of all these, meaning that the “auditor” might need to be a small team contracted for the task for a lengthy period.

The audit task itself is not trivial, so there will be a cost to implementing it, and the EU needs to be told so and, if it takes up the recommendations, to be able to set aside appropriate funding to ensure that it does not fail at first implementation.

Recommendation #4: Need to clarify the incentive structure for using RFMS

It was pointed out that within EU fisheries, there are very different scenarios at work. For instance, quota allocation systems are different, there is robust enforcement of catch quota systems in some countries/fisheries, whereas in other cases there are effort systems without TACs being set. In some cases too, fishing quotas are transferable, in others they are not. Industry rightly emphasizes the importance of having clearly specified incentive structures, predictable long-term scenarios in terms of the right to fish with maximum flexibility to achieve economic success.

Conclusion by the EAG:

The meeting was a scheduled round-table discussion between members of the project and appropriate stakeholders on the Responsive Fisheries Management System (RFMS) that has been developed during the course of the project. An impressive array of willing and engaged stakeholders had been invited and attended the meeting. The EAG members acted as much as “stakeholders” as they did as scientific/industry experts, and made several pertinent inputs in terms of the former role, but this report reflects less their formal perspective as “stakeholders” or interested parties than their feelings about the way the project has developed towards finality early next year.

Overall, though, the project has delivered remarkably well, and if the system can be designed with the above issues in mind, it may well be appropriately rolled out in the very near future, at least for certain fisheries.