

Deliverable 8.5

Stakeholder Workshop SH1

Due date of deliverable: month 9 (June 2013)
Actual submission date: month 12 (September 2013)

Grant Agreement number:	312088
Project acronym:	BENTHIS
Project title:	Benthic Ecosystem Fisheries Impact Study
Funding Scheme:	Collaborative project
Project coordination:	IMARES, IJmuiden, the Netherlands
Project website:	www.benthis.eu

Main Contributors:

Syntesa
SP/F Syntesa
(Partner 17, SME01, Faroe Islands)

CNR
Consiglio Nazionale delle Recerche
(Partner 14, CNR, Italy)

IFREMER
Institut Francais de Resherche pour l'Éxploration de la Mer
(Partner 7, IFREMER, France)

IMARES/LEI
STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK
(Partner 1, DLO (IMARES/LEI), Netherlands)

OMU
Ondokuz Mayıs University
(Partner 34, OMU, Turkey)

DTU-Aqua
Danmarks Tekniske Universitet
(Partner 9, DTU-Aqua, Denmark)

DOCUMENT CHANGE RECORD

Authors	Modification	Issue	Date

SUMMARY

The first general stakeholder meeting (SH1) in the BENTHIS project was held on the 5th of June 2013 in Harleem. The stakeholder meeting had representation from all the five case study areas.

The main objective with the first general stakeholder workshop (SH1) was to obtain a common understanding of the benthic problems and issues and agree on common definitions/understandings of terms in line with the BENTHIS project. Also the purpose was to present and get feedback on what technological and management initiatives the regional stakeholders have an interest in exploring during the project lifetime.

Based on the five regional stakeholder events held during months 7 and 8 of the project (reported in Benthis D8.7) there is a certain need for clarifying the concept of impact among stakeholders:

- What is impact?
- How can / should we measure impact?

The workshop was organized in two parts. The first part was organized as presentations and gave the participants an introduction to the policy perspectives of benthic issues and an introduction to the specific BENTHIS issues and focus. This also included a presentation of the results of the RSE1. The second part of the workshop was organized with facilitated discussions in groups and wrapped up in a plenum session to clarify and possibly reach agreement on stakeholders understanding of BENTHIS issues and definitions - e.g. what implies a negative impact on the benthic ecosystem.

Summing up on the discussions among stakeholders it is complex answering the “What is impact?” question in a simple way. There are several levels and perspectives and one need to clarify what approach should be chosen?

How do we approach the benthic ecosystem?

– From a “wilderness” perspective or from a “productive” perspective?

The concluding remarks indicated that the answer to impact is clustered e.g. in negative or positive impact or in the functioning of the ecosystem compared to providing food to the world population.

To further clarify the impact-concept in a regional context the workshop audience are organized in three groups: Baltic Sea, Mediterranean and Black Sea together and the North Sea

The groups were also encouraged to come up with suggestions on how to define impact and how to measure impact in their region within the framework of the BENTHIS project.

The summary from the three groups were presented in the workshop plenum and as a final conclusion representatives for the stakeholder groups attended were asked to reflect on key “take away messages” of the stakeholder workshop.

TABLE OF CONTENTS

DOCUMENT CHANGE RECORD	3
SUMMARY	5
TABLE OF CONTENTS	7
INTRODUCTION	9
1 METHODOLOGY	11
1.1 The approach	12
2 STAKEHOLDER REPRESENTATION	12
3 INTRODUCTION TO BENTHIS ISSUES	13
3.1 Policy perspectives	14
3.2 The BENTHIS ecosystem approach	14
3.2.1 Mapping of habitats and benthic impact from fisheries	14
3.2.2 Identification and quantification of functions in the Benthic ecosystem	15
3.2.3 Effects of fisheries on ecosystem	15
3.3 The preliminary results from the RSE1	15
3.4 Drawings	16
4 FINDINGS FROM STAKEHOLDER INTERACTION	18
4.1 What is impact and how to measure it?	19
4.1.1 Common understandings	19
4.1.2 Baltic Sea	22
4.1.3 Mediterranean and Black Sea	22
4.1.4 North Sea	23
5 CONCLUDING REMARKS	23
APPENDIX A: LITTERATURE ON STAKEHOLDER ANALYSIS AND MAPPING	25
APPENDIX B: AGENDA FOR STAKEHOLDER WORKSHOP	26
APPENDIX C: DETAILED SUMMARY FROM DISCUSSIONS	27

INTRODUCTION

The main objectives of the BENTHIS project are to:

1. Provide the knowledge base that allows an assessment of the status of different types of marine benthic ecosystems in European waters on a regional basis and support indicators of Good Environmental Status (GES), in particular on Seafloor Integrity;
2. Develop the tools required to assess the effects of bottom trawling on the structure and functioning of these benthic ecosystems.
3. Study and test, in close collaboration with the fishing industry, innovative technologies that reduce the impact of demersal fisheries on benthic ecosystem on a regional basis, encompassing the Baltic, North Sea, western waters, Mediterranean and Black Sea;
4. Develop in consultation with the fishing industry and other stakeholders on a regional scale, sustainable management plans that reduce the impact of fishing and quantify its ecological and socio-economic consequences

In order to promote the much needed transition to a more sustainable fishery in the EU, it is important that fisheries scientist collaborate with the fishing industry and related stakeholders in order to develop a common ground on the problems at stake and the possibilities for solutions.

The challenging question for the stakeholder involvement in the BENTHIS project is:

How can science and the fishing industry be brought together to collaborate on innovative technology and innovative management approaches to mitigate the impact?

The stakeholder involvement in the BENTHIS will be exerted on a regional basis as well as on a general EU level. Five regional case study areas are defined by the Project: Mediterranean, Black Sea, Baltic Sea, Western Waters and the North Sea. Regional stakeholder events have been implemented in each case study area and the first results are presented in the project report D8.7. The second and third events are planned in the next two years to come. In order to bring together the key issues and results from the regional events, two general stakeholder meetings are held in line with the regional events. The first general stakeholder meeting (SH1) with representation from all the five case study areas was held on the 5th of June 2013 in Harleem. The second and final general stakeholder meeting (SH2) will be held in 2015 when the regional events are all conducted.

The main objective with the first general stakeholder workshop (SH1) is to obtain a common understanding of the benthic problems and issues and agree on common definitions/understandings of terms in line with the BENTHIS project. Also the purpose is to present and get feedback on what technological and management initiatives the regional stakeholders have an interest in exploring.

1 METHODOLOGY

In the BENTHIS project two main objectives have been set for the activities related to the stakeholder involvement:

Objectives:

1. Study and test, in close collaboration with the fishing industry, innovative technologies that reduce the impact of demersal fisheries on benthic ecosystem on a regional basis, encompassing the Baltic, North Sea, Western Waters, Mediterranean and Black Sea;
2. Develop in consultation with the fishing industry and other stakeholders on a regional scale, sustainable management plans that reduce the impact of fishing and quantify its ecological and socio-economic consequences.

Stakeholder analysis is a term that refers to the action of analyzing the attitudes of stakeholders towards something – in this case the implementation of technological and management innovations to mitigate fishery impacts on the benthic ecosystem. Stakeholder analysis is frequently used during the preparation phase of a project to assess the attitudes of the stakeholders regarding the potential changes. Stakeholder analysis can be done once or on a regular basis to track changes in stakeholder attitudes over time.

Definition of a stakeholder

The classical (and most frequently cited) definition of a stakeholder is Freeman's:

A stakeholder in an organization is (by its definition) any group or individual who can affect or is affected by the achievement of the organization's objective. (Freeman, 1984)

This definition has been accepted but simultaneously criticized depending on the scholarly position. While the business ethics track generally embraces a wider definition, the social science track favors a more narrow one.

It has been argued that a broad definition makes it possible to include even such groups as terrorists and competitors (Phillips, 2003) who, indeed, could affect the firm painfully. This dilemma can partly be resolved by narrowing the definition in a meaningful way. By following Clarkson's argument (Clarkson, 1994), Mitchell et al. argue that the use of risk as a second defining property for the stake in an organization helps to "narrow the stakeholder field to those with legitimate claims, regardless of their power to influence the firm or the legitimacy of their relationship to the firm". (Mitchell et al., 1997). In summary, the concept of a stakeholder is not uniformly accepted. However, in most cases the differences refer to the scope of the definition.

In the BENTHIS project the more narrow definition by Clarkson et al. is chosen which defines a stakeholder as a group or individual who affect or is affected by the project outcome but also finds a risk or something at stake by being connected to or influenced by the project.

The BENTHIS stakeholders who have been selected for the general stakeholder workshop are categorized and listed in section 3.1 below.

Literature on stakeholder analysis

The growing popularity of stakeholder analysis reflects an increasing recognition of how the characteristics of stakeholders – individuals, groups and organisations – influence on decision-making processes. (Brugha and Varvasovszky, 2000). A stakeholder analysis process has the goal of developing cooperation between the stakeholder and the project team and, ultimately, assuring successful outcomes for the project. Stakeholder analyses are performed when there is a need to clarify the consequences of envisaged changes or at the start of new projects and in connection with organizational changes generally. It is important to identify all potential stakeholders for the purpose of identifying their success criteria and turning these into quality goals.

Appendix A presents a list which identifies some of the best-known and most commonly used methods for stakeholder analysis and mapping.

1.1 The approach

The approach for the EU wide stakeholder interaction has been mainly explorative and partly linked to the progressive results the participants came forward with.

Based on the five regional stakeholder events held during project months 7 and 8 (reported in Benthis D8.7) there was a certain need for clarifying the concept of impact among stakeholders:

- What is impact?
- How can / should we measure impact?

In addition to achieving a common understanding of the benthic issues and problems the purpose of the stakeholder workshop has been to clarify these two questions.

The workshop was organized in two parts. The first part was organized as presentations and gave the participants an introduction to the policy perspectives of benthic issues and an introduction to the specific BENTHIS issues and focus. This also included a presentation of the results of the RSE1. The second part of the workshop was organized as facilitated discussions in groups and in plenum and was to clarify and possibly reach agreement on stakeholders understanding of BENTHIS issues and definitions e.g. what implies a negative impact on the benthic ecosystem.

The structure of the stakeholder workshop:

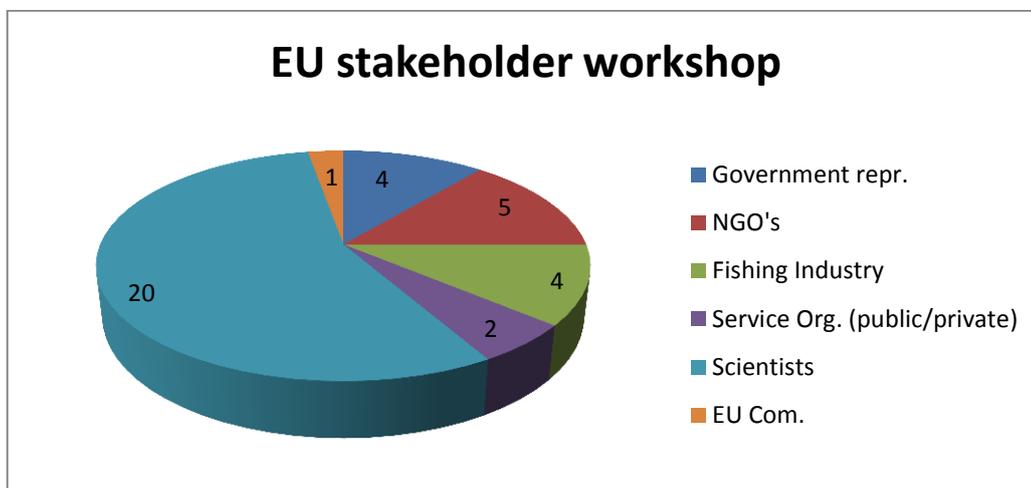
1. Introduction to benthic issues and the BENTHIS focus
2. Discussions of common understandings and definitions

2 STAKEHOLDER REPRESENTATION

A selected group of stakeholders from each of the five case study regions were invited to the EU wide stakeholder workshop in order to get a representative assembly as possible from each region. In total 36 stakeholders participated in the workshop. The stakeholder group was a mix

of scientist, governmental representatives, industry representatives and NGO's from all the five regions. The distribution is illustrated below and shows that project scientists are relatively well represented at the workshop.

Figure 2: Stakeholder distribution at the EU workshop



The regional distribution of the stakeholders present was as follows:

Table 1: Stakeholder distribution based on regions and stakeholder group

Stakeholder: Region:	Government	NGO	Fishing Industry	Service Org.	Scientists	Total
Mediterranean					2	2
Western Waters		1			2	3
North Sea	2	4	2	1	8	17
Black Sea	1		2		3	6
Baltic Sea	1			1	2	4
EU-Commission	1					1
Other					3	3
Total	5	5	4	2	20	36

Since the workshop was held in Harleem, stakeholders from the North Sea region were relatively well represented.

3 INTRODUCTION TO BENTHIS ISSUES

As an introduction to the second part of the workshop, the meeting started with a series of informative presentations that lasted 15 minutes each and ending with a Q&A part of approximately 10 minutes.

The presentations are briefly summarized below but are available in full length on project SharePoint. For an overview of the agenda for the stakeholder workshop, please see appendix B.

3.1 Policy perspectives

Dominique Rihan from DG MARE (Directorate-General for Maritime Affairs and Fisheries) initiated the first part of the workshop by presenting political perspectives on the management of benthic impacts.

The overall objective of the MSFD (Marine Strategy Framework Directive) is to achieve Good Environmental Status (GES) of EU's marine waters by 2020. The three areas supporting the overall objective are:

- 1) Protected ecosystems
 - a. Clean, healthy and productive seas
- 2) Sustainable use of the marine resources in Europe
- 3) Common approaches
 - a. Cooperation at EU and regional level

DR pointed out that under the MSFD umbrella which coordinates objectives and measures of initiatives within the environmental and marine areas; agreement has been made on a CFP reform (Common Fisheries Policy) by EU members. This achievement will lead to reforming fishing for the better.

The timeline for implementing the different elements of the reform was presented and the first report on implementation is due this year - 2013. The CFP includes a number of challenges. Which measures are most effective when pursuing sustainable marine resources? Closed areas, gear modifications or other options? This is the key issue in the BENTHIS project which will hopefully give us some basis for decision-making. DR pointed out that the Commission *has* decided to implement a discard ban.

Finally DR emphasizes that possible solutions or recommendations must be result-oriented and based on regional conditions.

3.2 The BENTHIS ecosystem approach

Three representatives from the BENTHIS project presented their plans and research results which are currently obtained for the working packages WP 2, 3 and WP4.

3.2.1 Mapping of habitats and benthic impact from fisheries

WP2 leader Ole Eigaard from DTU Aqua stated that the BENTHIS approach is to develop methods to assess impact. This implies:

$$\text{Trawling impact} = \text{gear type} \times \text{fishing intensity} \times \text{habitat vulnerability}$$

The main objective of WP 2 is to map habitat types and sea bed impact in the regional areas covered by the BENTHIS project. Also a main objective is to develop new methodology for assessing actual seabed impact from large scale fishing activities.

OE illustrated how different gears have very different impact on sea bed. DTU Aqua has currently implemented an industry survey among net makers and skippers in order to retrieve correct logbook information with regard to relevant impact parameters. The results were presented and the same procedure can be carried out in the BENTHIS project on a regional basis.

3.2.2 Identification and quantification of functions in the Benthic ecosystem

WP 3 leader Andrew Kenny from CEFAS in the UK presented the objectives of the WP 3 which involves defining and quantifying the broad-scale relationships between benthic fauna, habitats and their functions using biological traits. Also a second objective is to model the benthic ecosystem processes and finally the third objective is to integrate the findings and develop a generic fishing/seabed habitat risk assessment method.

AK stated that researchers currently have a good understanding of how different species interact with their habitat and how they modify their habitat. Some species are more sensitive to fishing impact than others and the consequences are important to identify.

In WP 3 researchers aim at determining what biological characteristic are most important for the functioning of the ecosystem. The ecosystem has regulation functions, habitat and production functions – a key question is what biological characteristics are important in contributing to each function? Possible changes in biological characteristics may be a measure of functional changes.

By Functional Response Curves AK illustrates the possible relationship between characteristics (traits), habitat and the ecosystem function.

3.2.3 Effects of fisheries on ecosystem

The leader of WP4 Jan Hiddink from the Bangor University puts forward the key issues of working package 4 which objectives are to quantify and predict the direct and chronic effects of bottom trawling on the state and functioning of benthic ecosystems.

JH points out the knowledge gaps related to predicting the large scale effects of fisheries on the state and the functioning of the ecosystem. A understanding of the mechanisms through which fishing gears affect seabed ecosystems is required.

Researchers in WP 4 aim at predicting the physical impact by towed demersal gears on seabed and quantify the re-suspension of sediment and nutrients release by towed demersal gears. Also the aim is to quantify food subsidies due to discards to the benthos and identify consequences. Finally an important task is to quantify the indirect effect of fishing of prey availability for commercial fish species.

3.3 The preliminary results from the RSE1

The last topic in the introductory session of the stakeholder workshop was the presentation of the BENTHIS pan-European stakeholder analysis of the first five Regional Stakeholder Events. This presentation was held by Durita R. Djurhuus from Syntesa.

The approach and purpose with implementing the five regional stakeholder meetings was explained and the results of the ranking of initiatives – technological and sustainable managerial innovations – were presented for each of the five case study areas (This is reported in Benthis D8.7). It was elaborated which of the ranked initiatives the regional stakeholders supported and which initiatives or innovations would create a possible stakeholder conflict in the individual region.

Also the results from a questionnaire survey conducted in each region (except Western Waters) were presented. The purpose of the survey was for the BENTHIS project to gain insight into stakeholder attitudes regarding innovative technologies in a sustainable managed demersal fishery. The topics covered by the survey are: Governance, Ecology, Management, Socio-economy and Technology.

The findings from the survey and the ranking of initiatives caused some interest among the workshop stakeholders and there were a number of questions related to the findings subsequently.

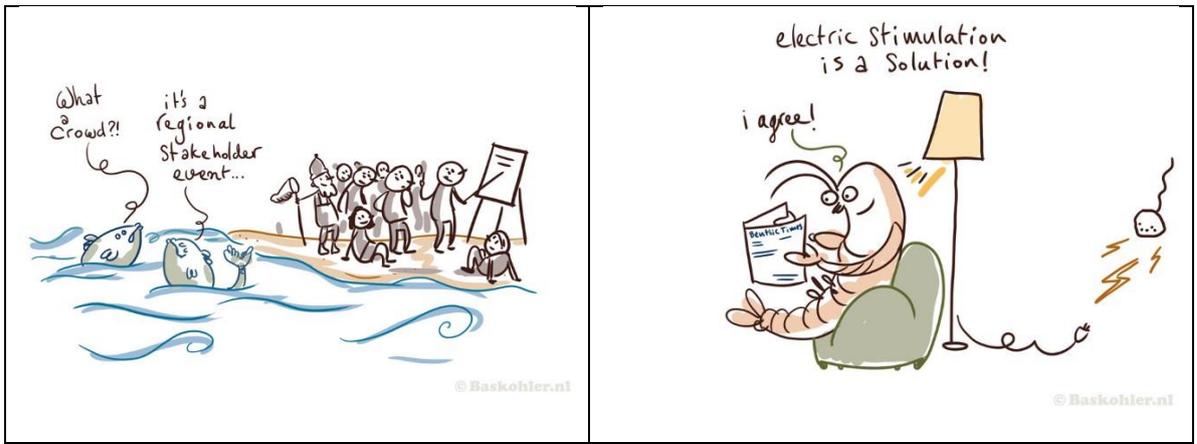
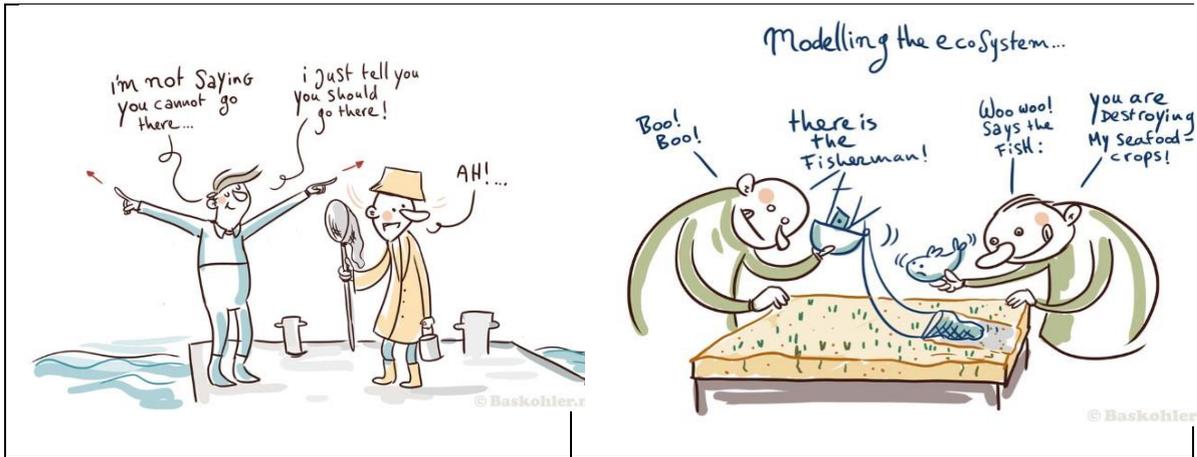
The preliminary results from the Regional Stakeholder Events were the final prelude to second part of the workshop, the discussions of the impact concept. What is impact in the BENTHIS context, what is acceptable to regard as negative/positive impact and how do we measure it.

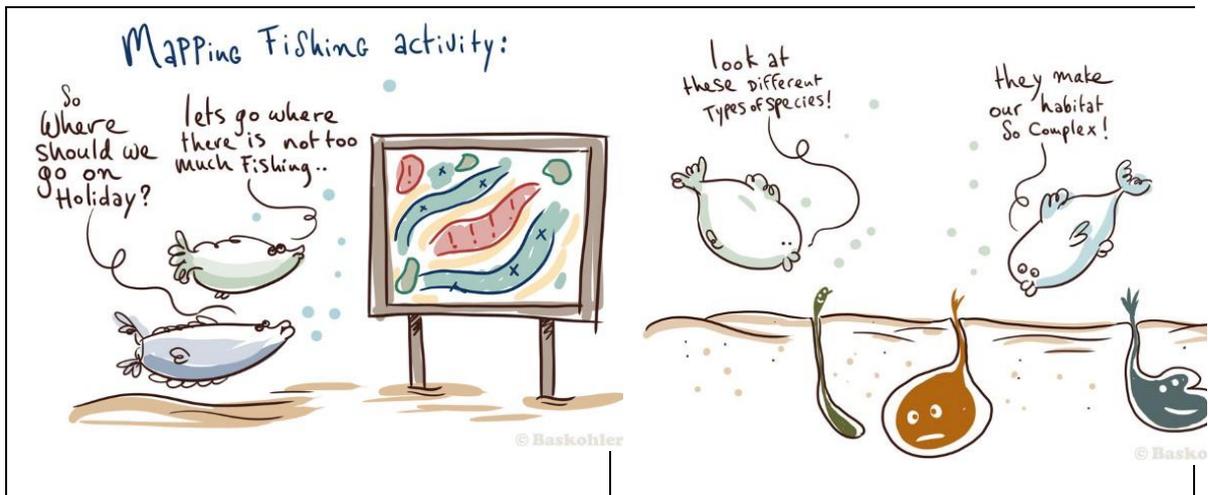
3.4 Drawings

While the presentations took place and the subsequent question rounds an illustrator picked up different aspects and presented them to the workshop audience in two “wrap up” sessions in relation to session breaks. The entertaining drawings helped the participants overturn a perhaps conventional way of thinking. The illustrations from the first part of the workshop are copied below.

Figure 1: Drawings illustrating the first part of the workshop







4 FINDINGS FROM STAKEHOLDER INTERACTION

The second part of the workshop was facilitated by Dr Martin Pastoors (MP) from IMARES Wageningen UR. This part of the workshop was organized as partly open discussions and group discussions.

4.1 What is impact and how to measure it?

As stated earlier the purpose of the EU stakeholder workshop was to clarify the common understanding of the impact concept in the BENTHIS project. The process started at a common and overall level and moved to a regional level subsequently.

4.1.1 Common understandings

MP initially requested all participants to write down 5 impacts (s)he finds important in relation to 'impact of gears to the ocean floor'. The participants had about 5 minutes for the task. Then he asks them to select 3 impacts that is most important and to write them down on a post-it¹¹. Then every group (arranged by the table where they are seated) is asked to stick these 3 impacts to the wall and try to cluster them whilst doing so.

The result is a wall demonstrating important impacts or important issues related to impact (21 post-its) according to the workshop stakeholders - see picture below.

Figure 2: Wall of post-its



Three volunteers from the audience (different backgrounds, regions and gender – taken into account when appointed by MP) are asked to demonstrate how they perceive the post-its cluster the impact posters in appropriate categories and write these categories on a new post it.

¹¹ All post-its have the same colour as the idea is that we will get an overview of our collective ideas as a group.

Figure 3: The volunteers “representative” is presenting the clusters of impact



The impact posters put forward by the workshop stakeholders were organized in nine impact clusters by the volunteers:

- 1) Governance (discard)
- 2) Food production
- 3) Removal
- 4) Natural resilience
- 5) Catch functions
- 6) Food web
- 7) Biology
- 8) Physical
- 9) Biodiversity

When discussing the results of the impact clusters in plenum subsequently the discussions reflects that there are as many views on impact as persons present at the workshop and it is complex answering the “What is impact?” question in a simple way - there are several levels and perspectives and we need to clarify what approach should be chosen?

How do we approach the benthic ecosystem?

– From a “wilderness” perspective or from a “productive” perspective?

It is finally summarized that the answer to impact *is* clustered e.g. in negative or positive impact or in the functioning of the ecosystem compared to providing food to the world population. It depends on the perspective.

Workshop participants were asked to categorise the clusters on the wall with three coloured post-its: pink, green and yellow. Participants were encouraged to appoint the impact post-its in relation to these three meanings:

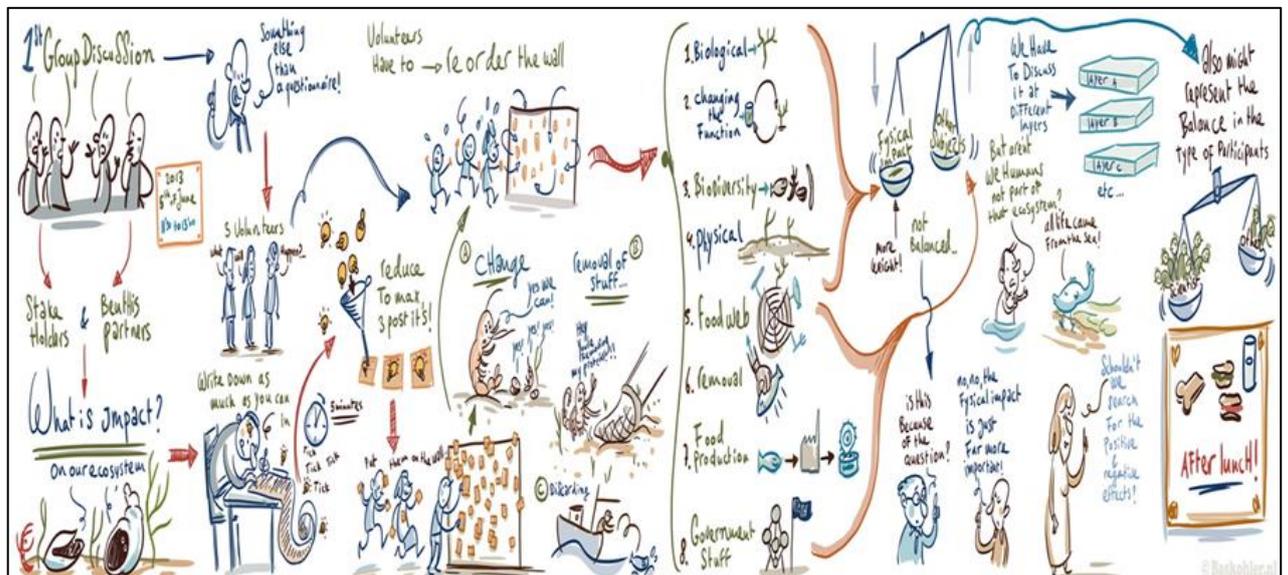
- Pink have negative connotation
- Green have positive angles
- Yellow were combined

However, most of the post-its didn't make use of negative or positive attributes, but used "neutral" framing.

For further details about the discussions - see Appendix C.

The illustrator picked up the discussions in the overall drawing below.

Figure 4: Overall drawing wrapping up the "What is impact" question



To further clarify the impact-concept in a regional context the workshop audience are organized in three groups:

1. Baltic Sea
2. Mediterranean and Black Sea
3. North Sea

The groups are encouraged to come up with suggestions on how to define impact and how to measure impact in their region within the framework of the BENTHIS project. They have approximately 30 minutes.

The three groups are mixed with representatives from NGO's, fishermen's organizations, government and scientist (the NGO's and scientists regardless of affiliation).

4.1.2 Baltic Sea

In the Baltic Sea group stakeholders initially discussed how to approach the "What is impact" question but compared to the other groups there was also focus on the subsequent "How to measure impact" question.

"First we have to clarify the state of the benthic ecosystem, measure the pressure of the ecosystem. Secondly we have to decide what an acceptable pressure is.

In the Baltic we have four habitat types and for these four types we need to demonstrate the impact of fishery. How much pressure will we accept for each habitat type and what knowledge do we need in order to decide? We need to take a risk-based approach².

The important question to consider is: What is both economically and ecologically effective? That will lead to sustainable solutions!

There is a good stakeholder engagement in the Baltic Case study; we feel we made a good start".

4.1.3 Mediterranean and Black Sea

In the Mediterranean and Black Sea group the focus was on the need for data as a precondition for assessing an acceptable level of impact.

"We discussed what do we know already and what is BENTHIS hoping to contribute. In general we need more knowledge of the functioning of habitats in the Mediterranean and Black sea regions. We need data within:

- *Mapping of habitats*
- *Mapping of effort*
- *Which habitats have the most important functions*
- *Technical functions of gears*
- *Spatial allocation of grounds*
- *MSFD sea floor indicators*
- *Socio-economic impact of increasing/decreasing fishing effort (the fleet)"*

² Risk defined as: A probability or threat of damage, injury, liability, loss, or any other negative occurrence that is caused by external or internal vulnerabilities, and that may be avoided through preemptive action.

We considered what can be the most important messages of BENTHIS to Government. Look at the technical details of gears, spatial allocation of grounds and make changes needed. But there is a lot of data missing.

4.1.4 North Sea

The discussions in the North Sea group were focused on functioning consequences, biodiversity and fish yield.

When discussing decision- making on the impact matters, the role of politicians was also involved and some stakeholders suggested that politicians could be part of the coming stakeholder process to some point.

The discussions in the three groups are active and engaged and in general there is a positive and mutual understanding of the individual stakeholders starting points.

Appendix C presents a more detailed summary of the plenum discussions at the workshop and the group presentations.

5 CONCLUDING REMARKS

The summary from the three groups were presented in the workshop plenum and as a final conclusion representatives for the stakeholder groups attended were asked to reflect on key “take away messages” of the stakeholder workshop.

Scientist: .. If we protect features here, it can have negative consequences there – perhaps we don’t appreciate that yet ..

Scientist gear: I am happy to see that technology unites people, I had the feeling that in all stakeholder events technology is recognised as a way to obtain policy objectives to the marine environment, coming from different backgrounds..

Industry: .. What I take home is to repeat the message that the industry needs to be involved: Share info and have your voice heard. Participate; times change. We can trust each other.

What I take away is that these projects, because starting from a specific point of view, are mono-oriented towards biology. Ecology is involved, but economics aren’t. We need more economic and sociological information; we (humans) are part of the ecosystem ...

NGO: I came here also to learn. I learned a lot from the Mediterranean and Black Sea session. I normally focus on the North Sea, so this was a nice experience, which helps me to put it in a wider perspective. The North Sea is more about the possibility of effects of bottom trawling; and about which areas should be protected. Stakeholders in the Mediterranean highlight different perspectives. For instance - capacity of the fleet ... in other areas other issues might be more important ..

EU: ... The real gap is how to frame knowledge in legislation. A lot is nice science, but not useful from a policy perspective. Issue of trust: monitoring: what should we try to monitor and how to

do it. I would like to ask you, take a step back from science and look at policy. The final report will not have impact unless it is contextualised. And how do you demonstrate: prove what you do! Otherwise it will be of limited use.

BENTHIS Coordinator: My take home message is that we should pay a lot of attention to this process of engagement with stakeholders. It is not easy ... We saw that there is a functionality versus biodiversity debate within science – we have no criteria to choose. I think science can offer scenario's so that the societal debate and political decision can be based on science. Hopefully in an open and trustworthy manner, so fights will not be continued because then we will not be heard in decision making. That is the role of BENTHIS. There is the sincere intention of scientists to be transparent and open and engage with stakeholders about it, and accommodate differences in views in the work packages we have – look for the best match to questions of society.

APPENDIX A: LITERATURE ON STAKEHOLDER ANALYSIS AND MAPPING

- Mitchell, Agle et al. (1997) proposed a classification of stakeholders based on power to influence, the legitimacy of each stakeholder's relationship with the organisation, and the urgency of the stakeholder's claim on the organization. The results of this classification may assess the fundamental question of "which groups are stakeholders deserving or requiring manager's attention, and which are not?" This is salience - "the degree to which managers give priority to competing stakeholder claims" (Mitchell, Agle et al., 1997:854)
- Fletcher, Guthrie et al. (2003) defined a process for mapping stakeholder expectations based on value hierarchies and Key Performance Areas (KPA),
- Cameron, Crawley et al. (2010) defined a process for ranking stakeholders based on needs and the relative importance of stakeholders to others in the network.
- Savage, Nix et al. (1991) offer a way to classify stakeholders according to potential for threat and potential for cooperation.
- Turner, Kristoffer and Thurloway (2002) have developed a process of identification, assessment of awareness, support, influence leading to strategies for communication and assessing stakeholder satisfaction, and who is aware or ignorant and whether their attitude is supportive or opposing.
- Kennon, Howden and Hartley have developed a stakeholder analysis tool better suited to project planning, which allows project teams to consider the important human and social capital resources required to improve project planning and implementation.
- Gregersen (2011) has demonstrated a stakeholder analysis in order to obtain a balanced view with regard to practicality and acceptability of precision livestock farming (PLF) technologies within the livestock and aquaculture industry, especially focusing on agreement and disagreement among stakeholders towards PLF, requirements on contribution and reward from each stakeholder and possibilities for new practices and procedures arising from PLF.

APPENDIX B: AGENDA FOR STAKEHOLDER WORKSHOP

Agenda for the BENTHIS

Stakeholder Workshop

Haarlem, Wednesday, 5 June 2013

Venue: Stempels, Haarlem

Local organizer: Gerda Booij (tel: +31(0)317487120, +31(0)612916864

The main objective with the 1st EU-level stakeholder workshop is to obtain a common understanding of the problems, discuss the approach and agree on technological and management innovations to explore

8:30 Coffee

9:00 Welcome and introduction of attended stakeholders by Olavur Gregersen, Syntesa

9:15 Presentation of policy perspectives on benthic impacts

by representative from DG ENV (15 min. presentation and 15 min. Q&A)

by representative from DG MARE (15 min. presentation and 15 min. Q&A)

10:00 Presentation of the Benthis ecosystem approach:

- Mapping of habitats and benthic impact from fisheries by WP2 leader DTU Aqua (15 min.)
- Identification and quantification of functions in the Benthic ecosystem by WP3 leader CEFAS (15 min.)
- Effects of fisheries on ecosystem by WP4 leader Bangor University (15 min.)

10:45 Coffee/tea break

11:00 Presentation of the Benthis pan-European stakeholder analysis of the 1st Regional Stakeholder Events by Durita Djurhuus, Syntesa

11:30 1st Group discussion between stakeholders and Benthis partners: What is impact? Discussion of what we are referring to as negative and/or positive effects of fishing on the benthic ecosystem. The outcome of the discussion shall be shortlist of different types of impact, including agreement/disagreement among stakeholders in relation to the different types of impacts identified. Discussion moderated by group facilitators

12:30 Presentation in plenum by group facilitators

13:00 Lunch break

14:00 2nd Group discussion between stakeholders and Benthis partners: How can we measure impact? Based on the type of impacts identified in the plenum session, discuss how to measure the impact on the benthic ecosystem. The outcome of the discussion shall be ideas and advise on methods that can be used in the Benthis project to measure the impact. Discussion moderated by group facilitators

15:00 Presentation in plenum by group facilitators

15:30 General discussion and wrap up by panel of stakeholders (Fishing industry, Authority and NGO) and scientists (ecology, gear, management) moderated by Olavur Gregersen, Syntesa

16:15 Closing of the Stakeholder Workshop by Adriaan Rijnsdorp, Benthis Coordinator.

16:30 Refreshments and "after talks".