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Science, Technology, and Society Initiative to Minimize Unwanted Catches in European Fisheries

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Deliverable 2.1 Implementation plans (pilot fisheries)**

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Authors: CIBM&APLYSIA team; M. Rangel, A. Campos, P. Fonseca, J.M.S. Gonçalves, L. Bentes, K. Erzini, M. Castro (CCMAR); J. Ríos (WWF) & F. Maynou (CSIC); A. Foutsis & G. Paximadis (WWF); A.M.Grau, E. Pastor, M.M.Gil (DGMRM)&B.Morales-Nin (CSIC); J. Salvador Aguilar (DGMRM), B. Morey (DGMRM) & B.Morales-Nin (CSIC); George Tserpes (HCMR)

Contact person:

Dr. F. Maynou

maynouf@icm.csic.es

<http://www.minouw.icm.csic>



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RESEARCH & INNOVATION

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“Implementation Plan (pilot fisheries)”

1. Introduction

Promoting positive change directly working with fishermen is the one of the main goal of MINOUW project. For this change to be meaningful, long-lasting and self-sustaining in the long run the MINOUW project envisaged placing stakeholders at the core of the action: multi-stakeholder engagement and participative design and implementation of actions were raised at the level of a central “social” methodology. In a way, multi-stakeholder participative work became the delivery mechanism to bring positive change – i.e. increased selectivity - to European fisheries. This is in agreement with the strengthened focus on stakeholder participation in the EU CFP.

The “social work” applied in the first implementation year of MINOUW has elements in common with participatory research but also with broader fisheries co-management. Usually, the former appeared in the initial phases of the planned stakeholders field work, when researchers and fishers worked together on the available data (which include traditional environmental knowledge) and agreed on solutions to test in the field. It further developed in the implementation phase (the implementation plan) through monitoring (based on community-based data collection) and adaptive management (through fine tuning of interventions). It is often considered that participatory research can pave the way to true co-management, thought to be a natural way to rationalize fisheries management (all this is aligned with the idea that “co-management is a way to avoid problems” according to EC DGMARE).

The project performed field actions in a total of 11 case studies, mostly related to fisheries based on trawl, purse seines and static nets. WWF had the role as coordinator of the social solutions in WP2. In particular, WWF provided overall guidance on multi-stakeholder participatory work to the teams involved in the case studies.

Notwithstanding the high heterogeneity among fishing realities in the European seas and the logical need to avoid a “one size fits all” approach, as well as the need to anchor any field work on an adaptive management approach, the work was done according to an “ideal” common methodological approach surrounding all work with stakeholders.

The applied methodology followed the different steps detailed hereinafter.

In the field, CS leaders adapted to effectively tailor this methodology to the specific conditions of each case study.

By using this methodology, WWF collated the implementation plan presented in this document (see paragraph 3.1).

2. DESCRIPTION OF THE SOCIAL INTERVENTION

Where field work with stakeholders has been planned (Algarve, Catalan Sea, Sicilian Channel, North Aegean Sea, Aegean Sea, Adriatic Sea, Tuscany, Balearic Islands), the work, done in the first year, was structured in 4 steps to jointly characterize of the problem and to identify the needed field actions.

During the second and third years of the project the fishers involved in the experimental field tests will be routinely visited, at least once a month. At these “on-the-dock meetings” fishers should report to the Project field technicians on the implementation of the new measures and, eventually, submit relevant data pertaining to the data-collection and monitoring scheme. The field technicians will act as an interface between the scientific team and the fisheries collective, and will assist in fine-tuning the field work following an adaptive approach. Adaptive management based on continuous feedback is in fact an essential element of a successful participatory research program. Therefore, a further mid-year stakeholder round table per year will be conducted in Year 2 and 3 gathering together the same people attending the planning meetings in Year 1, to follow-up in detail on the on-going field experiences.

2.1. Year 1

2.1.1 Step 0 - Stakeholders analysis and action plan

The project partners responsible for a field case study listed the concerned actors (hereinafter stakeholders). Roles and links among these identified stakeholders were understood and established. It was important to make a broad and inclusive analysis, also taking into account any relevant external stakeholders highly trusted by fishers (who might have eventually helped the Project getting their buy - in). Based on this, the precise timing of the meetings included in Step 1 and 2 below were planned.

2.1.2 Step 1 and 2 – Seeking Institutional support from administration and engaging the fishing sector at institutional level

Even if the nature of our social work was based on a bottom-up, multi-stakeholder participatory approach, it has been very important to secure the institutional support from the administration/s competent in the fishery. Further, from a fisheries co-management perspective, the competent administration is always a key stakeholder in the process. Such support is of a two-way nature: on one hand it helps to provide for the necessary enabling conditions for the field interventions and it can also establish synergies to maximize dissemination and outreach of best practices, including replication. On the other hand, counting on the support from the administration helped convincing initially reluctant fishers, who might decide to engage lured by prospects to increase their profile vis-à-vis the competent local authorities.

A similar approach was adopted with the fishing sector. Even though the fishing sector’s internal institutional architecture differs in the different countries, it was important to avoid internal frictions by respecting the sector formal structures engaging them in the project. Even if the work was developed in a preselected fishing

port and it was expected to involve only a part of the fleet, it was important to seek the institutional engagement/endorsement of the formal fishermen representative structures (regional or national fisheries associations, Cofradias, or the like). After achieving the endorsement and participation from the sector, in certain case studies a small workshop or working meetings including fishermen and representatives from the concerned administrations were organized.

2.1.3 Step 3 Introductory Meeting

After the institutional support of both the administration and the fishing sector was obtained and a specific fishing fleet/fishing port was selected for the field work, it was important to get the buy in from the local fishing community. During the first year of work was vital to be able to regularly engage the maximum number of local fishers from the selected fishing segment (e. g. bottom trawlers, purse seiners, small-scale netters, etc.). Fishers were engaged in technical discussions so it was important anyone with expertise participates (this included skippers and crew or boat owners, as appropriate and possible). An introductory meeting needs to be conducted to engage the community, with support from institutional fisher's leaders and staff from the fishing administration (or other actors identified in Step 0 –such as social scientists, local NGOs, gear manufacturers, buyers, technologists, etc.) if deemed appropriate.

It was important that local fishers understood they were at the core of the intervention, and that any decisions on specific measures to be tested was ultimately taken by them. Also, it was important they understood that the project was an opportunity: they were given a unique privilege to propose and have a say on innovative ways to minimize the potential impacts of the landing obligation on their activities. Work with the fishing sector gave equal weight to the “how” and the “what”: fishers were proactive seeking for solutions, participating in their design and taking responsibility over the implementation. In some of the case studies the solution proposed by the researchers were accepted as were presented, in other ones potential solutions and adaptations were suggested by fishermen.

2.1.4 Step 4. Regular multi-stakeholders workshop with fishermen

During the first year of the project regular working workshops were held with participation of fishers and scientists (and in some case studies facilitated by WWF) to 1) jointly gather qualitative and quantitative information on by-catch and discards and 2) jointly agree on potential solutions to be tested in the field.

To ensure maximum fishers' participation meetings took place very close to or in the fishing ports. Working meetings took place at regular intervals throughout the year. Generally, discussions were structured along the year as follows:

1. Characterization of the problem:

- Qualitative/quantitative assessment of fisher's perceptions and data, including temporal and spatial components (e.g. participatory mapping exercises), to

gather an initial set of elements for the discussion. In certain case studies, questionnaires were used.

- Joint discussion of data available to scientists.
- Joint diagnostic and characterization of the problem (incl. prior cross-validation and consolidation of all the available information).

2. Identification of field actions:

- Shortlist of proposals by fishers of potential solutions to be tested/implemented in the field (any solutions, including time/area closures, etc.). In certain case studies, conceptual model were prepared.
- Introduction by scientists of the technical solutions included in MINOUW (e.g. grids or deep vision), with technology experts attending in case of interest from fishers.
- Joint discussion of pros and cons and final decision on the interventions to be tested. Support from relevant administrations might be needed for certain type of interventions (e.g. a time/area closure).

3. Design of fishers-based data-collection & monitoring schemes:

- Joint design of a data-collection scheme based on the fishers to monitor the effects of the selected field action/s (incl. potentially an electronic support like mobile phone or tablet)

4. Agreement on formative actions required:

- Training and capacity building of end users in the new technologies and data collection schemes
- Field visits of some fishers to learn from other fisheries (exchange program).

3. AGREED INTERVENTIONS

At the end of the first year, after having followed the multi-stakeholders participatory approach (from step 0 to step 4), by having adapted and tailored it to the context of each case study, an agreed interventions plan was drafted by the each case study leaders (see Annexes). This intervention plan was included in a document describing the field work done in each case study. The list of these documents are presented in the paragraph 4 “Annexes”.

WWF collated all the planned interventions per case study in a single GANTT- style table (see paragraphs 3.2). These planned test field interventions will be performed in Year 2 and 3 (according to the plan presented by each case study leader) but only involving a very limited number of fishers out of the broader constituencies participating to the field work done in Year 1. In certain case studies (Tuscany) the multi-stakeholders approach (from step 0 to step 4) was not completed during the first year for different reasons, such as the lack of feeling between the fishermen and their representatives, the difficulties in organizing meetings with group of fishermen. However, due to the practical requirements of the project, field test activities and multi-stakeholders activities will be performed in parallel, so as not to jeopardize the production of deliverables. Further, in Tuscany, it was decided to take the chance of

interview process (WP1; T1.2) to explain the objectives of the project and to gather information on discards and possible solutions.

3.1. Pilot Fisheries and solutions to be defined or tested (synthetic overview)

1. CS 1.4 Catalan Bottom Trawling: *Regular monitoring on board; Lights for Norwegian Lobsters; Gear modification for red shrimp; Deep Vision; use of Mobile App*
2. CS 1.5 Sicilian Bottom Trawling: *grids to avoid juveniles; monitoring on board*
3. CS 1.6 Tuscany Bottom Trawling: *multi-stakeholders meetings and on board monitoring of fishing techniques, use of Mobile App*
4. CS 1.8 Tuscany Bottom Trawling: *multi-stakeholders meeting and on board monitoring of light fishing techniques, use of Mobile App*
5. CS 2.1 Adriatic Pelagic Trawling: *participation in the stakeholders consultancy to define the Adriatic small pelagic multiannual plan (within MEDAC and EC DG Mare consultation)*
6. CS 2.2 Algarve Purse seine: *Improving pre-catch identification; Enhancing the survival of unwanted catches by using slipping methods; Assessment of the survival of discarded sardines after passing through two different slipping methods; meeting with stakeholders, use of Mobile App*
7. CS 2.3 North Aegean Purse seine: *Monitoring to update discard rates; identification of the underlying causes of low discard rates; light-fishing techniques and pre-catch identification*
8. CS 3.3 Balearic Boat Seines: *Monthly stakeholders meetings; regular monitoring on board, Biological studies, revision of multiannual plan*
9. CS 3.4 Catalan Trammel Nets: *Regular Monitoring on board; Lights for fisheries targeting invertebrates; Selvedge net, use of Mobile App.*
10. CS 3.5. Tuscan Trammel Nets: *Stakeholders meeting; experimental trials with selvedge, use of Mobile App*
11. CS 3.6 Aegean Longline Swordfish (SWO): *Circle hooks*

3.2. Implementation plan

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		Jan	Feb	Mar	Apr
	2016	1	2	3	4	5	6	7	8	9	10	11	12	2017	1	2	3	4
Catalan Bottom Trawling																		
<i>Regular monitoring on board</i>																		
<i>Lights for fisheries Norw. Lobster</i>	1.4													1.4				
<i>Gear modifications for red shrimp</i>																		
<i>Deep Vision field test</i>																		
Sicilian Bottom Trawling																		
<i>Grid field experiments</i>	1.5													1.5				
Tuscan Bottom Trawling/lights																		
<i>On board observation/field test</i>	1.6													1.6				
<i>Regular fishermen visits</i>	1.8													1.8				
Adriatic Pelagic trawling																		
<i>Participation in public consultancy</i>	2.1													2.1				
Algarve Purse seiners																		
<i>Improving pre-catch identification</i>																		
<i>Enhancing Survival rates/slipping texts</i>	2.2													2.2				
<i>Survival assessment 2 slipping methods</i>																		
<i>Meeting with stakeholders</i>																		
N Aegean Purse seiners																		
<i>Update discrd rates</i>	2.3													2.3				
<i>Identification causes low discard rates</i>																		
Balearic Boat Seines																		
<i>Monthly stakehoders meetings</i>																		
<i>Regular monitoring on board</i>	3.3													3.3				
<i>Biological studies</i>																		
<i>Revision multiannual plan</i>																		
Catalan Trammel Nets																		
<i>Regular Monitoring on board</i>																		
<i>Lights for fisheries targeting invertebrates</i>	3.4													3.4				
<i>Selvedge test</i>																		
Tuscan Trammel Nets																		
<i>Selvedge field test</i>	3.5													3.5				
Longline SWO Aegena Sea																		
<i>Circle hooks field test</i>	3.6													3.6				

3.3. Implementation Plan commented

During the first year, the implementation of the multi-stakeholders approach was completed in some of the case studies; e.g. in the Catalan Sea, in the Sicilian Channel. In other, the multi-stakeholders approach was limited by external factors (such as the economic crisis, labor frictions, interactions between fishing sector authorities and fishermen, ...) which affected the relationships between the MINOUW researchers and the fishers; e.g. in Tuscany. In other case study, the multi-stakeholders approach took longer time than expected to be implemented and so experimental field tests started in parallel; e.g. in Portugal. In other case study, the approach did not need all the foreseen steps; e.g. in the Sicilian Channel where the fishermen were ready since the introductory meeting to test the gears (but they required additional funding mechanisms). Each case study had its own development that ended in the above implementation plan.

It was known and foreseen since the beginning of the project (and it was stated in the project proposal) that the high heterogeneity among fishing realities in the European seas would have implied that a “one size fits all” approach was not possible to be implemented. The proposed methodology was a scheme that was followed by the Case study leaders by anchoring each action to the field/stakeholders context and by using adaptive management approaches to get the fishers participation in testing the technological and social solutions.

4. ANNEXES

The above implementation plan was derived from the information included in the following 12 documents uploaded by the CS leaders in BASECAMP.

As the implementation plan develops, these annexes can suffer modifications and will be updated in BaseCamp.

1. WP2. Technological and social solutions. Deliverable 2.1 – Implementation plans (pilot fisheries) CS 1.2 Algarve Bottom Trawling: *uploaded in BASECAMP*
2. WP2. Technological and social solutions. Deliverable 2.1 – Implementation plans (pilot fisheries) CS 1.4 Catalan Bottom Trawling: *uploaded in BASECAMP*
3. WP2. Technological and social solutions. Deliverable 2.1 – Implementation plans (pilot fisheries) CS 1.5 Sicilian Bottom Trawling: *uploaded in BASECAMP*
4. WP2. Technological and social solutions. Deliverable 2.1 – Implementation plans (pilot fisheries) CS 1.6 Tuscany Bottom Trawling: *uploaded in BASECAMP*
5. WP2. Technological and social solutions. Deliverable 2.1 – Implementation plans (pilot fisheries) CS 1.8 Tuscany Bottom Trawling: *uploaded in BASECAMP*
6. WP2. Technological and social solutions. Deliverable 2.1 – Implementation plans (pilot fisheries) CS 2.1 Adriatic Pelagic Trawling: *uploaded in BASECAMP*
7. WP2. Technological and social solutions. Deliverable 2.1 – Implementation plans (pilot fisheries) CS 2.2 Algarve Purseine: *uploaded in BASECAMP*
8. WP2. Technological and social solutions. Deliverable 2.1 – Implementation plans (pilot fisheries) CS 2.3 North Aegean Purseine: *uploaded in BASECAMP*
9. WP2. Technological and social solutions. Deliverable 2.1 – Implementation plans (pilot fisheries) CS 3.3 Balearic Boat Seines: *uploaded in BASECAMP*
10. WP2. Technological and social solutions. Deliverable 2.1 – Implementation plans (pilot fisheries) CS 3.4 Catalan Trammel Nets: *uploaded in BASECAMP*
11. WP2. Technological and social solutions. Deliverable 2.1 – Implementation plans (pilot fisheries) CS 3.5. Tuscan Trammel Nets: *uploaded in BASECAMP*
12. WP2. Technological and social solutions. Deliverable 2.1 – Implementation plans (pilot fisheries) CS 3.6 Aegean Longline Swordfish: *uploaded in BASECAMP*

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