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Coordinated Development and Implementation of Best Practice in Bycatch Reduction in the North Atlantic Region (CIBBRiNA) – an international bycatch project proposal

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LIFE EU Bycatch project 'CIBBRiNA' – brief proposal outline

Coordinated Development and Implementation of Best Practice in Bycatch Reduction in the North Atlantic Region

Introduction and goal:

The goal of this project is to achieve EU cross-border cooperation and fisheries engagement to establish regional monitoring programmes, building on existing national programmes, to achieve a step change in the reliability of bycatch rate estimates and further develop, test, and implement effective mitigation measures for the incidental bycatch of marine mammals, birds, turtles and non-commercial fish in the most important gear types, such as static and pelagic gears. The Netherlands Ministry of Agriculture, Nature and Food quality aims to submit a proposal for EU funding (under the LIFE programme) in cooperation with relevant EU-stakeholders from governmental organisations (fisheries and environment), the fisheries sector, research institutes and NGO's to jointly achieve this goal.

Main timeline of the EU LIFE call for proposals (expected dates, not published yet):

- Publication of the call: end June 2021
- Deadline for submission of full proposal: October 2021
- Earliest possible starting date of the project: July 2022.

Short project outline (first version for discussion)

In accordance with the template for LIFE-proposals, the project actions are divided into A (preparatory), C (conservation), D (monitoring), E (dissemination) and F (project management)-actions. A first proposed structure is provided in the figure below and is further detailed in the subsequent paragraphs.



- A. Preparatory phase: development of assessment framework and action plan;
- C. Implementation phase: conservation actions field monitoring and demonstration of mitigation measures;
- D. Monitoring and evaluation: analysis of information, assessing effectiveness and feasibility of measures
- E. Dissemination of the results and efforts aimed at structurally embedding the methodology and measures in international agreements

A. Preparatory actions

A.1 Development of an Assessment Framework to assess conservation implications of bycatch

The objective of this action is to develop a framework to assess bycatch rates, building on the work done by ICES, OSPAR, HELCOM, ASCOBANS and STECF.

<u>A.1.1 Statistically robust design/data checks/data needs of different users</u>: This action comprises the development of a robust sampling design. It will set up an experimental design combining data from abundance surveys, such as SCANS and SAMBAH and also identify data streams which are limited. It will build on and support work on automated data analysis, as far

as this up-to-date technology can be used for bycatch, considering potential privacy concerns. Agreements on data use have to be made with all parties involved beforehand.

• <u>A.1.2 Data stream optimization</u>: This sub action feeds into A.1.1 and includes assessing and incorporating the data needs of different users. A.1.1 relies on data from the whole chain of species abundance estimates, fisheries effort and bycatch numbers. The first phase of the project would therefore identify which data streams can be obtained and optimised, to result in the most statistically reliable estimates of mortality rates due to bycatch.

A.2 Development of a Suitability Assessment Framework

This framework will provide an inventory of options for both monitoring and mitigation through technological and management innovations in order to assess their effectiveness, viability and feasibility (factors of success). The assessment framework will be improved during the subsequent actions.

A.3 Socio-economic aspects

This action will investigate socio-economic aspects, such as cost/benefits of different measures, marketbased approaches to incentivise up-take and compliance with bycatch management measures.

- <u>A.3.1 Mapping the supply chain:</u> This sub action focusses on mapping the supply chain in order to improve transparency and market value for sustainable fisheries. Switching to lower risk gear ultimately should also result in higher quality and value of catch.
- <u>A.3.2 Incentives for sustainable fisheries:</u> This sub action specifically looks at (financial) incentives for sustainable fisheries, such as credit schemes or compensation for costs involved with switching to alternative gear. What is the potential in terms of transparency and sustainable fisheries of certification bodies.

C. Conservation actions

C.1 Funding mechanisms (fisheries and monitoring)

Establish a financial mechanism to sustainably finance mitigation/ management and (long term) monitoring. Currently, acquiring the necessary funding for monitoring even basic obligations is challenging, let alone funding of additional monitoring (e.g. of bycatch on small scale vessels). Different possibilities for EU funding (EMFF, LIFE IP or INTERREG) will be explored, as well as the creation of a separate fund and/or other mechanisms for countries to contribute (e.g. IGO's such as the IWC).

C.2 Fisheries perspective: stakeholder participation

Uptake and compliance of monitoring and measures to reduce bycatch are often low and monetary incentives are not always effective. To bring about behavioural change, it is essential to involve the people who are expected to change their behaviour from early on, i.e. the fishers. An important dilemma is the tension between bycatch reporting or mitigation and the societal perceptions and judgements.-s. Another aspect, the practical use and implementation on board of monitoring and mitigation tools is often overlooked and is another hurdle for active participation.

- <u>C.2.1 How to set up a joint project with fishermen</u>: To include the fisheries sector in the project from its earliest stages, stakeholder participation will be based on best practices from previous projects in the industry (e.g. the <u>Benthis project</u>, the <u>Dutch REM project</u>). The main aim is to understand the sector's needs and concerns from their perspective whilst creating a support base for monitoring and mitigation measures.
- <u>C.2.2 Peer to peer dialogue</u>: The issue of bycatch and possible solutions, such as (non-monetary) incentives should be discussed with and among fishermen. An important aspect is organising

cross-border (peer to peer) exchanges of knowledge, best practices and experiences with bycatch mitigation methods within the fisheries sector. The project must be transparent about potential long-term consequences and at the same time make it interesting to fishermen to help develop economically viable alternatives.

• <u>C.2.3 Learning from US MMPA Take Reduction Team:</u> Lessons learned from approaches such as the MMPA Take Reduction Teams and other initiatives should be taken into account and built on using existing bodies such as the advisory councils (ACs).

C.3 Mitigation toolkit

Investigating the development and testing of bycatch mitigation methods, such as alternative or modified gears, acoustic deterrent devices such as pingers, but also area closures in high-risk areas will result in a toolkit of assessed to be successful mitigation measures – specifically suited to European fisheries and European marine mammal, birds, turtle and non-commercial fish species - that are potentially fisheries, region, and/or species specific. The mitigation toolkit will be developed in close cooperation with fishermen and build on current knowledge and expertise including the FAO Technical Guidelines on reducing and eliminating marine mammal bycatch.

A specific action is dedicated to species ecology and behaviour in relation to different gears and mitigation methods:

• <u>C.3.1 Species behaviour and ecology:</u> There still are many uncertainties as to why animals are bycaught, especially younger animals. This action will be holistically investigating behaviour of key PET species in relation to gear interactions and following from that, effects of different mitigation methods trialled.

Mitigation methods trialled include:

- <u>C.3.2 Alternative fishing gear</u>: The use of alternative gears (e.g. fish pots, large-scale fish traps, mini Danish-seine or line fisheries for cod) other than bottom-set gillnets are investigated (on practicability and economic viability), potentially also in areas currently closed for fisheries such as wind farms or protected areas. Additionally, creating incentives for the use of alternative gear may also be explored. See also C.2.
- <u>C.3.3 Net modifications:</u> Trialling of specific visual modification to nets designed to minimise bycatch, such as LED lights or looming-eye buoys, as well as acoustic gillnet modifications. These can be active acoustic modifications, such as newer, smaller and lighter pingers to establish if/how they affect catch rates, depredator attraction, work practice and possibly habituation effects are affected. Alternatively, passive acoustic modification includes the investigation of highly acoustically visible gillnets regarding catch efficiency and bycatch reduction as well as handling issues and practicability in a commercial setting.
- <u>C.3.4 Time/area closures in high-risk areas:</u> Investigating whether these areas can be mapped in space and time, according to high-risk species and fisheries distribution and effort, and subsequently whether time area closures would be suitable to address species and area/season specific issues.

C.4 Development of data collection and monitoring tools.

The main objective of this action is to significantly increase the reliability of bycatch assessments at population level by continuing and expanding methods that are currently in use, such as self-reporting, observers and Remote Electronic Monitoring (REM), requiring joint international collaboration and effort from all stakeholders involved. Reporting formats need to be further standardised, building on work within ICES, to be able to extrapolate data across fleets. This action will involve:

- Fisheries effort: developing a system (such as AIS, an adapted REM system or real-time data logging system) to facilitate the collection of accurate and complete information on fishing effort, including fishing location, net use (single-walled gillnets or trammel nets), net specifications (net length, height and mesh size) and soak time.
- Bycatch rates: improving bycatch monitoring methods, such as observers, enhancing fisher engagement and willingness for self-reporting and making use of a cost-effective and mobile Remote Electronic Monitoring (REM) system to allow a representative and effective coverage of the fleet. This includes trialling together with fishermen what practical methods work optimally.

C.5 Upscaling of monitoring and mitigation

Different methods will be tested in pilot studies and assessed for suitability in the assessment framework developed under A1. As the potential for upscaling in different countries depends on so many factors, all the countries are then assessed for the suitability (e.g. socio, economic, fishery specific issues) of the trialled mitigation measures which would provide a way forward to roll out the solutions in a systematic way. Furthermore, if some methods are only tested in a few places, groundwork needs to done in more countries to see how the tools/approaches could be applied there. In the last phase of the project, this scaling up will form the basis for the monitoring programmes and Joint Recommendations to be implemented by countries.

D. Monitoring of the impact of project actions

D.1 Monitoring of progress towards achieving the project objectives.

Based on the data collection and monitoring tools developed in action C.6 and the assessment framework in A.1, information will be gathered and analysed that will not only be used to measure the effectiveness of the mitigation measures but will also provide relevant input on the effectiveness of the monitoring tools and options to further refine these.

D.2 Monitoring of socio-economic impacts.

Long term monitoring of the results of action C.3, concerning socio-economic impacts, such as the costs/ benefits of different mitigation options.

E. Public awareness and dissemination of results

E.1 Joint recommendations

The objective of this action is the drafting of Joint Recommendations based on the information gathered in all previous actions (or to assess whether JRs are the most suitable instrument to implement measures of whether there are other opportunities). It includes the synthesis of project results and formulating conclusions that can be generally applied into a roadmap for the (EU political) process for implementation.

E.2 (International) harmonisation of monitoring activities

Establishing contact with relevant international organisations to embed the standardisation of monitoring activities and their (long term) funding in existing agreements.

Ultimately the results of C.5 and C.6 will be used to identify the most optimal monitoring methods suitable for the assessment of bycatch rates within different countries, which could subsequently be implemented in addition to (and where possible integrated with) existing ongoing monitoring programmes.

E.3 Reporting and dissemination of results

Throughout the project there will be activities to disseminate the (interim) results to all parties involved and other stakeholders. Activities related to the development of a project website, a layman's report, notice boards and other, additional forms of communication, such as outreach to fishermen from peerto-peer communication or a video. This would also entail reporting and dissemination and scaling up internationally through sharing experience and results, as well as submitting and implementing recommendations within IWC, ASCOBANS, OSPAR, HELCOM and others.

E.4 Networking with other projects (incl. LIFE)

Obligatory Action aimed to ensure alignment and synergy with other projects, such as CetAMBICion, and avoid duplication of work.

E.5 Scientific Output

Scientific publication of results, which should all be open access.

F. Project management

F.1 Management and project coordination

The project will have a concise and efficient management structure with a several decision-making bodies and advisory bodies, including a Project Coordinator (PC), Project Management Team (PMT), a general assembly (GA) which will be responsible for the long-term strategic direction and decision-making, a Steering Committee (SC) and a Stakeholder Board (SB). Dedicated action/task leaders will be responsible for the implementation of project actions on a day-to-day basis.

F.2 Monitoring progress and reporting to the EU.

The Project Coordinator (PC) will be responsible for coordinating the scientific and administrative management of the project and will ensure progress reports are timey provided to the EC.

Planning: the path forward to the start of CIBBRINA

As indicated in the timeline above, the first milestone on the path to obtaining funding under the LIFE programme will be the submission of a (high quality, broadly supported) Concept Note by mid-July 2021. The ministry of Agriculture, Nature and Food Quality has in the previous year already been in contact with a considerable number of stakeholders from European countries (including B, DE, DK, ES, F, IR, PL, PT, S, UK). These stakeholders are currently contacted to explore their interest in jointly submitting a LIFE Concept Note.

The global planning to achieve this is as follows:

- January: circulation of this outline and inviting potential participants to a first (online) meeting
- January-February: bilateral meetings with interested parties on the outline
- Mid-February: circulating meeting documents to interested parties
- 4 March: first plenary online meeting
- March June: Further development of project outline on basis of meetings and input received, circulate draft version of full proposal for discussion
- June/ early July (depending on launch of LIFE call for proposals): 2nd meeting
- July August: fine tuning proposal, bilateral contacts for specific input on priority actions, arranging formal requirements
- Mid-September: final meeting confirmation of commitment, final comments and fine-tuning
- October: submission of LIFE Full Proposal.

Further information:

For further information on the content, objectives and priorities of the project, please contact:

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