

Agenda Item 6.1.1

Further Implementation of the Agreement

Species Action Plans

Recovery Plan for Baltic Harbour
Porpoises (Jastarnia Plan)

Information Document 6.1.1

**Concerning the Third Revision of the
Jastarnia Plan for Recovery of the
Baltic Harbour Porpoises**

Action Requested

- Take note

Submitted by

Coalition Clean Baltic & Whale and Dolphin
Conservation



NOTE:
DELEGATES ARE KINDLY REMINDED
TO BRING THEIR OWN COPIES OF DOCUMENTS TO THE MEETING

Information document to the 8th Meeting of the Parties to ASCOBANS, concerning the third revision of the Jastarnia plan for Recovery of the Baltic Harbour Porpoises

Coalition Clean Baltic and WDC
July 2016

Introduction

The ASCOBANS Recovery Plan for Baltic Harbour Porpoises (“the Plan”) was concluded in 2002 and was last revised in 2009. The draft for the third revision was developed by consultants in close cooperation with the Jastarnia Group and the ASCOBANS Secretariat, incorporating new knowledge from the SAMBAH project¹ which will be instrumental to ensure recovery of the Baltic Proper population of harbour porpoises.

General recommendations

The NGO signatories to this information paper welcome the revision of the Plan and its excellent review of the legal and institutional framework, current knowledge on population status, threats and available mitigation measures. We also welcome the proposed actions, which we think are well formulated and relevant. Monitoring of population status and bycatch rates as well as outreach activities are very important for the long-term conservation of the Baltic proper harbour porpoise population. However, the most important function of the Plan is to send a clear message on needed actions to policymakers and politicians in all countries parties to ASCOBANS. Given the critical status of the population, we therefore believe that more focus and priority should be given to the actions most needed to secure its survival, i.e. actions aiming to

1. involve stakeholders (including fishermen as well as the general public) and use available technology such as pingers, alternative fishing gear and reduced or eliminated fishing effort, to reduce the number of bycaught harbour porpoises in the Baltic towards zero;
2. minimise the impact of anthropogenic underwater noise through use of all available mitigation measures and internationally harmonised national threshold limits and guidelines, and
3. designate Marine Protected Areas for harbour porpoises, and implement strict management plans and effective fisheries regulation in those areas

These priorities should be clearly visible in the introduction to the Plan as well as in the actions section and in the summary table of actions. To achieve this, we recommend that the actions section, as well as the summary table of actions, should be rearranged and re-numbered to clearly indicate the most prioritised actions. This should also be reflected in the Executive Summary and the Introduction. Our proposed changes to these sections are attached here as Annex I - III. Proposed changes are made visible using track changes in Word, with the exception of rearranging of actions which is only visible by the changed position and numbering of actions.

To further strengthen and support the Plan, we also suggest that specific actions and/or recommendations based on the highest priority actions from the Plan are developed and recommended for adoption by the next HELCOM Ministerial Meeting in 2018.

Annex I: Executive Summary and Introduction

Annex II: Section 6. Actions

Annex III: Table 6. Summary of all Jastarnia Plan Actions

¹ www.sambah.org

Annex I: Executive Summary and Introduction

Executive Summary

This is the ASCOBANS species action plan for what is called Baltic harbour porpoise population primarily inhabiting the Baltic Proper. The population's abundance has recently been estimated at only 497 individuals (95% CI 80 – 1091) and it has a wide overall distribution range. During the winter season, it stretches from the Åland and Archipelago Seas in the north, to the Southern Baltic Proper in the southwest, and perhaps even further west thereof. In the summer season, however, when calving and mating take place, the majority of the population aggregates at and around the Hoburg's and Northern and Southern Mid-sea banks in the Baltic Proper. Thus, this area should be considered essential and probably the main breeding area for the Baltic harbour porpoise population. The population's current status calls for immediate conservation actions. Bycatch in gillnet fisheries has been recognized as the primary threat for the survival of the Baltic harbour porpoise population, although high contaminant levels are also of serious concern. Continuous and impulsive underwater noise and possibly also reduced prey quality are further contributing factors.

The Jastarnia Plan serves as a framework for international collaboration towards achieving ASCOBANS' interim goal of restoring the population to at least 80 per cent of carrying capacity, and, ultimately, a favourable conservation status for Baltic harbour porpoises.

The plan lists a number of actions, of which the following should be carried out as a matter of urgency:

1. Involve stakeholders, use alternative fishing gear, apply available technology such as pingers, and reduce or eliminate fishing effort to reduce the number of bycaught harbour porpoises in the Baltic towards zero.
2. [Minimize the impact of anthropogenic underwater noise through the use of all available mitigation measures and internationally harmonized national threshold limits and guidelines,](#) and
- ~~2.3.~~ Designate marine protected areas for harbour porpoises, [and implement stricy together with management plans and fisheries regulations monitoring schemes for efficient contribution to the protection and monitoring of the population in those areas.](#)
- ~~3.~~ [Minimize the impact of anthropogenic underwater noise through the use of available mitigation measures and implementation of internationally harmonized national threshold limits and guidelines.](#)

The outline of the Plan is as follows:

1. *Introduction:* An outline of the scope, context and policy setting of the Plan, including information on previous conservation management actions, as well as overall objectives.
2. *Legal frameworks:* A list of relevant legal frameworks, including international conventions and agreements, European and national legislation and management arrangements.
3. *Governance:* An outline of the management structure identifying the roles, responsibilities and interactions between the key stakeholders, as well as the timeline from the development stage through the implementation and review stages.
4. *Scientific background:* Information on biology, status, environmental parameters, critical habitats, and attributes of the population to be monitored.
5. *Threats, mitigation measures and monitoring:* A summary of the known or suspected threats together with a discussion of their evidence of impact, and the mitigation measures for the key threats and how they will be monitored.
6. *Actions:* Descriptions of actions including information such as concise objective, rationale, activity or method, timeline, actors and priority.

1. Introduction

The harbour porpoise is the only cetacean species occurring throughout the year in the Baltic Sea. Genetic (Wiemann et al., 2010), morphometric (Galatius et al., 2012) and distributional studies (Sveegaard et al., 2015; SAMBAH, 2016a) indicate a separate harbour porpoise population in the Baltic Proper. Since the mid-20th century, its numbers have declined drastically. This decline has probably been caused by a combination of factors: commercial hunting up to the end of the 19th century which was resumed during the two world wars (Lockyer and Kinze, 2003; Skóra and Kuklik, 2003), severe ice conditions during the first half of the 20th century (Svårdson, 1955), environmental contaminants (Beineke et al., 2005; Berggren et al., 1999) probably causing immunosuppression, increased disease risk and reproductive failure (Jepson et al., 2005; Murphy et al., 2015), and, most importantly during the last decades, the use of synthetic gillnets (Hammond 2008, HELCOM 2013). Visual aerial surveys conducted in the southern Baltic Sea in 1995 and 2002 indicated that only a few hundred animals remained (Berggren et al., 2004, 2002) (Annex 1, Figure 1). The population is currently listed as Critically Endangered (CR) by IUCN (Hammond, 2008) and listed in Annex II and IV of the Habitats Directive.

Figure 1. Map of geographical terms used in the Jastarnia Plan.

With the aim of estimating the abundance and mapping the distribution of the harbour porpoise in the Baltic Sea, the LIFE+ project SAMBAH (Static Acoustic Monitoring of the Baltic Sea Harbour Porpoise) was carried out (www.sambah.org). Based on an acoustic survey using harbour porpoise click loggers deployed at 304 locations from May 2011 to April 2013, the abundance of the Baltic harbour porpoise population was estimated at 497 individuals (95% CI 80 – 1091) (SAMBAH, 2016a). The SAMBAH survey area covered the waters of 5 – 80 m depth from the Darss and Drogden underwater sills in the southwest, up to and including the Åland and Archipelago Seas and the EU waters of the Gulf of Finland in the northeast (Figure 1). Modelled maps of the probability of detecting harbour porpoises show a spatial separation between the Belt Sea and Baltic populations during the summer season (Figure 1) (SAMBAH, 2016a). Particularly during May – August, i.e. when calving and mating take place (Börjesson and Read, 2003; Lockyer, 2003), the Baltic harbour porpoises aggregate at and around the Hoburg's and Northern and Southern Mid-sea banks in the Baltic Proper (Figure 1). During the winter season, especially during January – March, the animals are more spread out across the study area and they overlap spatially with the Belt Sea population (Figure 2; enlarged in Appendix I, Figures 2a – 2b).

Figure 2. Predicted probability of detection of harbour porpoises per month in the SAMBAH project area during May – October (left) and November – April (right). The black line indicates 20% probability of detection, approximately equivalent to the area encompassing 30% of the population, often used to define high-density areas. The dots or crosses show the probability of detection at the SAMBAH survey stations. The border indicates the spatial separation between the Belt Sea and Baltic harbour porpoise populations during May – October according to SAMBAH (2016a).

The current threats in combination with the low population abundance estimate call for urgent mitigation action to secure the survival of the Baltic harbour porpoise. The distribution maps provide the first thorough spatio-temporal basis for efficient conservation measures. In addition, the overall year-round distribution range clearly demonstrates the importance of international cooperation to optimize the success of such measures.

This is the third version of the ASCOBANS Recovery Plan for Baltic Harbour Porpoises (ASCOBANS, 2002, 2009). Among other things, the lack of data has inhibited the implementation of concrete conservation measures. Although a total of 17 Special Areas of Conservation (SACs) within the Natura 2000 network have been designated for harbour porpoises in Danish (1), German (11), Polish (4) and Swedish (1) waters east of the Darss and Drogden underwater sills, management plans including harbour porpoises are still missing for at least eight of those where the harbour porpoise population's status requires them.

1.1. Overall objectives of the Jastarnia Plan

ASCOBANS has the interim goal of restoring the Baltic harbour porpoise population to at least 80% of the carrying capacity. In order to work towards achieving this interim goal and, ultimately, a favourable conservation status for Baltic harbour porpoises, Baltic Range States should, as a matter of urgency, seek to reach the following objectives:

1. Involve stakeholders (including fishermen as well as the general public), and use available technology such as ~~and continue to develop~~ alternative fishing gear, and available technology such as pingers, and reduced or eliminated fishing effort to reduce the number of bycaught harbour porpoises in the Baltic towards zero.
2. Minimize the impact of anthropogenic underwater noise through the use of all available mitigation measures and implementation of internationally harmonized national threshold limits and guidelines, and
- ~~2.3.~~ Designate marine protected areas for harbour porpoises, and implement strict ~~together with~~ management plans including and monitoring schemes for efficient contribution to the protection and monitoring of the population, and effective fisheries regulation in those areas
- ~~3.1.~~ Minimize the impact of anthropogenic underwater noise through the use of available mitigation measures and implementation of internationally harmonized national threshold limits and guidelines.

In the short to medium term, the following objectives are of high priority:

4. Improve monitoring methods for bycatch and estimate bycatch rates, including their spatiotemporal distribution.
5. Further develop alternative fishing gear and other technology such as pingers, to be used to reduce the number of bycaught harbour porpoises in the Baltic towards zero.
- ~~4.1. Improve knowledge on population structure, assess population status and develop recovery targets.~~
- ~~5.6.~~ Improve knowledge, develop indicators or threshold levels, and assess impacts of habitat degradation, such as increased levels of anthropogenic underwater noise, contaminants and decreased prey quality.
- ~~6.1. Improve monitoring methods for bycatch and estimate bycatch rates, including their spatiotemporal distribution.~~
- ~~7.1. Increase public awareness of the threats faced by Baltic harbour porpoises, the need to take action to conserve the species, and the options for action. Cooperate between ASCOBANS and other international bodies.~~

In the long term, the following objective is of high priority:

7. Monitor the absolute abundance and population trend with high precision.
8. Improve knowledge on population structure, assess population status and develop recovery targets.
9. Increase public awareness of the threats faced by Baltic harbour porpoises, the need to take action to conserve the species, and the options for action. Cooperate between ASCOBANS and other international bodies.

Annex II: Section 6. Actions

6. Actions

The Actions in this section are organized in a logical order in broad terms. They are not in the order of implementation timeline or priority, but these are specified under each Action. [Actions are named using the following abbreviations: COOP = cooperation, PACB = public awareness and capacity building, RES = research essential for providing adequate management advice or filling in knowledge gaps, MON = monitoring, MIT = mitigation measures.](#) A summary of all Actions and their relations to the objectives of the Jastarnia Plan are given in section “6.7 Summary and implementation of actions”.

The underlying rationale for all Actions is to reach the ultimate goal of ASCOBANS, i.e. to reach and maintain a favourable conservation status of the Baltic harbour porpoise population. In addition to this, the Actions are also relevant, in general, to the fulfilment of the following HELCOM objectives, Ministerial Declarations and Recommendations:

- The HELCOM Baltic Sea Action Plan ecological objective on viable populations of species (HELCOM, 2007)
- The HELCOM ministerial declaration of 2010 acknowledging:
 - the step towards the implementation of an ecosystem based approach, and insofar the
 - beginning of the development of the Baltic Sea as a model of good management of
 - human activities, and
 - the ambitious ongoing work to produce red lists on species and habitats.
- The HELCOM ministerial declaration of 2013 deciding to:
 - implement a regional Strategic Plan for Biodiversity for the 2011- 2020 period of the UN Convention of Biological Diversity, including the Aichi Biodiversity Targets, bearing in mind that the implementation of the Plan in the EU and its Member States is carried out through the EU Biodiversity Strategy, and more specifically
 - take decisive action to work towards a favourable conservation status of the harbour porpoise based on implementation of the ASCOBANS Jastarnia Plan for the harbour porpoise in the Baltic Sea, in particular by addressing the pressing problem of bycatch.
- HELCOM Recommendation 37/2 (2016) concerning the conservation of Baltic Sea species categorized as threatened according to the 2013 HELCOM Red List.

6.31. Monitor, estimate and reduce bycatch

6.31.61. Action MIT-01: Reduce or eliminate fishing effort with gillnets or other gear known to cause porpoise bycatch in areas with high harbour porpoise density or occurrence, and/or in areas with high risk of harbour porpoise bycatch

Description

Objective:

- Reach bycatch levels at or below sustainable mortality limits.

Threats: Bycatch

Rationale:

As bycatch has been identified as the greatest source of mortality to harbour porpoises in the Baltic Sea, the fishing effort with gillnets and other gear types with high risk of harbour porpoise bycatch needs to be reduced or eliminated to reach bycatch levels at or below sustainable limits (RES-08). This applies to all vessels, regardless of size or type.

This Action is directly related to the implementation of the following Articles of EU directives or regulations:

- Habitats Directive Article 12(1b) concerning the establishment of a system of strict protection prohibiting all forms of deliberate capture or killing of Annex IV species within their natural range.

- Habitats Directive Article 12(4) concerning further conservation measures to ensure that incidental capture and killing do not have a significant negative impact on the Annex IV species.
- MSFD Article 1(1) referring to that necessary measures shall be taken to achieve or maintain GES by 2020 at the latest, especially with regard to descriptors 1 (marine biological diversity) and 4 (marine food web).
- CFP Article 2(3) referring to the implementation of the ecosystem-based approach to fisheries management as to ensure minimized negative impacts of fishing activities on the marine ecosystem.
- CFP Article 2(5j) referring to that the CFP shall be coherent with the EU environmental legislation, in particular the objective of achieving GES by 2020 as set out in MSFD Article 1(1).

This Action is directly related to the fulfilment or implementation of following the HELCOM BSAP actions of the biodiversity and nature conservation segment (HELCOM 2007) or HELCOM Recommendations:

- Development and implementation of fisheries management based on the ecosystem approach in order to enhance the balance between sustainable use and protection of marine natural resources.
- Cooperation between competent authorities and fisheries organizations for the designation of additional permanent closures of sufficient size for fisheries to prevent capture of non-target species to protect important reproduction and feeding areas and to protect ecosystems.
- HELCOM Recommendation 17/2(a) (2013) giving highest priority to avoiding bycatch of harbour porpoises, particularly following the recommendations of ASCOBANS and the ASCOBANS Jastarnia Plan, in order to achieve the ecological objective of reaching bycatch rates close to zero.

Activity or method:

- Reduce or eliminate fishing effort with gillnets or other gear known to cause porpoise bycatch, preferably in combination with the implementation of fishing gear with no harbour porpoise bycatch (MIT-01) to maintain vital fisheries.
- Focus on fisheries with high risk of harbour porpoise bycatch (RES-04), using the most relevant and current data.
- Involve fishermen and fisheries organizations for increased success and reliability of results (COOP-01).

Implementation timeline: Immediate

Actors

Responsible for implementation: National authorities, fisheries

Relevant stakeholders: Scientists, professional and recreational fishermen, fisheries and environmental NGOs, HELCOM Seal Expert Group, HELCOM Fish Group

Responsible for evaluation: National authorities

Priority

High

6.31.82. Action MIT-0302: Continue or implement the use of acoustic deterrent devices (“pingers”) and acoustic alerting devices proven to be successful ~~when and where deemed appropriate~~ in the entire Baltic Proper, except within designated SACs (or other MPAs) aiming at protecting harbour porpoises

Description

Objective:

- Significant contribution to reaching bycatch levels at or below sustainable mortality limits with sustained viable fisheries.

Threats: Bycatch

Rationale:

In addition to the mandatory use of pingers under EU legislation, pingers may be a suitable bycatch mitigation measure in further areas, time periods and gear types. Seal-safe pingers may be needed, and if proven successful regarding effectiveness, potential population effects and practical aspects, acoustic alerting devices may be a suitable alternative (RES-06).

This Action is directly related to the following Articles of EU directives or regulations:

- Habitats Directive Article 12(4) concerning the establishment of a system of strict protection within the harbour porpoise's natural range.
- MSFD Article 1(1) referring to the fact that necessary measures shall be taken to achieve or maintain GES by 2020 at the latest, especially with regard to descriptors 1 (marine biological diversity) and 4 (marine food web).
- CFP Article 2(3) referring to the implementation of the ecosystem-based approach to fisheries management as to ensure minimized negative impacts of fishing activities on the marine ecosystem.
- CFP Article 2(5j) referring to that the CFP shall be coherent with the EU environmental legislation, in particular the objective of achieving GES by 2020 as set out in MSFD Article 1(1).

This Action is directly related to the fulfilment or implementation of following the HELCOM BSAP actions of the biodiversity and nature conservation segment (HELCOM 2007) or HELCOM

Recommendations:

- Development and implementation of fisheries management based on the ecosystem approach in order to enhance the balance between sustainable use and protection of marine natural resources.
- Cooperation between competent authorities and fisheries organizations for evaluation of the effectiveness of existing technical measures to minimize bycatch of harbour porpoises, and to introduce adequate new technologies and measures.
- HELCOM Recommendation 17/2(a) (2013) giving highest priority to avoiding bycatch of harbour porpoises, particularly following the recommendations of ASCOBANS and the ASCOBANS Jastarnia Plan, in order to achieve the ecological objective of reaching bycatch rates close to zero.

Activity or method:

- Where and when deemed appropriate, continue or initiate the use of pingers.
- Avoid negative effects on the population level, for example by causing considerable habitat exclusion and disturbance in reproduction areas (RES-06).
- Where and when implemented, monitor the use and functionality of pingers.
- Make sure to continue the development and further improvement of fishing gear with no harbour porpoise bycatch (RES-05) as pingers shall be seen as an interim mitigation measure due to noise pollution.
- If proven successful regarding effectiveness, potential population effects and practical aspects, consider the use of seal-safe pingers or acoustic alerting devices (RES-06) as an alternative to traditional pingers.
- Involve fishermen and fisheries organizations for increased success and reliability of results (COOP-01).

Implementation timeline: Immediate/continued

Actors

Responsible for implementation: National authorities, fisheries

Relevant stakeholders: HELCOM Fish Group, scientists, professional and recreational fishermen, fisheries and environmental NGOs, eco-labelling organizations, the fishing gear industry

Responsible for evaluation: National authorities

Priority

High

6.31.53. Action MIT-0405: Implement the use of fishing gear with no harbour porpoise bycatch

Description

Objective:

- Significant contribution to reaching bycatch levels at or below sustainable mortality limits with sustained viable fisheries.

Threats: Bycatch

Rationale:

In order to maintain viable fisheries while reducing or eliminating the fishing effort with gillnets or other gear known to cause porpoise bycatch (MIT-02), implementation of fishing gear with no harbour porpoise bycatch is fundamental.

This Action is directly related to the following Articles of EU directives or regulations:

- Habitats Directive Article 12(4) concerning the establishment of a system of strict protection within the harbour porpoise's natural range.
- Habitats Directive Article 12(1b) concerning the establishment of a system of strict protection prohibiting all forms of deliberate capture or killing of Annex IV species within their natural range.
- Habitats Directive Article 12(4) concerning further conservation measures to ensure that incidental capture and killing do not have a significant negative impact on the Annex IV species.
- MSFD Article 1(1) referring to the need for measures to be taken to achieve or maintain GES by 2020 at the latest, especially with regard to descriptors 1 (marine biological diversity) and 4 (marine food web).
- CFP Article 2(3) referring to the implementation of the ecosystem-based approach to fisheries management as to ensure minimized negative impacts of fishing activities on the marine ecosystem.
- CFP Article 2(5j) referring to that the CFP shall be coherent with the EU environmental legislation, in particular the objective of achieving GES by 2020 as set out in MSFD Article 1(1).

This Action is directly related to the fulfilment or implementation of following the HELCOM BSAP actions of the biodiversity and nature conservation segment (HELCOM 2007) or HELCOM

Recommendations:

- Development and implementation of fisheries management based on the ecosystem approach in order to enhance the balance between sustainable use and protection of marine natural resources.
- Cooperation between competent authorities and fisheries organizations for evaluation of the effectiveness of existing technical measures to minimize bycatch of harbour porpoises, and to introduce adequate new technologies and measures.
- HELCOM Recommendation 17/2(a) (2013) giving highest priority to avoiding bycatch of harbour porpoises, particularly following the recommendations of ASCOBANS and the ASCOBANS Jastarnia Plan, in order to achieve the ecological objective of reaching bycatch rates close to zero.

Activity or method:

- Implement existing and improved fishing gear with no harbour porpoise bycatch (RES-05), such as traps, pots, hooks and seine nets.
- Focus on fisheries with high risk of harbour porpoise bycatch (RES-04).
- Involve fishermen and fisheries organizations for increased success and reliability of results (COOP-01).
- Find incentives for the fisheries, such as eco-labelling, to switch to fishing gear with no harbour porpoise bycatch.

Implementation timeline: Immediate

Actors

Responsible for implementation: National authorities, fisheries

Relevant stakeholders: Scientists, professional and recreational fishermen, fisheries and environmental NGOs, eco-labelling organizations, the fishing gear industry, HELCOM Fish Group

Responsible for evaluation: National authorities

Priority

High

6.31.24. Action MON-0301: Monitor and estimate harbour porpoise bycatch rates and estimate total annual bycatch

Description

Objective:

- Bycatch rates and total annual bycatch of Baltic harbour porpoises estimated with high precision for all vessel sizes/types within the geographical scope of the Jastarnia Plan.

Threats: Bycatch

Rationale:

Very limited information on bycatch rate and no reliable estimate of total annual bycatch are available for the Baltic harbour porpoise population. Regardless of vessel size, vessel type, type of fishery or gear type, accurate bycatch rates are essential for assessing the effectiveness of bycatch mitigation measures, and to carry out the following Action with high precision:

- RES-08: Estimate mortality limits and assess population viability for the Baltic harbour porpoise

Further, the collection of bycaught specimens, as a part of bycatch monitoring, also provides material for the following Action:

- MON-04: Collect dead specimens and assess health status, contaminant levels, cause of mortality and life-history parameters of harbour porpoises

This Action is directly related to the implementation of the following Articles of EU directives:

- Habitats Directive Article 12(4) concerning the establishment of a system to monitor the incidental capture and killing.
- MSFD Article 10(1) referring to the establishment of environmental targets and associated indicators to guide progress towards achieving GES.
- MSFD Article 11(1) concerning the establishment of monitoring programmes of, among other elements, the selective extraction of species, including incidental non-target catches (e.g. by commercial and recreational fishing).

This Action is directly related to the fulfilment of HELCOM Recommendation 17/2(b) (2013) concerning close co-operation with ASCOBANS and ICES for collection and analysis of additional data on, among other things, threats such as bycatch mortality.

Activity or method:

- Apply existing and improved methods for monitoring and estimating bycatch (RES-03).
- Collect and compile data on total fishing effort with relevant gear types for estimation of total bycatch numbers.
- Collaborate with HELCOM in the development of core indicators and coordinated monitoring programmes.
- Involve fishermen and fisheries organizations for increased success and reliability of results (COOP-01).

Implementation timeline: Immediate

Actors

Responsible for implementation: National authorities

Relevant stakeholders: Relevant European, regional and international organizations and bodies, relevant regional conventions, relevant HELCOM working groups such as HELCOM Gear and HELCOM Seal Expert Groups, scientists, professional and recreational fishermen, fisheries and environmental NGOs

Responsible for evaluation: National authorities

Priority

High

6.31.45. Action RES-0501: Further develop and improve fishing gear with no harbour porpoise bycatch

Description

Objective:

- Locally adopted, commercially viable coastal fishing methods with no harbour porpoise bycatch.

Threats: Bycatch

Rationale:

Fishing gear with no harbour porpoise bycatch, such as traps, pots, hooks and seine nets, have in some instances been shown to be an economically profitable alternative to gillnets, including in the Baltic Sea. As local conditions vary, further development is needed to increase the applicability of such gear types to include additional geographical areas, target species etc. It may also be desirable to improve the economic profitability, handling aspects etc. in areas or fisheries where these gear types already have been shown to be successful.

This Action improves the following ones:

- MIT-01: Implement the use of fishing gear with no harbour porpoise bycatch
- MIT-02: Reduce or eliminate fishing effort with gillnets or other gear known to cause porpoise bycatch in areas with high harbour porpoise density or occurrence, and/ or in areas with high risk of harbour porpoise bycatch

This Action is directly related to the fulfilment or implementation of following the HELCOM BSAP actions of the biodiversity and nature conservation segment (HELCOM 2007) or HELCOM

Recommendations:

- Development and implementation of fisheries management based on the ecosystem approach in order to enhance the balance between sustainable use and protection of marine natural resources.
- Cooperation between competent authorities and fisheries organizations for evaluation of the effectiveness of existing technical measures to minimize bycatch of harbour porpoises, and to introduce adequate new technologies and measures.

- HELCOM Recommendation 17/2(a) (2013) giving highest priority to avoiding bycatch of harbour porpoises, particularly following the recommendations of ASCOBANS and the ASCOBANS Jastarnia Plan, in order to achieve the ecological objective of reaching bycatch rates close to zero.

Activity or method:

- Develop and evaluate alternative fishing gear and/or practices, building upon existing experiences and devices and paying attention to the ecosystem approach.
- Investigate suitable ways of implementing fishing gear with no harbour porpoise bycatch.
- Focus on fisheries with high risk of harbour porpoise bycatch (RES-04).
- Involve fishermen and fisheries organizations for increased success and reliability of results (COOP-01).

Implementation timeline: Immediate/continued

Actors

Responsible for implementation: National authorities, scientists, fisheries

Relevant stakeholders: Professional and recreational fishermen, fisheries and environmental NGOs, eco-labelling organizations, the fishing gear industry, HELCOM Fish Group

Responsible for evaluation: National authorities, based on appropriate scientific expertise and advice, and fisheries

Priority

High

6.31.36. Action RES-0402: Carry out a spatio-temporal risk assessment of harbour porpoise bycatch

Description

Objective:

- Estimated spatio-temporal bycatch risk throughout the population's distribution range.

Threats: Bycatch

Rationale:

A bycatch risk assessment can be carried out with two different purposes:

- Based on current data, it is a powerful tool to identify where and when bycatch mitigation measures are most efficient, and where and when they are not needed.
- By adjusting the theoretical fishing effort, it can be used for scenario analyses, investigating predicted changes in bycatch numbers due to changes in fishing effort as a result of e.g. changes in fishing regulations.

This Action improves the following ones:

- MIT-02: Reduce or eliminate fishing effort with gillnets or other gear known to cause porpoise bycatch in areas with high harbour porpoise density or occurrence, and/ or in areas with high risk of harbour porpoise bycatch
- MIT-03: Continue or implement the use of acoustic deterrent devices ("pingers") and acoustic alerting devices proven to be successful when and where deemed appropriate
- MIT-06: Expand the network of protected areas for harbour porpoises, improve its connectivity, and develop and implement appropriate management plans including monitoring schemes for these areas

This Action is directly related to the implementation of the following Articles of EU directives or regulations:

- Habitats Directive Article 12 concerning the implementation of a strict system of protection within the natural range of the harbour porpoise.
- MSFD Article 1(1) referring to that necessary measures shall be taken to achieve or maintain GES by 2020 at the latest, especially with regard to descriptors 1 (marine biological diversity) and 4 (marine food web).
- MSFD Article 11(1) referring Annex V stating, among other things, that monitoring programmes shall include activities to confirm that the corrective measures deliver the desired changes and not any unwanted side effects.
- CFP Article 2(3) referring to the implementation of the eco-system based approach to fisheries management as to ensure minimized negative impacts of fishing activities on the marine ecosystem.
- CFP Article 2(5j) referring to that the CFP shall be coherent with the EU environmental legislation, in particular the objective of achieving GES by 2020 as set out in MSFD Article 1(1).

This Action is directly related to the fulfilment of HELCOM Recommendation 17/2(b) (2013) concerning close co-operation with ASCOBANS and ICES for collection and analysis of additional data on, among other things, threats such as bycatch mortality.

Activity or method:

- Collate data or carry out expert judgement based on available information on gear-specific bycatch rates (MON-03), spatio-temporal distribution of harbour porpoises (MON-02), and spatio-temporal information on fishing effort.
- Carry out a spatio-temporal bycatch risk assessment for as large proportion as possible of the distribution range of the Baltic harbour porpoise population.
- Improve the level of accuracy and/or size of the geographical area when further data of improved quality or quantity becomes available.
- Carry out scenario analyses of potential effects on total bycatch numbers due to potential changes in fishing effort, especially in the case of proposed changes in fishing regulations.

Implementation timeline: Immediate

Actors

Responsible for implementation: National authorities, scientists

Relevant stakeholders: Fishermen, fisheries NGOs, HELCOM Seal Expert Group

Responsible for evaluation: National authorities, based on appropriate scientific expertise and advice

Priority

High

6.31.47. Action RES-03: Improve methods for monitoring and estimation of harbour porpoise bycatch

Description

Objective:

- Accurate, practical and cost-efficient methods for estimating bycatch rates of Baltic harbour porpoises for all vessel sizes/types within the geographical scope of the Jastarnia Plan.

Threats: Bycatch

Rationale:

Very limited information on bycatch rates is available for the Baltic harbour porpoise population. The relatively low harbour porpoise density, the population's wide distribution range, and the high proportion of small fishing vessels call for improved methods of bycatch monitoring and estimation.

Accurate bycatch rates are essential for assessing the effectiveness of bycatch mitigation measures, and to carry out the following Actions with high precision:

- MON-03: Monitor and estimate harbour porpoise bycatch rates and estimate total annual bycatch
- RES-04: Carry out a spatio-temporal risk assessment of harbour porpoise bycatch

Further, improvement of collection of bycaught specimens, as a part of bycatch monitoring, also provides essential information to the following Action:

- MON-04: Collect dead specimens and assess health status, contaminant levels, cause of mortality and life-history parameters of harbour porpoises

This Action is directly related to the fulfilment of HELCOM Recommendation 17/2(b) (2013) concerning close co-operation with ASCOBANS and ICES for collection and analysis of additional data on, among other things, threats such as bycatch mortality.

Activity or method:

- Adapt existing surveillance methods (remote electronic monitoring systems, on-board observers, carcass collection programmes, reporting schemes, and interview surveys) to local fishing conditions (vessel size, gear type, professional or recreational fishery etc.) as well as harbour porpoise density and bycatch risk (Action RES-04), to make them practical and efficient.
- Collaborate with HELCOM in the development of core indicators and coordinated monitoring programmes
- Involve fishermen and fisheries organizations for increased success and reliability of results (COOP-01).
- For remote electronic monitoring systems, further develop digital tools for data analyses.
- Facilitate landings of harbour porpoises (MON-04). This may require changes in national and/or international legislation.

Implementation timeline: Immediate

Actors

Responsible for implementation: National authorities, scientist, fisheries

Relevant stakeholders: Professional and recreational fishermen, fisheries and environmental NGOs, the industry relevant for development of bycatch monitoring methods, relevant HELCOM working groups such as HELCOM Gear and HELCOM Seal Expert Group

Responsible for evaluation: National authorities, based on appropriate scientific expertise and advice

Priority

High

6.31.78. Action RES-0604: Improve the knowledge on potential population-level effects of the use of pingers, and develop acoustic devices for bycatch mitigation further

Description

Objectives

- Ensure that acoustic deterrent and alerting devices reduce harbour porpoise bycatch and have no negative effects on the population level.
- Ensure that acoustic deterrent and alerting devices are practical to use in relation to handling, battery lifetime and the presence of seals.

Threats: Bycatch

Rationale:

For vessels above a certain size, using certain fishing gear and fishing in certain areas, pinger use is mandatory under EU legislation. Pingers can also be required by national or local rules or regulations, and in other areas they can be used voluntarily. Pingers are often the bycatch mitigation measure preferred by gillnet fisheries, as they reduce harbour porpoise bycatch without altering the fishing gear. However, further knowledge is needed on habitat exclusion and habituation of harbour porpoises, and how this may transfer to the population level. Particular consideration needs to be taken to reproduction areas.

In areas where harbour porpoises and seals coexist, it is important that pingers do not act as “dinner bells” to the seals. Most commercially available pingers are not seal-safe, therefore further development of the design is needed.

Acoustic alerting devices are a potential alternative to acoustic deterrent devices. An alerting device is intended to emit signals that are not perceived as threatening by harbour porpoises, but rather cause them to increase their own echolocation activity and thereby increase their chances of detecting the fishing gear. Initial work has been carried out on this, but further studies are needed to improve and evaluate the method.

This Action improves the following ones:

- MIT-03: Continue or implement the use of acoustic deterrent devices (“pingers”) and acoustic alerting devices proven to be successful when and where deemed appropriate

This Action is directly related to the fulfilment or implementation of following the HELCOM BSAP actions of the biodiversity and nature conservation segment (HELCOM 2007) or HELCOM

Recommendations:

- Development and implementation of fisheries management based on the ecosystem approach in order to enhance the balance between sustainable use and protection of marine natural resources.
- Cooperation between competent authorities and fisheries organizations for evaluation of the effectiveness of existing technical measures to minimize bycatch of harbour porpoises, and to
- introduce adequate new technologies and measures.
- HELCOM Recommendation 17/2(a) (2013) giving highest priority to avoiding bycatch of harbour porpoises, particularly following the recommendations of ASCOBANS and the ASCOBANS Jastarnia Plan, in order to achieve the ecological objective of reaching bycatch rates close to zero.

Activity or method:

- Examine habitat exclusion and habituation of harbour porpoises, and how this may transfer to the population level.
- Develop and evaluate seal-safe pingers.
- Develop and evaluate acoustic alerting devices that are efficient in reducing harbour porpoise bycatch without causing negative effects on the population level.
- Involve fishermen and fisheries organizations for increased success and reliability of results (COOP-01).

Implementation timeline: Immediate/continued

Actors

Responsible for implementation: National authorities

Relevant stakeholders: Scientists, professional fishermen, fisheries and environmental NGOs, ecolabelling organizations, the industry of acoustic alerting or deterrence devices, HELCOM Seal Expert Group

Responsible for evaluation: National authorities

Priority
High

6.31.9. Action MIT-0406: Prevent, retrieve and recycle derelict (“ghost”) fishing gear, with focus on high-density areas of harbour porpoises

Description

Objective:

- Reduce the risk of harbour porpoise bycatch in ghost nets.

Threats: Bycatch

Rationale:

Ghost nets contribute to effective fishing effort of fish, and most probably also to bycatch of harbour porpoises, in the Baltic Sea. The clearance of ghost nets constitutes a reduction in fishing effort without decreasing the fishing yield.

This Action is directly related to the implementation of the following Articles of EU directives or regulations:

- Habitats Directive Article 12(4) concerning further conservation measures to ensure that incidental capture and killing do not have a significant negative impact on the Annex IV species.
- MSFD Article 1(1) referring to the fact that necessary measures shall be taken to achieve or maintain GES by 2020 at the latest, especially with regard to descriptor 10 (marine litter).
- CFP Article 2(3) referring to the implementation of the ecosystem-based approach to fisheries management so as to ensure minimized negative impacts of fishing activities on the marine ecosystem.
- CFP Article 2(5j) referring to that the CFP shall be coherent with the EU environmental legislation, in particular the objective of achieving GES by 2020 as set out in MSFD Article 1(1).

This Action is directly related to the fulfilment or implementation of the following HELCOM Recommendations:

- HELCOM Recommendation 36/1 concerning regional (RS10 – RS12) and voluntary national actions (NS8 – NS10) addressing sea-based sources of marine litter including: mapping sites with high risk of ghost nets, removal of ghost nets, promotion of removal of lost fishing gear, safe management of ghost nets on land, and the establishment of partnerships for implementation of passive Fishing for Litter schemes.
- HELCOM Recommendation 36/1 concerning regional (RE1 – RE3) and voluntary national actions (NE1 – NE3, NE6) addressing education and outreach on marine litter including: assist in or develop educational programmes or activities for professional seafarers including fishermen, provide information on national marine litter management activities and update the HELCOM website with the information, develop a communication strategy for the HELCOM Marine litter action plan, and enhance cooperation and coordination with relevant global marine initiatives.
- HELCOM Recommendation 17/2(a) (2013) giving highest priority to avoiding bycatch of harbour porpoises, particularly following the recommendations of ASCOBANS and the ASCOBANS Jastarnia Plan, in order to achieve the ecological objective of reaching bycatch rates close to zero.
- HELCOM Recommendation 28E/10 ‘Application of the no-special fee system to ship-generated wastes and marine litter caught in fishing nets in the Baltic Sea area’.

Activity or method:

- Identify areas with high ghost net densities by, for example, semi-structured interviews and establishment of local and regional reporting systems. Further, to increase the likelihood of reducing harbour porpoise bycatch, priority should be given to areas with high density of harbour porpoises.
- Survey and remove ghost nets at sea in combination with capacity-building for prevention of fishing gear loss.
- Facilitate landings of ghost nets and other marine litter in fishing harbours.
- Improve reuse of old fishing gear.
- ID label fishing gear.
- Conduct further studies on the environmental impacts of derelict fishing gear.
- Involve fishermen and fisheries organizations for increased success (COOP-01).
- Pay attention to guidance given by for example CBD (2014), MARELITT toolkit (<http://www.marelitt.eu>), and HELCOM Marine Litter Action Plan (HELCOM Recommendation 36/1) (HELCOM 2015) (COOP-02).

Implementation timeline: Immediate/continued

Actors

Responsible for implementation: National authorities, fisheries

Relevant stakeholders: Relevant European, regional and international organizations and bodies, HELCOM, scientists, professional and recreational fishermen, fisheries and environmental NGOs, ecolabelling organizations, the fishing gear industry, HELCOM Expert Network on Marine Litter, HELCOM Fish Group, HELCOM Seal Expert Group

Responsible for evaluation: National authorities

Priority

Medium

6.42. Monitor and mitigate impact of underwater noise

6.42.21. Action MIT-0504: Implement regionally harmonized national threshold limits and guidelines for regulation of underwater noise

Description

Objective:

- Harmonized national threshold limits and guidelines for transparent and reliable management of anthropogenic activities generating underwater noise across the Baltic Sea.

Threats: Underwater noise

Rationale:

Due to the critical conservation status of the Baltic harbour porpoise in combination with the species' acute hearing, wide hearing range and high responsiveness to sounds, national threshold limits and guidelines must be established to minimize the risk of significant disturbance. Due to the wide distribution range of the Baltic harbour porpoise and the transboundary nature of underwater noise, the threshold limits and guidelines need to be regionally harmonized to be effective.

This Action improves the following one:

- MIT-06: Expand the network of protected areas for harbour porpoises, improve its connectivity, and develop and implement appropriate management plans including monitoring schemes for these areas

This Action is directly related to the implementation of the following Articles of EU directives:

- Habitats Directive Article 6(2) referring to that steps shall be taken to avoid disturbance of the species in the SACs.

- Habitats Directive Article 12(1b) concerning the establishment of a system of strict protection prohibiting deliberate disturbance of Annex IV species within their natural range.
- MSFD Article 1(1) referring to that necessary measures shall be taken to achieve or maintain GES by 2020 at the latest, especially with regard to descriptors 1 (biological diversity) and 11 (underwater noise).

Activity or method:

- In anticipation of improved knowledge on the impact of anthropogenic underwater noise on the Baltic harbour porpoise (RES-07), implement interim threshold limits and guidelines based on the best available knowledge on impact of anthropogenic underwater noise and conditions for the propagation of sound in the Baltic Sea, taking the critical conservation status of the Baltic harbour porpoise into account.
- Establish regional working groups for harmonisation of threshold limits and guidelines across the Baltic Sea.
- Update established threshold limits and guidelines regularly, taking account of improved knowledge on the spatio-temporal distribution of anthropogenic noise and its impact on the Baltic harbour porpoise.
- Collaborate with current international and regional efforts on management of underwater noise.

Implementation timeline: Immediate, with regular revision

Actors

Responsible for implementation: National authorities, national armed forces, scientists

Relevant stakeholders: Relevant European, regional and international organizations and bodies, relevant regional conventions, the shipping sector, the offshore industry, marine geological surveyors, recreational seafarers, environmental NGOs, HELCOM Pressure group, HELCOM Expert Network on Underwater Noise

Responsible for evaluation: National authorities, national armed forces, scientists, Joint Noise Working Group of CMS, ACCOBAMS and ASCOBANS

Priority

High

6.42.42. Action RES-0705: Improve knowledge on impact of impulsive and continuous anthropogenic underwater noise on harbour porpoises, and development of threshold limits of significant disturbance and GES indicators

Description

Objective:

- Improved knowledge on impact of impulsive and continuous anthropogenic underwater noise on individuals and at the population level of the Baltic harbour porpoise. The specific objectives are to:
 - Develop regionally harmonized threshold limits for significant disturbance of Baltic harbour porpoises by impulsive or continuous anthropogenic underwater noise; and
 - Develop regional environmental targets and indicators for monitoring the environmental status of the Baltic harbour porpoise in regard to impact of impulsive or continuous anthropogenic underwater noise.

Threats: Underwater noise

Rationale:

The harbour porpoise has acute hearing, a wide hearing range and a high responsiveness to sounds. At the same time the Baltic soundscape is heavily affected by anthropogenic activities, such as intense

shipping, offshore wind farm construction, use of active sonars and seismic surveys. Yet our knowledge of the spatio-temporal distribution of anthropogenic underwater noise and its impact on the Baltic Sea harbour porpoise is insufficient for adequate management. Due to the environmental conditions affecting noise propagation in the Baltic Sea, and the critical conservation status of the Baltic harbour porpoise population, threshold limits for significant disturbance by anthropogenic noise developed elsewhere cannot be directly applied in the Baltic Sea. Further, data gaps are preventing the development of ecologically relevant GES indicators with regard to underwater noise.

This Action improves the following ones:

- MIT-05: Implement regionally harmonized national threshold limits and guidelines for regulation of underwater noise
- RES-08: Estimate mortality limits and assess population viability for the Baltic harbour porpoise
- MIT-06: Expand the network of protected areas for harbour porpoises, improve its connectivity, and develop and implement appropriate management plans including monitoring schemes for these areas

This Action is directly related to the implementation of the following Articles of EU directives:

- Habitats Directive Article 12(1b) concerning the establishment of a system of strict protection prohibiting deliberate disturbance of Annex IV species within their natural range.
- MSFD Article 10(2) referring to that environmental targets and associated indicators shall be established.

This Action is directly related to the fulfilment of the following HELCOM Ministerial Declarations and Recommendations:

- HELCOM Recommendation 17/2(b) (2013) concerning close co-operation with ASCOBANS and ICES for collection and analysis of additional data on, among other things, threats such as underwater noise, marine installations and construction.
- HELCOM Ministerial Declaration of 2013 agreeing that the level of ambient and distribution of impulsive sounds in the Baltic Sea should not have negative impact on marine life, and that human activities that are assessed to result in negative impacts on marine life should be carried out only if relevant mitigation measures are in place, and accordingly as soon as possible and by the end of 2016, using mainly already ongoing activities, to:
 - establish a set of indicators including technical standards which may be used for monitoring ambient and impulsive underwater noise in the Baltic Sea;
 - encourage research on the cause and effects of underwater noise on biota;
 - map the levels of ambient underwater noise across the Baltic Sea;
 - set up a register of the occurrence of impulsive sounds;
 - consider regular monitoring of ambient and impulsive underwater noise as well as possible options for mitigation measures related to noise taking into account the ongoing work in IMO on non-mandatory draft guidelines for reducing underwater noise from commercial ships and in CBD context.

Activity or method:

- Study behavioural and physiological responses of harbour porpoises to impulsive and continuous anthropogenic noise from various sources.
- Measure and model propagation of relevant impulsive and continuous noise for relevant and representative areas of the Baltic Sea.
- Map the spatio-temporal distribution of relevant impulsive and continuous noise in the Baltic Sea.
- Estimate population level impact of relevant impulsive and continuous noise in the Baltic Sea.

Implementation timeline: Continued

Actors

Responsible for implementation: National authorities, national armed forces, scientists, Joint Noise Working Group of CMS, ACCOBAMS and ASCOBANS

Relevant stakeholders: Relevant European, regional and international organizations and bodies, relevant regional conventions, the shipping sector, the offshore industry, marine geological surveyors, recreational seafarers, HELCOM Pressure group, HELCOM Expert Network on Underwater Noise

Responsible for evaluation: National authorities, national armed forces, scientists, Joint Noise Working Group of CMS, ACCOBAMS and ASCOBANS

Priority

High

6.23. Monitor and estimate abundance and distribution

6.23.21. Action MON-0402: Implement and harmonize long-term continual acoustic harbour porpoise monitoring

Description

Objective:

- Sufficient monitoring for providing input to assessment of trends in population abundance and distribution between full-scale surveys.

Threats: n/a

Rationale:

For assessment of trends or detecting early warnings in changes in population abundance and distribution, continual monitoring is needed between full-scale surveys. The cost-effectiveness of continual monitoring can be increased if combined with monitoring of protected areas for harbour porpoises and potentially also monitoring of underwater noise in accordance with the MSFD.

This Action improves the following Actions:

- RES-08: Estimate mortality limits and assess population viability for the Baltic harbour porpoise

Activity or method:

- Build upon the methodology for acoustic monitoring developed in national monitoring schemes and the SAMBAH project.
- Harmonize the continual acoustic monitoring across the Baltic Sea by cooperation with national monitoring schemes in protected areas for harbour porpoises and monitoring of underwater noise in accordance with the MSFD.
- Develop a methodology for evaluation of the results from continual monitoring in relation to those from full-scale surveys of harbour porpoise distribution and abundance.
- Collaborate with HELCOM in the development of core indicators.

This Action is directly related to the implementation of the following Articles of EU directives or regulations:

- Habitats Directive Article 11 concerning the surveillance of the conservation status of listed habitats and species, including the harbour porpoise.
- Habitats Directive Article 17 concerning the reporting of, among other things, the main results of the surveillance of the conservation status of those habitats and species.
- MSFD Article 11(1) concerning the establishment and implementation of coordinated monitoring programmes for the ongoing assessment of the environmental status of their waters by reference to the established environmental targets.
- MSFD Article 17(2) concerning the coordinated review of the marine strategies, including the monitoring programmes.

This Action is directly related to the fulfilment of following HELCOM Recommendation 35/1(k) (2014) concerning the assessment of the effectiveness of the management plans or measures of HELCOM MPAs by conducting monitoring, including the placement of monitoring stations inside the MPAs.

Implementation timeline: Immediate

Actors

Responsible for implementation: National authorities, scientists

Relevant stakeholders: Relevant European, regional and international organizations and bodies, relevant international conventions, HELCOM Seal Expert Group, HELCOM Gear group

Responsible for evaluation: National authorities, based on appropriate scientific expertise and advice

Priority

High

6.23.42. Action MON-0203: Carry out full-scale surveys of harbour porpoise abundance and distribution

Description

Objective:

- Updated abundance estimates and distribution maps of the Baltic harbour porpoise provided in synchrony with the requirements on reporting by the Habitats Directive and the MSFD.

Threats: n/a

Rationale:

Regular full-scale surveys are essential for the assessment of population status and trends.

This Action improves the following Actions:

- RES-08: Estimate mortality limits and assess population viability for the Baltic harbour porpoise

This Action is directly related to the implementation of the following Articles of EU directives or regulations:

- Habitats Directive Article 11 concerning the surveillance of the conservation status of listed habitats and species, including the harbour porpoise.
- Habitats Directive Article 17 concerning the reporting of, among other things, the main results of the surveillance of the conservation status of those habitats and species.
- MSFD Article 11(1) concerning the establishment and implementation of coordinated monitoring programmes for the ongoing assessment of the environmental status of their waters by reference to the established environmental targets.
- MSFD Article 17(2) concerning the coordinated review of the marine strategies, including the monitoring programmes.

Activity or method:

- Build upon the methodology developed by the SAMBAH project, taking account for improved methods of estimating the harbour porpoise detection function (RES-02).
- Collaborate with HELCOM in the development of core indicators.
- Carry out full-scale surveys of harbour porpoise abundance and distribution on a regular basis and with time intervals suitable for detecting trends and in synchrony with the reporting cycles of the Habitats Directive and the MSFD.

Implementation timeline: Intermediate

Actors

Responsible for implementation: National authorities, scientists

Relevant stakeholders: Relevant European, regional and international organizations and bodies, relevant international conventions, HELCOM Seal Expert Group, HELCOM Gear group

Responsible for evaluation: National authorities, based on appropriate scientific expertise and advice

Priority

High for each reporting period of the Habitats Directive and the MSFD

6.23.3. Action RES-0207: Improve methods for estimation of absolute density and abundance of the Baltic harbour porpoise

Description

Objective:

- Improved methods for determining the detection function of acoustic harbour porpoise loggers in low-density areas.

Threats: n/a

Rationale:

Practical and reliable methods for determining the detection function for acoustic loggers are essential for estimating absolute density and abundance of harbour porpoises by acoustic surveys. Ideally, the detection function should be determined throughout the survey area both in time and space to capture the actual environmental conditions and harbour porpoise behaviour. The low density of harbour porpoises in the Baltic Sea calls for further development of such methods and up until now their application in the Baltic Sea has been very limited.

This Action improves the following Actions:

- MON-02: Carry out full-scale surveys of harbour porpoise abundance and distribution

This Action is directly related to the implementation of the following Articles of EU directives or regulations:

- Habitats Directive Article 18(1) encouraging the necessary research and scientific work regarding the monitoring obligation referred to in Article 11. For the purpose of proper coordination of research, information shall be exchanged at Member State and Community Level.

Activity or method:

- Develop acoustic methods for determining the detection function of harbour porpoise loggers in the Baltic Sea, such as spatially explicit capture recapture (SECR) techniques, "stereo" or "ranging" devices, or improved methods for measuring and modelling the sound propagation of harbour porpoise echolocation signals.

Implementation timeline: Continued

Actors

Responsible for implementation: National authorities, scientists

Relevant stakeholders: The industry of relevant underwater acoustic recording or logging devices, HELCOM Seal Expert Group

Responsible for evaluation: National authorities, based on appropriate scientific expertise and advice

Priority

Medium

6.23.14. Action RES-0108: Improve knowledge on harbour porpoise population structure in the Baltic region

Description

Objective:

- More thoroughly defined populations and their distribution throughout the year in the Baltic region.

Threats: n/a

Rationale:

A good knowledge of population structure and population distribution throughout the year is fundamental for determining the population status and carrying out necessary conservation actions. Current knowledge of the population structure of the harbour porpoise in the Baltic region shows that this population should be managed separately. However, there are uncertainties as to how strong the separation is and as to the spatio-temporal distribution of the Baltic harbour porpoise population.

This Action improves all Actions with a spatio-temporal component, including:

- MON-03: Monitor and estimate harbour porpoise bycatch rates and estimate total annual bycatch
- RES-04: Carry out a spatio-temporal risk assessment of harbour porpoise bycatch
- MIT-05: Implement regionally harmonized national threshold limits and guidelines for regulation of underwater noise
- MIT-06: Expand the network of protected areas for harbour porpoises, improve its connectivity, and develop and implement appropriate management plans including monitoring schemes for these areas
- MON-01: Implement and harmonize long-term continual acoustic harbour porpoise monitoring
- MON-02: Carry out full-scale surveys of harbour porpoise abundance and distribution

This Action is directly related to the implementation of the following Articles of EU directives or regulations:

- Habitats Directive Article 11 concerning the surveillance of the conservation status of relevant species covered.
- MSFD Article 11(1) concerning the establishment and implementation of coordinated monitoring programmes for the assessment of the environmental status, including a description of the population dynamics of species of marine mammals (Annex III, Table 1).

This Action is directly related to the fulfilment of HELCOM Recommendation 17/2(b) (2013) concerning close co-operation with ASCOBANS and ICES for collection and analysis of additional data on, among other things, population distribution and abundance and stock identities.

Activity or method:

Integrated analysis of available genetic and morphological evidence, taking account of new acoustic, tracking, and genetic data. Broad initiative to obtain and analyse additional tissue samples from the Baltic Proper. Enhancement of efforts to locate stranded and bycaught animals and to obtain samples from these individuals (PACB-01).

Implementation timeline: Continued

Actors

Responsible for implementation: National authorities, scientists

Relevant stakeholders: HELCOM Seal Expert Group

Responsible for evaluation: National authorities, based on appropriate scientific expertise and advice

Priority

High

6.54. Monitor and assess population status

6.54.1. Action MON-04: Collect dead specimens and assess health status, contaminant levels, cause of mortality and life-history parameters of harbour porpoises

Description

Objective:

- Knowledge on current status and trends in health status, contaminant levels, life-history parameters and cause of mortality for dead specimens.

Threats: Bycatch, contaminants, underwater noise, reduced prey quality

Rationale:

Due to the limited number of available samples and in some respects limited knowledge on biology and impacts of threats, it is of utmost importance that dead specimens be collected, necropsied and analysed. This can provide information on the population's exposure to pressures such as bycatch, contaminants, diseases, parasites, reduced prey availability or quality, and physical effects of underwater noise. It can also yield information on biological parameters such as growth, pregnancy rate, timing of reproduction, age distribution, genetics and morphometrics. The information is important for developing and implementing indicators for assessment and monitoring of the status of the Baltic harbour porpoise population, as well as for informed conservation measures.

This Action improves the following ones:

- MON-03: Monitor and estimate harbour porpoise bycatch rates and estimate total annual bycatch
- RES-01: Improve knowledge of harbour porpoise population structure in the Baltic region
- RES-08: Estimate mortality limits and assess population viability for the Baltic harbour porpoise

This Action is directly related to the implementation of the following Articles of EU directives or regulations:

- Habitats Directive Article 11 concerning the surveillance of the conservation status of relevant species covered.
- MSFD Article 11(1) concerning the establishment and implementation of coordinated monitoring programmes for the assessment of the environmental status, including a description of the population dynamics of species of marine mammals (Annex III, Table 1).

This Action is directly related to the fulfilment or implementation of following the HELCOM BSAP actions of the hazardous substances segment (HELCOM 2007) or HELCOM Recommendations:

- Screening and assessment of the occurrence and effects of hazardous substances.
- Cooperation between competent authorities and fisheries organizations for landing of all bycaught species that cannot be released alive or without injuries are landed and reported.
- HELCOM Recommendation 17/2(b) (2013) concerning close co-operation with ASCOBANS and ICES for collection and analysis of additional data on, population distribution and abundance, stock identities, behaviour and threats such as bycatch mortality, underwater noise, contaminant levels, ship strikes, changes in food base, epizooties, climate changes, marine installations and construction.

Activity or method:

- Establish or maintain networks for collection and transportation of encountered dead specimens (linked to PACB-01).
- Conduct necropsies and analyse samples to determine the cause of death, fitness, diseases, life-history parameters, consumed prey, contaminant levels, stable isotopes, age etc. using standardized protocols.
- Take samples for analyses of population structure etc.
- Collaborate with HELCOM in the development of core indicators.

Implementation timeline: Continued

Actors

Responsible for implementation: National authorities, scientific institutions

Relevant stakeholders: Scientists, professionals working by or at the Baltic Sea (including fishermen), the general public, fisheries and environmental NGOs, HELCOM Seal Expert Group, media

Responsible for evaluation: National authorities, based on appropriate scientific expertise and advice

Priority

High

6.54.2. Action RES-0806: Estimate mortality limits and assess population viability for the Baltic harbour porpoise

Description

Objectives:

- Assessment of population viability, including impacts on this of relevant anthropogenic activities or mitigation measures.
- Estimates of mortality limits (environmental limits and triggers) for evaluation of current bycatch levels.

Threats: Bycatch, contaminants, underwater noise, reduced prey quality

Rationale:

A population viability assessment (PVA) takes the population characteristics, environmental variability and anthropogenic pressures into account to forecast population health and risk of extinction. By altering the input variables accordance to different scenarios of anthropogenic activities or mitigation measures, the impact or efficiency of those can be evaluated.

Estimates of mortality limits (environmental limits and triggers) are useful for quantifying bycatch mortality objectives, for evaluation of the sustainability of current mortality numbers and for assessment of the population's survival under different levels of mortality. An environmental limit is used as a 'critical' or 'unacceptable' point in the environment that should never be exceeded and above which defined conservation objectives would not be achieved. Triggers are lower than environmental limits and used as indicators of the success or lack thereof of measures taken to reduce bycatch and other anthropogenic causes of mortality of small cetaceans, and to signal the need for changes in management action.

This Action is directly related to the implementation of the following Articles of EU directives or regulations:

- Habitats Directive Article 2(2) concerning the designation of measures to maintain or restore species of Community interest at favourable conservation status, as defined in Article 1(i).
- Habitats Directive Article 17(1) concerning the reporting on, among other things, the evaluation of the impact of the conservation measures taken in accordance with Article 6, and the main results of the surveillance referred to in Article 11.
- MSFD Article 10(1) concerning the establishment of environmental targets and associated indicators, taking pressures and impacts such as underwater noise, marine litter, hazardous substances and bycatch into account (Annex III, Table 2).
- MSFD Article 13(2) concerning the identification of measures which need to be taken in order to achieve or maintain GES.
- MSFD Article 17(2) concerning the coordinated review of the marine strategies, including the environmental targets.

Activity or method:

Based on updated information on total annual bycatch (MON-03), health status and life-history parameters (MON-04), population structure (RES-01), and abundance and distribution (MON-01 and MON-02), carry out:

- PVA analyses, including scenario analyses to evaluate the risk or efficiency of various anthropogenic activities or mitigation measures.

- Analyses of mortality limits (environmental limits and triggers), such as analyses of potential biological removal (PBR; Wade, 1998) or catch limit algorithm (CLA; Winship, 2009), including analyses of scenarios to evaluate the effects of various mortality limits.
- Collaborate with HELCOM in the development of core indicators.

Implementation timeline: Immediate

Actors

Responsible for implementation: National authorities, scientists

Relevant stakeholders: HELCOM Seal Expert Group, fisheries and environmental NGOs, national armed forces, the offshore industry, the shipping sector

Responsible for evaluation: National authorities, based on appropriate scientific expertise and advice

Priority

High

6.65. Investigate habitat use and protect important areas

6.65.21. Action MIT-0603: Expand the network of protected areas for harbour porpoises, improve its connectivity, and develop and implement appropriate management plans including [fisheries regulations and monitoring schemes for these areas](#)

Description

Objective:

- Designated protected areas with implemented management plans and monitoring schemes significantly contributing to documented favourable conservation status of the Baltic harbour porpoise population.

Threats: Bycatch, underwater noise, reduced prey quality

Rationale:

Areas identified as important for the reproduction and survival of the Baltic harbour porpoise shall be designated as protected areas for the population. To be efficient, the protected areas need to be of sufficient size and connected in a network, with implemented plans of efficient management of anthropogenic threats. Further, monitoring schemes shall be established for evaluation of the efficiency of mitigation measures taken and trends in harbour porpoise densities. Preferably monitoring schemes shall be regionally harmonized to serve as a basis for determining trends in population distribution and abundance.

This Action improves the following Actions:

- MON-01: Implement and harmonize long-term continual acoustic monitoring of harbour porpoises

This Action is directly related to the implementation of the following Articles of EU directives or regulations:

- Habitats Directive Article 3(1) concerning the establishment of a coherent European ecological network of SACs, composed of sites hosting listed habitat types or the habitats of listed species, such as the harbour porpoise, to enable the maintenance or restoration of the species at a favourable conservation status in their natural range.
- Habitats Directive Article 6(1) concerning the establishment the necessary conservation measures involving, if need be, appropriate management plans and appropriate statutory, administrative or contractual measures.
- Habitats Directive Article 11 concerning the surveillance of the conservation status of listed habitats and species.
- Habitats Directive Article 17 concerning the reporting of the implementation of conservation measures taken, evaluation of the impact of those measures on the conservation status of

listed habitats and species, and the main results of the surveillance of the conservation status of those habitats and species.

- MSFD Article 13(4) referring to the fact that established programmes of measures shall include spatial protection measures, such as special areas of conservation pursuant to the Habitats Directive, and marine protected areas as concerned in the framework of international or regional agreements.
- MSFD Article 17(2) concerning the coordinated review of the marine strategies, including the programme of measures.

This Action is directly related to the fulfilment or implementation of the following HELCOM BSAP actions of the biodiversity and nature conservation segment (HELCOM 2007) or HELCOM

Recommendations:

- Close cooperation between HELCOM Contracting Parties, competent authorities and fisheries organizations in developing and implementing management measures for fisheries inside marine protected areas in the Baltic Sea area in order to fulfil conservation targets.
- HELCOM Recommendation 17/2(c) (2013) concerning the establishment of marine protected areas for harbour porpoises.
- HELCOM Recommendation 35/1 (2014) concerning a system of coastal and marine Baltic Sea protected areas (HELCOM MPAs). Among others, the Recommendation specifies that management plans or measures for protected areas shall be developed, implemented and updated with a maximum interval of 12 years (h, i), and that monitoring shall be implemented to assess the effectiveness of the management plans or measures (k). When designating new areas, connectivity shall be taken into consideration (d), and in transboundary areas, the designation shall be harmonized and, where appropriate, neighbouring states shall join forces when setting up management plans or measures (j).

Activity or method:

- Expand the existing network of protected areas for harbour porpoises in the Baltic Sea by, where appropriate, increase the size existing protected areas and/or designate new protected areas.
- Base the expansion of existing protected areas on available and emerging information on harbour porpoise distribution and abundance and spatio-temporal patterns of habitat use
- Develop and implement management plans based on the best available knowledge on mitigation measures, the spatio-temporal distribution of anthropogenic threats, and their impacts on harbour porpoises.
- Regularly update and improve implemented management plans to take account for new information on harbour porpoise habitat use and density, mitigation measures, and impacts of and changes in anthropogenic threats.
- Develop and implement monitoring schemes of the efficiency of taken mitigation measures and harbour porpoise density in the protected areas, taking account for the benefits of regional harmonization of long-term continual monitoring.

Implementation timeline: Continued

Actors

Responsible for implementation: National authorities in Baltic Parties and Range States where designation of protected areas is appropriate

Relevant stakeholders: Relevant European, regional and international organizations and bodies, relevant international conventions, scientist, professional and recreational fishermen, the shipping sector, the general public, fisheries and environmental NGOs, HELCOM State and Conservation Working Group

Responsible for evaluation: National authorities in Baltic Parties and Range States where designation of protected areas is appropriate, based on appropriate scientific expertise and advice

Priority

High

6.65.42. Action RES-09: Develop and improve methods for and investigate spatio-temporal patterns of habitat use by harbour porpoises

Description

Objectives:

- Reliable and cost-efficient methods for studies of habitat use of harbour porpoises, including foraging and calving.
- Predictions of spatio-temporal patterns in the use of habitat by harbour porpoises in the Baltic Sea, including foraging and calving.

Threats: Bycatch, underwater noise, reduced prey quality

Rationale:

Knowledge on the spatio-temporal habitat use of harbour porpoises is highly relevant for assessments of their sensitivity to various anthropogenic threats, improvement of mitigation measures, designation of protected areas, and development of management plans. The current knowledge on habitat use in the Baltic Sea is very limited, and methodological developments are likely to improve this.

This Action improves the following ones:

- RES-05: Further develop and improve fishing gear with no harbour porpoise bycatch
- RES-01: Improve knowledge on harbour porpoise population structure in the Baltic region
- RES-08: Estimate mortality limits and assess population viability for the Baltic harbour porpoise
- MIT-06: Expand the network of protected areas for harbour porpoises, improve its connectivity, and develop and implement appropriate management plans including monitoring schemes for these areas

This Action is directly related to the implementation of the following Articles of EU directives or regulations:

- Habitats Directive Article 4(1) referring to that for aquatic species which range over wide areas, only clearly identifiable areas representing the physical and biological factors essential to the species' life and reproduction shall be proposed as SACs.
- Habitats Directive Article 18(2) referring to particular attention to scientific work necessary for the implementation of Article 4, among two Articles.

Activity or method:

- Improve acoustic methods for identification of harbour porpoise behaviour, such as foraging or, if possible, for acoustic determination of calves vs adults.
- For acoustic methods applicable on C-POD data, utilize the SAMBAH dataset for identification of spatio-temporal patterns.
- Improve visual methods for identification of calves regarding cost-efficiency and applicability in relevant areas.
- Survey the high-density areas of the Baltic Sea during summer to confirm calving grounds and determine the timing of calving.

Implementation timeline: Immediate/continued

Actors

Responsible for implementation: National authorities, scientists

Relevant stakeholders: n/a

Responsible for evaluation: National authorities, based on appropriate scientific expertise and advice

Priority

Medium

6.46. Increase involvement, awareness and cooperation

6.46.1. Action COOP-01: Involve stakeholders in the work of reducing bycatch of harbour porpoises

Description

Objectives:

- Reduction of bycatch by enhanced cooperation among relevant stakeholders.
- Increased involvement of fishermen throughout the process of bycatch mitigation, from planning to implementation.

Threats: Bycatch

Rationale:

By involvement of all relevant stakeholders in the development of bycatch mitigation measures, the rate of success in finding solutions that are practicable, equitable and meet with the acceptance of fishermen will most likely increase. Acceptance by fishermen is needed to ensure consistent and efficient implementation of mitigation measures.

This Action improves the following Actions:

- PACB-01: Improve communication and education for increased public awareness and collection
- of live observations and dead specimens of the Baltic harbour porpoise
- RES-03: Improve methods for monitoring and estimation and harbour porpoise bycatch
- MON-03: Monitor and estimate harbour porpoise bycatch rates and estimate total annual bycatch
- RES-05: Further develop and improve fishing gear with no harbour porpoise bycatch
- MIT-02: Reduce or eliminate fishing effort with gillnets or other gear known to cause porpoise bycatch in areas with high harbour porpoise density or occurrence, and/ or in areas with high risk of harbour porpoise bycatch
- MIT-03: Continue or implement the use of acoustic deterrent devices ("pingers") and acoustic alerting devices proven to be successful when and where deemed appropriate
- MIT-04: Prevent, retrieve and recycle derelict ("ghost") fishing gear
- MON-04: Collect dead specimens and assess health status, contaminant levels, cause of mortality and life-history parameters of harbour porpoises

Activity or method:

- Establish working groups consisting of fishermen, scientists, competent authorities, and fisheries and environmental organizations to develop guidelines and methods for reducing and monitoring bycatch in relevant fisheries. Working groups can be established nationally and/or locally, with priority of areas with identified high risk of harbour porpoise bycatch (RES-04).
- Facilitate environmental certification of fisheries.

Implementation timeline: Continued

Actors

Responsible for implementation: Baltic Parties and Range States, including national armed forces

Relevant stakeholders: Professional and recreational fishermen, scientists, relevant authorities, fisheries and environmental NGOs, HELCOM Fish Group, HELCOM Seal Expert Group

Responsible for evaluation: Baltic Parties and Range States, including national armed forces

Priority

High

6.16.2. Action PACB-01: Improve communication and education for increased public awareness and collection of live observations and dead specimens of the Baltic harbour porpoise

Description

Objectives:

- Increased awareness among the general public and people with jobs related to the sea, in particular fishermen, of the threats faced by Baltic harbour porpoises, the need to take action to conserve the species and the options for action.
- Increased amount and harmonized quality of information collected, compiled and presented on harbour porpoise observations throughout the distribution range of the Baltic harbour porpoise population.

Threats: Bycatch, contaminants, underwater noise, reduced prey quality

Rationale:

Public awareness plays an essential part in supporting any recovery plan. People need to be aware that harbour porpoises are an integral part of the fauna of their local waters, that they are worth saving, what actions that can be undertaken to improve their survival, and what to do if an animal is encountered. The key target groups are Baltic fishermen and others working or recreating at or by the Baltic Sea. Fishermen are most likely to interact directly with harbour porpoises, and members of all groups working at or by the Baltic Sea are most likely to encounter harbour porpoises due to their long time spent at or by the sea. Further, due to their high numbers, the general public spending time by or at the Baltic Sea is also a key target group for information on harbour porpoise observations. The general public are also consumers of fishery products and the ultimate arbiters of public policy.

This Action improves the following ones:

- MON-04: Collect dead specimens and assess health status, contaminant levels, cause of mortality and life-history parameters of harbour porpoises

Activity or method:

- Continue the development and promotion of a regional approach to Baltic harbour porpoise conservation.
- Further develop and harmonize the means of reporting and presenting observational data, such as mobile apps and interactive web sites.
- Establish direct communication links between ASCOBANS and Baltic fishermen and fisheries organizations, and seek their assistance in determining how to reach fishing communities more effectively.
- Enlist the support of the general public and people related to the sea in obtaining reports of live harbour porpoise observations and collection of dead specimens.
- Cooperate internationally for further harmonisation of data standards and improved uploading of national data to the HELCOM data and map service.
- Designate national contact points for continual cooperation on public awareness activities within the Baltic Parties/Range States.

In the realization of this Action, attention should be paid to the fact that public awareness work has to be objective, attendant to and respectful towards cultural and linguistic differences, and candid about scientific uncertainty.

Implementation timeline: Continued

Actors

Responsible for implementation: Baltic Parties and Range States, ASCOBANS Secretariat

Relevant stakeholders: Professionals working at or by the Baltic Sea (including fishermen), the general public, national authorities, scientists and scientific institutions, fisheries and environmental NGOs, media, HELCOM Secretariat

Responsible for evaluation: Baltic Parties and Range States, ASCOBANS Advisory Committee

Priority

High

6.46.3. Action COOP-02: Strive for close cooperation between ASCOBANS and other international bodies

Description

Objectives:

- Informed actions and recommendations by ASCOBANS and cooperating partners.
- Ensuring that ASCOBANS positions are known and taken into account in relevant processes (including legislation) at the international and EU levels.
- Leveraging of synergies between competent international organizations, avoidance of duplication of effort.

Threats: Bycatch, contaminants, underwater noise, reduced prey quality

Rationale:

Cooperation between ASCOBANS and other relevant regional and international players will contribute to achieving synergies, avoiding duplication of effort and promoting more efficient and result-oriented use of available resources. It is also in line with the MSFD, stating that Member States shall:

- take due account of the fact that the marine waters of the Baltic Sea form an integral marine region (Article 4(1)),
- cooperate to ensure that the measures required to achieve the MSFD objectives are coherent and coordinated across the marine region (Article 5(2)), and,
- in order to achieve coordination, use existing relevant regional institutional cooperation structures, including Regional Sea Conventions (Article 6(1)).

Activity or method:

- Send the revised Jastarnia Plan to the national governments of the Baltic Parties and Range States, as well as to the European Commission, HELCOM, ICES and other relevant bodies, including NGOs. An appropriate cover letter informing them of the revision of the Plan and outlining what is expected of them should be included.
- Have regular consultations between ASCOBANS Secretariat and Secretariats of other relevant organizations, mutual representation at meetings, and continual exchange of information.

Implementation timeline: Continued

Actors

Responsible for implementation: ASCOBANS Secretariat, Baltic Parties

Relevant stakeholders: European, regional and international organizations and bodies, such as the EU, HELCOM including relevant working groups, and international conventions

Responsible for evaluation: ASCOBANS Advisory Committee

Priority

High

Annex III: Table 6. Summary of all Jastarnia Plan Actions

Table 6. Summary of all Jastarnia Plan Actions, [grouped according to priority](#). The timelines for implementations are: cont. = continued, imm. = immediate, interm. = intermediate. [COOP = cooperation, PACB = public awareness and capacity building, RES = research essential for providing adequate management advice or filling in knowledge gaps, MON = monitoring, MIT = mitigation measures.](#)

Type	Action no. and name	Time-line	Relevant objectives
Very high priority for immediate action			
<i>Monitor, estimate and reduce bycatch</i>			
MIT	MIT- 0192 : Reduce or eliminate fishing effort with gillnets or other gear known to cause porpoise bycatch in areas with high harbour porpoise density or occurrence, and or in areas with high risk of harbour porpoise bycatch	Imm.	1. Involve stakeholders and reduce bycatches 23 . Designate MPAs with management plans and monitoring fisheries regulations
MIT	MIT- 0293 : Continue or implement the use of acoustic deterrent devices ("pingers") and acoustic alerting devices when and where deemed appropriate in the entire Baltic Proper, except within designated SACs (or other MPAs) aiming at protecting harbour porpoises	Imm./Cont.	1. Involve stakeholders and reduce bycatches 23 . Designate SACs with management plans and monitoring fisheries regulations
COOP	COOP-01: Involve stakeholders in the work of reducing bycatch of harbour porpoises	Imm./Cont.	1. Involve stakeholders and reduce bycatches 69 . Increase awareness and cooperation
<i>Protected areas</i>			
MIT	MIT- 0396 : Expand the network of protected areas for harbour porpoises, improve its connectivity, and develop and implement appropriate management plans including fisheries regulations and monitoring schemes for these areas	Cont.	23 . Designate SACs with management plans and monitoring fisheries regulations
<i>Monitor and mitigate impact of underwater noise</i>			
MIT	MIT- 0495 : Implement regionally harmonised national threshold limits and guidelines for regulation of underwater noise	Imm. w/ regular rev.	32 . Implement threshold limits and guidelines for underwater noise
High priority			
<i>Monitor, estimate and reduce bycatch</i>			
MIT	MIT- 0594 : Implement the use of fishing gear with no harbour porpoise bycatch	Imm.	1. Involve stakeholders and reduce bycatches 23 . Designate SACs with management plans and monitoring fisheries regulations
MON	MON- 0193 : Monitor and estimate harbour porpoise bycatch rates and estimate total annual bycatch	Imm.	48 . Improve knowledge of population structure and assess population status 64 . Improve bycatch monitoring methods and estimate bycatch
RES	RES- 0195 : Further develop and improve fishing gear with no harbour porpoise bycatch	Imm./Cont.	1. Involve stakeholders and reduce bycatches
RES	RES- 0294 : Carry out a spatio-temporal risk assessment of harbour porpoise bycatch	Imm.	48 . Improve knowledge of population structure and assess population status 64 . Improve bycatch monitoring methods and estimate bycatch
RES	RES-03: Improve methods for monitoring and estimation of harbour porpoise bycatch	Imm.	1. Involve stakeholders and reduce bycatches

			64. Improve bycatch monitoring methods and estimate bycatch
RES	RES- 0406 : Improve the knowledge on potential population-level effects of the use of pingers, and develop acoustic devices for bycatch mitigation further	Imm./ cont.	1. Involve stakeholders and reduce bycatches
<i>Monitor and mitigate impact of underwater noise</i>			
RES	RES- 0506 : Improve the knowledge on impact of impulsive and continuous anthropogenic underwater noise on harbour porpoises, including development of threshold limits of significant disturbance and GES indicators	Cont.	23. Designate MPAs with management plans and monitoring fisheries regulations 32. Implement threshold limits and guidelines for underwater noise 56. Improve knowledge on habitat degradation
<i>Monitor and estimate abundance and distribution</i>			
MON	MON- 0204 : Implement and harmonise long-term continual acoustic harbour porpoise monitoring	Imm.	23. Designate MPAs with management plans and monitoring fisheries regulations 87. Monitor abundance
MON	MON- 0302 : Carry out full-scale surveys of harbour porpoise abundance and distribution	Interm.	87. Monitor abundance
<i>Monitor and assess population status</i>			
MON	MON-04: Collect dead specimens and assess health status, contaminant levels, cause of mortality and life-history parameters of harbour porpoises	Cont.	48. Improve knowledge of population structure and assess population status 56. Improve knowledge on habitat degradation
RES	RES- 0608 : Estimate mortality limits and assess population viability for the Baltic harbour porpoise	Imm.	48. Improve knowledge of population structure and assess population status 87. Monitor abundance
Medium priority			
<i>Monitor, estimate and reduce bycatch</i>			
MIT	MIT- 0604 : Prevent, retrieve and recycle derelict ("ghost") fishing gear	Imm./ cont.	1. Involve stakeholders and reduce bycatches 23. Designate MPAs with management plans and monitoring fisheries regulations
<i>Monitor and estimate abundance and distribution</i>			
RES	RES- 0702 : Improve methods for estimation of absolute density and abundance of the Baltic harbour porpoise	Cont.	87. Monitor abundance
RES	RES- 0804 : Improve knowledge on harbour porpoise population structure in the Baltic region	Cont.	23. Designate MPAs with management plans and monitoring fisheries regulations 48. Improve knowledge of population structure and assess population status 87. Monitor abundance
<i>Protected areas</i>			
RES	RES-09: Develop and improve methods for and investigate spatio-temporal patterns of habitat use by harbour porpoises	Imm./ cont.	23. Designate MPAs with management plans and monitoring fisheries regulations
<i>Increase involvement, awareness and cooperation</i>			

PACB	PACB-01: Improve communication and education for increased public awareness and collection of live observations and dead specimens of the Baltic harbour porpoise	Cont.	69 . Increase awareness and cooperation
COOP	COOP-02: Strive for close cooperation between ASCOBANS and other international bodies	Cont.	69 . Increase awareness and cooperation