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EMODnet European Marine Observation and Data Network

EXPERT PANEL
Sea Basic Checkpoints - Arctic

JANUARY 31, 2017

Recommendations to the Eu and Member States

Expert Panel:

Anne Christine Brusendorff (ICES), Colin Grant (OGP, Metocean Consulting), Hans Dahlin (EuroGOOS), Aart Kroon (University of Copenhagen), Srdan Dobricic (JRC) & Anna Stammler-Gossmann (Arctic Centre, University of Lapland)

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1 INTRODUCTION

1.1 Expert Panel meeting

On Monday January 30th and Tuesday January 31st the first Expert Panel Meeting took place for the Arctic Sea Basin Checkpoint. On Monday the project team presented the results so far. On Tuesday the Panel made a report with recommendations about the project, which is this report. The report includes both recommendations about the content of the project, as well as more general recommendations to the EU and member states. The recommendations are described bullet-wise in this report, sorted on the topics of the project. The Panel was pleased with the progress of the project and wishes the project team to carry on in a similar fashion.

1.2 Short introduction of the Panel members

1.2.1 Anne Christine Brusendorff (ICES)

Ms. Brusendorff has been General Secretary of ICES since 2012. She completed her PhD in International Law of the Sea and International Environmental Law at the University of Copenhagen.

Before joining ICES Secretariat, Brusendorff spent 14 years leading the Baltic Marine Environment Protection Commission (HELCOM) in Helsinki and, prior to that, was the Head of Section at the Danish Ministry of Environment and Energy, Danish Environmental Protection Agency.

Having been focused on the Baltic region she is now tackling the challenges faced at the international level to promote integrated ecosystem understanding, with the aim to develop integrated ecosystem assessment in regional seas, as a link between ecosystem science and the advice required in applying an ecosystem approach.

1.2.2 Colin Grant (IOGP, Metocean Consulting)

Colin spent 35 years working in the oil and gas industry as a meteorological and oceanographic (Metocean) specialist. He chaired the IOGP (International Association of Oil & Gas Producers) Metocean Committee from 2008 to 2013. Since retiring from BP in 2014, he has provided consultancy to IOGP and others.

1.2.3 Hans Dahlin (EuroGOOS)

Hans Dahlin, physicist, oceanographer, director of EuroGOOS (retired), European Global Ocean Observing System. Former director of oceanography at the Swedish Meteorological and Hydrological Institute. As such representing Sweden in international organisation as IOC, ICES, GOOS, Helcom. Former member of the Swedish Polar Research Committee.

1.2.4 Aart Kroon (University of Copenhagen)

Aart Kroon is a physical geographer and geomorphologist, at the faculty of Science of the University of Copenhagen, Denmark. He is specialised in dynamics of coastal and fluvial environments and has more than ten years of Arctic experience, mainly in Greenland. He is also member of CENPERM an Arctic center on permafrost research.

1.2.5 Srdan Dobricic (JRC)

Srdjan Dobricic applies coupled global ocean-atmosphere numerical models and statistical methods to study remote impacts of air pollution policies on climate change in the Arctic. In the past, he has been a major developer of the oceanographic data assimilation scheme currently used by the Copernicus Marine Monitoring Service for operational forecasting in the Mediterranean Sea and global ocean reanalysis.

1.2.6 Anna Stammler-Gossmann (Arctic Centre, University of Lapland)

Dr. Anna Stammler-Gossmann, (Social Anthropology, Arctic Centre, University of Lapland, Rovaniemi, Finland) specializes in Arctic Anthropology since 1995.
Research interests and expertise: Marine anthropology: climate change and human activities in the Arctic (fisheries, aquaculture, indigenous peoples, pastoralism, tourism, oil- and gas extraction),
Research sites: Across the Arctic; case studies and fieldwork conducted: in Nordic countries (Finland, Norway, Svalbard, Greenland, Iceland); Russia (Murmansk region, Nenets Autonomous District, Sakha Yakutia, Kamchatka); Canada; Argentina (Tierra del Fuego, Patagonia)

From the project team Pepijn de Vries, Martine van den Heuvel-Greve, Belinda Kater and Eline van Onselen were present to present the results of the project.

2 RECOMMENDATIONS PER CHALLENGE / TOPIC

2.1 2.1 Data adequacy reporting and Content Management System

- "Quality" may not be the best word for what is being described. As people with many backgrounds can view our findings it might be wise to change the wording.
- Please be specific about model data and have a concrete option for this in the data quality/adequacy assessment.
- "Unpublished" datasets (datasets which are not a part of published literature but stand-alone datasets) should be and are included, next to the published literature.
- Summary at the start of the DAR report would be nice for readers.
- Examples in the DAR report would be very illustrative.
- "Sustainability" of datasets are very important, after a certain amount of time can the data set still be used? Will it still be contained? Can new data be added? Information like this should be part of the description of a dataset.
- Describe choosing parameters, the reasons behind the decisions.
- In the future, it could be a possibility to assess combined datasets.
- User-friendliness should always be a priority, be as open-sourced as possible.
- Describing the original purpose of new data should be included whenever possible, this is also a recommendation for researchers etc.
- Structured vs unstructured results are not clear definitions, this should be rephrased, as well as 'reluctance to release data'.
- Recommendation to both governments and Commission; making data available to everyone is very important.

2.2 Wind farm Siting

- When looking at windfarm locations it's important to include maintenance of the windfarms as factor; maintenance requires certain conditions which might not be feasible in the Arctic area.
- Icing on the turbines might be an issue and should not be forgotten.
- Gathering vertical wind profiles is sometimes an issue, please state the nature of the found information and the gathering process for future reference.
- Please review the importance of this question. Look into the realism of this scenario.
- Information on this topic might be available on a commercial basis which are not publicly available. Recommendation would be to release where possible.
- Recommendation would be to not put too much effort into this challenge and see it as low priority.
- Recommendation would be to gather information on the ecological assessment regarding OWFs.

2.3 MPA

- As protected species do not stay within protected areas, these should be looked at separately.
- Many stakeholders are interested in the information on MPAs and the information found will be distributed.
- Recommendation: go into the origin of MPAs and whether they are meeting their purpose. Set up indicators and long-term monitoring strategies where possible.
- Projection used when mapping MPAs is important (GIS).
- Recommendation: Use the MPA 'base' for other challenges and projects (e.g. marine planning).
- Areas beyond national jurisdiction should be addressed.

2.4 Oil leak platform

- Looking at the risk from vessels might be useful as well. Refer to major Norwegian project/ Arctic Council working group EPPR.
- Very different from the other challenges; where is the data?
- Response plans do need historical data, recommendation would be to consider this. Datasets to set-up response plans and models such as wind and wave information, ecological data, MPAs, etc. are important.

- Recommendation; look at the cleaning process and how this would be affected by Arctic circumstances.
- Recommendation to consider small-scale pollution events as well (e.g. small leaks from ships).
- Difficult challenge for the Arctic, both in planning and addressing.
- Gain information on environmental impact assessment and indicate (coastal) areas of high priority

2.5   Climate Change

- Group the sub-challenges in an overview, create a sketch for easy reference.
- Content wise, state the direction of the data needed; what's available and what can we do with this? What's not available and needs monitoring? Why?
- Recommendation; be more specific on the questions.
- Prediction are important when talking about climate change and specific topics such as fish distributions but also ice extent, etc.
- Addressing trends in climate change, to link data sets to impact assessments and monitoring needs.
- Recommendation to include changes in ice extend and ice quality towards traditional way of life.
- Include Northern Sea Route impacts if possible.
- Focus on sea level rise, temperature and salinity, recommendation to monitor these parameters.
- Sum up the data sources used for this challenge.
- Internal energy = heat content, please refer to this definition.
- Recommendation to focus on zooplankton instead of (or in combination with) phytoplankton.

2.6   Coast

- Measurements are not always comparable, monitoring protocols are essential in this.
- Satellite information can prove very useful.
- Recommendation to focus on shoreline erosion and accumulation, a lot of data is available.
- Recommendation; do not go into volumes, coastal profiles/bathymetry is needed for this (recommendation to monitor).
- Recommendation to (keep) open sea level monitoring stations.
- One of the Russian stations would show the sea level rise in a better way than Reykjavik.

2.7   Fisheries management

- Landing data does not necessarily indicate where the fish has been caught, this poses an issue. In the ICES database it's described in the metadata, on European level it's mandatory to state where the fish is caught.
- Recommendation to add the location of where the fish are caught.
- Recommendation to look at the developments of the central Arctic Ocean fisheries and focus on monitoring and information gathering.
- Recommendation to look at fish migration pattern development and its impact on fisheries management, link to climate change.

2.8   Fisheries impact

- Impacts other than ecological ones could be addressed as well.
- Recommendation: monitoring bottom impacts.
- Trade-offs and scenarios such as economical value of fisheries system vs ecological value of the habitat.
- Recommendation to open restricted data as much as possible (e.g. VMS data), EU pressure would help.
- Recommendation to link Fisheries and alien species; fishing on alien species.

2.9   River input

- Please describe if and how this challenge incorporates modeling data.
- The focus can be split into two pathways: (1) Large river basins and (2) small river basins which flow directly from the ice caps.

- Recommendation to focus on fluxes of sediment, N and P and salmon and eel, pollution, monitoring is recommended. Monitoring protocols are very important for comparisons.
- Historical (Russian) data available.
- Recommendation to link to climate change.

2.10 Bathymetry

- Incorporate shipping routes.
- Link to Northern Shipping Route.
- Recommendation to look at the question, what is important? What resolution is needed?
- Focus on 'lower' resolution (500m) is fine in most cases. Specific project might ask for more details but site-specific surveys will be done.
- Responsibility for sea geography is absent, recommendation to map the Arctic Basin to gain insight into the volume.
- Explain the relevance of this topic.

2.11 Alien species

- Link to maritime shipping (ballast water).
- Need for impact assessment – which species can settle / get invasive.
- Link to climate change.
- Define the words 'alien', 'invasive', 'introduced'.
- Recommendation to go into the management of alien species (e.g. fisheries).
- ITMO (ICES) link.

3 OVERALL RECOMMENDATIONS AND CONCLUSION

3.1 Project related

- Option to prioritize certain challenges in Phase 2.
- Indicate based on what we have data wise, what do we actually need? Identifying gaps but also point out good Datsources/sets. Explain why we need monitoring.
- Show the main purpose of the question behind the project; what are the important outcomes? How 'fit-for-purpose' is the data that we found? Create a summary.
- For each of the different topics state if there is data available, is it a challenge to answer the questions, what is needed and why. Table form, summary, with examples.
- Give a summary of the 'open' sourced datasets which were requested but not given, data which is open after payments, etc.
- ESA data can be very useful for Phase 2 of the project.

3.2 Data

- Describing the original purpose of new data should be included whenever possible, this is also a recommendation for researchers etc.
- More reference to EMODnet.
- Suggestion to commission to make international efforts, include Russia, USA, Canada, etc. Some data is essential but not internationally available. International monitoring should be promoted by the EC. Sustaining monitoring strategies should be developed and used. Create an overview of existing databases.

3.3 Recommendations

- Recommendation to both governments and Commission; making data available to everyone is very important, governments and Commission should enforce legal frameworks to ensure this.
- Build on the existing international co-operations.
- Include as an obligation when granting projects to describe the purpose of a dataset and make it accessible for everyone.

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