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Interim Report of the Working Group for Marine Planning and Coastal Zone Management (WGMPCZM)

16–20 March 2015

Geesthacht, Germany



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Executive summary

Working Group for Marine Planning and Coastal Zone Management (WGMPCZM) met on 16–20 March 2015 in Geesthacht, Germany to discuss progress since the WGMPCZM 2014 meeting and to further elaborate the set of ToRs and developing a work plan towards the final report for the period 2014–2016.

Just before the 2015 meeting members of WGMPCZM organised a specific workshop on Probabilistic assessments for spatial Management (WKPASM) to further elaborate on issues related to ToR b). As well two CRRs are in finalisation stage to be published later in 2015. Furthermore two members of WGMPCZM offered a training course on Processes and Tools for MSP at the ICES Headquarter in October 2014 (TCMSP2014) relating to ToR d).

In addition to building on these activities WGMPCZM discussed further information needs and structure for the reporting on ToR a) and ToR e) in the Final Report in 2016 and started a discussion on the future of WGMPCZM which will be followed on in 2016 when the current multiannual period comes to an end and when a recommendation needs to be made by WGMPCZM on new ToRs and also new chairs, as the current chair will have served for 6 years by then.

A review of current activities in MSP/ICZM/EBM in ICES Member States (ToR a) and comments from those members of WGMPCZM directly associated to government authorities clearly indicated that activities in Member States speed up in the light of the new EU Directive on MSP, even though many countries still developing their approach. Currently the MSP is still in very different stages in the different countries ranging from operational procedures and some existing plans, e.g. in Germany, the Netherlands and UK to countries just establishing the competent authorities and developing their planning process, e.g. Sweden, or countries which did not yet start the process, e.g. Denmark. Similarly diverse are the ways of implementation in those countries which already started the MSP process.

A major step was taken on ToR c), discussing intensively the development of a typology of conflicts in MSP, ICZM and EBM and the identification of related information needs and conflict resolution tools. This discussion also aims to steer discussions on WKCCMSP to be organised later in 2015.

1 Administrative details

Working Group name Working Group for Marine Planning and Coastal Zone Management (WGMPCZM)
Year of Appointment 2015
Reporting year within current cycle (1, 2 or 3) 2
Chair(s) Andreas Kannen, Germany
Meeting venue Geesthacht, Germany
Meeting dates 16–20 March 2015

2 Terms of Reference a) – z)

ToR a) Update on activities in MSP, ICZM and EBM in ICES Member States with particular attention to regional specifics, land-sea interactions and evaluation of MSP/ICZM/EBM processes and outcomes

ToR b) Report on approaches and methods to develop and incorporate thresholds of acceptable environmental (social and ecological) change due to regional and transboundary activities in the context of MSP processes including support for and review of follow-up activities from Workshop on Risk Assessment for Spatial management (WKRASM)

ToR c) Develop a typology of conflicts in MSP, ICZM and EBM, identify information needs to analyse selected types of conflict and instruments to address these. This includes review and support of follow-up activities from Workshop on Cultural Ecosystem Services (WKCES)

ToR d) Support ICES in developing a role in providing training in Marine Spatial Planning

ToR e) Review data, information and knowledge management needs for MSP/CZM

3 Summary of Work plan

Summary of the Work Plan

<i>Year 1</i>	<ul style="list-style-type: none"> - Hold WKRASM (ToR b) - Prepare report on a typology of conflicts (ToR c) - Develop a proposal for an ICES MSP Training course and hold a training course (ToR d) - Prepare review of requirements of marine planners and marine managers for spatial data and information (ToR e)
Year 2 (2015)	<ul style="list-style-type: none"> - Hold WKPASM (ToR b) - Hold WKCCMSP (ToR c) - discuss literature review and theoretical concepts for conflict typology and prepare review of information needs and tools along conflict typology (ToR c) - Prepare a review of the ICES MSP training course and further updates of the MSP challenge game (ToR d) - review spatial data requirements and gaps, matched to marine planning objectives / targets and identify similarities in needs across plans (ToR e)
Year 3 (2016)	<ul style="list-style-type: none"> - Prepare a review paper based on information gathered at annual meetings (ToR a) - Prepare CRR on WKRASM and WKPASM and include results from further applications of the bow-tie approach (ToR b) - Prepare summarizing review paper for ToR b - Prepare report(s) on the role of cultural ecosystem services in MSP in relation to the MSP cycle, spatial data needs and the quality assurance system (ToR c), - Prepare scientific papers for ToR c - Prepare a review report of applications of the the MSP Challenge game(s) (ToR d) - Produce a publication on spatial data requirements and gaps, matched to marine planning objectives / targets and identify similarities in needs across plans (ToR e)

4 List of Outcomes and Achievements of the WG in this delivery period

Between WGMPCZM meetings 2014 and 2015 one specific workshop had been organised:

- ICES. 2015. Workshop on Probabilistic Assessments for Spatial Management (WKPASM), 9–13 March 2015, Hamburg, Germany.

The results the workshop will be used and further developed within WGMPCZM.

In addition two Cooperative Research Reports (CRR), initiated by WGMPCZM, are in preparation and discussion with the ICES Publication department:

- Cormier, R., A. Kannen, M. Elliott, and P. Hall. 2015. Marine Spatial Planning Quality Management System.

- Cormier, R., A. Kannen, M. Austin and T. Theriault. 2015. The use of science in Marine Spatial Planning decision-making processes.

Publication of both reports is foreseen for the second half of 2015.

In addition one training event on MSP () had been provided by Roland Cormier and Andreas Kannen:

- TCMS2014, Processes and Tools for MSP, 27–31 October 2014 at ICES Headquarter in Copenhagen.

5 Progress report on ToRs and workplan

ToR a) Update on activities in MSP, ICZM and EBM in ICES Member States with particular attention to regional specifics, land–sea interactions and evaluation of MSP/ICZM/EBM processes and outcomes

In general under this Term of Reference the working group explores the progress and specifically the new issues arising from further developments in countries regarding the implementation and improvement of maritime and marine spatial planning and integrated coastal zone management. The country updates encompass the policy progress, the scientific progress and the links between both. To make the information more accessible the country updates should include aspects of content of planning and ecosystem approaches, politics, governance, communication (including data), co-operation, finance, legal aspects, and the human and cultural dimension. Country updates were reported by several participants during the meeting with a particular focus on changes that are upcoming in the next years by the EU Framework Directive on MSP, which came into force in the second half of 2014. Given this situation the Member States shall start preparing for implementing MSP from 2015 on at the latest. There will be a significant outreach towards knowledge and experiences on MSP, interactions between the marine environment and human activities, including those in coastal areas, both from a governance and science perspective. A comprehensive overview will be elaborated at the 2016 meeting.

ToR b) Report on approaches and methods to develop and incorporate thresholds of acceptable environmental (social and ecological) change due to regional and transboundary activities in the context of MSP processes including support for and review of follow-up activities from Workshop on Risk Assessment for Spatial management (WKRASM)

Based on the work of WGMPCZM referring to the introduction of a risk management process to ecosystem based spatial management, WKRASM2014 examined how the Bow-tie analysis could be used to conceptualize cumulative effects and impacts in relation to cumulative pressures. WKPASM2015 examined the potential of using Bayesian Belief Network approaches bring a quantitative support to the Bow-tie analysis. However, the workshop further expanded the concept by developing a Bayesian Belief Network meta-model to calculate the residual pressures of a system of management measures integrating management elements of effectiveness and compliance. The details of the meta-models and the workshop discussions are available in the WKPASM2015 workshop report.

Based on Great Lakes case studies from North America, the outcomes of WKPASM2015 also identified assumptions and constraints in the use of such meta-models including data and modelling criteria to be applied to case studies for both strategic planning and operational applications.

Specifically, the meta-model developed allowed to:

1. Bridge science and management in a transparent simple manner;
2. Discriminate natural vs. anthropogenic contributions to the pressures, as well as the “escalation” effects of the externalities that affects both natural and anthropogenic contributions, thereby estimating total pressure of the system;
3. Incorporate uncertainty into the performance of the suite of management measures in a way that allows consideration of the precautionary principle – i.e., thresholds of risk tolerance can be set based on the uncertainty of performance at a specific management measures;
4. Integrate both hard controls (actions based on design criteria set by science and engineering) that contribute to effectiveness of the management measure, and soft controls (strategies based on enabling, facilitating and tracking activities) that contribute to compliance of the management measure [terms based on EU Marine Strategy Framework Directive, Annex 6, Program of Measures, 2008];
5. Allow “continuous improvement” of the management system by enabling iterative review the performance of the management system and then adapt the systems to reach the management target (i.e., adaptive management);
6. Identify potential weaknesses in the performance of the management system, in terms of gaps in scientific knowledge, lack of resources to monitor effectiveness & compliance, and need for innovation of the management system. WPASM participants are presently considering various case studies to parameterize the meta-model in the coming year.

ToR c) Develop a typology of conflicts in MSP, ICZM and EBM, identify information needs to analyse selected types of conflict and instruments to address these. This includes review and support of follow-up activities from Workshop on Cultural Eco-system Services (WKCES)

ToR c is concerned with the development of a typology of conflicts in MSP, ICZM and EBM, as well as suitable instruments for addressing these. Conflicts can lead to blockages of the MSP process, costly added work and further conflicts during implementation as a result of not addressing original causes of conflict. Recognising different types of conflict, their causes and constructive ways of dealing with them – and differentiating between those that can be resolved by MSP and those that cannot - is thus an essential part of Quality Assurance in MSP, linking ToR c to the work done on Quality Assurance (Cormier et al., forthcoming).

During the previous year the working group developed an outline typology of conflicts. A conflict is understood to occur when a disagreement cannot be resolved through estab-

lished mechanisms, or when parties fail to accept the solution that has been developed through established mechanisms. Conflicts can also be defined as a disagreement which ends in behaviour requiring management, or a situation in need of active management. It was re-emphasised that due to the many dimensions involved, developing a comprehensive typology of conflicts is a complex task. Previous work had structured dimensions of conflicts along the lines of a bowtie, showing the sources and causes of conflict on the one side and the risks to avoid on the other. The MSP process is regarded here as a means of de-escalation or prevention. The group noted that the bowtie could give the (false) impression of linear causalities which do not exist in reality, and that the term “conflict” in itself may appear judgemental and better be replaced by “problem” or “impediments” in some instances.

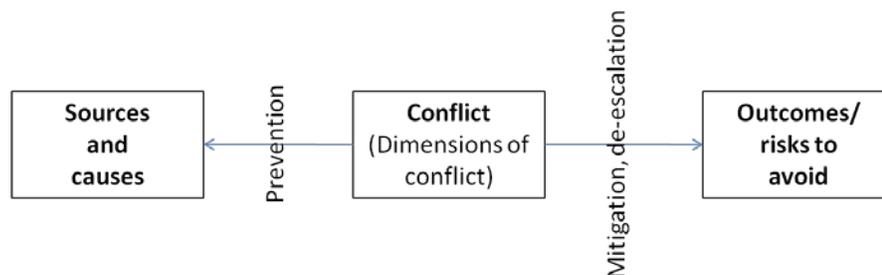


Figure 1. Description of conflicts as a bowtie.

Various examples of MSP-based conflicts were discussed, such as a conflict between Belgium and the Netherlands which arose from different interpretation of data sources. It was also noted that some conflicts are diffuse and difficult to break down, and that conflicts may only be perceived as such by one of the affected parties. Conflicts may have multiple sources and are usually multi-dimensional, and many have added historic dimensions (such as broader disputes). In some cases, it is not the immediate effect of a conflict which is problematic, but the impact of that effect on something else. Cross-border issues were identified as particularly important and relevant for the work of the group, especially since important differences were noted between MSP documents/plans across countries (e.g. with respect to the details of each planning project, the level of detail in SEA, expected compliance etc.).

A concept from industry („bottlenecks, showstoppers, train wrecks“) was suggested as a classification based on the expected severity of impact. The advantage of this is that it gives immediate priorities: Conflicts classed as train wrecks probably need to be tackled first as they have the capacity to impede the entire system. Another concept from industry is to look at basic risk factors, for example separating design and hardware.

One of the difficulties is that strategic planning is about content rather than attitude and behaviour, and that it may be difficult for MSP processes to accommodate such “soft” factors which can be important contributors to conflicts. Planning itself can be a source of conflict, in that institutionalisation makes processes less organic and encourages the formation of “solidified” positions (“claiming stakes”).

The group agreed that subsequent work should focus on solutions for MSP. Analysis of conflicts will therefore need to be aligned to an analysis of the capacities and capabilities of MSP, especially also its understanding as a legal process.

The typology of conflicts will be developed into a checklist for analysis, providing a hands-on tool for MSP practitioners and decision-makers. („What to do in cases where...“). The typology of conflicts and toolkit will be illustrated with case study examples (including conflicts and good practice in dealing with conflicts).

A dedicated workshop „Conflicts and Coexistence in MSP – WKCCMSP“ – is planned for 13–16 November 2015 (Resolution from WGMPCZM2014 report, already approved), to take place at Helmholtz Zentrum Geesthacht. The workshop will finalise the typology of conflicts and draw up a methodology for assessing conflicts. In addition to the typology itself, the workshop will focus on the following methodological aspects:

- How can factors/situations be identified that have potential for conflict?
- How can a typology of conflicts, or knowledge about a conflict, be used to help avoid or resolve conflicts?
- What skill set should managers have to avoid or handle conflicts?
- How can the scale and severity of conflicts be assessed?
- Are ecosystem services a suitable tool for analysis?
- What are the limits of conflict resolution within MSP? What kinds of conflict can a good MSP process fix/not fix, and what kinds of conflict can a plan fix/not fix?
- Who is empowered to deal with what in the context of MSP-based conflicts?

The following templates were developed to help prepare for the workshop:

Literature survey on spatial conflicts and coexistence in MSP, ICZM and EMB		
Aspect	Source	Relevant elements
Definitions of conflict		
Dimensions of conflict		
Sources and reasons for conflicts		
Severity of conflicts (e.g. hot and cold conflicts)		
Risks to avoid		
Prevention of conflicts		
Conflict resolution		

Literature = academic literature, examples from projects or conflict resolution techniques, handbooks etc.

Examples for spatial conflicts and coexistence in MSP, ICZM and EBM			
Example	Source	Example for what (see categories in table above)	Description Relevance
Coexist		7 case studies of conflicts and synergies	...
MESMA		primary vs secondary conflicts	...
TPEA		Typology of transboundary issues	...

It was suggested to circulate the proposed typology and workshop outline to the EU Expert Group on MSP to ask for input/relevance. Expert Group members may also be able to suggest conflicts for analysis. These should be selected to show the range of impediments that can be encountered and reflect different geographical areas, political systems. One example is science/information/data as a source of conflict (e.g. conflicts surrounding co-location, such as offshore wind farms and fisheries). Examples should be characterised as specifically as possible. The resulting report should make clear that examples only serve as illustration and are not being judged.

ToR d) Support ICES in developing a role in providing training in Marine Spatial Planning

This training course was given by Roland Cormier and Andreas Kannen as a response to a request of the ICES Training Group. Seventeen participants attended the course. The course curriculum started with an overview of the background and context focused on the European MSP policy background and context including a review of European Blue Growth goals and objectives, EU MSP Directive scope and elements for the planning process and strategic perspective as well as European Regional Seas and trans-national cooperation. The course then switched to managing the maritime spatial planning process with an overview of international and national maritime legislation, management and governance, understanding ecological, cultural, social and economic risks, stakeholder consultation and scientific advisory processes. All these elements were first introduced conceptually and then illustrated with examples, showing when and why they are relevant and what experiences exist in dealing with them in existing MSP processes. The MSP Challenge game in its 2011 version (<http://www.mspchallenge.org/>) was integrated in course delivery to bring to light learning elements of managing the process in relation to specific planning objectives. The participants came from administration as well as scientific backgrounds. Based on the (generally very positive) course evaluation comments, future courses should either have a planning process curriculum designed for participants from administrations or have a science view of the planning process designed for scientific participants. However, both groups indicated a significant learning curve, for scientist mainly by increasing awareness on the process components of MSP and its nature as an administrative and social process, for participants from an administrative background mainly by offering a structure and guidance based on CRR 327 on how to set

up a spatial planning process in marine areas and what information and data to consider in different phases of this process.

ToR e) Work with the ICES data centre to develop a strategy to source and present key datasets in support of MSP/ICZM activities.

Discussion of this ToR was not very intensive during this meeting, in particular because some of the main proponents for this ToR could not attend the meeting. A more comprehensive discussion will therefore be held at the next meeting in 2016 and time will be reserved for this including contributions from and discussion with the ICES data centre.

6 Revisions to the work plan and justification

Additions were minor, except the decision to undertake major work for ToR c in a separate workshop (WKCCMSP, already approved in 2014) in order to include further experts and devote more time to the topic.

7 Next meetings

The year 3 meeting of WGMPCZM will be held from 14 to 18 March 2016 at ICES Headquarter in Copenhagen, Denmark in order to further elaborate on the ToRs and develop the Final Report for the period 2014–2016.

Annex 1: List of participants

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Annex 2: Resolution for an ICES Internal Publication (Category 1)

The report will cover the output from WKCES2013 plus results of further discussion in WGMPCZM in 2014 and 2015 as well as experiences from case studies developed in the aftermath of WKCES on mapping and assessing marine aspects of cultural ecosystem services. It will take the form of a manual for planners setting out 'good practice' methods for mapping important cultural areas and including cultural information in the MSP process. The report, edited by Kira Gee and Andreas Kannen (Germany), as reviewed and approved by the respective ICES committees, will be published in the ICES Cooperative Research Report. The estimated number of pages is 150.

The Working Group on Marine Planning and Coastal Zone Management agrees to submit the final draft of the proposed publication by December 2016/Spring 2017.

Supporting information

Priority:	The WKCES is a direct outcome of the work in the joint SCICOM/ACOM Strategic Initiative on Areabased Science and Management (SIASM), in particular WKMCMS in 2011, of work in WGMPCZM in 2011 and 2012 and the workshop on Quality Assurance in MSP (WKQAMSP) in 2012. The WK will further the scientific knowledge base for MSP and complement other activities in WGMPCZM. The Collaborative Research Report will provide a full documentation in the form of a technical handbook/manual on how to identify, assess and map socio-cultural components for use in MSP.
Scientific justification:	The CRR will represent up to date information and techniques used in mapping cultural ecosystem services in form of a manual to be used by scientists, planners and managers. It will provide the basis to include socio-cultural aspects in future initiatives in MSP and marine and coastal environmental planning and management.
Resource requirements:	The material in the report will be developed from WKCES and therefore no specific additional costs are necessary.
Participants:	Approximately one month's work is required by the editors to finalise this draft.
Secretariat facilities:	About one month of the services of Secretariat Professional and General Staff will be required.
Financial:	Cost of production and publication of a 150-page CRR.
Linkages to advisory committees:	
Linkages to other committees or groups:	Links to the ICES Strategic Initiative on Coastal and Marine Spatial Planning and WGMPCZM.
Linkages to other organizations:	National and international bodies dealing with marine planning will welcome the publication.

Annex 3: Recommendations

RECOMMENDATION	ADDRESSED TO
1. Adopt Resolution for CRR (see annex 2)	SCICOM