## WGBESEO - Working Group on Balancing Economic, Social, and Ecological Objectives in Integrated Assessments

2019/FT/IEASG10 The Working Group on Balancing Economic, Social, and Ecological Objectives in Integrated Assessments (WGBESEO), chaired by David Goldsborough, Netherlands, David Langlet, Sweden, and Paulina Ramirez-Monsalve, Denmark, to work on ToRs and generate deliverables as listed in the Table below.

YEAR	MEETING DATES	VENUE	REPORTING DETAILS	COMMENTS (CHANGE IN CHAIR, ETC.)
Year 2020	15-16 April	By correspondence		
	8 June	By correspondence		
	26 November	By correspondence	ICES Scientific Report by 20 December 2020	
Year 2021	April 2021	ICES HQ, Copenhagen, Denmark	ICES Scientific Report by October 2021	
Year 2022	April 2022	ICES HQ, Copenhagen, Denmark	Final ICES Scientific Report by October 2022	

ICES is broadening the scope of advice that it provides to its clients. The advice now includes catch opportunities, fisheries overviews and ecosystem overviews. Special requests to inform discussions about trade-offs are also made by clients. ICES advice provides analysis and data on the trade-offs of different decisions and the advice must take into account the management context and relevant management objectives. Understanding and describing the management scope and context is crucial for designing a salient, legitimate and credible advisory process and for the development of long-term management plans.

A variety of social, economic, and ecological (SEE) objectives which are relevant for managing marine resources have been set out in legal and policy documents. Having a systematic comprehension of such objectives and information on potential trade-offs among them enables decisions to be made with better comprehension of the societal implications of alternative courses of action. It also enhances the potential for transparent communication about the significance of uncertainties and knowledge gaps.

The Working Group forms part of a broader aim, following the Strategic Initiative on the Human Dimension (SIHD) Roadmap, to integrate the consideration and use of SEE objectives into ICES work in an effective manner, strengthening the overall societal relevance of ICES advice. The working group answers the call for identifying and including management objectives in Ecosystem Overviews (EO) as reported in WKEO31.

The Working Group aims to develop a methodology for identifying and characterizing/classifying SEE objectives in a multi-level governance setting, thus providing a tool for the practical integration of such objectives into future analysis and evidence for advice provided by ICES. The mere identification and cataloging of specific objectives is not sufficient since such objectives change over time, as do their legal character and the forms in which they are expressed. Any mapping will thus soon become outdated.

<sup>1</sup> ICES. 2019. Workshop on the design and scope of the 3rd generation of ICES Ecosystem Overviews (WKEO3). ICES Scientific Reports. 1:40. 46 pp. http://doi.org/10.17895/ices.pub.5445

This necessitates the focus on development of a generic methodology that can be applied repeatedly by various ICES groups and in different geographic settings. However, the group's work will involve identifying and cataloging objectives as a means of evaluating proposed methodologies. The work requires involvement of stakeholders, including decision makers, to ensure the practical relevance of the methodology and the resulting "landscape" of objectives. This work will be carried out in close consultation with ICES advisory processes (ACOM & secretariat).

The focus of the Working Group is on identifying social, economic, and ecological objectives derived from legal and policy documents. Unfortunately, these policy objectives tend to be dispersed over various documents, and/or be defined at a high level of abstraction and thus not being directly linkable to indicators. Therefore the group will develop a framework to facilitate (1) the elicitation of the relevant policy objectives for marine management, (2) characterize/classify the objectives in terms of their binding or nonbinding nature and the level of governance at which they occur (possibly also if they are specified/quantified/have time limits, etc.), (3) support specification of the policy objectives in terms of social, economic and ecological indicators and (4) link these objectives and indicators to institutions and instruments.

Developing this framework relies on interaction with decision makers to discuss and elaborate on the identified and characterized objectives. To ensure that the objectives are specific and applicable in the ICES scientific community close collaboration with ICES expert groups is essential.

Developing and finalizing the framework will require several sessions conducted in collaboration with IEA groups, as well as with other ICES expert group, and with the involvement of decision-makers<sup>2</sup>. Interviews, workshops and case studies will be used to develop the framework. As far as possible, the work should also draw on the experiences of scientists with policy analysis expertise from several ICES member countries.

The framework as eventually developed should be applicable to regional seas and provide the required input to contribute to the next generation of ecosystem overviews. The end goal is being able to provide decision makers with a suit of management options including the associated implications for relevant objectives that will support their decision-making process.

Considering the core and well-established role of fisheries in all ecoregions (ICES Fisheries overviews), fisheries policy is a logical starting point for an analysis of policy objectives. This will then be further expanded to other important human activities in eco-regions. In developing the framework, we will draw on Integrated Ecosystem Assessment (IEA) experience from others areas, such as North America. The current Working Group on Maritime Systems (WGMARS) analysis of ICES IEA group work will also provide useful input for designing the framework.

Workshops with regional seas groups and ICES Expert Groups to develop and test the framework would be the preferred development path. The developed framework will enable the identification of management objectives for specific ecoregions in line with the ecosystem overview 'pipeline process', and as envisioned in the findings from WKEO3 (ICES, 2019).

 $<sup>^2</sup>$  Involvement of decision-makers will be done in close consultation with the ACOM leadership, SCICOM, and ICES Secretariat

## ToR descriptors

			SCIENCE		
ToR	DESCRIPTION	BACKGROUND	PLAN CODES	DURATION	EXPECTED DELIVERABLES
a	Synthesize existing information on social, economic and ecological management objectives, in particular how these can be mapped and systematized, from legislation, ICES expert groups, various marine research projects and the scientific literature	Lots of information exists on policy objectives, but this info is scattered over many different sources, and thus inconvenient to use for IEA scoping studies. It is important to explore the extent to which methods for identifying and systematizing such objectives also exist.	6.3	1st year	Overview report: availability of objectives and existence of methodologies, schemes for systematization.  Overview of existing governance work within ICES ecoregion WGs.
b	Identify, in dialogues with relevant stakeholders the most relevant trade-offs between SEE objectives in selected geographical and regulatory contexts. This will be carried out in close consultation with ICES advisory processes (ACOM & secretariat).	It is important that the development of a working methodology for identifying and characterizing/classifying SEE objectives enables addressing the most relevant trade-offs encountered by decision makers and that any scheme for characterization/classification corresponds to stakeholder needs.	6.3	1 <sup>st</sup> – 2 <sup>nd</sup> year	Overview Report: description of most relevant trade-offs identified and the associated SEE objectives.
С	Identify, in dialogues with relevant stakeholders, distinctive characteristics of SEE objectives as a basis for characterization/classification. This will be carried out in close consultation with ICES advisory processes (ACOM & secretariat).	Relevant characteristics may include legally binding/non-binding; policy level where the objective is formulated (subnational, national, EU, international), etc.	6.3	1 <sup>st</sup> – 2 <sup>nd</sup> year	Overview report: where appropriate, list of distinctive characteristics of SEE objectives as a basis for characterization/classification applicable to ICES IEA regions.
d	Develop a methodology for carrying out the identification and characterization/classification of SEE objectives in national and international/supranational governance settings.	The system for characterization/classification of SEE objectives should incorporate the characteristics identified under (c) and be adjustable to different regional/regulatory contexts.	6.3	2nd and 3 <sup>rd</sup> year.	Overview report: description of draft methodology.
e	Test the methodology by identifying and characterizing/classifying SEE objectives in one or more relevant governance settings.	The methodology needs to be tested to verify that it is simple and robust enough to be applied by different users and yields a result that will be practically relevant.	6.3	3 <sup>rd</sup> year.	Overview report: description of methodology, including result of its testing.

## Summary of the Work Plan

Year 1	Repository set up, general White paper
Year 2	Workshops with stakeholder involvement, peer reviewed publication, white paper on evaluation schemes
Year 3	Elaboration of methodology, peer reviewed publication

## **Supporting Information**

Priority	High. This Working Group is seen as a key strategic element of the SIHD in IEAs and the IEA Steering Group to expand the knowledge base for supporting comprehensive integrated advice containing social, economic and ecological considerations.
Scientific justification	A lot of work has been done on trade-off analyses, social, economic and other objectives and issues; however, the knowledge basis is not available in a structured and organized way for ICES. In addition, there is a need for a robust methodology for identifying and characterizing/classifying SEE objectives in different governance settings. Relevant ICES working groups should be able to apply the methodology when called for by their work and also to repeat the identification and characterization/classification of SEE objectives regularly to ensure that the objectives they incorporate in their work are relevant and current.
Relation to Strategic Plan	The group will directly feed the work of the IEA working groups as well as feed into the ecosystem, fisheries and aquaculture overviews.
Resource requirements	The group will rely on ongoing international and national research projects with active involvement of ICES IEA groups and supporting WGs, such as WGSOCIAL and WGECON. The proposed repository will be set up on a working group ICES SharePoint.
Participants	Interested scientists, IEA group chairs or members, IEASG chairs, SIHD chairs, WGMARS, WGECON, WGSOCIAL, WGINOSE, WGSEDA, WGRME, WGHIST, EU project leaders (e.g. GAP1 and GAP2, JAKFISH, MEFEPO, ODEMM, MESMA, SOCIOEC, MYFISH, AQUACROSS, CERES), ICES Secretariat
Secretariat facilities	SharePoint site, secretariat support for reporting, for facilitating the WebEx meetings (three to four a year) and for hosting physical meetings (at least two per year). Active support by the scientific officers to link the work with relevant initiatives within ICES desired.
Financial	None
Linkages to advisory committees	ACOM
Linkages to other committees or groups	IEASG, SIHD, all IEA groups, WGIMM, WGSA, WGMARS, WGSEDA, WGHIST, WGRME, SICCME, WGSOCIAL, WGECON.
Linkages to other organizations	North Pacific Marine Science Organization (PICES) Human Dimension Group, International Institute of Fisheries Economics & Trade (IIFET), National Oceanic and Atmospheric Administration (NOAA), Protection of the Arctic Marine Environment Working Group (PAME), Integrated Marine Biosphere Research (IMBeR), Ecosystem Studies of Subarctic and Arctic Seas (ESSAS), European Union institutions and bodies involved in the IMP (Integrated Maritime Policy).