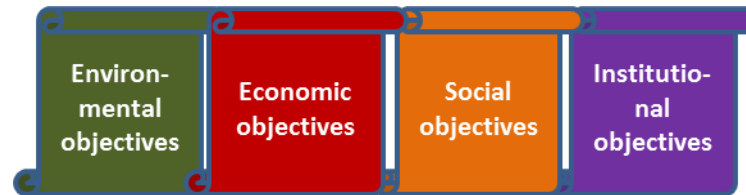


Economic, Social, and Institutional (ESI) Objectives – the other side of the coin in a multiuse marine environment



ICES WKBESIO co-chairs **Christine Röckmann,**
Alan Haynie and Jörn Schmidt

and team: Tony Charles, David Goldsborough, Leyre Goti,
Marloes Kraan, David Langlet, Robert L. Stephenson, Eva-
Lotta Sundblad, Matilda Valman
(ICES WKBESIO 2017)



IFFET 20 July 2018, Seattle, USA

Our Vision: To be a world leading scientific organization concerning marine ecosystems and to provide the

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Our Vision: To be a world leading scientific organization concerning marine ecosystems and to provide the knowledge to secure the sustainable use of the seas.

Our Mission: To advance the scientific understanding of marine ecosystems, and provide information, knowledge, and advice on the sustainable management of human activities affecting, and affected by, marine ecosystems.

LEA
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EXPLORE OUR EXPERT GROUPS

Expert Groups are the backbone of our organization - learn more about their work

17 April 2018

Forecasting group seeking members



28 March 2018

Barents capelin bounce back – and other highlights



FIND OUR PUBLICATIONS

Integrated Ecosystem Assessments

Human Dimension in Setting **Goals and Targets**

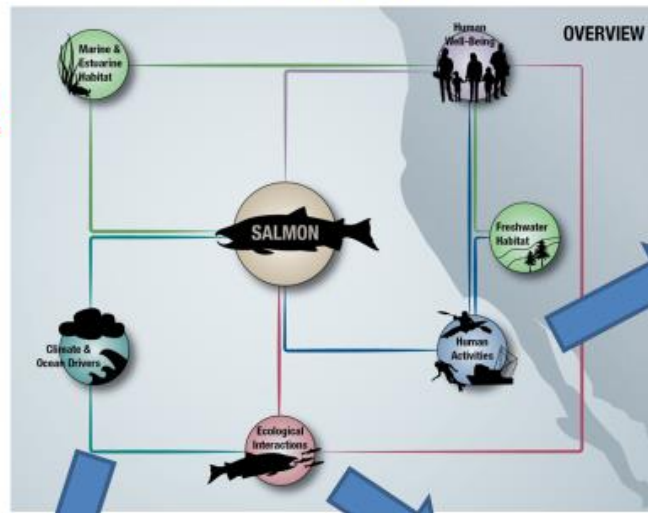


Visualization to build consensus: **conceptual models of the SES**



“Overview” SES Model

Focal Component



Human Activities



Next-tier models
flesh out key details

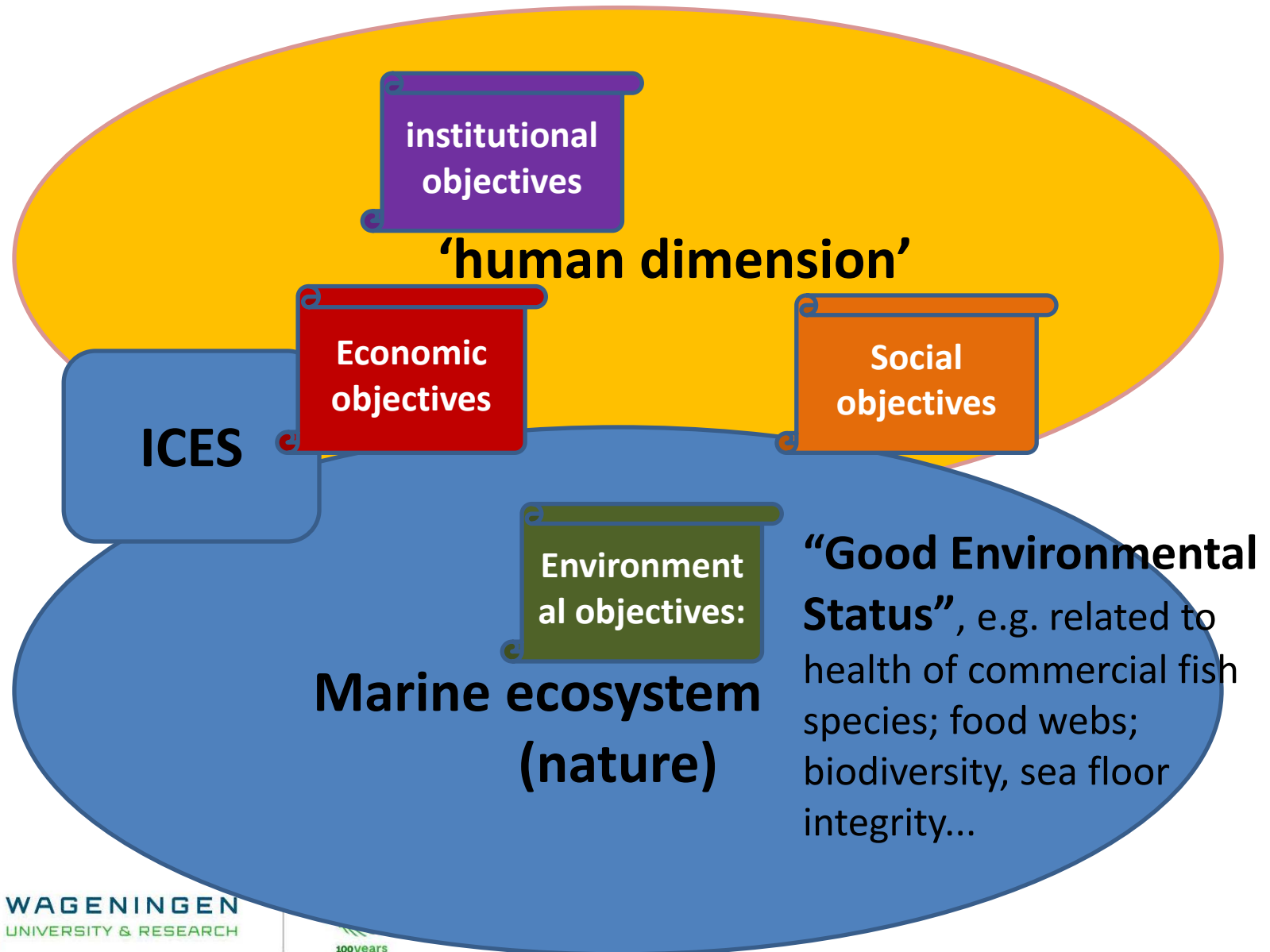
Environmental Drivers



Ecological Interactions



ICES in the Social-Ecological System



Workshop on Balancing Economic, Social, and Institutional Objectives in Integrated Assessments

Economic
objectives

Social
objectives

institutional
objectives



Holsman et al. 2017

WKBESIO – North Sea focus

Examined EU policy documents:

- Integrated Maritime Policy (IMP 2007)
- Marine Strategy Framework Directive (MSFD) 2008
- Blue Growth Strategy (BG 2012)
- Common Fisheries Policy regulation (CFP) 2013
- Maritime Spatial Planning (MSP) directive 2014



WKBESIO - framework



Inspiration from the Canadian Fisheries Research Network (CFRN) approach:



Stephenson et al. 2018.

Candidate objectives for sustainable fishery

Ecological objectives

- Productivity and trophic structure
- Biodiversity
- Habitat and ecosystem integrity

Economic objectives

- Economic viability and prosperity,
- Livelihoods,
- Distribution of access and benefits,
- Regional economic benefits to community

Social objectives

- Health and wellbeing,
- Sustainable communities,
- Ethical fisheries

Institutional objectives

- Legal obligations including to indigenous peoples,
- Good governance structure,
- Effective decision-making processes



*Including performance indicators
Linked explicitly to policy statements*



Example ESI table structure

type	Objective category	Quote or topic ~Source	Candidate indicators
econ	Stability	<i>"Stable markets"</i> ~CFP Preamble par 4	Wholesale price index for seafood products; % of EU seafood on EU seafood consumption

Example ESI table structure

type	Objective category	Quote or topic ~Source	Candidate indicators
econ	Stability	<i>"Stable markets"</i> ~CFP Preamble par 4	Wholesale price index for seafood products; % of EU seafood on EU seafood consumption
soc	Food security	<i>"Availability of food supplies... at reasonable prices"</i> ~CFP Preamble par 4	Retail price index for seafood products
soc	Food security	<i>"a diverse supply of fishery and aquaculture products"</i> ~CFP, reg 1380/2013 art. 35	Sales of seafood products by product category

Example ESI table structure

type	Objective category	Quote or topic ~Source	Candidate indicators
econ	Stability	<i>"Stable markets"</i> ~CFP Preamble par 4	Wholesale price index for seafood products; % of EU seafood on EU seafood consumption
soc	Food security	<i>"Availability of"</i>	
soc	Food security		... products by product category
inst	Decision making, governability	<i>"measures in accordance with the best available scientific advice"; "a long-term perspective"; "administrative cost efficiency"; "appropriate involvement of stakeholders ... at all stages"</i> ~CFP, reg 1380/2013 Art 3	# of long-term plans developed together with advisory bodies; existence of institutions/legislation that facilitates effective stakeholder involvement

These tables are useful as a start, but the objectives listed need to be updated and – as concluded by WKBESIO – discussed with stakeholders/ managers!

Draft ESI objective categories

Economic	Social	Institutional
Allocation		
	Decision making, governability	
Employment		
Food security		
		Participatory, legitimate, transparent governance structures
	Quality of life/ wellbeing, health	
Regional economic benefit		
Stability		
Sustainability		
Sustaining communities		

Conclusions on ESI objectives

1. EU and EU Member States policy documents clearly include ESI objectives; thus they need to be taken into account in holistic science for marine management
2. ESI objectives are needed to frame scenarios and to allow us to make trade-off analyses.
3. A big challenge in the EU is to balance national and international objectives – implementation differs at the different governance levels.
4. Communication around ESI work is crucial, and needs to be improved, in the science-policy domain, e.g. within and around ICES and ICES clients.

ESI/ BESIO – future questions and challenges

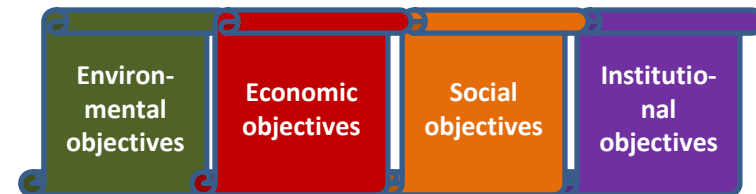
- How can we **institutionally** build on what we did in WKBESIO, in a way that our work can be generalized? E.g. to apply ESI objectives in ICES regional IEAs, or in the ecosystem overviews?
 - WKBESIO or WGBESIO – another workshop in collaboration with a regional IEA group, or a longer term ‘generic’ working group WGBESIO?

- How to organize transdisciplinarity, in particular the collaboration with government stakeholders?
- How to include ESI in IEAs?



Thank you for your attention!

Questions? Suggestions?



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ICES WKBESIO report 2017

<http://www.ices.dk/publications/our-publications/Pages/Expert-Group-Reports.aspx> or go to google and type "ICES WKBESIO"

ESI/ BESIO – future questions and challenges

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North Sea Ecosystem Overview

Environmental objectives

NORTH SEA

HUMAN ACTIVITIES

- Fishing
- Coastal construction
- Maritime transport
- Offshore structures
- Tourism and recreation
- Navigation dredging
- Telecommunications
- Aggregate extraction
- Military
- Renewable energy

PRESSURES

- Selective extraction of species
- Abrasion
- Substrate loss and smothering
- Selective extraction non-living resources
- Death or injury by collision
- Marine litter
- Underwater noise

STATE

- Habitat
- Foodwebs
- Productivity
- Plankton
- Benthos
- Fish
- Seabirds
- Marine mammals

BIODIVERSITY

Activities and pressures on the ecosystem susceptible to regional management

Always vary (influenced by environmental drivers)