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Interim Report of the Working Group on Social and Economic Dimensions of Aquaculture (WGSEDA)

20–24 April 2015

Tromsø, Norway



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Executive summary

The fifth meeting of the Working Group on Social and Economic Dimensions of Aquaculture (WGSEDA) was held in Tromsø, Norway, 20–24 April 2015 and was attended by 10 participants from Norway, Germany, Denmark, Sweden, France and United Kingdom. The ToRs were addressed by plenary sessions where activities were discussed by all members of WGSEDA, as there was a small group available. Following, the group split up in 2 sub-groups to work on the more specific issues and metrics of the social and economic dimensions of aquaculture.

The group found that aquaculture has not fully realized its potential as a source of food, nutrition and income generation due to governments around the globe not having the metrics or tools for integrating the social and economic impacts of this sector. The international problem is that there is a gap in knowledge exchange between the aquaculture industry, policy makers trying to support aquaculture development and people who depend on aquaculture for a job and/or food source. Decision-making about the optimum type of aquaculture at different scales is constrained by insufficient consideration of social and economic impacts, as well as finding the appropriate metrics to capture these. For the further advancement of sustainable aquaculture development the WGSEDA recommends to focus on:

- Pre-emptive identification of likely social impacts of aquaculture operations (using appropriate system boundaries) before any attempts are made to introduce aquaculture.
- Integration of people- and context-specific social framing conditions into planning and policy review.
- Identify appropriate sub-categories of social dimensions indicators and critically appraise the existing indicators and potential gaps
- Appraisal of existing economic indicators for their effectiveness to capture the sustainability of aquaculture on multiple levels
- Encouragement of creative combinations of theories and methods widely applicable to assess and interpret the social dimensions of aquaculture in multiple contexts.

The next meeting of the WGSEDA will take place at the IFREMER station, St. Malo, France, 11–14 April 2016.

1 Administrative details

Working Group name

Working Group on Social and Economic Dimensions of Aquaculture (WGSEDA)

Year of Appointment

2015

Reporting year within current cycle (1, 2 or 3)

1

Chair(s)

Gesche Krause, Germany

Meeting venue

Sommerøy, Tromsø, Norway

Meeting dates

20–24 April 2015

2 Terms of Reference a) – z)

- a) Identify individual and crosscutting, integrative methods to support the evaluation of the direct and indirect socio-economic consequences of aquaculture operations and how they relate to the assessment framework;
- b) Examine how stakeholder inclusion and local ownership influences aquaculture;
- c) Identify how social, economic, governance and environmental framing conditions influence aquaculture development;
- d) Identify new emerging issues of socio-economic aspects of aquaculture.

3 Summary of Work plan

The 5th meeting of the Study Group on Social and Economic Dimensions of Aquaculture (Chair: Gesche Krause, Germany), being now the first meeting as Working Group (WGSEDA) was held in Sommerøy, Tromsø (Norway), 20–24 April 2015 and was attended by 10 participants from France, Germany, Norway, Sweden and United Kingdom (Annex1). The objective of the meeting to work on the Terms of Reference that were decided upon at the last meeting of the WGSEDA in Biddeford, Maine 2014. The ToRs were addressed by plenary sessions where activities were discussed by all members of WGSEDA, as there was a small group available. Since the issues raised in the WGSEDA are a rather novel topic to ICES that pulled together scientists with a wide range of different scientific back-

grounds, the group agreed on a common scope and perspective which the WGSEDA prior to deliberate in more detail on each of the ToRs. Therefore, the discussion were primarily focused on ToR a) "Identify individual and crosscutting, integrative methods to support the evaluation of the direct and indirect socio-economic consequences of aquaculture operations and how they relate to the assessment framework". These methods were outlined and first sets of metrics and indicators were developed. To advance these metrics further will be the central work plan for next year's meeting in St. Malo, France.

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

Publication in Aquaculture (Elsevier) Title: "A Revolution Without People? Closing the People-Policy Gap in Aquaculture Development"

Authors: Gesche Krause, Cecile Brugere, Amy Diedrich, Michael W. Ebeling, Sebastian C.A. Ferse, Eirik Mikkelsen, José Perez Agúndez, Selina M. Stead, Nardine Stybel, Max Troell.

Abstract

Failure of the blue revolution is a global risk. The international problem is that there is a gap in knowledge exchange between the aquaculture industry, policy makers trying to support aquaculture development and people who depend on aquaculture for a job and/or food source. Thus, governments and international organizations promoting aquaculture as the solution to improving food security, nutrition and income are failing to optimise production of natural aquatic resources.

We identify a "people-policy gap", and suggest that this is an understudied constraint which needs to be overcome before worldwide food security can be achieved from aquatic environments. We argue that this gap leads to uneven distribution of benefits, a disconnection between benefits and local needs, and detrimental effects on human health and food security, all of which can have negative repercussions on human communities and ecosystems.

In order to address this need, we present an analytical framework to guide context specific, policy relevant assessments of the social, economic and ecological dimensions of aquaculture on a case-by-case basis. The framework is designed to make best use of existing data and scientific tools for decision-making.

In conclusion, we argue for: Equal consideration of ecological, social and economic issues in aquaculture policy-making; pre-emptive identification of likely social impacts; integration of people and context-specific social framing conditions into planning and policy review; addressing the social disconnection between global consumption and production; and, encouragement of creative combinations of theories and methods to assess and interpret the social dimensions of aquaculture in multiple contexts.

Publication in preparation: Working Title: "The Contextual Stakes of the Social in Aquaculture: an overview"

Authors: Gesche Krause, Barry Costa-Pierce, Eirik Mikkelsen, Glenn Page, Selina M. Stead, Arild Bu-anes, Håkan Sandersen, Nardine Stybel, Madielene Wetterskog

Abstract (draft)

Framing aquaculture being a coupled social-ecological system, this contribution addresses the metrics of the social dimensions of aquaculture. This is done out of the recognition that historical, cultural, and political-economic roots of this development as well as their contextual fabric drive as much as the economic and ecological processes the sustainability of aquaculture. Power and social relations define the contextual meaning of desirable aquaculture systems and points to potential strands of transformation to more sustainable outcomes of these. Yet problem framing and assessment taking a social stance to aquaculture is still in its infancy, further hampered by the limited inclusion of situated knowledge, democratic representation, and social-ecological justice to name but a few. This points to the need to operationalize the social dimension within the context of sustainable aquaculture. A first set of potential indicators and metrics of the social dimensions of aquaculture are development and appraised by case study examples.

Publication in preparation: Working Title: "Economic effects of marine aquaculture: types, indicators and data availability for Europe and North America"

Authors: Eirik Mikkelsen, Hauke Kite-Powell, José Perez, Michael Ebeling, Madielene Wetterskog, Gesche Krause

Abstract (draft)

This paper provides an overview of the different types of economic effects that can be associated with marine aquaculture, what indicators can be used to assess this, and what data and variables are available for different countries and regions, focusing on Europe and North-America. The overview should help increase awareness and use of information that is already available, and also be useful for considering how the information of the economic effects of aquaculture can be improved in different regions.

ToR d) Identify new emerging issues of socio-economic aspects of aquaculture

- Identification of data to integrate social and economic issues and assess the benefits and relevance of these for applicability and decision-making;
- Linking indicators to preferences and perceptions of stakeholders of different production activities;
- What kind of communication effects certain expectations;
- Social licence to operate;
- How evolving governance issues are structured and relevant for aquaculture;
- Review the new EU national aquaculture strategies of how they address socio-economic issues and their sustainability implications;
- Identify social value chain in relation of aquaculture activities.

5 Progress report on ToRs and workplan

- Progress by ToR: we focused specifically on ToR a) Identify individual and crosscutting, integrative methods to support the evaluation of the direct and indirect socio-economic consequences of aquaculture operations and how they relate to the assessment framework;
- Cooperation with other WG: Wojciech Wawrzynski as the Deputy Head of the ICES Science Programme joined the meeting to share developments and discussions on Aquaculture issues in ICES.

6 Revisions to the work plan and justification

No new ToRs were developed.

7 Next meetings

Date and Venue for next year's meeting will be St. Malo, France, 11–14 April 2016.

Annex 1: List of participants

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