ICES Theme Session K

The application of science for ecosystem-based management of aquaculture

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This theme session was designed to act as a platform for information sharing between the main groups involved within the aquaculture sector, namely; Scientists who develop the evidence and knowledge base, Regulators and policy-makers who set the management and regulatory frameworks, and those in the aquaculture industry who work within the regulatory framework and depend on the development of an appropriate knowledge base to enhance and improve production of aquaculture products. It was planned that the session open with papers on relevant case studies, demonstrating the needs and solutions from both a governance and development perspective. Papers were invited on a range of relevant topics including: environmental impact management, decision support tools, use of marine spatial planning and risk assessment.

A range of relevant and thought provoking abstracts were received of which ten were accepted for presentation as either oral or poster presentations. A number of case studies illustrated the importance of a strong scientific knowledge base to underpin management whether it is health management of offshore net pen farming of salmon, or management of extensive shellfish cultivation within near-shore ecosystems. Impacts may be both negative and positive depending on the species/system type and the effective translation of this knowledge into appropriate management strategies and actions is key. Ecosystem services and their integration into spatial planning were also addressed if at a superficial level. The importance of increasing food production through aquaculture and the need to incorporate aquaculture in marine spatial planning at an early stage was stressed. The significance of associated societal issues and how these should be considered was identified as a matter requiring further attention, in order to avoid the polarization of opinions in both the local and wider community.

Conclusions

There is a recognized need to have an appropriate framework where decision making is evidence based with access to appropriate scientific data and knowledge.

A common theme was the issue of involvement of stakeholders to ensure maximum engagement and societal acceptance. The concept of evaluating both ecological and social carrying capacity was advanced as a methodology for addressing societal issues and measuring the benefits of economic developments to the local community.

While the papers presented addressed some of key issues, there were gap areas. One gap area of particular significance was the absence of presentations from Key regulatory bodies such as DG Mare, EFSA and industry representative organizations. In order to address this in future meetings it would be important to have a process whereby the convenors can and indeed are encouraged to actively seek out presentations and attendance from the relevant organizations.

It may be a good idea to evolve a methodology to permit a more proactive approach to the invitation of keynote speakers as a central component to the organization of theme sessions in a similar way to the approach taken by other organizations in the planning of international scientific symposia.