



DEEP SEA 2003, AN INTERNATIONAL CONFERENCE ON GOVERNANCE AND MANAGEMENT OF DEEP SEA FISHERIES

REPORT BACK TO THE COMMITTEE ON FISHERIES

TWENTY-SIXTH SESSION

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Background

The report summarises key outcomes of DEEP SEA 2003, An International Conference on Governance and Management of Deep Sea Fisheries held from 1-5 December 2003 in Queenstown, New Zealand. This report has been prepared for the Convenor of the Conference and draws on the final conference report currently being prepared by FAO¹.

DEEP SEA 2003 was convened in response to a growing awareness and concern among scientists and fisheries managers about the extent of deep-sea fishing and the potential impacts of unregulated fishing on commercial fish species, interrelated species and the deep-sea habitat.

The New Zealand Ministry of Fisheries and the Australian Department of Agriculture, Forestry and Fisheries agreed to convene the conference and conveyed this intention at the 25th Session Committee on Fisheries in Rome, February 2003. Subsequently it was agreed the Conference would be convened with the technical cooperation of the FAO. A report on conference outcomes was to be tabled at the 26th Session Committee on Fisheries meeting.

¹ FAO 2005. Report on Deep Sea 2003, An International Conference on Governance and Management of Deep-Sea Fisheries, Queenstown, New Zealand, 1-5 December 2003. FAO Fisheries Report No. 772

SUMMARY OF DEEP SEA 2003 CONFERENCE OUTCOMES

Introduction

More than 370 individuals from 36 countries attended DEEP SEA 2003, which was held from 1-5 December 2003 in Queenstown, New Zealand. Participants represented a broad cross section of expertise and experience from industry, national government and intergovernmental fisheries managers, and lawyers, scientists, national and international environmental groups, and Regional Fisheries Management Organisations. A similarly wide range of sponsors provided technical expertise and financial support.

To take advantage of the presence of so many specialists' four workshops were held in Dunedin from 27-29 November 2003. These workshops allowed a more detailed focus on topics of specific relevance to conference themes². A total of 124 participants attended all workshops including individuals from particularly the smaller Pacific Island nations.

Conference Aims

The aim of DEEP SEA 2003 was to act as a catalyst for debate to achieve two major objectives in relation to deep-sea fisheries.

- Sharing information on objectives, constraints and influences to assist with identifying and developing future governance and management directions.
- Identifying the nature of any future consultations that may be required to deal further with issues, and possible approaches and solutions raised at the conference.

For the purposes of the conference "deep-sea" was defined as including fisheries and habitats off the continental shelf and at depths of more than 200m.

Conference Approach

Deep-sea fisheries occur in discrete high seas areas as well as within Exclusive Economic Zone's (EEZs) or areas managed by Regional Fisheries Management Organisations (RFMOs). DEEP SEA 2003 was particularly focussed on issues relating to discrete high seas fisheries, however, a number of the species, and management issues and solutions were relevant to a number of species in any area. For example, case studies on Namibian, Australian and New Zealand EEZ orange roughy fisheries highlighted fishery and environmental management issues and solutions for species with similar biological and life history characteristics.

The Conference programme was designed to provide a single forum for considering all major aspects relevant to the effective management of deep-sea fisheries and their environment - science, monitoring, compliance, management and governance. While difficult within the timeframe, Organisers sought to maximise the opportunities for a free and wide-ranging exchange of individuals' ideas, experiences and views. The final day of the Conference

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² Four workshops:

FAO Workshop on the Assessment and Management of Deepwater Fisheries

FAO Workshop on Management of Small-scale Deep-sea Fisheries

Workshop on the Management and Conservation of Deep-sea Chondrichthyan Fishes

Workshop on Bioprospecting on the High Seas

focussed on synthesising these discussions into possible future approaches that were not constrained by the need to agree on a single way forward.

The Organisers believe the benefits of the DEEP SEA 2003 approach were realised. Presentations and discussions identified specific complexities, problems, knowledge gaps and potential options for resolving management issues that provide a useful focus for future evaluation. The Conference successfully generated a focus on deep-sea issues and possible solutions. The information and discussions highlighted the need for some immediate action as well as more long-term solutions. Organisers note that some options proposed at the Conference have since been progressed to varying degrees in a number of forums.

The full synthesis of ideas from DEEP SEA 2003 will be published soon as an FAO Fisheries Report once Organisers and the Steering Committee have completed their review. A separate document, the full Proceedings, will be released shortly after. Both documents will be distributed to DEEP SEA 2003 participants and interested parties and should prove a useful resource for future engagement on these issues.

Key Outcomes

Considerable experience and information has been gained through the management of deep-sea species within state management regimes and also for the same or similar species in high seas areas covered by existing regional fisheries agreements. However, there are additional complexities associated with managing these species and their exploitation in deep-sea ocean ecosystems including:

- The remoteness, sea states, weather and depth of species requiring the use of costly and technologically demanding solutions for stock assessment related data collection and monitoring;
- The higher than assumed variability of deep-sea habitats resulting from factors including oceanographic influences;
- The wide variety of life history strategies, with commercial fisheries typically based on long-lived species with low productivity;
- Practical issues associated with interpreting information collected, for example the applicability of some existing modelling techniques and the ability to distinguish the sometimes behavioural effect of fishing or research as opposed to changes in stock size or assemblages;
- Practical issues relating to implementing agreements in remote high seas areas including developing and existing fisheries, the differing capacities of states and the need to manage the vessels of non-party states; and
- Managing the detection and, where applicable, interdiction of illegal fishing activity.

Governance

There is a gap in the international legal framework for discrete deep-sea stocks in areas outside national jurisdictions. Limited guidance is provided in UNCLOS for these stocks compared to that elaborated for highly migratory species and straddling stocks in the UN Fish

Stocks Agreement (UNFSA). This governance gap should be filled given the extent of deep-sea fish species and the potential fisheries for these species around the globe.

Options debated include the need for new binding or non-binding agreements to address inadequacies in existing agreements such as UNCLOS, the amendment of existing multi-lateral agreements (for example the UNFSA and Compliance Agreement) or the use of UN General Assembly Resolutions on Oceans and Fisheries. The need for, and desirability of, an additional agreement was also discussed. Negotiations for any new agreement would need to address where the management applied and what was to be managed for what purpose. For example should a new agreement cover only fish stocks or all elements of the marine environment? Should it cover only fisheries or non-fishing activities such as bioprospecting too? As the negotiation and development of, particularly new, agreements can take some time, this was viewed as a long-term option. The poor record of some states in implementing existing agreements and questions about their effectiveness once implemented were identified as further concerns.

A global fisheries body was suggested as a potential means of implementing management of a broader range of activities with potential impacts on the marine environment. RFMOs were also suggested as having an important role in the conservation and management of deep-sea species and habitat protection and, in particular, in implementing governance agreements such as UNCLOS, UNFSA and the Compliance Agreement.

Improving both the coverage of RFMOs where there are gaps, and the technical competence and performance of RFMOs were seen as critical issues. A number of suggestions were made concerning improving the performance of RFMOs. These included introducing different forms of peer review and establishing an organisation or body that would be accountable for coordination and cooperation between different RFMOs - especially where the same or similar species are managed and/or where there are adjoining boundaries. Expansion of existing roles would also necessitate funding considerations. Funding is already a constraint for some organisations facing increasing demands on resources to ensure effective implementation of agreements e.g. CCAMLR.

Management

Participants discussed key attributes of future management regimes and the need to state explicitly and pragmatically:

- the purpose and scope of the regime;
- management objectives;
- biological reference points and other management related indicators;
- monitoring methods
- management performance and evaluation criteria; and
- principles to apply in the absence of adequate information to guide decision-making.

Consideration was also given to the need for interim management measures such as area closures or prohibitions on the use of destructive fishing gear pending the final form of an international agreement to regulate deep-sea fisheries on the high seas. If marine protected

areas are established clarity is needed as to their purpose and hence the information that is needed to monitor and evaluate their effectiveness.

Ideally, any management regime adopted would allow for an adaptive approach to both the controlled exploitation and conservation of deep-sea resources. To maximise compliance, the regime also should provide pragmatic solutions that engender a high degree of stakeholder support. Such a regime would clearly identify where the costs of management lie and how confidentiality of information is to be maintained.

Environmental, Biological and Stock Assessment Needs

Species characteristics such as differing productivity rates, and the natural features of the deep-sea environment including oceanography and seabed topography seem to engender greater variability in biology and distribution than that seen in more coastal, shallower dwelling species.

There are key information gaps for target, by-catch and associated species in their deep-sea habitat that exacerbate the difficulties associated with developing and evaluating effective management regimes. As a consequence it is essential to focus information collection on key biological characteristics needed to support management objectives, monitoring and evaluation of management strategies particularly:

- recruitment and age data such as age of maturity, fecundity and growth rates;
- stock structure including distribution and movements; and
- ecological processes affecting biological variability.

Key data needs to support stock assessment of deep-sea fish species require catch data for target and by-catch species (especially amount and location), agreed and valid indices of relative abundance such as stock boundaries and migration patterns, and estimates of absolute abundance.

Information and the Use of Technology

Experience indicates that, just as advances in fishing technologies and efficiency have allowed fishing operations to exploit previously difficult deep-sea areas, emerging technology is improving our research and monitoring techniques. For example, computer modelling techniques and tools such as satellites, submersibles and remote operating vehicles are becoming more available to study stocks and habitats, and monitor fishing in this difficult and sometimes remote environment.

The routine collection of scientific information, as well as information required to support monitoring, compliance and management evaluation programmes needs innovative solutions given the characteristics of the deep-sea environment and the costs of operating in such areas.

Exploiting new technology, and cross-sector/cross-discipline cooperation is essential to provide the necessary range and amount of information at least cost. Such coordination could assist with defining the true extent and value of deep-sea fishing and its contribution to the world's food security. There are increasing examples of coordinated research, monitoring and enforcement programmes that maximise information and data collection. These occur through implementing international agreements as well as through the efforts of international programmes such as the Census on Marine Life.

Compliance

Issues relevant to Illegal Unreported and Unregulated (IUU) fishing are of particular relevance to remote deep-sea fisheries. Monitoring and detection of illegal activity or non-compliant activity is difficult and costly. Discussions addressed examples of multi-disciplinary approaches to detect and deter offending and to make use of rapidly improving technology and sophisticated forensic techniques to counter increasingly sophisticated offending. Vessel Monitoring Systems (VMS), surveillance tools and ensuring their interoperability were identified as important to maximise cost effectiveness.

Options discussed as a means to encourage compliance or to coerce parties included the use of trade sanctions, points of leverage to deal with “flags of convenience” and litigation through ITLOS or ICJ. The ministerially-led High Seas Taskforce on IUU Fishing, announced at DEEP SEA 2003, is considering various aspects of managing fisher behaviour and illegal fishing including enforcement strategies, and economic and trade incentives.

Discussions at DEEP SEA 2003 emphasised the need to ensure management approaches adopted strategies that promote compliance. Such strategies include the need for incentives for parties to implement the regime effectively and to recognise the differing capacity of countries to do so. This may require explicit consideration of equitable benefit sharing mechanisms and incentives – especially among developing countries and non-party states where agreements apply. Benefits may be in the form of allocation or other access mechanisms or the sharing of relevant scientific information, data and research techniques. There is also a need to provide a mechanism for non-parties to become involved and incentives for them to comply.

The Way Ahead: A Summary

Many participants accepted the need for immediate action and outlined the need for a planned approach encompassing shorter and longer-term programmes. A planned approach would allow for an analysis of current gaps and weaknesses in governance frameworks and management regimes as they apply to deep-sea areas and fisheries. There was a particular emphasis on areas of the ocean where deep-sea species are not currently subject to some form of effective management.

Some participants expressed frustration at the reticence with which organisations were responding to calls for greater protection of deep-sea fisheries and habitats. All participants, particularly the commercial and environmental NGOs were keen to contribute to further management discussions.

Considering the above outcomes of the discussion, various participants identified the following areas as possible actions to move forward:

- **Support and reinforce current governance frameworks and agreements** – emphasis should be given to:
 - strengthening existing governance frameworks and management agreements; and
 - addressing gaps, weaknesses and failures identified through experience with current conservation and management techniques. This analysis could prove

valuable in the lead up to the forthcoming reviews of international arrangements such as UNFSA.

- **Develop new management arrangements and agreements** – this is the alternative option to the extension of current arrangements and would focus on unmanaged discrete deep-sea fisheries in high sea areas and taking account of the wider environmental context.
- **Support the effective implementation of existing obligations** – including promoting new initiatives within existing instruments.
- **Establish an information programme** – the aim would be to collect and analyse information from stocks that no longer support active deep-sea fisheries. This work may provide an understanding of management issues, the reason for the current status of some stocks, and help to quantify the extent and value of these fisheries. A longer-term step could be to enhance the analysis through the improved coordination of the collection and dissemination of more “real time” scientific, monitoring and management data from current, similar fisheries.
- **Evaluate information gaps** – there is a need to identify information needed to support regional stock assessment and harvesting strategies. This would also be a useful starting point for the development of future cooperative research and management programmes.
- **Implement short-term management and protection mechanism** - some interim management mechanisms may be necessary pending the final form of governance frameworks and agreements that address current gaps and weaknesses.
- **Support existing global and regional initiatives** – those discussed include the Ministerial HSTF and the Census on Marine Life as these provide opportunities for future cooperative initiatives.
- **Convene a Technical Working Group to progress immediate planning** – an international organisation, for example FAO, could coordinate planning for future actions and appropriate timelines to progress deep-sea fisheries management initiatives. It might be appropriate to develop an FAO Code of Practice to guide commercial operators and suggest a focus for management regimes. The later could draw on information generated by other proposals noted above.