

IOSF 2008
Focus Group 4

Problem areas in use of the oceans

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KEY QUESTIONS:

- 1 Are Vessel Management Systems suitable for regulating activities on the High Seas and in The Area? How do other comparable technologies such as Radar Sat, for example, contribute to governance, implementation and compliance of States in the High Seas?
- 2 What impact has the dynamic between developed and developing states on successful implementation of international legal instruments relating to the oceans?
- 3 How will the Marine Bill, European Blue Book affect the current practices of marine legislation – and how will they not?
- 4 How does the legislation of maritime space interact with other emerging issues (such as the other FG topics of this meeting)?
- 5 What are the major gaps in scientific knowledge for the adequate management of the open ocean?
- 6 How can joint international multi-national and multi-disciplinary scientific studies be created and funded to address key ocean management needs?
- 7 How can commercial developments from open ocean genetic resources contribute to benefits to all nations, and how does this relate to financial risks entered into in the creation of products?
- 8 Should geo-engineering, including methods for large-scale carbon sequestration and iron fertilisation of the oceans be permitted?
- 9 What scale of impact is needed in order to require Environmental Impact Assessments?
- 10 What are the key issues appearing on the horizon which we might consider for such a meeting in a year's time?

REPORT

In the time available, the group chose to tackle just five of the questions posed.

- **Question 5: What are the major gaps in scientific knowledge for the adequate management of the open ocean?**

The group focused more on the procedures needed for acquiring knowledge than on the substantive gaps. The idea of a body of scientists equivalent to the IPCC (Intergovernmental Panel on Climate Change) was proposed. It was acknowledged that this could take years to become operational. In the interim, perhaps more use should be made of existing scientific bodies such as ICES (International Council for the Exploration of the Sea), SCAR (Scientific Committee on Antarctic Research) and SCOR (Scientific Committee on Oceanic Research).

An IPCC-type body could help to raise the public profile of the problems faced by the oceans. Such a profile could in turn be helpful in motivating scientists to get involved with the initiative. In that regard, it was noted that the International Polar Year 2007/2008 has had a galvanising effect on research.

It was suggested that increasing attention should be given to the maintenance and further development of long-term time series of data. Long-term time series have already enabled the identification of climate-led changes in the oceans. It was acknowledged as problematic that long-term time series don't tend to generate papers in journals and yet much science is driven by such papers.

Questions were raised about the extent to which research institutions coordinate their activities globally, not least to avoid duplication of expensive work. A proposal was made for a 'gap analysis' regarding coordination. The IOC (International Oceanographic Commission) of UNESCO was suggested as a possible focal point. However, there was a counter-suggestion that scientists should be left to their own devices to develop the most appropriate common protocols, rather than be directed from the top down.

It was noted that the provision in law for funding for scientific research can be a significant factor in making sure that research happens.

- **Question 1: Are vessel management systems suitable for regulating activities on the high seas and in the Area?**

The group interpreted 'vessel management systems' as meaning 'vessel monitoring systems' ('VMS'). VMS generates data on, at least, the presence of a vessel, its location and its identity. In contrast, 'Radarsat' can generate data on the presence of a vessel and its location, but not its identity.

It was noted that VMS and Radarsat can work well together. For example, and in summary, in a high seas area regulated by a RFMO or in an EEZ, Radarsat enables the presence of [X] vessels to be detected and VMS enables the identification of the subset [Y] of such vessels that have an authorisation to fish. The remainder, i.e. [X]

minus [Y], can be then potentially be investigated by the relevant authorities (subject to international law).

It was also noted that the usefulness of VMS depends on, amongst other things, the frequency at which data is provided (e.g. every few minutes or every few hours) and on the time that elapses between signal generation (by a vessel) and signal analysis (by a regulator). VMS is clearly more useful as an enforcement tool if the elapsed time is close to zero (i.e. the system is operating in close to real time) rather than if the elapsed time is several months.

NEAFC (North East Atlantic Fisheries Commission) was provided as an example of an RFMO where agreement has been reached that VMS data can be shared, in real time, amongst its members via the NEAFC secretariat's database. It was noted that a centralised system of this kind, if fully implemented, has several benefits for enforcement.

- **Question 8: Should geo-engineering, including methods for large-scale carbon sequestration and iron fertilisation of the oceans, be permitted?**

Carbon sequestration and iron fertilisation are not the only geo-engineering methods being proposed to deal with climate change (either by taking CO₂ out of the system or by mitigating its impacts). Some other methods proposed include seeking to cool the upper part of the water column to enhance CO₂ absorption and adding calcium carbonate to neutralise ocean acidification.

The group considered who has the right to issue permissions. Depending on the location, this may or may not be the coastal State. Coastal State consent to, say, iron fertilisation may engage law on managing transboundary effects. There was discussion about whether existing international legal regimes can manage geo-engineering methods. Will amendments to existing regimes be sufficient or will new regimes be necessary? Even amendments may be hard to achieve, depending the rules of procedure for adopting amendments.

It was agreed that the least contentious of the above methods is carbon sequestration under the seabed, though significant concerns remain about various aspects of this method. In legal terms, liability for any damage caused by leaking CO₂ ideally needs to be addressed. In practice, most of the sub-seabed spaces that lend themselves to being used for carbon sequestration fall within national jurisdiction.

The question of interaction between geo-engineering and other ocean uses was addressed briefly. Two examples were provided. Fisheries may be negatively affected by iron fertilisation if the result is blooms of toxic phytoplankton. If CO₂ sequestration needs use of the same spaces from which oil and gas are being extracted, it was suggested that perhaps the oil and gas industry might come under pressure to abandon production of marginal resources if the sub-seabed spaces holding such resources become required for CO₂ sequestration.

- **Question 7: How can commercial developments from open ocean genetic resources contribute to benefits to all nations, and how does this relate to financial risks entered into in the creation of products?**

The group had a very brief discussion about whether or not the model provided by Part XI of the 1982 UNCLOS, in combination with the 1994 implementing agreement, could be applicable for genetic resources. The group noted that the issue of intellectual property rights regarding genetic resources is one important factor that distinguishes genetic resources from mineral resources.

- **Question 2: What impact has the dynamic between developed and developing States on successful implementation of international legal instruments relating to the oceans?**

It was noted that some developing States are significantly poorer than others. When financial assistance comes, it is often for necessities such as clean water for drinking rather than, say, for management of marine fisheries resources or for facilitating access to resources beyond national jurisdiction. However, the group noted a link between the need for food security and the effective management of marine fisheries resources.

Though any given treaty may well afford all States parties, irrespective of their development status, the same rights and duties, this may well not lead to successful and equitable implementation of the treaty unless the lack of capacity of developing States to exercise rights and perform duties is taken into account.

This led to a brief discussion about submissions to the CLCS (Commission on the Limits of the Continental Shelf). It was noted that preparation of submissions can be very costly and that it would be useful to have clarity on what level of detail in a submission is sufficient to enable that submission to be accepted by the CLCS.

There was a suggestion that marine development aid to developing coastal States could usefully be focused on assisting those States (a) to adopt and implement national maritime policies and (b) to cooperate on a regional basis (e.g. the CSRP (Commission Sous Régionale des Pêches) in West Africa). The role of the European Community's Fisheries Partnership Agreements was also touched upon.

It was noted that the promotion of marine research in developing States can have many benefits for such States. Research provides essential knowledge for marine management. It creates jobs. It offers opportunities for education and awareness-raising. And it can provide an opportunity for existing sectors, such as the fishing sector, to get involved in marine management.