



Economic and Social Council

Distr.
GENERAL

E/CN.17/1996/23
26 February 1996
ENGLISH
ORIGINAL: ENGLISH, FRENCH
AND SPANISH

COMMISSION ON SUSTAINABLE DEVELOPMENT
Fourth session
18 April-3 May 1996

PROTECTION OF THE OCEANS, ALL KINDS OF SEAS, INCLUDING ENCLOSED
AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND THE PROTECTION,
RATIONAL USE AND DEVELOPMENT OF THEIR LIVING RESOURCES

Letter dated 1 February 1996 from the Permanent Representatives of
Brazil and of the United Kingdom of Great Britain and Northern
Ireland to the United Nations addressed to the Secretary-General

We would be most grateful for your agreement to circulate, as an official paper of the Commission on Sustainable Development's Inter-sessional Working Group on Sectoral Issues (26 February-1 March) and also to the Commission on Sustainable Development (18 April-4 May) the enclosed report - available in English, French and Spanish - on the London Workshop on Environmental Science, Comprehensiveness and Consistency in Global Decisions on Ocean Issues, held from 30 November to 2 December 1995. This workshop was jointly hosted by the Governments of Brazil and the United Kingdom.

(Signed) Celso Luiz NUNES AMORIM
Permanent Representative of
Brazil to the United Nations

(Signed) John WESTON
Permanent Representative of the
United Kingdom of Great Britain
and Northern Ireland
to the United Nations



**COMMISSION ON SUSTAINABLE DEVELOPMENT
REVIEW OF PROGRESS ON STRATEGIES UNDER
CHAPTER 17 OF AGENDA 21
OCEANS AND ALL SEAS**

**THE LONDON WORKSHOP ON ENVIRONMENTAL
SCIENCE, COMPREHENSIVENESS AND CONSISTENCY IN
GLOBAL DECISIONS ON OCEAN
ISSUES**

Sponsored by the Governments of Brazil and the United Kingdom
and held at the
Queen Elizabeth II Conference Centre
London

30 November - 2 December 1995

RECOMMENDATIONS

Presented by the Delegations of Brazil
and the United Kingdom

**LONDON WORKSHOP ON
ENVIRONMENTAL SCIENCE, COMPREHENSIVENESS AND CONSISTENCY
IN GLOBAL DECISIONS ON OCEANS ISSUES
30 November -2 December 1996**

REPORT BY THE CO-CHAIRMEN

1. An international workshop was held in London on 30 November - 2 December, 1995, to consider environmental science, comprehensiveness and consistency in global decision-making on the oceans.
2. It was attended by representatives nominated by 32 national governments and by 12 international agencies. It was also attended by representatives nominated by 23 non-governmental organisations. A list of those who attended is at Annex A.
3. The workshop was chaired jointly by Senhora Aspasia Camargo, Executive Secretary of the Brazilian Ministry of the Environment, Water Resources and the Amazon, and the Earl of Lindsay, United Kingdom Parliamentary Under-Secretary of State for Scotland.
4. On the first day, after introductory statements by the Co-Chairmen, Professor Alasdair McIntyre presented a paper on "What are the key pressure point issues affecting the sustainability of the oceans?" This was followed by a plenary discussion.
5. On the second day, after an address to the plenary by the Rt Hon John Gummer, the United Kingdom Secretary of State for the Environment, the workshop divided into three parallel discussion panels to consider issues concerning scientific and policy analysis, policy formulation and policy implementation. The three panels were chaired by Dr Georges Pichot (Management Unit, North Sea Mathematical Model, Belgium), Sir Hugh Rossi (Advisory Committee on Protection of the Sea) and Mr Claude Morel (Ministry of Foreign Affairs, Planning and Environment, Seychelles). Mr Edwin Barnes (Ministry of Environment, Science and Technology, Ghana), Señora Paula Caballero (Ministry of Foreign Affairs, Colombia) and Mr Thomas Laughlin (National Oceanic and Atmospheric Administration, USA) acted respectively as rapporteurs to the Panels.
6. The reports of these three panels are attached at Annexes B, C and D.
7. In the view of the Co-Chairmen, the following are the main conclusions emerging from the workshop.
8. International decision-making on questions affecting the marine environment should be the result of a more holistic approach. It must ensure that decisions take into account all relevant aspects of the marine and other environments, including economic and social considerations.

9. International decision-making on these questions also needs to be based upon the precautionary and other approaches embodied in the principles adopted at the United Nations Conference on the Environment and Development held in Rio de Janeiro in June 1992.

10. It should also be based upon the best available scientific information, as well as social and economic considerations. Where relevant, it should also take into account traditional knowledge. The current wide range of international, regional and national arrangements for research and investigation provide the basis for establishing the information base. Although gaps in understanding exist because of limits on resources and because of the incremental nature of building up knowledge, in some cases, management of the marine environment could be improved if existing information was used more fully. Therefore, it is important to identify and try to fill those gaps where they do occur and to improve abilities to use and access the available knowledge and technology.

11. A better interaction between science and policy formulation in understanding and regulating the marine environment is an important objective.

12. Improvements are needed in particular in:

- a. prediction capability for components of the marine environment, including data quality control and the employment of systematic ocean observations;
- b. knowledge of natural and anthropogenic variations;
- c. use of, and access to, the growing body of new technology;
- d. better assessment of changes in species and habitats including the use of environmental quality indicators;
- e. knowledge of the links between catchment areas and the marine environment;
- f. mechanisms for the exchange of information between states and regions.

13. States need to ensure that their input into regional and global decision-making is based upon national priorities properly coordinated between the different national authorities. This coordination should take account of the recommendations in Chapter 17 of Agenda 21 for the integration of national policy towards the marine environment.

14. Action should be taken at the national or regional levels when the issues can be effectively settled at those levels. Where issues require action at the global level, national action is still essential and regional action is often also required.

15. Various approaches can be considered for identifying the topics on which global action is needed. Individual topics can be identified on the basis of specific concerns about them. Alternatively, criteria can be established for use in identifying potential topics for global action.

16. International arrangements for decision-making on questions affecting the marine environment must recognise the importance of helping developing countries in need of assistance with the problems that they face in this work and in implementing the decisions. There should be a review of existing global and regional arrangements that fail to address problems of this kind. Capacity-building and the transfer of information and know-how, particularly between developed and developing countries, must be considered.
17. There is no need to create any new global agency or institution for taking decisions at the global level on questions affecting the marine environment.
18. There remains a need to review the working of the existing institutions involved in such decision-making, with the aim of clarifying their roles, making them more effective and improving the means for establishing coherent priorities for global action. This may also have the additional benefit of making savings on the cost of such operations.
19. Three institutional aspects of this were identified.
20. First, there was general agreement that there was a need for more effective means of coordination among the UN Agencies and other international organisations active in the field of the marine environment. It was suggested, *inter alia*, that there should be a study of ways of making more effective the work of the Oceans and Coastal Areas Sub-Committee of the Administrative Coordination Committee of the United Nations (ACC/SOC) and giving its work more prominence. As a first step in this study, ACC/SOC, in conjunction with the non-governmental organisation (NGO) sector, could be asked to suggest ways to make its work more effective.
21. Secondly, there was also general agreement that it was important to find means for expressing the consensus of national governments on the priorities for global action on the marine environment. However, differing suggestions were made on how this could be achieved. Among options suggested were that:
 - a. the commitment of the United Nations General Assembly to annual debates on the UN Convention of the Law of Sea and oceans issues was relevant;
 - b. the Commission on Sustainable Development, assisted by the UN Secretariat's Division for Sustainable Development and its Division for Ocean Affairs and the Law of the Sea, could contribute;
 - c. the Economic and Social Council could devote a part of its sessions to this subject;
 - d. periodic joint meetings of the bureaux of the various governing councils and executive bodies of relevant UN Agencies and other international bodies could be useful;
 - e. it would be helpful to involve finance and industry ministers in developing and planning the programmes, as well as environment ministers and other ministers directly responsible;

- f. broader public involvement, including the participation of non-governmental organisations, would strengthen the process;
- g. regional action plans for marine and coastal environments, such as those contained in UNEP Regional Seas Programme, could facilitate global action for the implementation of Agenda 21.

22. The integration of global oceans management would also be furthered both by the endorsement by national governments, through the appropriate organs of each specialised agency involved, of the relevant parts of the Washington Global Programme of Action on the Protection of the Marine Environment from Land-Based Activities, as well as the identification of relevant mandates for those agencies, and by the periodic intergovernmental meetings called for by that Programme. The contribution to be made to the CSD work on oceans by the three year programme of work on coastal and marine issues, set up at the second Conference of Parties to the Convention on Biological Diversity in Jakarta, was also noted.

23. Thirdly, there was general agreement on the need to improve the effectiveness of the means for providing the scientific advice needed both for the formulation of priorities for global action and for ensuring a consistent base for action between the various agencies involved. Such advice could be sought, where necessary, from the Joint Group of Experts on the Scientific Aspects of Marine Protection (GESAMP). It was suggested that there should be a study of ways of making the work of GESAMP more effective.

24. There was general agreement that the forthcoming intersessional meeting in preparation for the 1996 session of the Commission on Sustainable Development should accord priority to the next steps in the implementation of the Washington Global Programme of Action and, taking into account the deliberations of this London Workshop, make recommendations to address:

- a. the co-ordination of scientific input to ocean programmes, including availability, assessment, impact and response measures, as well as social and economic considerations;
- b. how to make existing organisations and mechanisms more effective and better co-ordinated;
- c. how to generate the necessary political priority, obtain national commitments and arrange for the regular review of ocean programmes;
- d. how to mobilise the necessary knowledge, technology and assistance to enable all countries to participate in ocean programmes;
- e. the selection of criteria for defining the issues to be taken forward.

ANNEXES

Annex A Workshop delegates

Annex B Panel 1 presented by Mr E Barnes as rapporteur

Annex C Panel 2 presented by Senora P Caballero as rapporteur

Annex D Panel 3 presented by Mr T Laughlin as rapporteur

Delegates List

Workshop Co-Chairmen

Sra Aspasia Camargo

Executive Secretary, Ministry for Environment,
Water Resources and the Amazon
Under-Secretary of State, Scottish Office

Earl of Lindsay

Panel Chairmen

Dr G Pichot

Management Unit, North Sea Mathematical Model
Advisory Committee on Protection of the Sea
Ministry of Foreign Affairs, Planning and
Environment, Republic of the Seychelles

Sir Hugh Rossi KCMG

Mr Claude Morel

Speakers

Professor A D McIntyre CBE

Marine Forum for Environmental Issues
International Ocean Institute

Professor E Mann Borgese

Dr A Longhurst

Dr J H Steele

Woods Hole Oceanographic Institution

Dr G Kullenberg

Intergovernmental Oceanographic Commission

Professor C Hopkins

International Council for Exploration of the Sea

Ms A Ilett

Department of the Environment, Sports & Territories, Australia

Ms Indrani Lutchman

Worldwide Fund for Nature, UK

National Representatives

Dr Carlos Lasta	National Institute for Fisheries Research & Development, Argentina
Sr Oscar Padin	Secretariat for the Environment, Argentina
Commander Luis Vila	Argentine Navy, Environmental Protection Department
Ms Alison Airey	Australian High Commission
Mr Abdul Redha Jassim Shams	Directorate of Fisheries, Bahrain
Mr Robson Calixto	Ministry of Environment, Brazil
Sr Luis Figuerido	Ministry of Foreign Affairs, Brazil
Mr Bruno Bath	Embassy of Brazil
Mr John Karau	Environment Canada
Mr Geoffrey L Holland	Department of Fisheries and Oceans, Canada
Ms Louise Cote	Dept of Foreign Affairs & International Trade, Canada
Ms Shirley Lewchuk	Department of Foreign Affairs & International Trade, Canada
Ambassador John A Fraser	Dept of Foreign Affairs and International Trade, Canada
Mr Bill Bhaneja	Canadian High Commission
Dr Vasantha Chase	Organisation of Eastern Caribbean States
Sr Milenko Skokric	Ministry of Foreign Affairs, Chile
Mr Chen Yaqu	Ministry of Agriculture, People's Republic of China
Mr Liu Yukai	National Environmental Protection Agency, People's Republic of China
Mr Yu Chengguo	Ministry of Communications, People's Republic of China
Dr Paula Caballero	Ministry of Foreign Affairs, Colombia
Mr Jorn Kirkegaard	Environmental Protection Agency, Denmark
Mr Thomas Kruse	Ministry of Agriculture & Fisheries, Denmark
Mr Rick Boelens	Forbairt, Ireland
Mr David Griffith	Department of the Marine, Ireland
Mr P Gameltoft	European Commission, DGXI
Ms Jill Hanna	European Commission, DGXI
Mr D Levieil	European Commission, DGXIV
Mrs Terttu Melvasalo	Ministry of Environment, Finland
Mr Jean-Marie Massin	Ministry of Environment, France
Mr Megret	Ministry of Environment, France
Dr M A Odei	Council for Scientific & Industrial Research, Ghana

National Representatives Cont'd

Mr E P Barnes	Ministry of Environment Science & Technology, Ghana
Mr A Laskaratos	Mediterranean Action Plan, Greece
Dr Evangelos Papathanassiou	National Centre for Marine Research, Greece
Mr Magnus Johannesson	Ministry for the Environment, Iceland
Mr Sudariyono	Ministry of State for Environment, Indonesia
Ms Maria Dalla Costa	Ente Nazionale Energia Ambiente (ENEA), Italy
Sr Oscar M Ramirez	National Fisheries Institute, Mexico
Monsieur Larbi Sbaï	Ministry of Marine Fisheries and Merchant Marine, Morocco
Ms Bente Angell-Hansen	Ministry of Foreign Affairs, Norway
Mr Atle Fretheim	Ministry of Environment, Norway
Mr Johán H Williams	The Royal Norwegian Ministry of Fisheries
Mr Salim Al-Jufaili	Ministry of Regional Municipalities, Oman
Mr Presbitero U Velasco	Department of Justice, The Philippines
Mr Ed Maranan	The Philippine Embassy
Dr Oumar Ly	Ministry of Fishing and Maritime Transport, Senegal
Mr John Mascarenhas	Seychelles High Commission
Sr Joaquin Ros	Ministry of Public Works, Transport & Environment, Spain
Mr Ulf Svensson	Ministry for Agriculture & Fisheries, Sweden
Ms Carolyn Dixon	Ministry of Environment, Sweden
Mr R Droop	Ministry of Housing, Physical Planning & Environment, Netherlands
Mr R Dekker	Ministry of Transport, Netherlands
Dr Saad Al Numairy	Federal Environmental Agency, United Arab Emirates
Dr Salem Al Dhaheri	Federal Environmental Agency, United Arab Emirates
Dr Anne McLaren	British Government Panel on Sustainable Development
Lord Selborne	British Government Panel on Sustainable Development
Miss Sarah Soffe	Countryside, Council for Wales
Mr Tom Burke	Department of the Environment, UK
Mr Mike Burn	Department of the Environment, UK
Mrs T Crossley	Department of the Environment, UK
Dr David Fisk	Department of the Environment, UK
Ms Dinah Nichols	Department of the Environment, UK
Mr F A Osborn	Department of the Environment, UK

National Representatives Cont'd

Mr Alan Simcock	Department of the Environment, UK
Mr P F Unwin	Department of the Environment, UK
Mr Peter Holt	Department of Trade and Industry, UK
Mr John Carroll	Foreign & Commonwealth Office, UK
The Maclaren of Maclaren	Foreign & Commonwealth Office, UK
Mr A Turner	Foreign & Commonwealth Office, UK
Dr Bob Dickson	Ministry of Agriculture, Food and Fisheries, UK
Dr J W Horwood	Ministry of Agriculture, Food and Fisheries, UK
Mr Stephen Wentworth	Ministry of Agriculture, Food and Fisheries, UK
Mr P Whitehead	Ministry of Agriculture, Food and Fisheries, UK
Mr Peter Winterbottom	Ministry of Agriculture, Food and Fisheries, UK
Professor John Shepherd	National Environmental Research Council, UK
Mr David Turner	Overseas Development Administration
Dr J Tarbit	Overseas Development Administration
Ms P Toumin	Overseas Development Administration
Dr A D Hawkins	The Scottish Office
Mr E J Simmonds	The Scottish Office
Mr Lewis Clifton	UK
Mr Tucker Scully	US State Department
Mr Alan Sielen	Environmental Protection Agency, USA
Mr R V Arnaudo	United States Embassy, London
Ms Charlotte Fontauberg	United States Embassy, London
Mr Stanley Wilson	National Oceanic & Atmospheric Administration (NOAA), US
Mr Will Martin	National Oceanic & Atmospheric Administration (NOAA), US
Mr Thomas L Laughlin	National Oceanic & Atmospheric Administration (NOAA), US

International Agencies

Mr C Krishnan	Commonwealth Secretariat, UK
Ms M Lizarraga	Food & Agriculture Organisation of the United Nations (FAO)
Professor John D Woods	Global Environmental Facility, UK

Dr David Pugh	Inter-Governmental Oceanographic Commission
Mr M K Nauke	International Maritime Organisation
Dr Ray Gambell OBE	International Whaling Commission
Ms Pragma Toulmin	Overseas Development Administration
Mr Pierre Najlis	United Nations, Division for Sustainable Development
Mr Philip Reynolds	United Nations Development Programme
Mr Jorge Illueca	United Nations Environment Programme
Mr Moritaka Hayashi	United Nations
Mr R J Shearman	WMO Commission for Marine Meteorology
Dr Stephen Lintner	World Bank

Non-Governmental Organisations

Dr B L Bayne	Centre for Coastal & Marine Science, UK
Dr T M G Cloughley	E & P Forum, UK
Mr Tony Read	E & P Forum
Mr Glenn D Quelch	EUROPECHE (NFFO)
Mr Antonio Rengifo	Foundation for International Environmental Law & Development, UK
Mr Gerard Peet	Friends of the Earth International
Mr Remi Parmentier	Greenpeace International
Dr Malcolm MacGarvin	Greenpeace International
Ms T Robertson	Greenpeace International
Professor David Freestone	Hull University, UK
Professor Philippe Bourdeau	International Council of Scientific Unions
Captain Rod Shaw	International Chamber of Shipping
Mr Joseph E LeBlanc, Jr	International Association of Ports & Harbors
Mr H C Rance	International Petroleum Industry Environmental Conservation Association, UK
Mr Lemlin	International Petroleum Industry Environmental Conservation Association, UK
Mr Scott Hajost	International Union for Conservation and Natural Resources (IUCN)
Mr Paul Holthus	International Union for Conservation and Natural Resources
Mr Roger Lankester	International Sailing Federation, UK

Non Government Organisations Cont'd

Mr Brian O'Riordan	International Collective in Support of Fishworkers (ICSF)
Dr Krishan Saigal	International Ocean Institute
Captain Trygve Meyer	Intertanko, UK
Mr Sunil Murlidhar Shastri	Marine Forum, UK
Ms Sarah Welton	Marine Conservation Society, UK
Commander M B F Ranken	Parliamentary Maritime Group, UK
Dr Euan Dunn	Royal Society for the Protection of Birds, UK
Mr John Maggs	Seas at Risk, UK
Dr Susan Gubbay	UK
Lady Elizabeth Kennet	UK
Mr Colin Taylor	UNICE
Dr Siân Pullen	World Wide Fund for Nature
Dr James Cameron	World Wide Fund for Nature

PANEL 1 - Scientific and Policy Analysis

ANNEX B

1 PAPERS

The two papers presented to this panel were:

- "Ocean Science and the Sustainable Use of Oceans; Definitions and Current Understanding"
Dr A Longhurst
- "Scientific Investigation and Policy Analysis"
Dr J Steele, President Emeritus, Woods Hole Oceanographic Institution

2 ISSUES OF CONCERN

The panel considered several issues of concern. The key ones are described below.

2.1 Better Interaction between Science and Policy

At the present time policies appear to be made with insufficient inputs from the scientific community. This has occurred for several reasons:

- 2.1.1 There is often a fundamental paradox between the range of probabilities that are the products of scientific research, and the absolutes that are required for effective regulation.
- 2.1.2 Scientific assessments (and their mode of presentation) are not easily understood by decision-makers.
- 2.1.3 There is a need for closer dialogue between scientists in the developed and developing countries, in order to arrive at a better international understanding of issues relating to the environment.
- 2.1.4 Scientists are not always aware of the needs of the decision-maker, especially the political implications of the measures they advocate. There seems to be a need for a clearer formulation of the demands upon them as advisers.

2.2 There is also a need for the scientist to make the decision-makers aware of the gaps that exist in scientific knowledge, which may prevent the provision of reliable information within a short time period.

2.3 To address these issues there is a need for better interaction between policy makers and scientists to clarify needs and expectations of both parties.

2.4 There is also a need for the scientists to make their results available in a comprehensible manner for the general public.

/...

2.5 Integrated Coastal Zone Management

The management of coastal zones is often complicated by the absence of a unified body to administer the land and its adjoining water bodies. Problems arise from the discharge of municipal, agricultural and industrial wastes into the water course, causing deleterious effects. These effects include eutrophication of coastal waters, adverse impacts on marine life, and the communities that are dependent upon them.

As a result of these increasing pressures manifest at coastal zones it is necessary to adopt an integrated approach. This will enable environmental, socio-economic and political factors to be considered, requiring full cost-benefit analysis including environmental values. It also provides for the consideration of the terrestrial and marine issues together. This is particularly important in developing countries where coastal areas represent centres of rapidly increasing population.

The obligation of implementing fully various recommendations/guidelines/rules which already exist has been underlined.

2.6 Management of Fisheries

In most parts of the world fish stocks are dwindling through over-exploitation. To overcome this state of affairs there is a need to reconcile the optimum economic yield with sustainable fisheries management. Further work on theory and methodologies would also lead to significant improvements in fisheries biology and management. In addition, present fisheries policies could be improved if current scientific knowledge was more strongly reflected in the management decisions that are made. Notwithstanding the need for improvements in knowledge, action on overfishing of many stocks depends upon readiness to take appropriate actions.

2.7 Protection and Conservation of Species and Habitats

The over-exploitation of the marine environment leads to the loss of marine flora and fauna. And the destruction and degradation of coastal habitats to provide for such uses as tourism, housing, industry and transportation corridors is a serious threat to marine ecosystems. In some regions dwindling fish stocks have been linked to the destruction of habitats as well as the effects of pollution.

To address these issues there is a need to put in place arrangements to allow for the protection, conservation and sustainable use of resources in the marine environment. The Convention on Biodiversity provides a framework for putting such arrangements in place. Integrated coastal zone management can also provide a mechanism for habitat conservation which, in turn, is a practical and effective means of maintaining marine biodiversity.

3 GAPS IN KNOWLEDGE

3.1 The Improvement in Prediction Capability

The quality of information for decision-making tends to have associated with it uncertainties which may not make it a fully reliable basis for decisions. There is thus a need for improving the prediction capabilities, reducing uncertainties and giving clear information on error affecting the results. It is also the case that much data that is available is not comparable. The quality of the analysis is also variable, meaning that it is not possible to use the information as the basis of global decision-making. There is therefore the need to improve the quality control and assurance as well as the reliability associated with this information. It was noted that the science itself becomes increasingly complex as one moves from physics, chemistry and biology to ecosystem theory. /...

3.2 Better Appreciation of Natural and Anthropogenic Variations

At present it is often difficult to ascertain whether a particular marine problem has been caused by anthropogenic factors, or is the result of natural processes. This calls for more research in order to provide a sound basis for decision-making.

3.3 Research in the Economic and Social Fields

In order to promote sound management decisions on ocean-resource utilisation, research into economic, social and related fields should be enhanced. In particular, the effects of pollution and habitat destruction on marine productivity and marine species recruitment must be better understood.

3.4 Better Assessment of Marine Species and Biodiversity

Current understanding of the marine environment is hampered by the absence of appropriate indicators or criteria for assessing changes in marine ecosystems. It is important to develop environmental quality indicators which should help in this effort.

3.5 The Better Use of the Growing Body of Technology

During the next decade it is likely that data availability and techniques, eg modelling, will be improved such as to provide a better basis for predictions for changes in the marine environment. It is important that these and other promising techniques are used extensively.

3.6 Techniques for Assessing Links Between Catchment Areas and Coastal Waters

The relationship between the sources and loads of contaminants from land-based activities and contamination of coastal zone waters, including the effects of pollution and habitat destruction on marine productivity, particularly stock recruitments, must be fully investigated.

4 LEVELS OF ACTION

Protection of the marine environment can be considered at various levels depending upon the nature of the problem. Climatic aspects involve ocean and atmospheric interactions. Therefore, these aspects as well as those linked to the long range atmospheric deposition of contaminants such as POPs need to be considered at a global level. It was considered that remaining marine issues should be tackled at the lowest appropriate level, local or regional, with all stakeholders involved in the decision-making processes.

Science is basically national and regional. But as science is by definition universal, results and knowledge might be exported by one region to another one and thus represent a global dimension.

There is also a need to have information networks to allow the exchange of information, ideas, experiences and research findings mainly between the local and regional levels and the global one.

5 THE IMPROVEMENT OF EXISTING MECHANISMS

Due to time constraints the panel did not discuss this issue to the same degree as the other issues.

However it was agreed that there is no need to establish another international body to oversee the management of the marine environment. Instead it is essential to reorganise existing institutional arrangements to ensure that these are fully effective, more alive to operational priorities and with clear-cut responsibilities for stakeholders.

As far as the intersectoral aspects of marine science are concerned, the panel recognised GESAMP as the body which could undertake co-ordination at the global level. There is the need for regular reports on the quality of the marine environment to be conducted by GESAMP. However there will be the need to revitalise the modus operandi of GESAMP, to examine closely its membership (namely in terms of experience, expertise and to ensure a better geographical spread) and to audit its performance. However, the Panel noted that further reviews and work were likely to require further resources or changes in priorities for scientific groups.

PANEL 2 - Successful Policy Formulation

ANNEX C

1 Papers presented to Panel 2 were:

- *"Bringing Environment, Economic, Social and Scientific Considerations together in Policy Formulation"*
Ms A Ilett, Acting Director, Marine Strategy Section, Department of the Environment, Sports and Territories, Australia
- *"Achieving success in policy formulation: An NGO perspective"*
Ms I Lutchman, World Wide Fund for Nature

Three questions were posed and the resulting deliberations are summarised below.

2 *How can scientific, technological, and economic and social considerations best be integrated into decisions on oceanic and marine environment issues, in particular to what degree do policy makers have access to advice and what is the most effective means of delivering such advice?*

The discussion centred on such mechanisms as might be needed to undertake the objectives set forth above.

2.1 There was general consensus on the need for baseline scientific information in order to identify and evaluate threats to the marine environment. All sources of information should be accessed, including those provided by naval and other armed services where their technology might also be relevant to enforcement issues. In the context of sources of information, it was felt that developing countries would require assistance and technology and "know-how" transfer. However, the need for furthering endogenous scientific and technical expertise was underlined given the fact that national and regional priorities for scientific research are often value oriented and that developing countries should be enabled to develop appropriate technologies in response to their needs and circumstances, including the need to develop integrated management and policy strategies. Moreover, the need to integrate socio-economic considerations in the provision of advice was urged.

2.2 Regarding the need for strategic frameworks that identify sustainable development and conservation objectives, several views were expressed. In general, however, there was consensus regarding the fact that no new international institutions should be established. However, given the plethora of existing institutions with relevant responsibilities, the need was stressed for some form of mechanism to crystallise political will and provide a high-level platform for greater coordination between regional and global initiatives. Provision should also be made for regular assessment of the state of the ocean. In addition, such a framework would underline priorities and mobilize financial resources. It was noted that sustainable ocean management will not be achieved by a single institution. Some participants stressed that it would be more productive to give priority to the national implementation of obligations already undertaken. Therefore, at the global level, attention should be given to how governments might be supported in fulfilling existing commitments. /...

Some examples of integrated approaches to ocean problems were indicated as possible models, including the Washington Global Programme of Action, the International North Sea Conference, the Code of Conduct for Responsible Fisheries, the Coral Reef Initiative and the working approach in negotiating the UN Agreement on the conservation and management of straddling fish stocks and highly migratory fish stocks.

2.3 It was felt that UNCLOS provides a general legal framework for the effective management of the oceans. Therefore, no further treaty framework was considered necessary, but some process needs to be developed that provides for a regular review and updating. Attention was called to the fact that there is a need to provide for coordination with other relevant international instruments such as CBD and FCCC, and that several issues might need specific sectoral instruments. The implementation of existing conventions was considered a key to improving ocean management.

2.4 The need to clarify the conduits between initiatives and programmes at the national, regional and international levels was highlighted, although no consensus emerged as to the possible definition of a hierarchy in this context. At national level, it was noted that coastal and EEZ management imply a greater responsibility. At the regional level, it was noted that the present framework relies on regional implementation of the various initiatives. However, given that many problems are global in nature, it was noted that not all global interests coincide with regional interests, and that moreover, a global perspective enables the harmonization of standards and controls. Furthermore, a global approach provides for managing maritime zones beyond national jurisdiction. It was recognized, nonetheless, that priorities will be defined primarily at the national and regional levels.

2.5 In relation to the formulation of national policies, the participatory approach was widely recognized. However, it was pointed out that the necessary consultation processes would be difficult to replicate at the global level. Thus decision making needs to be structured at the various appropriate levels. In particular, social and economic considerations may be built into the process at the local level, but there is difficulty in taking these into account of at the global level. However, at the international level there is access to scientific information which may be lacking locally.

2.6 Consensus was reached regarding the need to ensure a holistic and ecosystemic approach to ocean management issues. Similarly a precautionary approach as accepted in the Rio Declaration, was deemed essential. The importance of involving all relevant stakeholders was underlined, given that participation at all levels leads to a sense of ownership of both problems and solutions.

3. What are the topics on which global action is desirable to ensure the best formulation of policies?

3.1 On the one hand, several issues were suggested that should be incorporated into any comprehensive treatment of ocean issues. Among these were biodiversity (particularly marine biodiversity), climate change, pollution control, mariculture, ecosystem health, deep sea living resources, untreated sewage and industrial effluents, shipping, oil exploration and conflict /...

resolution. On the other hand, it was suggested that a more constructive approach might be to identify criteria for selection of relevant subjects, such as topics not covered by existing instruments, that require intergovernmental coordination, or where external negative impacts are felt on common resources. A matrix approach setting out positive categories was also put forward. Finally, another view stressed the need to determine which issues will be addressed at a global level, noting that, given complexity of the issues, attempts to address all simultaneously might impede effective action.

3.2 Conceptual issues that arose included the distinction between global problems and ubiquitous but more local problems. There was strong support for the view that certain ubiquitous problems merited the development of a global approach or initiatives. Other problematic areas included the off-shore industry.

3.3 The question of poverty alleviation was underlined as a global issue.

3.4 Various participants argued for the need to address the impacts of trade on the environment. The importance of the contribution of the Committee of Trade and Environment to ensuring coherence between the work of the General Agreement on Tariffs and Trade (GATT) and the World Trade Organisation (WTO) and the implementation of Agenda 21 was noted. The issue of "harmful" subsidies was also addressed.

4. How can existing mechanisms be improved to ensure more effective policy formulation on questions requiring global action?

4.1 It was suggested that the best approach to this question was to identify a process, which could contain elements such as interagency coordination, definition of common priorities and lacunae in the system, as well as the identification of a relevant intergovernmental forum.

4.2 Consensus was evident regarding the need for the provision of scientific advice on a comprehensive basis, and it was noted that a restructured and strengthened GESAMP might provide a possible solution given that the existing system is characterized by information gaps and overlaps in competence.

4.3 In this context, several suggestions were put forward for establishing a global framework and/or focal point. The need for a regular high-level meeting was noted as well as for an overarching framework that includes review of the implementation of existing commitments. The integration of national and international systems with regional organisations was also deemed important. Nonetheless, it was also noted that the crucial issue is not the creation or development of new frameworks, but the actual implementation of existing commitments, which requires the establishment of an adequate institutional infrastructure. It was noted that some issues need to be settled locally.

4.4 Another suggestion was put forth regarding the need to continue the process of analysis begun at this Workshop given the complexity of the issues to be addressed and the evident lack of consensus and clarity as to the best way forward. It was felt that this "preparatory" process would contribute to elucidating the outstanding issues.

4.5 Possible frameworks suggested included the following:

- utilizing the Administrative Committee on Coordination (ACC) Sub-Committee on Oceans and Coastal Areas as a focal point;
- focusing review of ocean management issues in the Commission on Sustainable Development, with subsequent review by the ECOSOC and the Second Committee of the UNGA, which already deals with socio-economic considerations;
- establishment of joint assemblies of relevant existing international organisations and/or rotation of review of implementation of relevant ocean management issues among pertinent UN organisations;
- incorporation of a general debate on ocean management issues into the agenda of the UNGA, by expanding the present agenda item of UNCLOS;
- implementation of the Global Programme of Action adopted in the Washington Conference, given that it concerns issues and problems faced in the oceanic arena, calls upon States to assess their action priorities, and provides for a global clearing house mechanism, as well as for periodic intergovernmental reviews.

PANEL 3 - Successful Policy Implementation

ANNEX D

1 Papers presented to Panel 3 were:

- *"Global arrangements for ensuring effective national and regional implementation of ocean policies - do they exist?"*
Dr G Kullenberg, Secretary, Intergovernmental Oceanographic Commission
- *"Linking Science and Management; Implementation based on the ICES Intergovernmental Model."*
Professor C Hopkins, Secretary General, International Council for Exploration of the Sea

The Panel reached consensus on the following points:

2 How can international mechanisms be improved to promote more effective implementation? In particular, how would they help remove the impediments to successful implementation of policies?

2.1 It was agreed that there is no need for a new international organization to deal with oceans issues. Rather, the Panel favoured strengthening existing institutions and improving coordination between them.

2.2 One means of strengthening policy formulation is to base decisions on scientific information, within the context of the principle of the precautionary approach. At the global level, the CSD could consider the identification of important scientific questions with a view to requesting GESAMP to consider and prepare a report on these questions. GESAMP would deal with any such request, according to its usual practice ie a group of experts with appropriate expertise in the relevant fields would be formed to respond to the request. It is expected that in preparing a report for CSD, GESAMP would need to take an interdisciplinary and cross-sectoral approach, including consideration of the relevant work of FAO, SIDS, ICRI and that of the Convention on Biological Diversity.

2.3 On a regional level, States could consider the strengthening of scientific advisory capacities of existing regional institutions. Experience in the North Atlantic and elsewhere has demonstrated some key elements for such strengthening, including:

2.3.1 use of interdisciplinary and cross-sectoral approaches;

2.3.2 the separation of science from policy decision-making;

2.3.3 the use by multiple and regional decision-making bodies of a single, integrated scientific advisory structure;

2.3.4 the important role of policy bodies in clearly formulating questions for which answers are required for decision making.

/...

- 2.4 Both at the global and the regional levels, scientific advisory bodies should, *inter alia*:
- 2.4.1 insure better understanding of ocean processes for use by decision-makers;
 - 2.4.2 preserve their independent, non-governmental nature;
 - 2.4.3 identify major trends to permit assessments; and
 - 2.4.4 identify the means to establish long-term monitoring so as to provide for time series data and permit measurement of the effectiveness of management programmes.
- 2.5 Once global priorities have been established, for example in the context of the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (herein after "GPA"), States should assure that decision-making by relevant international institutions is consistent with these priorities. A corollary of this approach is the need for greater internal policy coordination at the national level.
- 2.6 With respect to the ability to formulate the necessary political will to execute programmes related to the marine environment, States should:
- 2.6.1 include representatives from finance and industry ministries at international meetings;
 - 2.6.2 involve multilateral lending institutions and UNDP;
 - 2.6.3 broaden public participation and the involvement of the NGO community so as to build public support for decisions;
 - 2.6.4 broaden the scope of regional conventions and action plans geographically, to include watersheds, with respect to social and economic issues and the inclusion of all relevant economic sectors.
- 2.7 The Panel agreed that there is value in periodic policy level meetings on oceans issues, consistent with the call in Agenda 21. Preparation for such meetings should include representatives of the secretariats of the CSD and UN Division of Ocean Affairs and Law of the Sea. Such meetings should consider progress during the intervening periods, identification of next steps and links to existing legal obligations, such as UNCLOS. The meetings should occur every four years and be coordinated with consideration of oceans issues in the CSD. Also at four year intervals, but offset with the policy level meetings by two years, States should convene the Bureaus of regional and global ocean-related conventions to assess progress and next steps. In addition, the Panel endorsed the recommendation of the GPA to hold period meetings to assess progress.

2.8 It was agreed that States should support existing oceans-related organizations through adequate provision of resources. Further, it was suggested that regions consider the co-location of secretariat staffs so as to provide the critical mass needed for effective programmes and to improve coordination.

2.9 Once having been committed to legal obligations pursuant to international conventions, States should ensure that they take steps to implement these commitments.

2.10 States should make the difficult policy decisions to effect sustainable development of oceans and coastal resources, with particular emphasis on preventative actions. States should make a long-term commitment to these policy decisions so as to mobilize the required domestic resources and raise public awareness of the risks of environmental destruction and the benefits of its protection.

2.11 When requested, UN oceans agencies should assist States in assessing the effectiveness of national focal points established to implement oceans programmes.

2.12 Periodically, as appropriate, the attention of ministers should be brought to oceans issues.

3 What global support (both in the sharing of knowledge and the provision of resources) is desirable for effective national and regional implementation of policies on ocean issues?

3.1 The Panel emphasized that actions should be taken at the lowest appropriate administrative level, whether local, national or regional, as reflected in the GPA. In this regard, there was also strong support for the value of policy formulation at the regional level.

3.2 In support of local, national and regional actions, efforts should be made at the global level to provide access to information on techniques, funding and expertise. These actions should include capacity building programmes especially for developing countries.

3.3 Where appropriate, for example with respect to shipping in all its forms, actions should continue to be taken to maintain and improve global structures and administrations, such as the IMO, to translate the scientific and policy decisions into a form, which is easily accessible to those it is required to influence.

4 *Are there lessons to be learned between different regions or common management problems?*

4.1 The Panel agreed that there are certainly multiple opportunities for exchange of information on "what works" between regions. It was pointed out that care must be taken in the application in one region of successful ideas developed in another. One example, provided above, is the application in other regions of the interrelationship between ICES and policy decision-making bodies. Other examples should be investigated.

4.2 In this regard, the Panel endorsed the focus on successful lessons as contained in the clearing house proposal included in the GPA.
