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UNEP GOVERNING COUNCIL DECISION 21/13

**PROCEEDINGS OF THE TECHNICAL WORKSHOP FOR ESTABLISHING A  
REGULAR PROCESS FOR THE GLOBAL ASSESSMENT OF THE MARINE  
ENVIRONMENT**

BREMEN (GERMANY): 18-20 MARCH 2002

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## Executive Summary

1. The UNEP Governing Council (GC) adopted at its 21<sup>st</sup> session in February 2001 a decision concerning a “Global Assessment of the State of the Marine Environment” (UNEP GC Decision 21/13). Article 4 of this Decision requests the Executive Director,

*“.....in co-operation with IOC/UNESCO and other UN agencies, the CBD Secretariat, and the regional seas programmes to explore the feasibility of establishing a regular process for the assessment of the state of the marine environment, with active involvement by governments and regional agreements, building on ongoing assessment programmes.”*

2. To implement UNEP GC Decision 21/13, a first informal consultative meeting was held in Reykjavik, 12-14 September 2001. This meeting strongly agreed that a global assessment of the marine environment (GMA) was both desirable and urgently needed and welcomed the opportunity to examine the feasibility of developing this process with all relevant stakeholders. Furthermore, this meeting recommended, *inter alia*, that the GMA process should be aimed at policy-makers. Based on a scientific assessment of the global marine environment, the GMA should provide this target audience with advice, guidance and assistance on actions required to mitigate environmental impacts and changes.

3. In the light of the outcome of the Reykjavik meeting, UNEP decided to convene a second meeting in form of a technical workshop to further elaborate the key objectives and define the practical framework for developing a GMA process. This workshop was kindly hosted by the German government in Bremen, 18-20 March 2002. Funds from the German and Swedish government enabled a large number of interested developing countries and international organisations to be represented at the workshop, thereby expanding the audience involved in the consultations to implement UNEP GC Decision 21/13 at both meetings to 16 countries and 10 regional and 14 global Conventions, Agreements and organisations.

4. The fruitful discussions at the workshop revealed a broad consensus between participants. The main agreements are reflected in the section 'Recommendations and Conclusions from the Meeting' in the attached Proceedings, which is summarised in the following paragraphs.

5. The **main goals for the establishment of a suitable GMA mechanism** are to provide on a regular, timely and scientific basis the necessary assessments of the state and trends of all aspects of marine ecosystems. These assessments should be built upon existing mechanisms related to and/or relevant for marine environmental assessments. They should involve and be used by policy makers and stakeholders on the national, regional and global level.

6. In addition, the GMA could have number of potential functions with respect to the planning and implementation of regional and global assessment processes. For practical reasons, it might be necessary to focus the GMA process by setting assessment priorities.

7. In general, **GMA stakeholders** are those involved in policy or affected by degradation of the marine environment. To ensure legitimacy, credibility and saliency, GMA stakeholder groups should be defined on the regional level.

8. The GMA should take a broad ecosystem approach based on commonly accepted ecological boundaries, addressing in particular those marine areas and/or human activities, which currently are not sufficiently covered by assessment activities as well as less understood ecosystems, communities and

species. The **scope of GMA activities** should include socio-economic considerations and take into account the relevant work, approaches and experience of national, regional and global organisations. The global assessment component of the GMA process will guide the timing and facilitate the development of regional or thematic assessments on specific issues.

9. The **main data providers for the GMA** are intergovernmental organisations, government agencies, and academia, but other sources of valuable, pertinent data should be investigated.

10. The **institutional mechanisms and operational arrangements** of the GMA process should have a multilevel architecture (cf. diagram in Annex X of the attached Proceedings, as an example) to ensure:

- Legitimacy, Credibility and Saliency

by applying a science-based approach which involves national, regional and global policymakers and provides an interface with all stakeholders, assessment users and data providers. Regional assessments and their synthesis into global assessment(s) should be peer reviewed by independent experts;

- Cost-Effectiveness, Efficiency and Sustainability

by building on existing assessment resources (where possible) in terms of organisation, methodologies and procedures. Regional mechanisms and partnerships, where governmental, intergovernmental and non-governmental organisations are engaged fully on an equal footing, should be used and (where necessary) strengthened.

11. The **expected outputs of the GMA** should be subject to a transparent peer review and reported in a 'two-tier' format, consisting of a scientific/technical report (1<sup>st</sup> tier) and a policy-oriented report based on the same information (2<sup>nd</sup> tier).

12. Wherever possible, the **costs and funding of a GMA process**, including capacity building, should be covered by utilising or re-directing existing sources and funds.

13. As a **next step**, the GMA process should be raised, *inter alia*, in the context of the:

- United Nations Informal Consultative Process (ICP) on Oceans;
- World Summit on Sustainable Development (WSSD);
- regional conventions and action programmes, fisheries bodies and other relevant regional organisations.

to increase the awareness on the global, regional and national level.

14. Furthermore, a review of the scope, status and timing of existing and forthcoming assessment and assessment-related activities carried out under relevant national, regional and global organisations will be undertaken to identify gaps in their coverage and ways in which they could be integrated into the GMA process.

15. The outcome of all activities carried out in the context of implementing UNEP GC Decision 21/13 will be reported to the UNEP Governing Council in February 2003. Further information about the proposed GMA process, including the documents, presentations and proceedings of the meetings in Reykjavik and Bremen, are given on the web site <http://www.unep.org/marineassessment/>.

## Welcome and Opening

1. Mr. Hansvolker ZIEGLER (Deputy Director General for Environmental Research at the German Ministry for Education and Research, BMBF) welcomed delegates to Bremen, which has a long history of integrated scientific marine research at the University of Bremen and at a variety of dedicated research institutes such as the German Polar and Marine Research Institute (AWI) and the Marine Centre for Marine Tropical Ecology (ZMT).

2. With his experience as Chairman of the International Group of Funding Agencies for Global Change Research (IGFA), Mr. Ziegler highlighted that, in the establishment of an international environmental assessment process, a number of important and closely interrelated questions have to be answered, e.g. as regards the scope of the process, the choice of approach, the definition of hotspots to be addressed, the nomination of independent and credible experts, the utilisation of existing and the mobilisation of new resources, the balance of the translation from scientific data and findings into policy actions. In particular for a global marine assessment, it was important to recognise that (i) existing data might not reflect the true picture and extent of the environmental problems and (ii) there are still large gaps in our knowledge and understanding of the marine ecosystems and biological cycles.

3. Mr. Ziegler wished delegates a pleasant stay in Bremen and hoped that the venue would inspire the workshop to establish the right set of questions and answers to further the development of a regular process for a global assessment of the marine environment.

## Representation at the Meeting

4. The meeting was co-chaired by:

• Mr. Mark COLLINS	(MC)	Director, UNEP World Conservation Monitoring Centre (WCMC)	Monday and Tuesday morning
• Mr. Salif DIOP	(SD)	UNEP Division of Early Warning and Assessment (DEWA)	Tuesday afternoon and Wednesday

A list of participants is at ANNEX I. Countries / states, regional and global organisations represented at the present meeting and at the Reykjavik meeting<sup>1</sup> are listed in ANNEX II.

## Opening Remarks and Introduction by the Chairman

5. The Chairman (MC) thanked Mr. Ziegler for opening the meeting and for highlighting some important issues and considerations, which would have to be taken into account in the present technical workshop.

6. The Chairman (MC) welcomed delegates and presented sincere apologies for the absence of Mr. Timothy FORESMAN (Director of UNEP-DEWA), who had established a strong basis for discussion at the Reykjavik meeting.

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<sup>1</sup> First consultative meeting on the implementation of UNEP GC Decision 21/13, held in Reykjavik (Iceland) on 12-14 September 2001.

7. In order to implement the UNEP Governing Council Decision 21/13, the Reykjavik meeting had strongly agreed that a global assessment of the marine environment was both desirable and urgently needed and had welcomed the opportunity to examine the feasibility of developing this process with all relevant stakeholders. Therefore, UNEP had decided to convene the present, second meeting and the Chairman (MC) expressed his gratitude to the German government for hosting the meeting and for providing, together with the Swedish government, funds which had enabled a large number of interested developing countries and international organisations to be represented.

8. The Chairman (MC) highlighted that as a follow-up to the discussions held and agreements made at the Reykjavik meeting, the present technical workshop had the aim to address the key steps needed for a "Feasibility Study of Establishing a Regular Process for the Assessment of the State of the Marine Environment"<sup>2</sup>. In this second meeting, it was important to establish answers to the following main questions:

- How can a sustainable Global Marine Assessment (GMA) process be achieved without the risk of 'overstretching' limited resources and/or duplicating existing activities?
- How to strike a credible, sensible balance and link in the assessment process between science input and policy considerations?

Concrete recommendations and proposals emerging from this workshop would provide a foundation for the GMA process and a basis for reporting on progress to the next meeting of the UNEP Governing Council in February 2003.

9. The Chairman (MC) also pointed out that in order to increase transparency, UNEP has established a special web site (<http://www.unep.org/marineassessment/>) for access to relevant background information as well as documentation for and results of meetings held in the context of establishing a GMA process.

## **Adoption of the Agenda**

10. Following discussion, the draft agenda for the meeting was amended to include a presentation on the Large Marine Ecosystems approach to the Global International Waters Assessment (GIWA). A copy of the revised, annotated agenda and timetable is at Annex III. A list of acronyms and abbreviations is at Annex IV. A list of documents submitted to and/or presented at the present meeting is at Annex V. A list of presentations made at the present meeting is at Annex VI. All documents and most of the presentations are available at the UNEP web site (<http://www.unep.org/marineassessment/>).

## **Background Information and Guidance for the Present Meeting**

11. The Chairman (MC) made a presentation about the background and the outcome of the discussions held at the Reykjavik meeting, which should guide the further development of a regular GMA process and the discussions at the present meeting. This presentation summarised the information contained in the background document for the meeting, which had been submitted by UNEP-DEWA.

### **UNEP GC Decision 21/13**

12. The discussions held at the 21<sup>st</sup> meeting of the UNEP Governing Council (Nairobi, 5-9 February 2001) indicated that there is:

- a lack of overview on links between state of marine environment and cross-cutting issues;
- an inadequate government involvement in assessment and monitoring process;

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<sup>2</sup> For the purpose of these Proceedings, the regular process for the global assessment of the marine environment is abbreviated GMA (Global Marine Assessment).

- a lack of coherence in follow-up at international level;
- an inadequate development of policy recommendations.

13. Consequently, the Governing Council had adopted a decision as regards a Global Assessment of the State of the Marine Environment (UNEP GC DECISION 21/13, cf. Annex VII), which in Article 4:

"Requests the Executive Director, in co-operation with IOC/UNESCO and other appropriate United Nations agencies, the Secretariat of the Convention on Biological Diversity and in consultation with the Regional Seas Programmes to explore the feasibility of establishing a regular process for the assessment of the state of the marine environment, with active involvement by governments and regional agreements, building on ongoing assessment programmes."

## **Results from the Reykjavik Meeting**

### ***General Agreements***

14. The participants at the Reykjavik meeting had strongly agreed that a global assessment of the marine environment was both desirable and urgently needed.

15. Subsequently, the meeting had identified and documented the overlap in effort, possible gaps, and potential areas for further collaboration between the relevant international organisations. The outcome of this exercise had shown that:

- a. the principal target audience of an assessment should be policy-makers, mainly at national level. The output and analysis should be aimed towards this group and address:
  - (i) the current and future changes in the state of the global marine environment;
  - (ii) the global impact of changes in the marine environment;
  - (iii) advice on actions required to mitigate the impacts of environmental changes.
- b. the process should have a broad marine ecosystem approach, be transparent and include a broad range of stakeholders;
- c. the outcome of the process should be produced in a 'two-tier' format, i.e. a scientific/technical report accompanied by another report with the same information, but aimed towards policy makers in language and style;
- d. the assessment mechanism should be adapted from an existing mechanism and based on (i) cost effectiveness, (ii) credibility, (iii) sustainability and (iv) the ability to address policy issues.

### ***Results from the Comparative Study Matrix***

16. Noting that there was some duplication of effort, the Reykjavik meeting had agreed that a comparative exercise should be performed amongst organisations participating at the meeting. This comparative exercise had demonstrated that:

#### **Users / customers**

- the main users / customers of the organisations participating at the Reykjavik meeting are other intergovernmental, governmental, and scientific organisations;
- considerable opportunities exist to improve co-operation and to avoid competition;

#### **Data Providers / Sources**

- the main data providers are intergovernmental and government agencies as well as scientific academia;
- there is a need to investigate the opportunities to explore data from NGO's and individual experts;

### **Data Types**

- in general, there is a need to distinguish the priority activities for organisations;
- a considerable amount of data is being collected, but an overview is needed to avoid duplication of efforts;
- a detailed analysis of the socio-economic issues is required;
- collaboration with other organisations and commercial sources should be investigated, especially for the collection of data regarding pathogens, pollution, non-living resources and human health;

### **Methods**

- all organisations (except IOI) are using an ecosystem approach for the collection and analysis of data, but there is a lack of standardised use of biogeographic regions;
- there is a need to present results in form of scenarios;
- there is a need for developing a system by which various indicators can be combined and/or compared;

### **Output of Assessments**

- all organisations produce scientific reports, but there is a general need to build more open relationships between institutions;
- there might be potential for co-ordinating and comparing information for educational and public awareness material;

### **Data Quality Assurance**

- several organisations operate both a non-peer review and a peer review process;
- there is a need to establish a formalised data review course in a marine assessment process;

### **Geographical Coverage**

- the involvement of more regional/national bodies should be encouraged;
- where possible, globally orientated organisations should be encouraged to work closely with relevant regional bodies.

## **Other Presentations and Information Exchanges**

### **Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP)**

17. Mr. Mike HUBER (Vice-Chairman of GESAMP) made a presentation about the results of a GESAMP Intersecretariat Meeting held in Geneva, 7-8 February 2002 and pointed out that this meeting:

- a. was attended by representatives of every UN agency sponsoring GESAMP (except the UN itself), the Chairman and Vice-Chairman of GESAMP and representatives from Iceland and the UK;
- b. had addressed issues raised in the GESAMP Evaluation Report and had developed key elements of a new framework for GESAMP. The following three draft goals/functions for the new GESAMP had been established, which would be fully developed and refined at the next GESAMP meeting (GESAMP XXXII) in London in May 2002:
  - (i) at the request of one or more sponsoring agencies or governments, conduct sectoral and/or topic-specific assessments and scientific syntheses, ensuring that there is an interdisciplinary review and endorsement of these assessments;
  - (ii) provide advice and oversight capability relative to the monitoring and assessment related activities being carried out by the sponsoring agencies, considering in particular ways in which these agencies and governments can interact and co-operate in these assessments,

- integrate and synthesise their results and contribute to global state of the marine environment assessments;
- (iii) address the scientific aspects of new and emerging issues regarding marine environmental protection that are of concern to the Sponsoring Agencies and/or Governments;
- c. had agreed that the GESAMP membership should be re-structured as follows:
- (i) creation of a pool (in database form) of potential GESAMP experts. Nominations to the pool can be made from sponsoring agencies, governments, and other organisations;
- (ii) commencing with the upcoming GESAMP meeting in May 2002, the term of membership is strictly limited;
- d. had furthermore agreed that a GESAMP Business Plan should be developed. In this process, the following issues will be addressed and taken into account:
- rationale, objectives and goals for GESAMP;
  - funding options for GESAMP;
  - establishment of a GESAMP Office;
  - increased visibility of GESAMP and its products;
  - increased government involvement in GESAMP;
  - more effective and efficient operation;
  - new selection procedures for members;
  - involvement of Chair/Vice Chair in management;
  - development of a budget for GESAMP.

### **Lessons Learned in Designing Effective Assessments**

18. Dr. Anita KÜNITZER from the European Environment Agency (EEA) made a presentation entitled “Lessons Learned in Designing Effective Assessments” and pointed out that:

- a. the presentation was based on the outcome of the workshop ‘Designing Effective Assessments: The Role of Participation, Science and Governance, and Focus’, which was co-organised by the EEA and the Global Environmental Assessment project in March 2001. The report from this workshop (EEA report No. 26) and the related EEA report No. 22 ‘Late Lessons from Early Warnings: the Precautionary Principle 1986-2000’ laid out during the meeting and were available on the EEA web site ([http://reports.eea.eu.int/index\\_table](http://reports.eea.eu.int/index_table));
- b. when designing and performing environmental assessments, there were a number of important aspects to consider in order to gain credibility, salience, and legitimacy and to avoid 'pitfalls';

The relevant key findings and critical issues to be taken into account in defining (i) stakeholders, (ii) the interaction between scientific experts and policy makers and (iii) the focus of an assessment were further elaborated in a number of slides, which are available on the UNEP web site (<http://www.unep.org/marineassessment/>)

### **Monitoring, Data Collation, Data Interpretation and Methodology: Status, Shortcomings and Possible Remedies**

19. Mr. Umit UNLUATA from the Intergovernmental Oceanographic Commission (IOC) of UNESCO made a presentation entitled ‘Monitoring, Data Collation, Data Interpretation and Methodology: Status, Shortcomings and Possible Remedies’, which was in parts based on the comparative study matrix (cf. § 16 above) established at the Reykjavik meeting and on the GESAMP Position Paper presented at that meeting.

20. In the first part of his presentation, Mr. Unluata highlighted the availability of information as well as the need for further work and activities as regards the following topics/issues: 1 - User Groups, 2 - Data

Provider and Sources, 3 - Data Types with respect to (i) living resources, (ii) socio-economic data, (iii) geographic data, (iv) ecosystem structure and habitats, (v) pollution, (vi) pathogens and alien species, (vii) non-living resources, (viii) carbon cycles, (ix) physical data and (x) human health, physical-geography, nutrients and water quality, 4 – Methods with respect to (i) ecosystem approach, (ii) indicators, biogeographical approach, (iv) future state scenarios and (v) causal-chain analysis and pressure-state response.

21. In the second part of his presentation, Mr. Unluata addressed the experience of GESAMP with marine environmental assessments (MEAs) and presented some of the technical and financial and policy-related barriers which would have to be overcome in order to develop an improved assessment process.

### **The Large Marine Ecosystem (LME) Approach to the Global International Waters Assessment (GIWA)**

22. Dr. Kenneth SHERMAN (NOAA-NMFS) made a presentation about the large marine ecosystem (LME) approach to the Global International Waters Assessment (GIWA) and pointed out:

- a. within the framework of GIWA, NOAA is completing a series of briefs of the contemporary conditions within each of the 64 LMEs. The briefs are prepared according to a modular approach for assessing ecological conditions with respect to (i) productivity, (ii) fish and fisheries, (iii) pollution and ecosystem health, (iv) socioeconomics and (v) governance of the LME;
- b. the present collaborative strategy for the assessment and management of the LMEs adjacent to developing countries in Asia, Africa, Latin America and Eastern Europe was summarised in the joint NOAA/GEF report “A New Imperative for Improving Management of Large Marine Ecosystems”, which had been presented to the Rio + 10 Conference held at IOC / UNESCO, Paris on 3-7 December 2001. This report outlined, *inter alia*:
  - (i) the New Imperative;
  - (ii) the GEF support to country-driven implementation of Chapter 17 (of Agenda 21);
  - (iii) the new momentum created in over 120 countries;
  - (iv) the five modules of the LME approach (cf. sub-paragraph a. above);
  - (v) LME stress and recovery;
  - (vi) lessons for sustaining renewed commitments.

23. The folios and transparencies shown during this presentation are not available on the UNEP web site. However, further information about the respective issues were submitted by Dr. Sherman in form of a document entitled "Large Marine Ecosystem (LME) Approach to the Global International Waters Assessment (GIWA)", which contained, *inter alia*, an extended abstract of the joint NOAA/GEF report mentioned under § 22 b. above.

### **Information about the Land-Ocean Interactions in the Coastal Zone (LOICZ) Programme**

24. The Chairman (SD) informed the meeting that Mr. Hartwig KREMER (Deputy Executive Officer of LOICZ) had sent his apologies for not being able to attend the meeting. However, Mr. Kremer had forwarded to the meeting a report which summarised the future activities under LOICZ beyond 2002 and outlined:

- a. the objectives for future LOICZ projects, which aim (i) to provide a framework for more integrated analysis of information, (ii) to act as a means to focus on key issues concerning human uses of the coastal zone, (iii) to identify and promote ways to transfer information to the stakeholders about what is learned from science and (iv) to identify what needs to be answered by science;

- b. that five themes have been identified: (i) river basins and human dimensions, (ii) coastal footprint: implications of land and sea use change, (iii) fate and transformation of materials in coastal and shelf waters, (iv) system sustainability and resource management issues and (v) risk and safety. Crosscutting activities, such as scaling, variability, dissemination and acquisition (of funds) supported these five themes;
- c. that on the basis of (a) and (b) above, clear goals, objectives and thematic priorities are to be developed through wide discussion over the next 6-9 months.

### **Activities Carried out in the Framework of the UNEP Mediterranean Action Plan (MAP) and the Barcelona Convention – a case study on how regional seas activities could contribute to the GMA process**

25. Mr. Francesco S. CIVILI (MED POL Co-ordinator under UNEP-MAP) briefly recalled the major achievements and difficulties encountered during twenty years of monitoring activities co-ordinated by MAP in the Mediterranean region. The marine pollution assessment and control programme of MAP (the MEDPOL Programme) was initially implemented as a pilot monitoring project in order to identify the major environmental problems of the region and to provide assistance in terms of training and equipment as part of a comprehensive capacity building programme in the region. Subsequently, and in parallel with the establishment of the Barcelona Convention and its Protocols as the legal framework for marine environmental protection in the region, the Mediterranean countries started to implement national monitoring programmes and to carry out monitoring activities under direct, national responsibility. Current MED POL activities comprise trend monitoring, compliance monitoring and biological effects monitoring. Several regional and pollutant-specific assessments have been published or are ongoing. The relevant data and information are stored in a dedicated data base. As part of the activities to prevent pollution from land-based sources, a list of hot spots has been prepared recently in agreement with the national governments. In addition, each government has agreed to calculate by the year 2003 its national baseline budget of emissions/releases of pollutants. This represents the starting point for the implementation of a pollution reduction plan, which still has to be officially adopted.

### **Information with respect to the preparations for the World Summit on Sustainable Development (WSSD) and the UN Informal Consultative Process (ICP) on Oceans**

26. Ms Anne ROGERS from the United Nations Department of Economic and Social Affairs, Division of Sustainable Development (DESA/DSD) highlighted some of the ongoing and future preparatory activities for the World Summit on Sustainable Development (WSSD) to be held in Johannesburg, South Africa from 26 August - 4 September 2002.

27. Oceans, coasts and small islands had been a particular focus of the discussions at the recent second session of the WSSD Preparatory Committee (PrepCom II), held in New York from 28 January - 8 February 2002. Documents, including the Chairman's Paper (a non-negotiated summary of issues addressed) and the outcome of the meeting are available on the WSSD web site ([www.johannesburgsummit.org](http://www.johannesburgsummit.org)).

28. The third session of the Preparatory Committee (PrepCom III), to take place in New York from 25 March - 5 April 2002, is expected to further elaborate and negotiate a more detailed text of priorities and concerns as well as the means to address them, which will result in a final draft document to be discussed at the fourth and final PrepCom meeting which is to be held at Ministerial level in Denpasar, Bali, Indonesia on 27 May - 7 June 2002.

29. As regards partnerships and initiatives to strengthen the implementation of Agenda 21 (to be elaborated by interested parties in preparation for the World Summit on Sustainable Development for launching at the Summit), the explanatory note by the Chairman of the Preparatory Committee was made available to all delegates at the present meeting. This explanatory note can also be accessed under [http://www.johannesburgsummit.org/html/documents/prep2final\\_papers/wssd\\_description\\_of\\_partnerships2.doc](http://www.johannesburgsummit.org/html/documents/prep2final_papers/wssd_description_of_partnerships2.doc).

30. A separate, though related, opportunity to discuss issues related to oceans and the marine assessments will be offered by the forthcoming third meeting of the UN Informal Consultative Process (ICP) on Oceans, which will be held at New York on 8-15 April 2002. The ICP, previously known as UNICPOLOS or UNICPO, was established by the UN General Assembly in 1999 on the recommendation of the Commission on Sustainable Development (CSD) in order to facilitate the annual review by the Assembly of development in ocean affairs. Originally given a three-year mandate, the future continuation and terms of reference of the ICP will be reviewed by the UN General Assembly in the fall of 2002. The areas of focus for the upcoming ICP meeting in April will be:

- Protection and preservation of the marine environment; and
- Capacity-building, regional co-operation and co-ordination, and integrated ocean management.

31. Background information and the documents for third ICP meeting can be accessed on the web pages of the UN Division of Ocean Affairs and the Law of the Sea (DOALOS) under [http://www.un.org/depts/los/consultative\\_process/consultative\\_process.htm](http://www.un.org/depts/los/consultative_process/consultative_process.htm).

## Workshop Goals and Objectives

32. The Chairman (MC) highlighted the goals and objectives of the present workshop and invited delegates to focus their discussions along the lines of the guiding questions and issues attached to the agenda of the meeting (cf. Annex III).

33. The Chairman (MC) furthermore stressed the need for the meeting to develop concrete recommendations and answers to these questions and issues in order:

- a. to establish the key aspects and considerations, which had to be taken into account in establishing a suitable, practicable and feasible GMA mechanism; and thereby
- b. to provide the basis for:
  - (i) the next steps to be taken in the establishment of a GMA process (cf. §§ 59-64 below);
  - (ii) reporting on the implementation of UNEP GC Decision 21/13 to the next meeting of the UNEP Governing Council in February 2003.

## Working Group Discussions

34. In preparation of the more detailed discussions in three parallel working groups as set out in the agenda (cf. Annex III), the meeting further elaborated the guiding questions and issues, taking into account *inter alia*:

- a. the results of the Reykjavik meeting as contained in:
  - (i) the record of this meeting (cf. web site <http://www.unep.org/marineassessment>);
  - (ii) the background document for the present workshop;
- b. the presentations and information exchanges made at the present meeting (cf. §§ 17-31 above).

35. In discussion, the following points were made:

- a. the scope of the GMA process was important. The bullet points under question 3 in Annex VIII should be regarded as alternatives but were not exclusive;
- b. capacity building should also be addressed by the working groups;
- c. the working groups should focus on those questions which had not (or not in much detail) been discussed at the Reykjavik meeting, e.g. question 5 on the options and alternatives for

institutional mechanisms and arrangements. When considering the suitability of potential institutional mechanisms or arrangements for the GMA process, issues such as:

- (i) the ways on how the exchange and flow of information between science and policy could be performed and how policy makers would be involved;
- (ii) how the GMA institutional set up would fit into and interface with the existing UN framework and processes;

had to be addressed;

- d. there was a need for the working groups to discuss the question “What are the next steps?”;
- e. the issue of ‘funding’ (cf. question 7 in Annex VIII) should take into account the financial barriers experienced in marine environmental assessment processes as outlined in the second part of the presentation made by Mr. Unluata (cf. §§ 19-21 above);
- f. UNEP was under the requirement to report to the next, twenty-second session of the UNEP Governing Council (to be held in February 2003) on the activities carried out and progress achieved in the implementation of UNEP GC Decision 21/13. However, this did not prevent countries (individually or jointly) and/or international organisations to raise the GMA process prior to that date at other relevant meetings, e.g.:
  - (i) at the forthcoming third meeting under the UN Informal Consultative Process (ICP) on Oceans (cf. §§ 30-31 and § 60);
  - (ii) the upcoming PrepCom meetings for the World Summit on Sustainable Development - WSSD (cf. §§ 26-29 and § 60);
- g. most of the questions set out in Annex VIII were related, or could be summarised, by the question “How to organise the GMA process” and this practical aspect should be the key focus in the working group discussions;
- h. paragraphs 3 and 4 of UNEP GC Decision 21/13 set out the flow of information and the various other organisations which should be informed of, or be involved in, the GMA process;
- i. even if the GMA process was following a regional approach by using information from regions as an instrument, it should not be forgotten that the GMA was a global process which had intentionally been raised at the Governing Council of the UN, the only body with a general mandate for all world oceans.

36. In conclusion, the meeting agreed:

- a. that each of the parallel working groups should address the guiding questions and issues as given in Annex VIII;
- b. on the following working group arrangements:

**Working Group 1 (National Governments, Institutions and Organisations)**

Chairman: Mr. Thomas L. LAUGHLIN (USA)  
Rapporteur: Dr. Kwame KORANTENG (Ghana)

**Working Group 2 (Regional Organisations and Programmes)**

Chairman: Mr. Ben van de WETERING (European Commission)  
Rapporteur: Ms Soffia GUDMUNDSOTTIR (PAME)

**Working Group 3 (Global Organisations and Programmes)**

Chairman: Mr. Patricio A. BERNAL (IOC/UNESCO)  
Rapporteur: Dr. Tim JOHNSON (UNEP-WCMC)

The flexible set up of these working groups (cf. also Annex II) allowed delegates to participate in each of the groups as they deem appropriate in order to cross-link and exchange their views.

37. The meeting also agreed that the progress achieved in the parallel working group discussions should be presented by the Working Group Chairmen to plenary in order to inform all participants regularly and to review and further elaborate the guiding questions and issues, as appropriate. The final outcome of all working group discussions should be summarised into a consolidated report to be discussed and agreed in plenary. In the review of the progress reported by the Working Group Chairmen, the following points were made:

- a. significant ongoing programmes relevant for the GMA process, such as the LME process under GIWA, should be acknowledged;
- b. the meaning of the term 'stakeholder' in the GMA process had to be further elaborated;
- c. 'small island communities' should be considered as a separate stakeholder in the GMA process, because their specific interests and concerns were in most cases different to that of Small Island Developing States (SIDS);
- d. the work and assessments carried out under the international regional seas organisations and Conventions could serve as a basis for, and had to be taken into account in, the GMA process. However, it had to be acknowledged that:
  - (i) there was some overlap in most of these regional organisations and conventions in terms of jurisdiction, geographical coverage and issues/themes addressed. Whereas the regional seas conventions had a broader environmental protection scope, there was a large number of organisations with a more specialised focus, such as the regional agreements on fisheries-related aspects;
  - (ii) in practise, there were considerable differences in the resources available to regional organisations and Conventions, causing gaps in the issues addressed and the work carried out by them. In addition to the need for capacity building on a case-by-case basis, this created a demand for additional activities to tackle and solve those problems which were currently not adequately addressed;
- e. there were various problems and short-comings in the existing set up and 'machinery' for marine assessments on the regional and global level. In order to meet current and emerging challenges, it was necessary to map out and establish an alternative architecture for the GMA process;
- f. in the development of a GMA process, a variety of issues had to be considered, e.g. (i) oceans livelihoods, users, stakeholders and groups at risk, (ii) assessment goals, (iii) data sources and providers; (iv) assessment scope, theme, details and methodologies, (v) assessment outputs, (vi) output users, (vii) structural options and institutional arrangements, (viii) funds, (ix) UN agencies, (x) duplications and (xi) capacity building.

38. In conclusion, the meeting agreed to revise the questionnaire at Annex VIII as follows:

- a. question 4 should read "Who are the main providers of data?";
- b. two new questions should be inserted under:
  - 1bis. "What are the main stakeholder groups in the global marine environment?";
  - 5 bis. "What are the existing major assessments and how might they be integrated?";
- c. to outline the next steps to be taken with respect to:
  - (i) raising the awareness of the proposed GMA process (cf. §§ 59-61 below);
  - (ii) identification and integration of assessments and assessment-related activities into the GMA process (cf. §§ 62-64 below).

## Recommendations and Conclusions from the Meeting

### Introduction

39. The meeting noted that the discussions in the working groups had been very fruitful and convergent. There was a broad consensus between the representatives of national institutions, governments, regional and global organisations and programmes that enabled the meeting to agree on:

- a. the points set out in §§ 40-64 below;  
The emerging consensus reflected in the model developed by the parallel Working Group 1 (National Governments, Institutions and Organisations) in the course of the meeting (cf. Annex IX) was taken, amongst others, into account in the development of these conclusions and recommendations;
- b. the Regional and Global Aspects of a Credible, Salient and Legitimate GMA Process as given in Annex X.

### Main Goals for the Establishment of a Suitable GMA Mechanism

40. The international community should address the environmental problems of the seas in a comprehensive way. A GMA mechanism is an appropriate means to provide on a regular, timely and scientific basis the necessary assessments of the state and trends of all aspects of marine ecosystems. It should involve and be used by policy makers and all stakeholders.

41. In principle, all aspects of marine ecosystems should be addressed. However, for practical reasons it might be necessary to identify 'hotspots' and set priorities by taking into account, e.g.:

- issues common to more than one region;
- transboundary impacts (e.g. POPs, fisheries);
- whether global measures are required to solve the problem (e.g. maritime transport).

42. Furthermore, the GMA mechanism could have the following functions:

- to design a global assessment;
- to synthesise regional assessments, including both science and policy issues;
- to identify gaps in the existing assessment processes;
- to develop scenarios as part of the assessment process;
- to ensure data quality (including peer review);
- to consider ecosystem boundaries;
- to establish an implementation framework and time frame;
- to make the global assessment process transparent and accessible (e.g. via a dedicated web site).

### Main GMA Stakeholder Groups

43. In general, stakeholders in the GMA process are those involved in policy or affected by degradation of the marine environment.

44. In the GMA process, stakeholder groups will be better defined at the regional level and could include:

- regional and national policy makers;
- constituencies that are poorly represented such as small developing islands;
- communities whose livelihoods depend on the marine environment;
- the private sector, such as multi-national and nationally-based industries;
- civil society.

## Scope of GMA Activities

45. The GMA should take a broad ecosystem approach based on commonly accepted ecological boundaries and should include socio-economic considerations. The GMA should furthermore:

- consider any relevant national activities;
- take into account the work carried out under, and the lessons learned from, other regional or global marine assessment activities, e.g. those under the regional sea organisations, GESAMP and GIWA;
- take into account the useful methodological approaches for Large Marine Ecosystems (LMEs) developed under the GEF International Waters Projects, including Transboundary Diagnostic Analyses (TDAs) and Strategic Action Plans (SAPs);
- address those marine areas and/or human activities, which currently are not sufficiently covered by assessment activities (e.g. open ocean areas, deep sea, artisanal fisheries), as well as less understood ecosystems, communities and species (e.g. deep sea biodiversity, kelp beds, seagrasses).

46. The global assessment component of the GMA process will guide the timing and facilitate the development of regional or thematic assessments on specific issues that include:

- the adequacy of policy and its implementation, taking into account established priorities;
- identification and assessment of new or emerging issues.

A comprehensive global assessment will be conducted on a longer timeframe.

## Main Data Providers for the GMA

47. The main data providers for the GMA are intergovernmental organisations, government agencies, and academia. However, it should be noted also that NGOs, commercial sources and individual experts hold an enormous body of valuable, pertinent data, that are less frequently used in existing assessment processes. Further investigation is required into the opportunities for using this material, for assuring its quality, and for involving its holders in the GMA process.

48. Data providers, in particular those with a stakeholder interest, should be involved early in the process to guarantee that their data are made available and utilised in the GMA process.

## Institutional Mechanisms and Operational Arrangements for the GMA

49. A process for involvement of policy makers at the national, regional and global level needs to be established. At the international level, there are opportunities for interfacing with policy makers at meetings of decision-making bodies, e.g. the UN General Assembly (the only international body with a mandate in all oceans issues), or at high-level meetings of policy makers in thematic areas such as sustainable development, environment, use of living and non-living resources, health and research.

50. The institutional mechanism should ensure that the assessment is legitimate, credible and salient<sup>3</sup>. A science-based approach, which combines a top-down and bottom-up process, should be applied to ensure the involvement and information flow between all stakeholders, assessment users and data providers on local, national, regional and global levels.

51. The cost-effective, efficient and sustainable operation of a GMA process will require a multilevel organisational, methodological and procedural architecture which should build on existing resources related to assessment, where possible. It should include an interface with governments, regional bodies, scientific

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<sup>3</sup> As defined in the EEA Environmental Issue Report No. 26 "Designing effective assessment: The role of participation, science and governance, and focus", which is available at the EEA web site (<http://www.eea.eu.int/>).

community and stakeholders. The following operational arrangements for the GMA could be considered:

- ownership by all relevant UN organisations;
- a global co-ordinating mechanism within the framework of e.g. IOC, UNEP, GESAMP, which could host a core secretariat;
- optimal use and, where necessary, strengthening of regional mechanisms.

52. The synthesis of the regional assessments into global assessment(s) should be carried out by an expert group (e.g. GESAMP) that includes experts involved in the regional assessments. Comparability and quality of data and information needs to be addressed and assured at all levels.

53. Mechanisms for a peer review of both the regional and global assessments should be established. It is important that these peer reviews are carried out by independent experts not involved in the assessment process (cf. also § 57 below).

54. The GMA process would require that all relevant regional bodies participate in the GMA-related regional assessments. In this respect, some regional seas conventions/programmes and other regional organisations have the potential for playing a key role in the process, in particular if they are covering one or more of the identified LMEs and already have an obligation to produce regular assessments of the quality status of the marine environment.

55. On a region-by-region basis, existing and ongoing assessments should be evaluated to determine whether support or facilitation are needed. Where existing arrangements are insufficient, capacity should be built through funding for regional consultations, the use of international professional societies or through inter/intra-regional co-ordinating mechanisms (e.g. twinning arrangements). These arrangements would provide opportunities to create new regional partnerships where governmental, intergovernmental and non-governmental organisations can participate and be engaged fully on an equal footing.

### **The Expected Outputs of the GMA**

56. The main message of the GMA should be aimed at policy-makers and should address the past, present and future changes in the quality status of the global marine environment, assess the impact of these changes and advise on actions required at all levels to mitigate impacts.

57. The results from the GMA should be reported in a 'two-tier' format:

1<sup>st</sup> tier: A scientific/technical report.

This report should, in a synthesised and transparent way, describe the assessment, identify gaps in knowledge and provide the justification and rationale for proposed actions;

2<sup>nd</sup> tier: A policy-oriented report based on the same information.

This report should include recommendations for policy development, management and implementation and should target policy-makers on the national, regional and global level as well as other stakeholders involved in and/or affected by policies.

A scientific body like the International Council for Science (ICSU) could carry out peer review of the first tier reports, whereas the second tier reports could be reviewed through wider consultation with stakeholders and government representatives (cf. also § 53 above).

### **Costs and Funding of the GMA**

58. Wherever possible, the costs of a GMA process, including capacity building, should be covered by utilising or re-directing existing sources and funds. Competition for funds with other assessment processes (e.g. within the UN framework) should be avoided. Funds could be provided e.g. by:

- the use of focus monies/funds available to UN agencies;
- the GEF (for some aspects);

- international financial institutions, including global and regional development banks;
- the GPA Co-ordination Office (for linkages and synergies on the regional and national level);
- regional contributions and efficiencies;
- national governments (e.g. in kind or direct support for a GMA secretariat);
- private foundations;
- other donors.

## Next Steps

### *Raising the awareness of the proposed GMA process*

59. The UNEP Governing Council Decision 21/13 sets out a number of international agreements, programmes, organisations and bodies which, in addition to national governments, should be actively involved in the development of the GMA process.

60. To increase the awareness of the proposed process at the global level, the GMA should be raised at the following meetings:

#### United Nations Informal Consultative Process (ICP) on Oceans, 8-15 April 2002, New York

The discussions on the protection and preservation of the marine environment to be held at ICP provide an opportunity for UNEP and governments to raise awareness of the proposed GMA process and to report on the implementation of UNEP GC Decision 21/13 and on the feasibility of establishing a GMA process on the basis of the outcome of the meetings held in Reykjavik and Bremen.

#### World Summit on Sustainable Development (WSSD), 26 August-4 September 2002, Johannesburg

Progress in developing a GMA mechanism could be discussed at the forthcoming preparatory meetings for the WSSD to be held:

- 25 March – 5 April 2002 in New York (PrepCom III);
- 27 May – 7 June 2002 in Denpasar, Bali, Indonesia (PrepCom IV), final meeting of the Preparatory Committee at Ministerial level;
- 17 – 19 June 2002 in Abuja, Nigeria (Super PrepCom) on the African Process, which is a pioneering initiative focussed on (i) identifying the leading causes of degradation of Africa's marine and coastal resources and (ii) determining the most effective environmental, institutional and financial project to address them;

with a view to WSSD endorsing the need to proceed through an intergovernmental process within 18 months.

61. At the regional level, forthcoming meetings of regional conventions and action programmes, fisheries bodies and other relevant regional organisations should be informed about the proposed GMA process to raise awareness among national governments and stakeholder groups. In addition, the proposed GMA process should be discussed at the next meetings of inter-regional bodies, e.g. the UNEP-facilitated annual meeting of all regional seas conventions and action programmes, the annual meeting of the regional fisheries organisations or other similar meetings, to explore the role these fora could play in the inter-regional co-ordination and streamlining of GMA-related activities.

### *Identification and integration of assessments and assessment-related activities into the GMA process*

62. An important first, or pre-requisite, step in the GMA process is to evaluate existing major assessments of the state of the marine environment and to identify the scope, status and timing of forthcoming assessment activities carried out under relevant national, regional and global organisations.

63. This review should recommend:
- a. ways in which the GMA process could integrate existing and foreseen assessments and related activities;
  - b. how any identified gaps in their geographic and/or thematic coverage could be addressed and filled.
64. It is proposed that such a review be undertaken during 2002 so that a report and its conclusions are available ahead of the UNEP Governing Council meeting in 2003.

## **Concluding Remarks**

65. The Chairman (SD) thanked all participants for their valuable and constructive contributions made at the present meeting, which had made it possible to achieve the goals and objectives of the workshop. The set of recommendations and conclusions represented excellent progress and a good basis for the further consultations in the development of a regular process for the global assessment of the marine environment.
66. The Chairman (SD) also expressed his gratitude to:
- the Government of Germany for hosting the meeting and for providing superb facilities and arrangements, and noted that the social programme which accompanied the workshop had been appreciated by all participants,
  - the Working Group Chairmen and Rapporteurs for their hard work in steering and summarising the parallel working group discussions;
  - the Secretariat and the Rapporteur for the professional and excellent organisation of the meeting.
67. Dr. Hartmut KEUNE (German Ministry for Education and Research, BMBF) pointed out that it had been an honour for the German Government to host the present meeting and he hoped that all participants had enjoyed their stay in Bremen. He also conveyed his regards to all those who had helped in the organisation of the meeting on the (in GMA terms) 'local', 'regional' and 'global' level and thereby had contributed to its success.

## **Close of the Meeting**

68. The Chairman (SD) closed the meeting and wished all participants a good journey home.



TECHNICAL WORKSHOP FOR ESTABLISHING A REGULAR PROCESS FOR THE GLOBAL ASSESSMENT OF THE MARINE ENVIRONMENT  
(UNEP GOVERNING COUNCIL DECISION 21/13)

BREMEN (GERMANY): 18-20 MARCH 2002

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TECHNICAL WORKSHOP FOR ESTABLISHING A REGULAR PROCESS FOR THE GLOBAL ASSESSMENT OF THE MARINE ENVIRONMENT  
(UNEP GOVERNING COUNCIL DECISION 21/13)

BREMEN (GERMANY): 18-20 MARCH 2002

**ANNEX II: Countries / States, Regional and Global Organisations Represented at the Meetings for Establishing a Regular Process for the Global Assessment of the Marine Environment**

- First meeting held in Reykjavik (Iceland), 12-14 September 2001
- Second meeting held in Bremen (Germany), 18-20 March 2002

**I. Countries / States**

Country / State	Reykjavik	Bremen
Canada		✓
China		✓
Cuba		✓
Germany	✓	✓
Ghana		✓
Iceland	✓	✓
Japan	✓	
Kenya		✓
Kuwait	✓	
Mexico		✓
Nigeria		✓
Norway	✓	
Sweden	✓	
The Netherlands	✓	✓
United Kingdom (U.K.)		✓
United States of America (U.S.A.)	✓	✓

**II. Regional Organisations**

Main Organisation	Subsidiary	Acronym	Reykjavik	Bremen
Arctic Monitoring and Assessment Programme		AMAP	✓	✓
European Commission		EC		✓
European Environment Agency		EEA		✓
International Council for Exploration of the Sea		ICES	✓	✓
Protection of the Arctic Marine Environment		PAME	✓	✓
South Asia Co-operative Environment Programme		SACEP	✓	✓
United Nations Environment Programme	• Black Sea Environment Programme, Regional Co-ordinating Unit	UNEP (BLACK SEA RCU)	✓	✓
	• Caribbean Environment Programme, Regional Co-ordinating Unit	UNEP (CAR/RCU)		✓
	• East Asian Seas Regional Co-ordinating Unit	UNEP (EAS/RCU)	✓	
	• Mediterranean Action Plan	UNEP (MAP)		✓

### III. Global Organisations

Main Organisation	Subsidiary	Acronym	Reykjavik	Bremen
Census of Marine Life			✓	
International Ocean Institute		IOI	✓	✓
International Maritime Organisation		IMO	✓	
Island Resources Foundation				✓
Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection		GESAMP	✓	✓
Reef Check Foundation			✓	✓
United Nations Educational, Scientific and Cultural Organisation	<ul style="list-style-type: none"> <li>• Intergovernmental Oceanographic Commission</li> <li>• Chair in Marine Sciences and Oceanography</li> </ul>	UNESCO (IOC)	✓	✓
United Nations Food and Agriculture Organisation		FAO	✓	✓
United Nations Department of Economic and Social Affairs	<ul style="list-style-type: none"> <li>• Division for Sustainable Development</li> </ul>	UNDESA (DSD)	✓	✓
United Nations Environment Programme	<ul style="list-style-type: none"> <li>• Division of Early Warning and Assessment</li> <li>• Global International Waters Assessment</li> <li>• Intergovernmental Panel on Climate Change</li> <li>• World Conservation Monitoring Centre</li> </ul>	UNEP (DEWA) UNEP (GIWA) UNEP (IPCC) UNEP (WCMC)	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓

### **ANNEX III: Annotated Agenda and Timetable**

Location: Hotel Munte am Stadtwald, Conference Center

#### **18 MARCH 2002**

##### **09:00 - 09:15 Welcome and Opening**

Mr. Hansvolker Ziegler, Deputy Director General for Environmental Research, will open the meeting.

##### **09:15 – 09:25 Open Remarks and introduction of Chairperson**

UNEP will make opening remarks and inform participants of the objectives and expectations of the meeting (UNEP-WCMC – Mark Collins).

##### **09:25 – 09:35 Attendantees introduction**

##### **09:35 – 09:45 Adoption of agenda and other administrative arrangements**

The Chairperson (UNEP-WCMC – Mark Collins) will invite the Meeting to adopt the agenda for this meeting, as annotated below.

##### **09:45 – 10:10 COFFEE BREAK**

##### **10:10 – 10:40 Presentation of the background paper and the ‘building blocks’**

Summarize the outcome of the previous discussions and introduce the ‘building blocks’ based on the presented matrix (Mark Collins).

##### **10:40 – 11:00 Presentation of outcome from last GESAMP Intersecretariat meeting - *provisional***

Based on the GESAMP Evaluation Team report, decisions were made that may have relevance for establishing a Global Marine Assessment Process (by Robert Duce from GESAMP).

##### **11:00 – 11:20 Presentation on ‘Lessons learned in designing effective assessments’**

(by Anita Künitzer from EEA).

##### **11:20 – 11:40 Presentation on ‘Monitoring, data collation, data interpretation and methodology: Status, Shortcomings and Possible Remedies’.**

(by Umit Unluata from UNESCO/IOC).

##### **11:40 – 12:00 Presentation on the Large Marine Ecosystems Approach to the Global International Waters Assessment (GIWA)**

(by Kenneth Sherman from NOAA-NFMS)

#### ***SPLIT INTO 3 WORKING GROUPS***

##### **12:30 – 14:00 LUNCH**

##### **14:00 – 14:30 Plenary discussions and consensus regarding the guiding questions**

**14:30 – 17:00 Discussions in working groups**

Discussions should include issues as presented below.

**18:00 RECEPTION by the German hosts**

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**19 MARCH 2002**

**08:30 – 09:00 Plenary: Review of the discussion questions and status of accomplishments.**

**09:00 – 10:30 Continuation of working group discussions**

**10:30 – 10:45 COFFEE BREAK**

**10:45 – 12:30 Continuation of working group discussions**

**12:30 – 14:00 LUNCH**

14:00 – 15:00 Plenary: Presentation of recommendations and conclusions from working groups.  
Followed by further discussions either in plenary or in Working Groups.

**17:00 – 18:00 Drafting of consolidated report/recommendations**  
(Secretariat + three Working Group Chairs and Rapporteurs).

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**20 MARCH 2002**

08:30 – 10:30 Presentations and consensus of the consolidated paper.

**10:30 – 11:00 COFFEE BREAK**

**11:00 – 11:30 Agreed next steps - Work schedule**

Issues include:

- Identify main organizations/persons to be involved, and assign roles and responsibilities.
- Recommendations of main points for a possible presentation of the feasibility study at the third session of the Informal Consultative Process on the Law of the Sea, 8-15 April 2002.
- Connection with the WSSD?

**11:30 – 12:00 Concluding remarks and closing of the meeting** (Mark Collins)

**WORKING GROUP discussions**

The feasibility study/process required by UNEP GC Decision 21/13 should provide answers to the following issues related to the establishment of a suitable assessment mechanism:

- What are the main goals for the establishment of a suitable assessment mechanism?
- Who are the main users?
- What is the scope of the assessment activities?
  - Topic;
  - frequency/timing;
  - geographic and administrative extent;
  - detail;
  - biogeographic review;
  - less well known ecosystems;
  - ...
- Who are the stakeholders?
  - Institutional/Administrative
  - Scientific
  - Financial institutions
  - Business/private
- What are the options/alternatives for institutional mechanisms/arrangements?
  - IPCC type;
  - GPA type;
  - UNEP Secretariat (e.g. GEO, GIWA);
  - A reformed GESAMP;
  - Other modalities
- What is the expected output of the mechanism/activities/process?
- Funding requirements, annual cost and potential sources?
  - A step wise/modular approach indicating institutional mechanisms, main focus and output depending on realized funding
- Could cooperation be encouraged by policy or UN agreements?
- Possibility of avoiding duplication in the collection of information and standardisation of data and interaction with global observing systems and other initiatives, and the use of remote sensing in the assessment process?



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**ANNEX IV: List of Acronyms and Abbreviations**

The following acronyms and abbreviations have been used in the Proceedings of the Technical Workshop. Not reflected are those acronyms and abbreviations which are only mentioned in the addresses of participants at Annex I and/or in the list of regional and global organisations given in Annex II.

AMAP	Arctic Monitoring and Assessment Programme
AWI	German Polar and Marine Research Institute
CBD	Convention on Biological Diversity
CSD	Commission for Sustainable Development
DESA	(UN) Department of Economic and Social Affairs
DOALOS	(UN) Division of Ocean Affairs and the Law of the Sea
EEA	European Environment Agency
FAO	(UN) Food and Agriculture Organization
GC	Governing Council
DESA/DSD	(UN) Department of Economic and Social Affairs, Division of Sustainable Development
GEF	Global Environmental Facility
GEO	Global Environment Outlook
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection
GIWA	Global International Waters Assessment (under UNEP)
GMA	Global Marine Assessment
GPA/LBA	Global Programme of Action for the Protection of the Marine Environment from Land-based Activities
ICP	Informal Consultative Process
IGFA	International Group of Funding Agencies for Global Change Research
IOC	Intergovernmental Oceanographic Commission (of UNESCO)
IOI	International Ocean Institute
IPCC	Intergovernmental Panel on Climate Change
ICSU	International Council for Science
LME	Large Marine Ecosystems
LOICZ	Land-Ocean Interactions in the Coastal Zone
MAP	Mediterranean Action Plan (under UNEP)
MEAs	Marine Environmental Assessments
MEDPOL	Mediterranean Marine Pollution Assessment and Control Programme
NGOs	Non Governmental Organisations
NMFS	(U.S.) National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration of USA
PAME	Programme for the Protection of the Arctic Marine Environment
POPs	Persistent Organic Pollutants
PrepCom	Preparatory Committee for the World Summit on Sustainable Development (WSSD)
SAPs	Strategic Action Plans
SIDS	Small Island Developing States
TDA	Transboundary Diagnostic Analyses
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNEP	United Nations Environment Programme
UNEP-DEWA	UNEP- Division of Early Warning and Assessment

UNEP-WCMC	UNEP-World Conservation Monitoring Centre
UNEP GC	UNEP Governing Council
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
WHO	World Health Organization
WSSD	World Summit on Sustainable Development
ZMT	German Marine Centre for Marine Tropical Ecology

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**ANNEX V: Documents submitted to the Meeting**

The following documents were submitted to the present meeting and are available at the UNEP web site (<http://www.unep.org/marineassessment>).

<b>Title</b>	<b>Submitted by</b>	<b>Notes</b>
Feasibility Study for Establishing a Regular Process for the Assessment of the Marine Environment	UNEP-DEWA	Background document about UNEP GC Decision 21/13, the results from the first informal consultative meeting held in Reykjavik (12-14 September 2001) and the objectives/goals of the present meeting. Summarised in the presentation made by the Chairman (Mr. Mark COLLINS)
Large Marine Ecosystem (LME) Approach to the Global International Water Assessment (GIWA)	Dr. Kenneth SHERMAN (NOAA-NMFS)	Further information related to the issues highlighted in the presentation made by Dr. Sherman, including an extended abstract of a report presented at the Rio+10 Conference held at IOC, UNESCO in Paris (3-7 December 2001).
Information about the Land-Ocean Interactions in the Coastal Zone (LOICZ) Programme	Mr. Hartwig KREMER (LOICZ)	Information about (i) future LOICZ projects, (ii) identified themes and (iii) the goals, objectives and thematic priorities of LOICZ, which will be developed over the next 6-9 months.



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**ANNEX VI: Presentations made at the Meeting**

The following presentations were made at the present meeting. All of these presentations (with exception of that given by Dr. Sherman) are available at the UNEP web site (<http://www.unep.org/marineassessment>).

<b>Title</b>	<b>Presented by</b>	<b>Notes</b>
Feasibility Study for Establishing a Regular Process for the Assessment of the Marine Environment (UNEP Governing Council Decision 21/13)	Chairman (Mr. Mark Collins) on behalf of UNEP-DEWA	Summary of the background document
Lessons Learned in Designing Effective Assessments	Dr. Anita KÜNITZER (EEA)	Summary of the outcome of the workshop 'Designing Effective Assessments: The Role of Participation, Science and Governance, and Focus' (co-organised by the EEA and the Global Environmental Assessment project in March 2001), highlighting considerations and aspects to be taken into account when designing and performing an effective environmental assessment.
Monitoring, Data Collation, Data Interpretation and Methodology: Status, Shortcomings and Possible Remedies	Umit UNLUATA (UNESCO/IOC)	Presentation in two parts based on (i) the comparative matrix serving as a preliminary overview of the activities of the organisations represented at the Reykjavik meeting and (ii) the GESAMP Position Paper presented at that meeting.
Results of an GESAMP Intersecretariat Meeting Held in Geneva, 7-8 February 2002	Mr. Mike HUBER (GESAMP)	Background information about the ongoing review and re-structure of GESAMP.
The Large Marine Ecosystem (LME) Approach to the Global International Water Assessment (GIWA)	Kenneth SHERMAN (NOAA-NMFS)	Information about the activities carried out in the GIWA framework on (i) LME briefs and (ii) under the present collaborative strategy for the assessment and management of LMEs. This presentation is not available from the UNEP web site, however, most of the information presented is contained in the document with the same title submitted by Dr. Sherman to the workshop (cf. Annex V).



**ANNEX VII: UNEP Governing Council Decision 21/13**

10th meeting  
9 February 2001

**21/13 Global assessment of the state of the marine environment**

The Governing Council,

Noting Commission on Sustainable Development decision 7/1,

Also noting paragraph 5 of the Malmö Ministerial Declaration, as well as the United Nations Convention on the Law of the Sea, in particular Part XII, and the work programme of marine and coastal biodiversity under the Jakarta Mandate on Marine and Coastal Biological Diversity of the Convention on Biological Diversity,

Noting further the ongoing work aimed at improving the knowledge base on the state of the marine environment, including activities being carried out within the framework of the Global International Waters Assessment, the Global Ocean Observing System and the United Nations Atlas of the Oceans,

1. Notes the reports published by the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection entitled “A sea of troubles” and “Protecting the oceans from land-based activities - Land-based sources and activities affecting the quality and uses of the marine, coastal and associated freshwater environment”;

2. Recognizes that the report “A sea of troubles” identifies “ineffective communication between scientists and government policy makers and the public alike” as one of the reasons for the lack of commitment and the inability of the international community to address and solve the environmental problems of the seas in a comprehensive way;

3. Requests the Executive Director to take an active part in implementing General Assembly resolution 54/33 of 24 November 1999 and General Assembly resolution 55/7 of 30 October 2000 by participating in the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea, an annual review and evaluation of developments relating to ocean affairs and the law of the sea;

4. Requests the Executive Director, in cooperation with the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organisation and other appropriate United Nations agencies, the Secretariat of the Convention of Biological Diversity and in consultation with the regional seas programmes to explore the feasibility of establishing a regular process for the assessment of the state of the marine environment, with active involvement by governments and regional agreements, building on ongoing assessment programmes;

5. Requests the Executive Director to present the matter to the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea at its next session in May 2001;

6. Also requests the Executive Director to submit a progress report on this issue to it at its twenty-second session.



**ANNEX VIII: Guiding Questions and Issues Considered by the Parallel Working Groups\***

**Question 1: What are the main goals for the establishment of a suitable assessment mechanism?**

**Reykjavik recommendation:** To provide on a regular and timely basis, scientific assessments of the state and trends of all aspects of marine ecosystems for use by policy makers.

***Question 1 bis: What are the main stakeholder groups in the global marine environment?'***

**Question 2: Who are the main users?**

- 2.1 Scientists
- 2.2 Regional/National policy maker
- 2.3 Other

**Reykjavik recommendation:** Principal target audience should be policy-makers, mainly at national level.

**Question 3: What is the scope of the assessment activities?**

- 3.1 Topics
- 3.2 Frequency/timing
- 3.3 Detail
- 3.4 Biogeographic review
- 3.5 Less well-known ecosystems
- 3.6 Geographic and administrative extent
- 3.7 Other

**Reykjavik recommendation:** The process should have a broad ecosystem approach, and the process should investigate the possibility of using standardised biogeographic regions acceptable for all participating organisations. The assessments shall include consideration of socio-economic implications and identify scenarios so as to assist policy makers in addressing marine-related issues. Inclusion of indicators was recommended as well as the use of scenarios. No recommendations were given as to frequency/timing.

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\* Amendments and additions made in the course of the present meeting are indicated in italics.

**Question 4: Who are the stakeholders? Who are the main providers of data?**

- 4.1 Institutional/Administrative
- 4.2 Scientific
- 4.3 Financial institutions
- 4.4 Business/private

**Reykjavik recommendation:** The main data providers identified by participants were intergovernmental organisations, government agencies, and scientific academia. But it was noted that individual experts, NGO's and commercial sources hold an enormous body of pertinent data these resources are less frequently used. – How could this be encouraged? - Further investigation is required into the opportunities for using this material and for involving its holders in an assessment process.

**Question 5: What are the options/alternatives for institutional mechanisms/arrangements?**

- 5.1 IPCC type
- 5.2 GPA type
- 5.3 UNEP Secretariat (e.g. GEO, GIWA)
- 5.4 A reformed GESAMP
- 5.5 Other modalities

**Reykjavik recommendation:** The institutional mechanism should be based on criteria like cost effectiveness, credibility, sustainability and ability to address policy issues. One suggestion was that a new reformed GESAMP could be a possible building block for as a candidate to a global assessment mechanism, particularly for methodological issues. However, this will need to be addressed within the new GESAMP business plan document, which is to be prepared. – Is it still feasible, based on the information provided by Robert DUCE in his presentation? –

What are the other possible options?

**Question 5 bis: “What are the existing major assessments and how might they be integrated?”**

**Question 6: What is the expected output of the assessment process?**

**Reykjavik recommendation:** The output should be aimed at policy-makers and should address: the current and future changes in the state of the global marine environment, the global impact of changes in the marine environment, and advice on actions required to mitigate the impact of environmental changes.

The Reports from the assessment should be produced in a ‘two-tier’ format: one report (first-tier) should be written as a scientific/technical report to address the needs of the scientific community; with a second report (second-tier) covering the same information but written in a language and style adapted to the needs of policy makers.

**Question 7: What has to be considered as regards the funding of the assessment process?**

- 7.1 Requirements
- 7.2 Annual cost

### 7.3 Potential sources

**Reykjavik recommendation:** No specific recommendations came from the Reykjavik meeting and the workshop should be encouraged to address this issue. For the reporting back to GC we would prefer a modular approach, whereby activities/issues are prioritised depending on realisation of funding.

<b>Question 8: Could co-operation be encouraged by policy or UN agreements?</b>
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**Reykjavik recommendation:** The duplication of effort and competition for funding within the UN system was raised several times during the meeting. – How can this be solved?

<b>Question 9: How can the duplication of work be avoided?</b>
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- 9.1 Collection of information and standardisation of data
- 9.2 Interaction with global observing systems and other initiatives
- 9.3 Use of remote sensing in the assessment process

**Reykjavik recommendation:** The duplication of effort between UN, NGO's and other organisations should be minimised. How can sharing of information be further encouraged?

<b>Question 10: What are the next steps?</b>
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**ANNEX IX:                    The GMA Process – An Emerging Model Suggested by National Governments, Institutions and Organisations**

**Note:**            The following model was developed by Working Group 1 (National Governments, Institutions and Organisations) in the course of the workshop. The emerging consensus represented by this model was taken into account, amongst others, in the development of the conclusions and recommendations from the present meeting (cf. §§ 40-64 of the Proceedings).

**NEEDED ARCHITECTURE**

- Organisational
- Methodological
- Procedural

**GLOBAL COORDINATING MECHANISM (NOT ORDERED)**

- IOC (Host Secretariat)
- GESAMP (Host Secretariat)
- UNEP (Host Secretariat)
- ?

**FUNCTIONS OF THE G.C.M.**

- Global Report Design
- Synthesize regional assessments (Science, Policy)
- Identify Gaps
- Identify Scenarios
- Data quality assurance (including peer review)
- Consider ecosystem boundaries
- Implementation framework/Time frame
- Establish good website

**IN ALL STEPS ABOVE**

- Include interface with Governments
- Interface with Regions
- Interface broadly with other scientific efforts, stakeholders, etc.

### **MODALITIES OF INVOLVING REGIONS**

(Use available tools to facilitate regional assessments)

- Capacity Building
- Funds for consultations
- Co-operation or regional organisations (Reg. Seas Prog., Reg. Fisheries Bodies, Reg. Health Orgs, etc.)
- Issue-oriented (Technical) Workshops
- Twinning
- Use existing inter-regional coordinating mechanisms
- Use international professional societies

### **FUNDING**

- Use/Focus monies/funds available to UN agencies
- GEF (for some aspects)
- Regional contributions and efficiencies
- GPA Office (for linkages and synergies)
- National donors
- Global & Regional international financial institutions (e.g. World Bank, ADB, etc.)
- Private foundations

### **INTERFACE WITH POLICY MAKERS**

#### GLOBAL

- UN General Assembly / ICP
- Global Ministerial Environmental Forum (GMEF)

#### REGIONAL DECISION BODIES

### **WSSD**

- Refer to GESAMP & UNEP GC DECISION 21-13  
Why: Food Security /Human Health /Poverty Alleviation
- Create a new mechanism through an Intergovernmental process within 18 Months

### ***OTHER***

- Use Information Technology
- Involve CBD

**ANNEX X:                   Regional and Global Aspects of a Credible, Salient and Legitimate\*  
GMA Process**

**Introduction**

1. The example flow diagram of the GMA below envisions that the process comprises three stages:

**I. Design / Stakeholder Engagement Phase**

**II. Regional Phase**

**III. Global Phase**

**I. Design / Stakeholder Engagement Phase**

2. The first step in this phase is the convening of a high level group of experts to act as the *Global Scientific Panel*. This panel will be tasked with the production of a *Draft Global Scientific Report on the State of the Ocean* to identify the main priority areas to be included in the assessment. Resorting to high-level experts guarantees the independence and increases the credibility of the report. The panel should use an ecosystem approach to analyse, on one side, the different uses of the ocean (e.g. fisheries, transport, pollution) by, *inter alia*, looking at the interaction terms between uses. On the other side, the panel should look at the impact of these uses on the resource-base and on the single and coupled natural processes that sustain the resource-base and maintain the integrity of ocean ecosystems as a whole. The different stages in this phase, including the final draft Global Scientific Report on the State of the Ocean, should be subject to a transparent peer review.

**II. Regional Phase**

3. The draft Global Scientific Report on the State of the Ocean will be made available to the different *Regional Stakeholder Fora*. Each forum should analyse this draft report with the aim of customising it by adding the specific risks/needs of the region and by providing regional policy demands into the process. In a given region, the stakeholder forum will convene the relevant regional international organisations (e.g. IGO's, NGO's, UN regional bodies) and a variety of regional-indigenous organisations with the aim of engaging them in the process, increasing in this way the credibility, saliency and legitimacy of the process.

4. The stakeholder forum should be multi-functional body which requires of the participation of experts, organisations and stakeholders related to different economic sectors (e.g. fisheries, transport, environmental protection). At present, there is no regional organisation that could offer a level ground for this discussion. On the other hand there is no international legal instrument that is truly multi-sectoral in scope or mandate.

5. The participation of bodies with regional mandates is essential, being that their mandates are based on existing regional/sectoral instruments (e.g. regional seas agreements, regional fisheries organisations, regional conventions) or plan of actions derived from global instruments (e.g. developed for regional implementation the GPA, CBD, UNFCCC, other global Conventions, Agreements, etc). If the assessment process gathers sufficient momentum, the regional stakeholder forum could help to streamline the national

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\* As defined in the EEA Environmental Issue Report No. 26 "Designing effective assessment: The role of participation, science and governance, and focus", which is available at the EEA web site (<http://www.eea.eu.int/>).

and intra-regional reporting to the many international instruments and contribute to build in this way new governance instruments for oceans and coast at the regional level.

6. The GMA-related activities carried out in the various regions could be co-ordinated and streamlined, by inter-regional meetings, e.g. the UNEP-facilitated annual meeting of all regional seas conventions and action programmes, the annual meeting of the regional fisheries organizations or other similar meetings, as appropriate.

7. A **Regional Scientific Panel** should be established to produce a **Regional Scientific Report on the State of the Ocean** based on the global report and the output of the stakeholder forum. This regional scientific report will be peer reviewed and should contain the common global issues as well as the regional specific questions to be included in the assessment.

8. The regional scientific report should be operationalised into a **Regional Assessment Plan** with a view to conducting the assessment at the regional level. All phases of the regional assessment should be peer reviewed. The assessment team will produce a **Draft Regional Assessment Report** to be submitted for review to the regional stakeholder forum and to all the Governments of the region.

9. The report resulting from the review by the stakeholder forum and the Governments stand on their own merit and will be made available for consideration and as input for the Global Phase.

### III. Global Phase

10. The initial **Global Scientific Panel**, enlarged by experts selected from the regional scientific panels, will undertake the synthesis of the several outputs from the regional phase and produce the final version of the **Global Assessment Report on the State of the Ocean**. This is the main output of the process and should be peer reviewed and stand on its own merits.

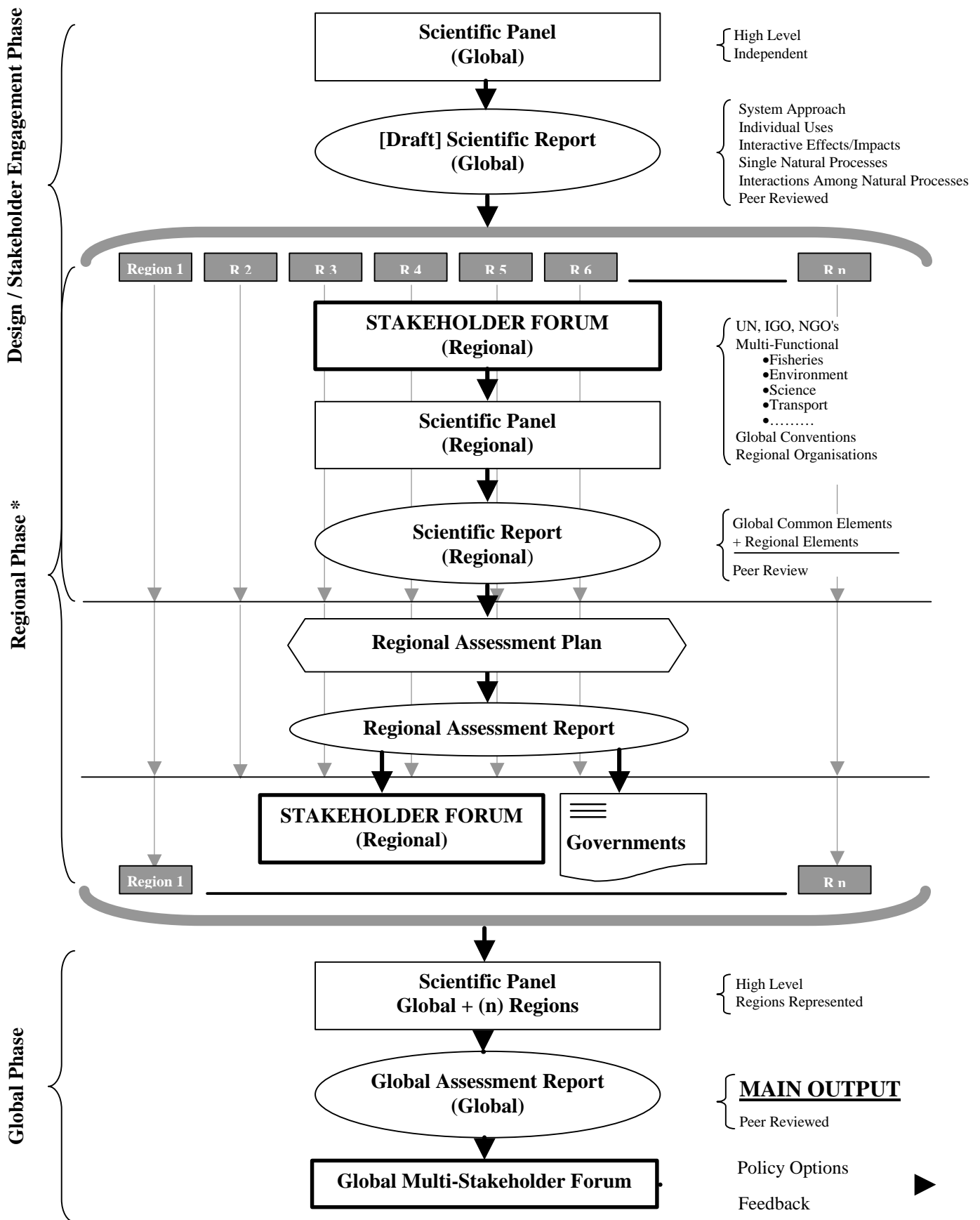
11. Since assessments are part of a governance cycle, i.e. a cycle in which recommendations should be followed by policy improvements to correct course of actions. It is expected that some high level international body, which bears the responsibility with respect to the stewardship of the ocean and ocean resources, should examine the report with a view to noting, endorsing or rejecting the recommendations made and acting accordingly. This international body should carry the recognition of the General Assembly of the UN (the only body which, through UNCLOS, has at present a mandate for global oceans) and is depicted in Figure 1 as a **Multi-Stakeholder Forum**.

### Conclusion

12. The proposed process, as depicted in Figure 1, maximises the likelihood that the Global Assessment Report on the State of the Ocean:

- a. carries a high **credibility** by using independent scientific inputs of high quality;
- b. is **salient** or relevant by addressing the general as well as the specific concerns of a wide range of stakeholders and users;
- c. is **legitimate** by being transparent and insuring that the interest of different stakeholders and users have been considered in a fair and balanced way.

**Figure 1: Regional and Global Aspects of a Credible, Salient and Legitimate GMA Process**



\* To increase clarity, only one of the (n-number) of regional pathways is illustrated.