United Nations Environment Programme

Division of Early Warning and Assessment

Evaluation report

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Contents

Acronyms and abbreviations

AEO	Africa Environment Outlook
AEIN	Africa Environment Information Network
AMCEN	African Ministerial Conference on Environment
APELL	Awareness and Preparedness for Emergencies at Local Level
CD-ROM	Compact Disc-Read-Only Memory
DCPI	Division of Communication and Public Information
DEC	Division of Environmental Conventions
DEPI	Division of Environmental Policy Implementation
DEWA	Division of Early Warning and Assessment
DGEF	Division of Global Environmental Facility Coordination
DRC	Division of Regional Cooperation
DTIE	Division of Technology Industry and Economics
ECOLEX	A global partnership for information on environmental law
EIS	Environmental Information System
EMG	Environment Management Group
ENRIN	Environment and Natural Resources Information Network
EPA	Environment Protection Agency
ESRI	Environmental Systems Research Institute, Inc.
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environment Facility
GEMS	Global Environment Monitoring Systems
GEO	Global Environment Outlook
GEO LAC	Global Environment Outlook in Latin America and the Caribbean
GEOSS	Global Earth Observation System of Systems
GIS	Geographic Information Systems
GIWA	Global International Waters Assessment
GLCN	Global Land Cover Network
GMA	Global Marine Assessment
GMEF	Global Ministerial Environment Forum
GRID	Global Resource Information Database
IAASTD	International Assessment on Agricultural Science and Technology for Development
ICRISAT	International Crops Research Institute for Semi-Arid Tropics
IEA	Integrated Environmental Assessment
IGC	Intergovernmental Consultation
IMO	International Maritime Organization
INFOTERRA	Global Environment Information Exchange Network of the United Nations Environment Programme
IOC	Intergovernmental Oceanographic Commission
IUCN	The World Conservation Union
JPO	Junior Professional Officer
LAC	Latin America and the Caribbean
LADA	Land Degradation Assessment of Drylands
OECD	Organisation for Economic Co-operation and Development
SMG	Senior Management Group

SWOT	Strengths-Weaknesses-Opportunities-Threats
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFIP	United Nations Fund for International Partnerships
UN-Habitat	United Nations Human Settlements Programme
UNITAR	United Nations Institute for Training and Research
UNON	United Nations Office at Nairobi
UNOPS	United Nations Office for Project Services
UNSCEAR	United Nations Scientific Committee on the Effects of Atomic Radiation
WCMC	World Conservation Monitoring Centre
WHO	World Health Organization
WMO	World Meteorological Organization
WRI	World Resources Institute
WWDR	World Water Development Report

I. Summary of conclusions and recommendations

1. Summarized below are our findings with respect to questions related to the effectiveness and efficiency of the operations of the Division of Early Warning and Assessment (DEWA) over the past three bienniums (2000–2001, 2002–2003, 2004–2005), as well as answers to the key evaluation questions posed in section II of the present report. Our conclusions and findings are based on the review of documents, numerous interviews conducted with staff both in and outside the Division, and discussions with stakeholders and collaborators. We have also raised issues related to the continued relevance of some of the activities of the Division. While we may not have specific answers to all of the issues raised, we have endeavoured to point the way to answering these questions and, in the process, improving programme performance.

A. Overall performance of the Division

1. Effectiveness in implementing key programme activities

(a) Assessments

2. Overall, the Division of Early Warning and Assessment has been very successful in delivering its work programme and fulfilling its mandate over the period covered by the present evaluation. In the area of assessments, the Division has produced a number of recurrent and non-recurrent publications; key among them are the Global Environment Outlook (GEO) 3 and associated products, over 48 assessments in the areas of watershed and freshwater resources, atmosphere; marine environment, including marine mammals and coral reefs, land assessments and biodiversity. Others include integrated environment and health assessments, environmental assessments for urban areas and regional assessments. The Division was also responsible for the multi-partnership Global Environment Facility (GEF)-funded Millennium Ecosystem Assessment launched in March 2005 and the Global International Waters Assessment (GIWA). Furthermore, three iterations of the GEO Year Book have been produced. The Division has also supported the publication of the World Resources Report published jointly by the World Resources Institute, the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP), and the World Bank. The Division is currently in the process of preparing GEO 4, the International Assessment on Agricultural Science and Technology for Development, (IAASTD), the Global Marine Assessment (GMA), the World Water Development Report (WWDR), follow-up activities to Millennium Ecosystem Assessment and GIWA and several regional, subregional, national and city-level assessments, including finalization of the second Africa Environment Outlook.

3. The GEO user survey has revealed that the publications are being used by members of the environmental policy development and decision-making community, the research community and environmental information depositories and distributors. The GEO reports have been used by ministers, senior advisors and permanent representatives to provide overviews of the global and regional environmental situations and policy guidance to their governments. Most readers see the reports as a credible source of background environmental information for news, speeches and presentations and course development in academic institutions. The key role of GEO was also acknowledged in the Science Initiative, which also called for further strengthening of the process.

4. The role of the Division as a link within the scientific community seems to be quite effective; it has improved over the period under review and will further improve through the follow-up of the Science Initiative. The main areas in which the link to the scientific community occurs involve global, regional and subregional assessment processes where the assessment work and its products aim at bridging the gap between science and policy. However, while the Division has been successful in giving voice to scientists, the perception is that policy-making bodies, especially the Governing Council/Global Ministerial Environment Forum (GMEF), have not always fully considered the assessment findings. Neither has there been an effective mechanism for ensuring input from ministerial forums in identifying what needs to be assessed.

5. A positive development is the consideration by the Governing Council at its twenty-third session of the 2004–2005 GEO Year Book. In addition, regional environment ministerial forums, such as the African Ministerial Conference on the Environment (AMCEN) and in Latin America and the Caribbean, have considered the Africa Environment Outlook and the Global Environment Outlook: Latin America and the Caribbean (GEO LAC) respectively. The current involvement of decision makers in identifying the needs, key questions and processes in GEO-4, IAASTD, AEO-2 and GMA will likely increase decision-making ownership in the assessments. Further, thought is now being given as to how decision-making processes can be structured to allow for thorough consideration of assessment findings, including consideration of how GEO can contribute to setting the strategic direction of the UNEP programme of work, which as a result of the programme of work cycle will have to be considered by the special session of the Governing Council/GMEF. GEO might also contribute to the considerations by

the Environment Management Group (EMG) and recommendations by the Governing Council/GMEF for action by member States, the wider United Nations system and other stakeholders in international environmental governance.

6. With respect to GEO, our evaluation points to the fact that the current emphasis on global assessments does not seem to translate correspondingly to the strengthening of the early warning, monitoring and data-management activities of the Division. Evaluations have pointed to data paucity in some areas. Staff members have argued that the GEO reports do not provide any unique UNEP perspective similar to the World Bank's World Development Report. Unique publications, such as the recently published Environmental Atlas, which has generated considerable interest throughout the world, are few and far between. Such unique assessments have an important role to play in the work of UNEP and, while this evaluation does not suggest, under any circumstances, a diminution in the status of GEO, there is a need to take a closer look at such publications, which carry a core message about the environment.

7. Although the GEO reports seem to be quite successful externally, there seems to be little follow-up of important findings and issues identified by GEO internally by the rest of the organization. In addition, the rest of the organization does not seem to be sufficiently involved in determining what assessments to conduct, which may be a reason for the lack of feeling of ownership and follow-up.

(b) Early warning

8. In the area of early warning, the jury is still out on the Division's performance and effectiveness. The Division has conducted a number of activities in areas such as assessment of human vulnerability to environmental change and analysis of environmental trends using satellite data and has prepared reports on early warning and vulnerability assessment of emerging environmental issues and threats with global and regional significance. Recently, the Early Warning Section has assumed responsibility for producing the GEO Year Book, initiated a project on environment and conflict prevention (which includes regional studies and assessments on Latin America and the Caribbean, Asia and the Pacific and Africa), and published, through the World Conservation Monitoring Centre (WCMC) a study on the buffering capacity of mangroves and coral reefs in natural extreme events. The Section is also the entry point at UNEP/DEWA for the global observing systems (Global Terrestrial Observing System (GTOS), the Global Climate Observing System (GCOS), the Global Ocean Observing System (GOOS) and the more recent Global Earth Observation System of Systems (GEOSS). The Section serves also as the Division's focal point for the UNEP Task Force on Disaster Reduction and in many international early warning activities, including inter-agency activities, in the context of the International Strategy for Disaster Reduction/International Early Warning Programme.

9. At the UNEP-wide level, the links between the work of UNEP in environmental emergencies and disaster risk and its overall work in early warning and environmental assessments need to be better understood and integrated. UNEP has developed, in separate divisions (in particular, the Division of Early Warning and Assessment, the Division of Environmental Policy Implementation (DEPI) and the Division of Technology, Industry and Economics (DTIE)), programmes in post-conflict assessment and environmental emergencies and disaster management, on the one hand, and early warning of environmental emerging issues and integrated assessments on the other, and clearer links need to be established between them. As an example, support for emergency response to marine pollution is further nested in the DEPI regional seas programme (formerly with the Division of Environmental Conventions (DEC)) without any clear linkage to the other assessment and early warning work discussed above. DTIE has been implementing activities in disaster prevention and management for about three decades through its Awareness and Preparedness for Emergencies at Local Level (APELL) programme.

(c) Data and information

10. In the area of data and information, the Division has undertaken a number of important initiatives with the aim of placing data in the public domain and reaffirming the role of UNEP as an authoritative source of environmental information and data. Some initiatives, such as the GEO data portal, have been very successful, while others (e.g., UNEP.net) face challenges in terms of overall direction and relevance, given the current state of the technology. It is unclear how the Division intends to support the continuing process of development of UNEP.net while its validity is being questioned.

11. While there are concrete examples, such as the GEO data-portal (Global Resource Information Database (GRID-Geneva)) and the support that GRID-Nairobi provides to GEO for Africa through the Africa Environment Information Network (AEIN) process, the role of the GRID network as a whole and how its work feeds into the assessment process and ultimately into the production of GEO remains unclear. In addition, the capacity and resources of the GRID centres could be better utilized by the rest of UNEP and other agencies of the United Nations system.

12. There is widespread recognition of this fact among staff in the Division, particularly in the Data and Information Management Section, and to address this issue a technical review of the GRID network was commissioned and is currently in progress. It is expected that the outcome of this review will result in strategic recommendations that will point the way forward for GRID in terms of its role and its functional relationship with the rest of the subprogramme and UNEP.

13. "Legacy" programmes, such as the Global Environmental Information Exchange Network (INFOTERRA), the Environment and Natural Resource and Information Network (ENRIN), Earth Watch and the Global Environment Monitoring System (GEMS)/Water, pose unique problems. Common to most of these programmes is the fact that they were established through Governing Council decisions or General Assembly resolutions and can only be revoked, amended or eliminated through like means. It does seem though, that the data generated through some of these activities could, with some work, be made useful to support the Division's goal of placing environmental data in the public domain. This should be the subject of more detailed assessment in the evaluation of the GRID network currently taking place. Where feasible the data generated through INFOTERRA should be integrated into the information network of the subprogramme. ENRIN has been superseded by other capacity-building efforts in the subprogramme except in Eastern Europe.

14. The general situation in the Data and Information Management Section is one of fragmentation and it is unclear how the work of various staff members supports the early warning and assessment work of the division. Fortunately, there is clear recognition of this in the Division and there have been recent initiatives to prepare a coherent data and information management strategy.

(d) Capacity development

15. The Division has responded to the need to build capacity, especially for the preparation of assessments, through the development of guidelines and training manuals and the conduct of training for the collaborating centres. According to the GEO strengths-weaknesses-opportunities-threats (SWOT) analysis, there is a need for considerable clarity in the tools and guidelines developed to facilitate the work of the collaborating centres and other stakeholders.

16. Organization-wide, a process which was initiated to develop an implementation plan for the Bali Strategic Plan for Technology Support and Capacity-building has since been completed and the relevant elements of it are now fully incorporated into the Division's work programme.

(e) Functional incongruities

17. Even though there are pockets of activity which have not been fully integrated into the assessment work of the Division, the functional reorganization of UNEP does not seem to have affected DEWA substantially in the delivery of its mandate. There seem, though, to exist functional incongruities within the internal operations of the Division. These are related to reporting relationships, especially in the Data and Information Section, and the overall role of the GRID network in supporting the assessment work of the Division. A tremendous amount of good work is taking place in the GRID centres; only a few, however, seem to be tied directly into the assessment work of the Division.

(f) Strategic planning and the proliferation of strategies

18. This evaluation has ascertained the existence of at least eight strategies at different stages of completion. There is a level of proliferation of strategies not seen in any of the other subprogrammes and no coherent links have been shown to exist between the activities in these disparate strategies at the subprogramme level. The most recent draft Division strategy does not seem to provide greater clarity to the strategic direction of the Division through priorities and focus among the existing subprogramme elements. Further, the plan is silent on how the financial and human resources of the division will affect the strategic priorities of the subprogramme. While the Division argues, and perhaps appropriately so, that the Science Initiative now represents the Division's strategic direction, this was not altogether clear in the latest Division strategy, which was completed during this evaluation. The evaluation team is concerned that, while there is nothing inherently wrong with the development of strategies to implement the various components of the work programme, there is a risk that these strategies will become an end in themselves. More than ever, the need for clarity in the latest Division strategy regarding the overriding importance of the proposed Science Initiative and its "Environment Watch" system is required. However, the evaluation notes that the Science Initiative and the Earthwatch system are proposals yet to be approved by the Governing Council.

2. Efficiency in the use of resources

(a) Financial resources and resource mobilization

(i) Overall budget

19. In general, resources of the subprogramme have increased over the three bienniums with a negligible reduction in 2004–2005. The anticipated 2006–2007 budget, however, shows that funding for the work programme will increase. Relative to the resources allocated to the subprogramme, the expenditures over the past three bienniums have shown that total budget expenditures have not kept pace with the estimated budgetary resources in the work programme. The unexpended balances on allocations have been explained largely by the fact that there have been persistent staff vacancies that have not been filled over the bienniums. Further, and most importantly, the Governing Council decision to prepare GEO on a fiv-eyear schedule has created a situation in which fairly substantial expenditures for the preparation of GEO outputs were delayed until the biennium 2004–2005. At the end of that biennium, only a little over a million dollars was not spent of the Division's budget for the biennium.

(b) Resource mobilization

20. Over the period covered by the present evaluation, the subprogramme has been very successful in mobilizing trust funds and counterpart contributions to support its programme of work. In general, trust funds and counterpart contributions have increased substantially as a percentage of the total subprogramme budget from the 2000–2001 biennium (17.7 per cent) to the 2004–2005 biennium (43 per cent), an increase of 25.3 per cent. The irony, however, is that this has not been reflected in the manpower resources (see table 4.0) required to implement the activities for which the resources have been mobilized.

(c) Human resources

(i) Turnover and recruitment

21. There is unanimous agreement in the Division that staff increases over the three bienniums have not been commensurate with the increasing volume of work required of the Division. The fact that the Division has been very successful in delivering its work programme is a credit to the professionalism and hard work of staff in the Division. What is paradoxical though, is that with the apparent need for manpower, there have been longstanding vacancies in the Division. At the time of this evaluation 19 out of 73 posts, or 26 per cent, were vacant. Fifteen of these were Professional posts and four were General Service posts. Its recruitment problems compel the Division to depend substantially on temporary assistance to implement its activities.

22. The recruitment problems that have plagued the Division have been exacerbated by frequent changes in leadership of the Division. These changes have led, among other things, to frequent changes in expectations of staff which require the latter to adapt to frequently changing visions and strategic direction of the Division and sometimes the confusion that arises from unclear functional relationships within it. Our review further identified discrepancies between the existing staffing situation in DEWA and the official staffing table of the United Nations Office at Nairobi.

23. Constant movement of staff at the General Service level has further compounded the staffing problems; Professional staff who continue to spend their time constantly recruiting staff at all levels point out that the Galaxy system is time consuming and does not function well, and that clear guidance from senior management of the organization is required to prevent situations in which candidates selected through this complicated and time-consuming processes have to be rejected because they are the wrong nationality.

(d) Collaboration with other divisions

24. Internal collaboration with other subprogrammes is most evident in the relationship between the Division and the Divisions of Regional Cooperation (DRC) and Global Environment Facility Coordination (DGEF). The Division has also worked effectively with the Division of Communications and Public Information (DCPI), especially on its publications and youth programme.Based on discussions with DCPI, however, there seem to exist pockets of activity, especially in the area of youth programming and websites, that require better coordination. The Division's regional presence has been strong over the years. In the evaluation of the Coordination Office of the Division of Regional Cooperation, , the Division, with its five out-posted officers, was mentioned as an example of a unit in which collaboration worked particularly well, with about 80 per cent of Division outputs being achieved through the regions. The Division has collaborated well with most of the other divisions in the process of implementing its work programme but, as indicated earlier, there does not seem to be any uptake and follow-up on the Division's assessments by other subprogrammes in the organization. This is perhaps owing to the fact that the process of determining which assessments should be conducted does not

effectively take account of the needs of the other divisions, as a result of which they feel little or no ownership of the assessment process.

(e) Collaboration with partners

25. By their very nature, global assessments require coordination and collaboration with partners of different kinds around the world. The extent of the Division's collaboration with its partners has been discussed at great length throughout this report. The Division has been very successful in forging collaborative relationships with Governments and numerous non-governmental organizations, international research institutions, regional development banks and a host of multilateral agencies, including other organizations of the United Nations system. Collaboration with the private sector is quite limited and takes place through the Division's partnership with WCMC and specifically in the Data and Information Unit with ESRI, a software developer and vendor.

26. Our discussions with the limited number of partners interviewed did not reveal any negative findings. The collaborating centres, however, indicated that the GEO Section should be strengthened so that communication would be more immediate and effective.

(f) Monitoring and evaluation

27. The Division seems to take the results of evaluation activities seriously and, undeniably, commissioned a number of studies to assist in improving programme delivery. Indeed, a number of key recommendations from these evaluations have been implemented, as noted in this report. However, while projects included in the self-evaluation reporting system have been reported on over the last two bienniums, our review of the Division's self-evaluation reporting on projects reveal that this reporting has been undertaken for only a subset of the projects that require self evaluation reporting.

B. Recommendations

28. Institutional logic would suggest a functional relationship between post-conflict assessments, assessment of early warning trends and assessments associated with disasters. This evaluation team believes that assessment competence is important for the credibility of the organization, even in the areas mentioned above, and therefore recommends that senior management review the functional locations of scattered assessment activities with the aim of bringing them together under the umbrella of the Division, which is specialized in conducting environmental assessments. Where it is determined that an assessment appropriately belongs in a different division, coordination must be improved among all assessment activities. Where rapid response is required, for example in post-conflict situations, hazard-removal responses could be carried out by a rapid reaction team, which should continue to be located in DEPI, while follow-up assessment activities would be implemented by DEWA. In that way, the logic in the functional structure would be operationalized and optimum use made of the expertise and specializations of the substantive subprogrammes. As appropriately pointed out by the Division, this recommendation involves an overarching strategic issue for the organizational structure of UNEP that goes beyond early warning, post conflict and emergency response, that is, how to combine the need for competence in assessments with the scale and areas in which these assessments are being carried out.

29. Given the attention early warning has received and the changes it has gone through in the past few years at the international level, it is our recommendation that the early warning and observing systems activities of the Division be clearly defined, strategically linked to the other sections of the Division -- including the implementation level -- and funded more generously. Currently, only one staff member and a Junior Professional Officer support the early warning subprogramme element (the evaluators were informed that the Section was making efforts to recruit a United Nations volunteer to assist with the early warning and disaster risk activities). The reliance of the Early Warning Section on non-permanent staff, i.e., Junior Professional Officers, United Nations volunteers and interns, to deliver its outputs is not sustainable. The Division's "Approach to Early Warning of Environmental Emerging Issues", currently being prepared, should be quickly finalized, approved by Division management and made available to UNEP and relevant partners.

30. The GEO Year Book seems to be one of the primary means by which the Division communicates early warning trends and challenges to Governments. To ensure increased attention by Governments to the emerging challenges and trends identified in the Year Book, it would seem that these challenges and trends need to be identified not only at the global level, but also at the regional level, for discussion and action at regional ministerial forums.

31. The GEO reports are outputs of the assessment process at the regional, subregional, national and local levels. The link between assessment and policy finds expression in regional, subregional and national level assessments with strong involvement of policy makers. While it is important to have thorough discussions of assessments by the Governing Council/GMEF and to ensure decision-making ownership of assessments, at the global level, a conscious effort must be made to involve decision

makers in determining the scope, key questions and processes of GEO assessments undertaken at the regional, subregional, national and local levels and also to provide opportunities for thorough discussion of these assessments to determine their implications at the regional, national and local levels.

32. While the Division argues that assessments, in principle, should not respond to the programme of work of the organization, but rather to the needs of member States and key stakeholders, this evaluation team believes that the programme of work of the organization is a reflection of the needs of member States and is, therefore, not altogether separate from the needs of the Division. There is, therefore, a strong argument to ensure that the assessment needs of the organization are adequately reflected in the themes selected by the Division for assessments. It is imperative therefore, that the divisional focal points for subsequent issues of GEO be made up of senior level staff (perhaps at the Deputy Director level) in the various subprogrammes, who can bring very strong perspectives to the process and ensure that the needs of the divisions, among other things, are strongly reflected in the Division's work programme. In that way, follow-up of findings of the assessments will not have to be sought, but will directly feed the work plans of the relevant subprogrammes. To that extent, DEWA should review the composition of its divisional focal points on assessments to determine whether it can still fulfil the changing needs of the Division and, if necessary, reconstitute the focal points. In preparing its strategic programme for 2008–2009, the division must ensure that assessment needs of other subprogrammes are given serious consideration. Early warning threats (e.g., climate change) to great ape forest habitats in Africa and Asia would be a clear example of where DEPI could benefit from DEWA expertise.

33. It is of paramount importance that the GRID networks be redesigned and positioned to support the emerging needs of the organization. The GRID centres must not only play their traditional roles of placing data in the public domain and reaffirming the role of UNEP as an authoritative source of environmental information and data, but must also play a substantive role in the new organizational emphasis on capacity-building and technology support at the national level for developing countries and countries with economies in transition. The ongoing review of the GRID network must consider these imperatives and design a network structure that is not only technically sound but also relevant to the potential role of the Division in providing enhanced technical and technological support through the development of capacities at the national and regional level.

34. This evaluation team recommends that the Division take immediate steps to fill its vacant positions. It is further recommended that a head of the data and information unit be appointed expeditiously and that the functional relationships among staff of the section be clarified. In making this recommendation, we confirm the September 2003 recommendation of the management audit of the Office of Internal Oversight Services and suggest that the Division reconcile the posts in the Division with the UNON staffing table, since our review also revealed discrepancies.

35. Given the Division's current position that the Science Initiative is now the Division strategy, the Division needs to review its current strategic plan (Keeping Our Changing Environment Under Review), which was finalized in 2005 to ensure consistency and linkages among the various strategies in the Division and to indicate clearly that the Science Initiative and the Environment Watch system now effectively represent the DEWA strategy. The review should further define the strategic priorities of the Division based on its human and financial resources and define clearly how the strategy will be monitored and evaluated.

36. The Division must initiate a study of its "legacy" programmes to determine their continued relevance. Where it is determined that these programmes no longer fulfil their raison d'être, they should be discontinued through the appropriate mechanisms and the resources redeployed to support other assessment work of the Division.

37. The Director of the Division should take immediate action to ensure that the Division is brought into compliance with the monitoring and evaluation requirements of the organization, especially in the area of self-evaluation reporting.

II. Objectives, scope and approach to the evaluation

38. The primary objective of this evaluation is to examine the implementation of the work programme of the Division of Early Warning and Assessment and to determine the extent to which it has accomplished its goals. The evaluation has examined mechanisms for collaboration in implementing the Division's work programme, both within UNEP and with external bodies, assessed the effects of the 1999 functional restructuring on the implementation of the subprogramme and identified strengths and weaknesses in subprogramme implementation.

39. In order to determine the relevance, efficiency, effectiveness and impact of the Division, the evaluation sought answers to the following key questions:

(a) How have the information and assessments produced by the Division affected the policy development process at the regional and national levels?

(b) What role has the Division played as an effective link between the scientific community and decision makers?

(c) How effectively has the Division performed its role in strengthening regional and national capacity for environmental assessment for decision-making?

(d) To what extent has the Division collaborated with other UNEP subprogrammes to ensure that the information and assessments it produces feed into policy-making and catalyse action?

(e) In accordance with the UNEP mandate to facilitate effective cooperation among Governments and other stakeholders and promote exchange of environmental knowledge and information, how has the Division collaborated and coordinated with partners outside the organization?

A. Scope of the evaluation

40. This evaluation presents an assessment of the overall performance of the Division during the bienniums 2000–2001, 2002–2003 and 2004–2005, that is, the three bienniums since the last evaluation of the subprogramme. In the present report the performance of the following subprogramme elements are examined.

(a) GEO;

(b) Ecosystem assessments;

(c) Capacity-building;

(d) Data and information management;

(e) Early warning.

B. Methods

41. The evaluation was conducted over the period between June and September 2005 using two main methods: analysis of documentation and interviews of key individuals. The reason for using different methods was to enable the evaluators to access and reach different types of information and groups and to verify and reconcile information obtained from different sources.

1. Analysis of documentation

42. Analysis of documentation involved desk reviews of United Nations and Governing Council mandates, strategies and other work plans, programme outputs, reports, including previous evaluations of programme outputs and processes, monitoring reports, self-evaluation reports, financial reports, policy papers, manuals and guidelines. It also involved reviews of products including web pages, publications and databases. A list of the documents reviewed is included in annex V to the present report.

2. Interviews

43. Structured and semi-structured interviews on the role and performance of the subprogramme were conducted with key individuals in June, August and September. They included the head of the Division, key staff in charge of substantive programmes, a former head of the Division, assessment staff in the regional offices, collaborating centres, stakeholders and other division heads in UNEP. In all, the evaluation team spoke with 31 individuals.

3. Limitations of the evaluation

44. Our approach to conducting this evaluation has several limitations. Among the most important are the following:

(a) In an attempt to cover the operations of the Division since the last in-depth evaluation of the subprogramme, which predates the functional reorganization of UNEP, the evaluators took a generic approach to the review of programme accomplishments over several bienniums, and we therefore do not present the accomplishments biennially. This was considered the most prudent approach, since a litany of pages of accomplishments would have made the document virtually unreadable;

(b) The range of activities covered by the Division is so broad that the evaluation team was compelled to focus on key activities, processes and outcomes;

(c) This evaluation relies heavily on published and unpublished documents, some of which are in draft form only. In order to avoid duplication of effort, recent evaluations of key activities and

processes were used extensively, once the evaluators satisfied themselves that their methodologies and conclusions were valid;

(d) The effort to assess the performance of the subprogramme has, unfortunately, focused substantially at the output and activity levels because most of the reporting has been done at those levels. No indicators exist for measuring performance at the results level. The GEO impact study and the SWOT analysis provide some measure of accomplishments, but these are targeted and do not reflect the overall results of the subprogramme;

(e) This evaluation was conducted between June and September 2005. However, the process of finalizing it has been extended considerably for reasons beyond the evaluators' control. It is therefore possible that some of the recommendations set out in this evaluation will have been implemented by the time that evaluation the evaluation has been concluded and published.

III. Background: mandates, role and administration of the Division of Early Warning and Assessment

A. Mandate

45. Within the framework of the UNEP mandate, the Division's mandate derives from General Assembly resolutions 2997 (XXVII) 47/190, S-19/2, 53/242, 54/216, 54/217, 54/218, 54/66 and Governing Council decisions 19/1, SS.V/2, 20/17, 20/27, 20/28, 20/1, 20/5, SSVI/1, SSII/1, SSVII/2, SSII/4 and SSII/7. In its resolution 2997 (XXVII) of 15 December 1972, the General Assembly requested UNEP to keep under review the world environmental situation. The 1997 Nairobi Declaration on the Role and Mandate of the United Nations Environment Programme spelled out the mandate of a revitalized UNEP to, inter alia:

> "Analyse the state of the global environment and assess global and regional environmental trends, provide policy advice, early warning information on environmental threats, and to catalyse and promote international cooperation and action based on the best scientific and technical capabilities available;" (Governing Council decision 19/1).

46. The mandate, which was reaffirmed by the Governing Council in the decisions of its twentieth, twenty-first, twenty-second and twenty-third sessions, sought to further the development of the Global Environmental Outlook process and capacity to undertake a number of thematic assessments requested by the Governing Council (Governing Council decisions 18/27, 19/3, 19/4, 21/5, 21/16, 22/1, 23/7). In early warning, the need to strengthen the capacity of the secretariat on environmental emergencies, ongoing cooperation with the Office for the Coordination of Humanitarian Affairs (OCHA) through the UNEP/OCHA Joint Environment Unit and the need to develop appropriate linkages between the work of UNEP on environmental emergencies and its overall work on environmental assessment and early warning were emphasized (Governing Council decisions 20/8, 21/7, 22/1, 23/7). Decisions related to strengthening the scientific base of UNEP and building capacity have focused on the involvement of the UNEP regional offices, building technical assessment and monitoring capacities at the national level, particularly in Africa, and providing support for the implementation of multilateral environmental agreements such as the Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, the Convention on Biological Diversity and the United Nations Framework Convention on Climate Change (Governing Council decisions 19/3, 20/27, 21/1, 21/8, 21/9, 21/14, 22/8, 22/1, 22/9, 23/1, 23/6.

B. Functional responsibilities of the Division

47. The Division of Early Warning and Assessment has evolved considerably since its establishment in 1973. However, its core function, the collection of reliable and comparable scientific and technical information on environmental issues and the processing of such information to make it readily available to decision makers and specialists, has not changed significantly over the decades since its establishment.

48. The 1992–1997 medium-term plan featured scientific data collection, the improvement of methodologies for data collection and effective information delivery at its core. A 1994 environmental assessment strategy, entitled "Environmental Assessment Programme: a Decade Ahead", represented an evolved and expanded mandate based on Agenda 21 and UNEP Governing Council decisions and was a precursor to the current strategy for early warning and assessment within the organization.

49. Over the period between the last evaluation of the Division in 1997 and the current evaluation, several changes have taken place, the most notable of which was the functional reorganization of UNEP in 1999.

50. The Division, through its mandate to undertake scientific assessments, provides early warning and provides access to and delivers environmental data and information, operates at the global, regional, subregional, national and local levels.

51. At the global level, the Division leads a number of assessment processes, most notably, the global GEO process, the Millennium Ecosystem Assessment and IAASTD, along with a number of thematic global assessments such as GIWA.

52. Parallel to these global processes, the Division facilitates a number of regional, subregional, national, local and thematic assessment processes, the products of which feed into the global assessments. As part of the GEO process, the Division publishes regional GEOs, such as the Africa Environment Outlook, national GEOs and city GEOs. In addition, the Division has, since 2000, published the GEO Year Book.

53. Figure 1.0 below provides a simplified illustration of the levels at which the Division's assessment processes are operationalized.

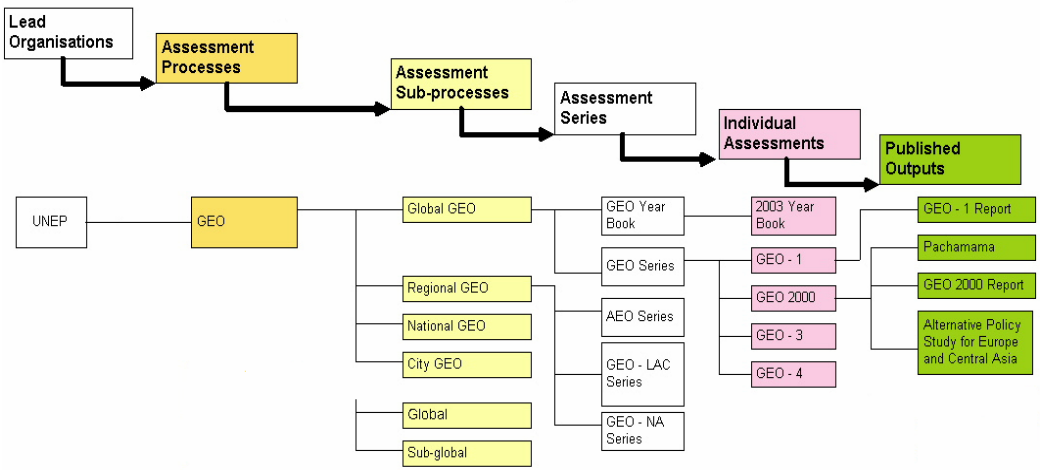

Figure 1.0: Division of Early Warning and Assessment: mapping the assessment landscape (PEARL)

Source: DEWA website

C. Structure and Administration of the Division

1. The Division in the functional structure

54. The Division of Early Warning and Assessment was created as part of the functional re-organization of UNEP in 1999, which structured UNEP into six functional subprogrammes and the Office of Global Environment Facility Coordination, now the Division of Global Environment Facility Coordination. The Division of Early Warning and Assessment's predecessor, the Division of Environmental Information and Assessment, had existed in one form or another since the creation of UNEP.

55. In accordance with the resolutions and decisions discussed above, the Division has the responsibility, as stated in the Nairobi Declaration, to "analyse and report on the state of environment, assess regional and global environmental trends and provide early warning of emerging environmental threats".

56. As currently constituted, the Division comprises of the Office of the Director and two branches, namely: the Scientific Assessment Branch and the Early Warning Branch. The Scientific Assessment Branch is made up of three sections, namely; the GEO Section, the Ecosystems Section and the Capacity-Building and Partnerships Section. The Early Warning Branch is made up of the Early Warning Section and the Data and Information Management Section. Reporting directly to the Deputy Director, who is also the Chief of the Early Warning Branch, are the regional coordination units, with responsibilities for coordinating Division activities with the six regional offices of the organization (Africa, Asia and the Pacific, Europe, Latin America and the Caribbean, North America and West Asia). The Directors and Secretaries of WCMC and the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) report directly to the Director of the Division. An organizational chart of the Division is presented in figure 2.0.

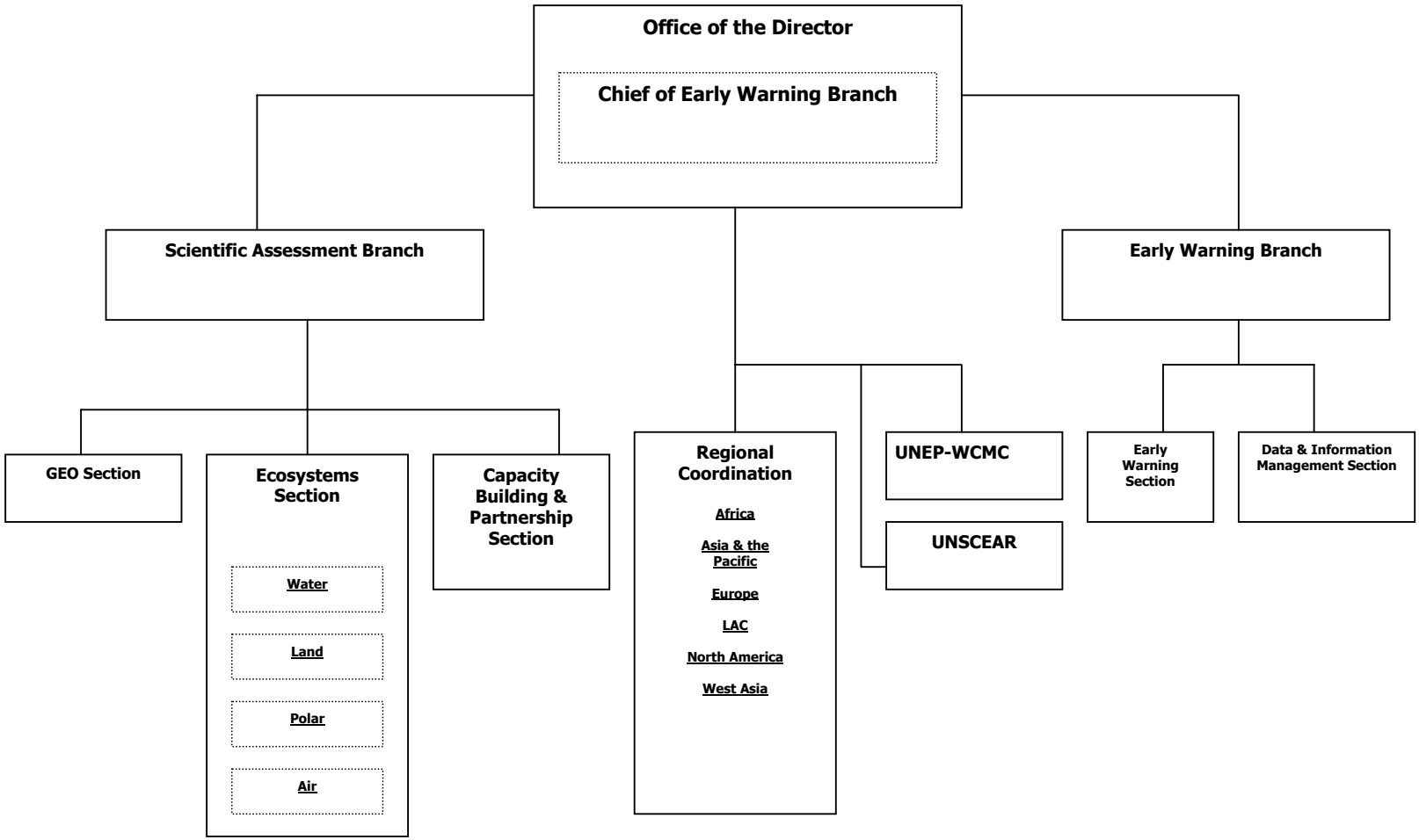

Figure 2.0 Organizational chart of the Division of Early Warning and Assessment

D. The Division's regional presence

57. A substantial part of the Division's work programme is implemented through the six UNEP regions, namely; Africa, Asia and the Pacific, Europe, Latin America and the Caribbean, North America and West Asia. In addition to supporting the implementation of global and subglobal assessments (involving integrated assessments, data collection and indicators) the regional offices implement other activities at the national, subregional and regional levels. Among the most important are assessments of emerging environmental threats, capacity-building and training to build institutional capacity of the Division's partners in the regions.

58. The Division's regional presence is crucial in the production of integrated assessments, such as the Africa Environmental Outlook, GEO LAC, Caucasus Environment Outlook and GEO Andes, all of which constitute the inputs for the production of GEO. The regions also facilitated the production of over 50 national and city assessments.

59. In Africa, preparation of the Africa Environment Outlook is currently being implemented through AEIN. The goal of the AEIN, like that of the Division's integrated assessments, is to enhance access to more reliable environmental data at the national level to form the basis for regional assessment and reporting. The pilot phase of the project involves 13 national focal institutions and six subregional GEO collaborating centres. The pilot phase will develop and test common tools for supporting the integrated assessment process in the region. Several tools have already been developed, including AEIN implementation guidelines, National Environmental Outlook reporting guidelines, policy analysis and workbook guidelines and work plans and strategies. Training courses for collaborating centres and network focal points on a harmonized approach to data and information management have been undertaken.

60. Similar to AIEN, the Collaborative Assessment Network has been established in the Asia and Pacific region. It features a regional resource centre which implements the Division's activities in collaboration with subregional and intergovernmental organizations and national agencies.

61. As in Africa and Asia and the Pacific, a network for environmental assessment made up of national environmental agencies, key regional academic and training institutions and GEO collaborating centres exists in West Asia to share experiences and knowledge on integrated assessments. Similar to the African and Asia-Pacific networks, the West Asian network is aimed at facilitating widespread adoption of methodologies and tools related to integrated assessments and early warning activities.

62. While the African and Asia-Pacific networks have moved forward in establishing work plans and strategies, it is not immediately obvious from the material reviewed that such a process exists in West Asia.

63. In North America, the focus of the Division's activities has been on partnerships, primarily between UNEP, the United States Environmental Protection Agency and the United States Forest Service through GRID-Sioux Falls to use available remotely-sensed data in order to place information in the public domain and support the integrated assessment process. In a similar way, GRID-Europe's mandate is in data and information management, and that office handles global and regional data which support the assessment and early warming activities of UNEP and its collaborating partners.

64. In Latin America and the Caribbean, the Division has applied the GEO methodology for producing regional, subregional and national GEOs. In addition the regional office is involved in producing versions of GEO for young people for cities. The GEO for cities programme is now, based on its success in the region, being replicated in Africa and Asia and the Pacific. A joint UNEP/UN-Habitat strategy to support environmental management in Latin America and the Caribbean is forming the basis for the work of the two agencies in several cities. Work is also being undertaken on indicators, capacity-building for technical and governmental institutions interested in integrated environmental assessment and early warning.

E. Subprogramme objectives

65. The overall objective of the subprogramme is to strengthen scientific knowledge and understanding of the environment at the international and national levels and to support environmental management and decision-making that takes into account sustainable development. The following specific objectives of the subprogramme can be gleaned from the programmes of work for the bienniums 2000–2001, 2002–2003, 2004–2005 and 2005–2006:

(a) To ensure that timely, relevant and scientifically reliable assessments of the state of the global environment, emerging issues, trends and potential environmental threats are undertaken to support informed environmental decision-making;

(b) To ensure that scientifically reliable and relevant information on the state of the environment is available at the national and international levels to support the capacity of UNEP to conduct timely assessments of environmental conditions and issue early warnings of environmental threats;

(c) To ensure that customized and targeted environmental products derived from observations and assessments are readily available from UNEP and disseminated to policy and decision makers and practitioners.

66. The strategies developed to accomplish the objectives of the subprogramme have not varied significantly over the three bienniums. Among the key strategic activities are the following:

(a) Preparation of integrated global assessments of the state of the environment in support of international environmental governance;

(b) Promotion of international cooperation among Governments, the scientific community and relevant United Nations organizations to ensure the availability of credible scientific information in a timely manner for integration;

(c) Facilitation and support of the development of other priority global, regional and subregional environmental assessments as part of the Global Environment Outlook process;

(d) Preparation of targeted environmental assessments on priority issues emerging from global and regional assessment processes to provide early warning on critical environmental threats;

(e) Development and publication, in cooperation with partner institutions, of guidelines, methodologies, training modules and tools to support harmonized environmental assessment and reporting at the global and local levels;

(f) Facilitation and strengthening of capacities and capabilities for environmental assessment and related information reporting through technical assistance to countries.

1. Administration of the Division

(a) The Division's budget

67. Relative to all other subprogrammes, the budgets of subprogramme 1, Early Warning and Assessment, for the bienniums 2000–2001, 2002-2003 and 2004–2005 were quite substantial and reflected the relative importance of the mandate of the Division within the Organization. The budget for 2000–2001 totalled $28.35 million, of which approximately $22.57 million was allocated from the Environment Fund, $0.77 million from the regular budget, $3.63 million from trust funds and $1.38 million from counterpart contributions.

68. The Division's total budget for the biennium 2002–2003 closely mirrored that for the previous biennium, with only a 5 per cent increase in the Environment Fund budget. There was a substantial increase in counterpart contributions but a reduction in trust funds, resulting in a total budget of $34.88 million, a 23 per cent increase over the previous biennium. Trust funds increased fourfold from the previous year and counterpart contributions increased by 13 per cent. In general, trust funds and counterpart contributions have increased substantially as a percentage of the total subprogramme budget over the period between the 2000–2001 biennium (17.7 per cent) and the 2004–2005 bienium (43 per cent), an increase of 25.3 per cent. While trust funds and counterpart contributions have increased over this period, the environment fund budget has seen only a small increase, from $22.57 million to $23.25 million.

69. Resource allocations to the subprogramme by source of funds are summarized in table 1 below.

Table 1. Subprogramme 1: Early warning and assessment (Subprogramme: resources-allotments by source of funds (in United States dollars)

Source	2000-2001	2002-2003	2004-2005	Total
Regular budget	768,100	1,067,700	1,057,700	2893500
Environment Fund	22,569,977	22,467,249	21,333,007	66370233
Trust funds	3,632,717	1,736,821	5,722,548	11092086
Counterpart contributions	1,379,907	5,811,280	6,070842	13262029
Total	28,350,701	31,083,050	34,184,097	93617848

Source: UNON Budget and Financial Management Service

(b) Expenditures

70. Relative to the resources allocated to the subprogramme, the expenditures over the past three bienniums have revealed an interesting pattern. As shown in table 2.0, which provides a breakdown of budget expenditures by source, the total expenditures for the three bienniums have been below the estimated budgetary resources required to implement the work programmes.

Table 2.0. Division of Early Warning and Assessment: budget expenditures, 2000–2005 (in United States dollars)

Category	2000-2001	2002-2003	2004-2005	Total
Regular budget	773,040	1,064,200	1,069,110	2,906,350
Environment Fund	20,946,871	20,876,486	21,295,984	63,119,341
Trust funds	3,569,051	805,290	4,973,352	9,347,693
Counterpart contributions	1,274,877	4,097,382	5,532,504	10,904,763
Total expenditures for subprogramme	26,563,839	26,843,358	32,870,950	86,278,147

Source: UNON Budget and Financial Management Service

71. Expenditures made against budget allocations have been lower for all sources except the regular budget. Table 3.0 shows the unspent budget resources from all sources of the Division's budget over the period from 2000 to 2005.

Table 3.0. Unexpended allocations: Division of Early Warning and Assessment budget (2000-2005 balance, United States dollars)

Category	2000–2001		2002–2003		2004–2005		Total
Regular budget	-4,940	(0.6%)	3,500	0.3%	-11,410	(1.1%)	-12,850
Environment fund	1,623,106	7.2%	1,590,763	7.08%	37,023	0.17%	32,50,892
Trust funds	63,666	1.8%	931,531	53.63%	749,196	13.09%	1,744,393
Counterpart contributions	105,030	7.6%	1,713,898	29.49%	538,338	8.87%	2,357,266
Total	**1,786,862**		**4,239,692**		**1,313,147**		**7,339,701**

72. A review of the performance reports for the bienniums 2000–2001 and 2002–2003 indicate that, for the most part, the Division implemented its work programme for those periods. However, there have consistently remained unspent balances of allotments to the Division, which suggests that the Division may have continued to receive more resources than it can utilize with the manpower resources available.

73. The Division has explained that the under-expenditures are attributable to the persistent staff vacancies it has experienced over the bienniums. Further, and most importantly, the Governing Council's decision that GEO be prepared on a five-year schedule has created a situation in which fairly substantial expenditures for the preparation of the GEO outputs were delayed until the biennium 2004-2005. While the Division stated during this evaluation that at the pace of budget expenditures the 2004-2005 allotments would be obligated during the biennium, almost four months after the end of the biennium there still seems to be a fairly substantial under-expenditure.

Table 4. Division of Early Warning and Assessment: Professional staff

Source of funding	**2000–2001**		**2002–2003**		**2004–2005**	
	D2 – D1	**P5 – P2**	**D2 – D1**	**P5 – P2**	**D2 – D1**	**P5 – P2**
Regular budget	1	2	1	2	1	2
Environment Fund	3	24	5	27	4	31
Trust funds			L-6			
Counterpart funding						
Total	4	26	7	29	5	33

Source: Budget and Financial Management Service

(c) Human resources

74. Over the three bienniums, the Division has been very successful in mobilizing counterpart and trust fund resources. Such funds have ranged from a low of $5,012,624 in 2000–2001 to $5,988,101 in 2002–2003 and a high of $11,793,390 in 2004–2005. However, table 4.0 appears to contain only one post, that of an L-6, whose occupant would be dedicated to implementing the activities for which resources were mobilized from these two sources. It would seem, then, that the Division has depended quite heavily on its existing human resources to undertake the additional activities that result from the expenditure of these funds received from trust funds and through counterpart contributions.

75. While there has been a 26 per cent increase in posts between the 2000–2001 biennium and the 2004–2005 biennium, from 30 to 38, there have been persistent vacancies in the Division, especially at the senior and managerial levels. Furthermore, there seems to be unanimous agreement in the Division that the 26 per cent staff increase over the three bienniums is not commensurate with the increasing volume of work required of the Division. The fact that the Division has been very successful in delivering its work programme is a credit to the professionalism and hard work of staff of the Division.

76. At the time of this evaluation, there were 19 vacant positions in the Division, of which 15 were Professional posts and 4 General Service posts. This situation seems to have persisted throughout the years.

77. The Division has, in the past seven years, had nine directors, including officers-in-charge. The frequent changes in leadership of the Division have resulted from both personal and political reasons. In addition, it is not easy to find qualified people of the caliber required for the post who are ready to live in the Nairobi duty station for extended periods of time. The impacts of these changes include frequent changes in expectations of staff which require them to adapt to changing visions and strategic direction of the division and the confusion that arises from unclear functional relationships within the Division.

78. Besides the directorship of the Division, recruitment at the Professional level has also been faced with difficulties. In the past 10 years, the division has rarely had the full complement of senior management in place. A good example of a change in strategic direction is the strategy document "DEWA: The Way Forward", which placed considerable focus on the provision of access to data. Following the departure of the Director whose vision was articulated in that document, UNEP.net, which formed the cornerstone of that vision, was to a considerable degree abandoned.

79. Constant movement of staff at the General Service level has further compounded staffing problems because Professional staff spend a great deal of time constantly recruiting. Further, staff at all levels point out that the Galaxy system is time-consuming and does not function well, and that clear guidance from senior management of the organization is required to prevent situations where candidates selected through this complicated and time-consuming process must be rejected because they are the wrong nationality. Our interviews reveal that increased pressure on existing staff resources is breeding frustration.

(d) United Nations Office at Nairobi

80. The services provided by UNON to the Division do not receive much acclaim and staff have expressed their dissatisfaction about virtually all types of services provided. The slow processing of contracts (more than three weeks) is a hindrance to the Division's efficiency and staff attitudes in UNON do not facilitate the already long processing time. In general, staff felt that so much work has to be put into these processes that the Division's staff might as well do it themselves. The Division has, therefore, looked for opportunities to subcontract certain products, such as the GEO Year Book (United Nations Office for Project Services) in order to overcome some of these problems. It has reasonable relations with the travel section, but this is because of personal contacts.

IV. Implementation of the work programme of the Division of Early Warning and Assessment

A. Summary of overall performance of the Division, 2000–2005

81. In order to achieve the overall objective of the subprogramme, the Division has, over the three bienniums, implemented activities in several areas. Key among them are the following: provision of substantive servicing of meetings; production of recurrent and non-recurrent publications; support for international cooperation and inter-agency coordination and liaison, production of technical materials for outside users and support for technical cooperation. The summary of outputs presented here does not represent exhaustive reporting on all the activities of the Division in the three bienniums; neither does it provide information on whether the activities were sustained. These are examples only. An exhaustive list can be found in the programme performance reports for the three bienniums.

1. Substantive servicing of meetings

82. At the time of this evaluation, in the three bienniums, the Division had provided substantive support and servicing to 18 meetings. Activities under this category include provision of documentation and substantive servicing of the meetings of the Governing Council, the High-level Committee of Ministers and Officials in Charge of Environment and the Committee of Permanent Representatives.

83. Other activities were related to the organization of GEO working group meetings. In the biennium 2004–2005, at the request of the Governing Council, the Division also organized and conducted all aspects of an intergovernmental consultation on strengthening the scientific base of UNEP.

2. Producing recurrent and non-recurrent publications

(a) Recurrent publications

84. The Division completed the third issue of GEO along with accompanying technical background documents and other associated products of the GEO assessment process. The GEO youth publication (Pachamama) is an example of such associated products. Since 2003, and based on Governing Council decision 22/1 I B, the Division also produced the GEO Year Book.

85. Other outputs included annual statements on the environment, contributions to the World Resources Institute report jointly published by the World Resources Institute, UNDP, UNEP and the World Bank, and production and dissemination of information on desertification, including four issues of Desertification Control Bulletin.

(b) Non- recurrent publications

86. Over the three bienniums, the Division produced approximately 48 assessments, including strategic assessments of watershed and freshwater resources, assessments in the areas of atmosphere, marine environment, marine mammals, coral reefs, land, biodiversity, and integrated environment and health assessment, as well as integrated environmental assessments for urban areas and a number of regional and subregional assessments.

87. Other publications and activities during the period included regional environment and security assessments, assessments of human vulnerability to environmental change, analyses of environmental trends using satellite data, reports on early warning and vulnerability assessments with regard to emerging environmental issues and threats with global and regional significance and an assessment report on the global vulnerability of freshwater, including groundwater. Outputs of these processes included maps, clearinghouse mechanisms and stakeholder workshops.

88. Another important set of the activities undertaken in this category includes the development of training manuals and related internet and CD-ROM resources to support training in environmental assessment and reporting.

89. The Division took stock of its current activities by undertaking a number of technical reviews and evaluations. This included review and analysis of international scientific advisory processes for harmonizing assessment activities, annual reports on the Global Ocean Observing System, progress reports on the United Nations system-wide Earthwatch, evaluation of the GEMS water programme, GEO user profiles and impact studies and a SWOT analysis and evaluation of the third issue of GEO (GEO-3).

3. International cooperation and inter-agency coordination and liaison

90. Most of the Division's activities in this area are related to supporting different types of collaborative assessment networks, with a view to strengthening environmental assessments, monitoring and information at the regional and subregional levels. Examples include expanding the GEO network of collaborating centres and providing it with a data portal to access global data sets, as well as supporting meetings of regional collaborative assessment networks. Other examples are coordination of strategic cooperative networks that serve as conduits for effective data and information flow for environmental assessment and reporting (GRID-Geneva, Asia Pacific Collaborative Assessment Network, Africa Regional Network, Latin American and Caribbean Network), coordination of an operational environmental information exchange network, comprising 178 national focal points (INFOTERRA), development of an environmental information wystem for the Canton of Geneva, development of a coastal zone information system for Lebanon and the development of a Swiss and alpine catalogue of data sources.

91. The Division also played an important role in organizing and participating in inter-agency meetings and processes. Examples of these were the annual meetings of the United Nations System-Wide Earthwatch Working Party, which included 12 United Nations organizations. UNEP also participated in a Food and Agriculture Organization of the United Nations dryland degradation assessments meeting, a DEWA Europe/GRID-Geneva partnership advisory meeting and the semi-annual North America DEWA Advisory Committee meeting.

4. Technical materials for outside users

92. Most of the recurrent activities under this category involved providing support to the development of state-of-the-environment reports and other data-related studies. Outputs of these processes were geographic information systems (GIS) databases, technical reports, website maintenance and data resources such as GEO LAC statistics, CD-ROMs and digital databases and maps.

93. The Division further supported a framework for the harmonization of state-of-the-environment databases in countries of the Association of Southeast Asian Nations. Another important activity included the release of updated GRID software and GEO data portals, including portals in Africa and Latin America and the Caribbean. A set of reference tools supporting the international exchange of environmental information was also developed.

94. With respect to early warning, the Division produced a number of maps, posters, reports and newsletters and organized workshops. A report on early warning and emerging issues was prepared. Other activities included preparation of a report on tropical forest fires in Latin America and the Caribbean and development of a methodology for deforestation indicators in Mexico.

95. Finally, the Division ensured access to environmental information in UNEP through a joint environmental law information service of UNEP and The World Conservation Union (IUCN), ECOLEX, list servers, a revised GRID-Geneva website and UNEP.net. In addition, operational servers located strategically at points around the globe hosting UNEP information products were used as means for disseminating environmental information.

5. Technical cooperation

96. The Division undertook activities over the period under evaluation in two areas, namely, advisory services and training, including courses, seminars and workshops.

(i) Advisory services

97. During two bienniums (2002–2003 and 2004–2005), the Division provided technical advisory services for integrated regional subregional and national thematic and sectoral assessments in Africa, Asia and the Pacific, Central and Eastern Europe, Latin America and the Caribbean and West Asia. Specifically, the Division was involved in 62 activities, ranging from training for the next Global Biodiversity Outlook to support to the University of Bahrain in developing a project proposal for the Islamic Development Bank in the area of assessments and the design of environmental information systems.

98. The Division also undertook advisory missions to countries, at the request of Governments, to provide policy, planning and technical advice and guidance on the development, improvement and implementation of integrated environmental assessment and related information systems. In practical terms, this involved conducting a number of workshops on subjects such as environmental and sustainability indicators, gender and environmental statistics and a national seminar on experience in planning and urban environmental management. In addition, in 2002–2003 alone, DEWA supported 44 activities related to the production of state-of–the-environment reports for Africa, Asia and the Pacific and Latin America and the Caribbean.

99. In the biennium 2002–2003, the Division performed a total of 43 advisory services for Governments and regional organizations in Africa, Asia and the Pacific, Europe, Latin America and the Caribbean and West Asia on sensitivity vulnerability and risk assessment related to environmental threats.

100. With respect to access to information, DEWA implemented national environmental education and awareness programmes in eight countries, including four newly independent countries in Central and Eastern Europe that have signed the Aarhus Convention. In connection with this, the Division convened an open-ended meeting of the Aarhus Convention Advisory Board in Rome in 2000. The aim of the meeting was to examine the extent to which public participation models were being applied in regions beyond Europe.

101. In terms of training, at the time of this evaluation, DEWA had reported on 18 training activities undertaken during the 2004–2005 biennium at the request of countries. The training involved seminars and meetings on assessment, early warning and data systems. Ten group training workshops and seminars on environmental assessment and scientific and technical data systems development for partner institutions in developing and transitional economies working within the UNEP Collaborative Assessment Network in Asia and the Pacific were organized in 2004–2005. The Division also provided training in integrated environmental assessment tools and methodologies for governmental agencies and regional intergovernmental organizations. During 2002–2003, 22 training activities were held.

B. Discrepancies

102. Most of the Division's planned activities for the three bienniums were completed. Three activities were terminated because of budget cuts and two as a result of developments in technology. These activities included one report on conservation and sustainable use of biodiversity for the development of new technologies, collaboration with a lusophone network (undefined) and substantive contribution to the World Resources Institute publication World Resources Report, which was discontinued temporarily. Activities related to the Mercure project were terminated in 2001, due to developments in technology.

103. A number of activities were not reported on in the programme's performance reports. For the biennium 2000–2001, the majority of activities not reported on related to provision of technical materials for outside use and technical cooperation. In 2002, only contributions and support for global reef assessment and monitoring was not reported on. With respect to the present biennium, eight activities are not covered in the performance reports. They relate to international cooperation and inter-agency liaison and technical materials. Other reports could not be identified, perhaps because activities had changed names or new ones had been added through Governing Council decisions.

104. However, a number of outputs referred to in the performance reports were not readily identifiable in the costed work plans as planned outputs. Some examples are development of a global river basin information system, collaboration with partners to develop, maintain, observe and monitor networks in order to acquire relevant data sets and databases and provision of advisory services on issues related to air, land, water and biodiversity and the publication "Vital Signs"[a].

[a] Programme implementation report for the 2002–2003 biennium.

V. Review of selected activities and processes

A. Scientific Assessment Branch

1. GEO Section

(a) Global Environment Outlook

105. Global Environment Outlook is the flagship publication of UNEP and partly fulfils its mandate to keep under review the world environmental situation to enable Governments to respond to emerging environmental problems of wide international significance. It was launched in 1997; the second issue of GEO (GEO-2) was published in 1999 and GEO-3 in 2002. GEO has been implemented as a participatory environmental assessment process involving a worldwide network of collaborating institutions and partners from many disciplines.

106. In discussing the GEO process and the publications of this section, we are keenly aware of the risk of over-evaluating GEO and its processes and, therefore, thought it prudent to review the existing evaluations conducted and the extent to which the recommendations to improve the process have been implemented.

107. The GEO reports and the processes that produce them have undergone several evaluations and reviews, the first of which was conducted by the Evaluation and Oversight Unit in 2000. Subsequent review of the GEO-3 process in the form of a SWOT analysis from the perspective of the GEO collaborating centres and impact studies of GEO and its production processes were undertaken, respectively, by the International Institute for Sustainable Development (IISD), of Winnipeg, Canada, and Universalia, a Canadian consulting company, in 2004. Another evaluation, of a component of the GEO process related to a review of the subproject for the collaborative institutional and data framework for environmental assessments and reporting in West Africa, was conducted by the Evaluation and Oversight Unit in 2003.

108. While the SWOT analysis was done by an institution that was itself a collaborating centre, which could give the appearance of a conflict of interest, our review of the evaluation indicates that the study was professionally conducted and the results do not seem to have been influenced by the Institute's partnership status within the network of collaborating institutions.

109. In general, the evaluations of GEO and its production processes have been positive. GEO has been seen as a very complex but important undertaking which fulfils the UNEP mandate to keep the planet under review. The first and second issues of GEO were accepted by the Governing Council, but it was considered that the basis for their production was weak. The consultative processes that produced the reports showed that very large amounts of local, regional and global data are available to improve the quality of the product if adequate structures can be established to mobilize the data.

110. The March 2000 evaluation therefore contained a recommendation for establishing adequate infrastructure for data collection and reaching agreement on core data sets at the national, subregional and regional levels and on a common methodology agreed upon by stakeholders at all levels. The evaluators further recommended capacity-building for collaborating centres and national partners in data collection and analysis and called for a bottom-up approach to data collection. Among other key recommendations was to strengthen the GEO Section within the Division, to strengthen interdivisional cooperation for the preparation of GEO, to extend the duration for the preparation of subsequent GEO issues to four years and to develop a strategy for involving collaborating centres in the dissemination of the GEO report and its by-products, including a strategic approach to launching the report. Other recommendations included expanding collaborating centres in Central and East Africa, Australia and New Zealand, involving stakeholders early in the production process, developing stronger inter-agency linkages within the United Nations system, publishing more by-products of the GEO process similar to Pachamama (GEO for youth) and improving the peer review mechanism.

(b) Analysis of strengths, weaknesses, opportunities and threats of the GEO process

111. Collaborating centres view the GEO process as a rewarding one. They agree that GEO fills a niche and fulfils its mandate as an assessment and reporting system with a strong capacity-building component. As a participatory process, it involves collaborating centres in preparing assessments in consultation with policy makers and other stakeholders. Strong stakeholder participation is seen as the key to the success of GEO.

112. The collaborating centres, which constitute a network of diverse institutions of wide regional and national coverage, believe that there is limited or inadequate interaction between the members of the network, militating against the building of sustainable institutional capacity within the network. Like the 2000 study, the 2004 SWOT analysis points to inadequate data and limited analytical capacity

within some of the collaborating centres. This, it was suggested, could be remedied through dialogue between the centres, UNEP and donors.

113. The integrated assessment process faces several threats, among which are: inadequate funding, lack of quality control and scientific credibility and potential weakening of interest in the environment. Improved peer review processes and more rigour in the selection of contributors have been proposed as ways to improve the quality of the GEO reports. As in the 2000 evaluation, data quality, availability and adequate time to prepare GEO inputs were considered problems. The study also called for a definition of core indicators.

114. Although many collaborating centres view communications with the Division as generally adequate, they nevertheless called for more clarity in guidelines and their general interaction with the Division. The centres identified the need to involve stakeholders in a substantive way early in the process and to create stronger links with the private sector. At the same time, they considered that the process successfully integrated the state-of–the-environment process with policy and scenario development.

115. Opinion on the usefulness of the tools developed by Division to support the GEO processes (e.g., the GEO newsletter, data portals, guidelines and GEO support systems) is divided. The GEO support system is least liked by the collaborating centres.

116. Our interviews for this evaluation both with staff and collaborating centres confirm many of the findings of the 2000 evaluation of the GEO processes and the SWOT analysis. The interviews further suggest the need for stronger links among collaborating centres from the South. The need for increased capacity in the GEO Section to facilitate prompt responses for information by the collaborating centres was also reiterated.

117. In response to the findings of the evaluations, the Division has developed a GEO new training manual, which will be used in the preparation of the fourth issue (GEO-4). Little follow-up work has been done to use collaborating centres in developed countries to strengthen the capacities of those in developing countries. Although core data sets have not been developed, core sets of indicators have been developed and will be used in the preparation of GEO-4. In addition, the peer review mechanism is being discussed and will be strengthened perhaps through iterative review processes. During the course of the present evaluation, the network of collaborating centres was convened in Nairobi as part of the training for GEO-4. As evidenced by the scheduling of expenditures for implementation of activities, it would seem that the Division is still adjusting to the five-year GEO cycle.

118. Another striking GEO-related issue that came out of our discussions with staff is the fact that, although the reports seem to be quite successful externally, there appears to be little follow-up of important findings and issues identified in the GEO reports by the rest of the organization. There is also concern in the organization that there should be better coordination of GEO activities with other substantive divisions, especially in activities related to youth.

(c) GEO user profile and impact study

119. A study was designed to develop a profile of users of the GEO reports, determine what GEO was being used for and provide an impact analysis of the report and the GEO process. Some of the findings of the study were quite consistent with the findings of the SWOT analysis of GEO-2 and the 2000 UNEP evaluation of GEO and GEO-2.

120. It was determined that the GEO reports were for the most part being used by members of the environmental policy development and decision-making community, the research community and environmental information depositories and distributors. GEO products such as Pachamama were also reaching their intended targets. The GEO reports have been used by ministers, senior advisors and permanent representatives to provide overviews of the global and regional environmental situations and policy guidance to their Governments. Most readers consider the reports a credible source of background environmental information for news, speeches and presentations and for course development in academic institutions.

121. Our review concluded that the key impacts of the GEO reports and its processes identified were, in fact, results statements. These include the adoption of the GEO methodology by national governments in preparing their state-of-the-environment reports, the strengthening of institutional relationships among GEO collaborating centres and other institutions, resulting in improvements in the quality of their products and services, and enhancement of the reputations and credibility of those centres. From a financial standpoint, some of the centres saw the GEO process as a burden, while others used the process to leverage additional resources to implement their activities.

(d) The Science Initiative

122. The Governing Council recognized in its decision 22/1 of February 2003 that the increasing complexity of environmental degradation required enhanced capacity for scientific assessment and early warning. At its twenty-second session, therefore, the Council initiated a consultative process to strengthen the scientific base of UNEP.

123. The resulting recommendations of the consultative process reinforced the GEO process and requested the expansion of the capacity-building activities of UNEP and the strengthening of the network of collaborating centres at all levels, especially in developing countries.

124. This recommendation is consistent with those of the 2000 GEO evaluation conducted by UNEP and the subsequent 2004 evaluations of the GEO-3 process from the perspective of the GEO collaborating centres. In 2004, a number of capacity-building activities were undertaken to strengthen the environmental assessment process in Africa, Asia and the Pacific, Latin America and the Caribbean, Europe and West Asia.

125. An important element of the Science Initiative is the coordination role foreseen for UNEP in assessment activities through the periodic taking stock of assessment programmes and their related data-collection and monitoring activities. The Science Initiative also saw the need for improved environmental data quantity and quality.

126. The Environment Watch system, which is the core element of the Initiative, consists of five main functions related to:

(a) Identification of needs and priorities for providing knowledge and information, which would form the basis for policy advice (science and policy interface);

(b) The infrastructure regime to generate, analyse and deliver data and information, which form the basis for assessments (systems and network); products in the form of graphics and assessment reports and accessibility to stakeholder groups (products and outreach);

127. The stated objectives of the proposed Environment Watch system – ensuring that emerging environmental problems receive adequate consideration from Governments, providing exchange of environmental information within the international scientific community and providing technology support and capacity-building to developing countries and countries with economies in transition to support the process of keeping the environment under review – are indeed consistent with the stated mandate of UNEP and the objectives of the Division. To that extent, the proposed system is a strategic imperative which, if approved, will form the basis of the Division's work in the years to come. The Environment Watch system is without a doubt a significant enhancement of the inter-agency partnership of the Earthwatch concept.

128. The Environment Watch system, while funded initially by the Environment Fund to develop the proposals, would require substantial extra-budgetary resources for its implementation. While the resource requirements for the implementation of the Environment Watch system and the Science Initiative seem substantial, the proposed incremental approach to its funding appears to be the right approach to the implementation of a programme of this magnitude.

2. Ecosystems Section

129. Until recently, no coherent approach existed to integrate the sectoral assessment work being conducted in the Division into the assessment process that leads to the production of GEO. The land assessment work undertaken in the Division, for example, was not used as part of GEO. Neither was some of the work done through the Water Unit. For the 2007 GEO, the Land Unit now has responsibility for coordinating the land assessment chapter and the Water Unit has responsibility for coordinating the chapter on trends in the environment and ecosystems, which include issues on water.

(a) Water Unit

130. The Water Unit has undertaken a number of important activities. Key among them is its work in collaboration with the Division of Policy Development and Law to prepare a water strategy. The strategy, which was approved by the Governing Council in 2001 in its decision 21/11, was updated and submitted to the Council at its twenty-third session in 2005. The Unit has played a lead role in implementing GIWA, a GEF-funded project aimed at identifying critical and key issues facing the waters of the world, and establishing a framework within which GEF could prioritize potential projects to be executed within the framework of its international waters portfolio. The GIWA project, which was executed by the University of Kalmar in Sweden, was completed in 2005. An evaluation of the project found that, despite some serious shortcomings during project implementation, it had fulfilled its stated objectives.

131. Another important, albeit smaller, assessment undertaken by the Unit is the "Urban Pollution of Surficial and Groundwater Aquifers Project in Africa". This project, initially funded through the United Nations Development Account, is a joint effort by UNEP and the United Nations Educational, Scientific and Cultural Organization (UNESCO) to establish and strengthen regional coordination and groundwater management, develop methodologies for optimal monitoring and establish a network of countries with groundwater pollution monitoring and early warning systems in place. The project has been deemed very successful relative to the size of the resources expended, but it nevertheless needs to be taken beyond the assessment stage into assisting Governments to develop policies, legislation and capacity to manage groundwater pollution. This is an example of an assessment product which can feed directly into the work programme of another division, such as the Division of Environmental Policy Implementation.

132. A more recent programme of the Water Unit is the Global Marine Assessment. This assessment of the marine environment authorized by the General Assembly in its resolution 60/30 of 29 November 2005 requested UNEP and the Intergovernmental Oceanographic Commission (IOC) of UNESCO to jointly lead a process of appraising and mapping the assessment landscape on the marine environment, identifying gaps and uncertainties in scientific knowledge and current assessment methodologies, evaluating the processes of communicating assessments to policy makers at all levels and developing a framework and options for further marine assessment on a global scale.

133. The programme is to be implemented under the guidance of an ad hoc steering group made up of experts from FAO, the World Meteorological Organization (WMO), the International Maritime Organization (IMO), IOC, UNEP and the International Seabed Authority. Like the implementation of most General Assembly mandates, the execution of the assessment and the activities of the ad hoc steering group and the group of experts will be funded through voluntary contributions from member States and other resources to be mobilized by participating organizations.

(b) Land Unit

134. While there is a well organized water team and water assessment activities are coordinated throughout the organization, the land assessment team is quite ad hoc and informal. Currently, the primary focus of the Land Unit (which essentially is a two-person outfit) is to extend the FAO-led land cover classification system to all countries. Working with FAO, the Unit also conducts land degradation assessments. In addition to FAO, the Division collaborates with GEF and other United Nations agencies and Governments on land assessment activities. The Commission on Sustainable Development-United Nations Convention to Combat Desertification network, UNDP, the International Soils Reference and Information Centre, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and WMO are other key collaborators.

(c) Air Unit

135. This is a new unit of the Division, and apart from the Division's activities associated with GRID-Christchurch on assessments of ozone depletion, no significant assessments on air issues have been documented. However, the GEO and GEO year books have reported on air quality issues.

(d) Polar Unit

136. Activities of the Division in this area are implemented through UNEP/GRID-Christchurch, which was established to conduct assessments for the Antarctic and Southern Oceans region. The Centre was instrumental in preparing the report of the Secretary-General on the Antarctic environment (A/60/222), including assessments of ozone depletion and Antarctic sea ice.

137. The most recent activities shown on the web pages of UNEP/GRID-Christchurch date back to September 1997. The centre has designed meta-data management systems for the Antarctic, development management plans for protected areas in the Antarctic and a data-collection framework for the monitoring of the status of tourism activities in the Antarctic.

138. Based on the age of the documents reviewed and activities posted on the web pages of the centre, it is not altogether clear whether GRID-Christchurch is functioning as an active UNEP centre.

139. Two other key assessment activities of the Ecosystems Section are noteworthy, namely, the Millennium Ecosystems Assessment and the International Assessment of Agricultural Technology for Development (IAASTD).

(e) Millennium Ecosystem Assessment

140. The Millennium Ecosystem Assessment was a four-year $21 million project designed to improve the management of ecosystems and their contribution to human welfare by assembling the best available data and information on ecosystem goods and services. The project, which was funded through a trust fund, including a substantial GEF contribution, was completed in 2005. It essentially

comprises a global scientific assessment and regional, national and local assessments designed to build capacity at all appropriate levels to undertake integrated ecosystems assessments.

141. The Millennium Ecosystem Assessment produced the following four main outcomes:

(a) A methodology for conducting integrated ecosystems assessment at the local, national, regional and global levels;

(b) A global assessment related to ecosystem goods and services;

(c) National, regional and global integrated ecosystems assessments;

(d) A widely distributed set of findings of the assessments.

142. The assessment was coordinated by UNEP in partnership with the World Fish Centre, the World Resources Institute, UNEP-WCMC and the Institute of Economic Growth in India. The assessment's findings were published in 2005 and an evaluation of it is currently in progress.

(f) International Assessment on Agricultural Science and Technology for Development

143. Another new assessment project, IAASTD is currently being undertaken by the Scientific Assessment Branch. It too responds to a General Assembly resolution. The project involves the preparation of global and subglobal assessments of the role of agricultural knowledge and technology in reducing hunger and poverty, improving livelihoods and facilitating equitable and environmentally, socially and economically sustainable development.

144. IAASTD has four main components, as follows:

(a) Development of a framework;

(b) Preparation of a global assessment;

145. Preparation of five sub-global assessments in:

(a) Sub-Saharan Africa;

(b) Central and West Africa and North Africa.;

(c) East and South Asia and the Pacific;

(d) Latin America and the Caribbean;

(e) North America and Europe;

(g) Communications and outreach.

146. The assessments will be conducted in collaboration with a multi-stakeholder base that includes FAO, GEF, UNEP, UNESCO, the World Bank, WHO and representatives of civil society, Governments, scientific institutions around the world and the private sector.

147. Like the Millennium Ecosystem Assessment, IAASTD is another unfunded project mandated by the General Assembly for which resources have to be mobilized. Both the Millennium Ecosystem Assessment and IAASTD are relatively new activities and the information available thus far is too limited to allow for any meaningful analysis of achieved results.

(h) Mapping the assessment landscape

148. The effort to map the assessment landscape responds to Governing Council decision 22/1 I A and the recommendations emanating from the subsequent intergovernmental consultation on strengthening the scientific base of UNEP.

149. The goal is to provide an overview of the thematic and geographic coverage and scope of environmental assessment activities, with the aim of avoiding interference with existing mechanisms and reducing duplication. The mapping exercise will also involve the determination of the effectiveness and impact of these assessments.

150. The existing assessment landscape is diverse and complex, involving many different institutions which use many processes to produce a variety of outputs. The process of mapping the assessment landscape will require a review of:

(a) The existing assessment landscape;

(b) Types of assessments being conducted and their geographic coverage;

(c) What organizations and institutions are conducting these assessments;

(d) The goal, scope and mandate for these assessments.

151. To date, the Division has developed a prototype database and is in the process of developing an Internet database for monitoring existing assessment processes internally and with a host of organizations and Governments worldwide.

152. Our interviews with staff and a review of the processes involved in mapping the assessment landscape suggest that the exercise will be a very large and complex undertaking which will require tremendous coordination effort and the ability to create effective linkages among a large number of organizations and Governments. To be effective, the exercise will have to be well resourced, because in order to avoid duplication it must be done systematically. It is our judgment that the effort to determine the effectiveness and impact of these assessments on a global scale will meet with limited success, given the fact that baselines for determining impact have not been previously established.

153. The role of the Division as an effective link within the scientific community seems to be quite good and getting better. The main areas in which the link occurs involve global, regional and subregional assessment processes where the assessment work and its products aim at bridging the gap between science and policy. However, while the Division has been successful in giving voice to scientists, the perception is that policy-making bodies, especially the Governing Council/GMEF, have not always fully considered the assessment findings. Neither is there an effective mechanism for ensuring input from ministerial forums in identifying what needs to be assessed.

154. Our evaluation points to the fact that the current emphasis on global assessments does not seem to translate into a corresponding strengthening of the early warning, monitoring and data-management activities of the Division. While GEO seems to be accepted by the Governing Council and Governments as the flagship publication of UNEP, it does not provide any unique UNEP perspective similar to that of the World Bank's Development Report. Perhaps this emphasis on GEO comes at the expense of unique publications of the Division such as the recently released Environment Atlas, which has generated tremendous interest throughout the world. Such unique assessments have an important role to play in the work of UNEP and, while this evaluation does not suggest, under any circumstances, a diminution in the status of GEO, there is a need to take a closer look at such publications, which carry a core message about the environment. Alternatively, the Division can further pursue producing separate GEOs for different stakeholders in line with the GEO for Youth process (e.g., a GEO for policy makers, a GEO for business, etc.).

3. Capacity-building and partnerships

(a) Capacity-building

155. Starting in the 2000–2002 biennium, the Division organized a number of meetings on capacity-building with the overall aim of producing a capacity-building strategy. The strategy was finalized in November 2002 and is based on the UNEP programme of work and the United Nations guidelines for capacity-building. According to the strategy, capacity-building has been a significant part of the UNEP environmental assessment and early warning programme since 1992 and has resulted in the development of a global cooperative assessment network which underpins the integrated environmental assessment process of UNEP.

156. The overall goal of the strategy is "to further develop the capacity of people and institutions able to undertake integrated environmental assessments and related early warnings and information systems, in order to provide the scientific basis required for the management of sustainable development[b]".

157. The strategy foresees the establishment of an environmental assessment and early warning advisory group composed of UNEP, GEF, UNDP and other institutions which would advise on the capacity-building programme. In addition, monitoring, evaluation and considerable fund-raising activities were included as part of the implementation of the strategy. Key elements of the capacity-building strategy are as follows:

(a) Institutional capacity for coordinating and implementing environmental assessments;

(b) GEO process methodologies and tools;

(c) Vulnerability and risk assessments for environmental issues and threats to support early warning and preparedness.

158. The primary target for capacity-building has been GEO collaborating centres from developing countries and countries with economies in transition, in order to enhance their ability to participate fully in the GEO production process. National and regional organizations involved with

[b] UNEP Strategy for Capacity -building for Environmental Assessment and Early Warning 2002–2 005, draft of November 2002.

state-of-the-environment assessment and reporting have also been assisted. Specifically, capacity-building within the context of GEO-3 involved, among other things, funding to hire staff or purchase software, participation in training workshops and the provision of access to data and information. A manual for conducting integrated environmental assessments has also been developed for wide application at the national level, as well as for GEO partners. The manual exists in four languages and has served as the basis for over 20 training workshops around the world to date. Thus far, more than 250 persons have participated, the objective being that they disseminate what they have learned within their institutions.

159. A concrete example of a capacity-building initiative was the 1999–2000 United Nations Fund for International Partnerships (UNFIP) and Environment Fund project aimed at strengthening specific collaborating centres in each of the five regions and developing or augmenting skills needed for GEO-3. Training was provided in collaboration with the United Nations Institute for Training and Research (UNITAR) for several of the collaborating centres and other UNEP partner institutions, with the immediate objectives of enhancing the substantive contributions of the centres to the GEO process, and to build up their environmental observation, assessment and early warning capabilities in the longer term. The core component of the training module focused on data handling and management, which directly responds to some key issues raised by the GEO process evaluations. The need for collaborating centres to acquire state-of-the-art and appropriate information technology to enable them to generate, share and disseminate their environmental information capital in a timely manner was also examined.[c]

160. Other past and present capacity-building initiatives include GRID, ENRIN and INFOTERRA. For example, ENRIN has been superseded in Africa by the Africa Integrated Environment Assessment and reporting activities specifically carried out under AEIN and the Africa Environment Outlook process.

161. Recently, with the adoption in February 2005 of the Bali Strategic plan for Technology Support and Capacity-building, part of the initial effort of the Division to develop a capacity-building strategy has to some extent been superseded. In addition, some staff members claim that the view of the Division's initial capacity-building strategy, which primarily focuses on integrated environmental assessments, was far too narrow in its perspective and that many more of the Division's activities are, in fact, related to capacity-building. The Bali plan provides UNEP with the mandate to undertake capacity-building activities at the national level and reinforces its role in developing national research monitoring and assessment capacity.

162. The Division's capacity-building strategy has been updated in the light of these recent developments. In addition, a special capacity-building unit has been created as part of the Division's revised structure. Organization-wide, a process which was initiated to develop an implementation plan for the Bali Strategic Plan has since been completed and the relevant elements of the Bali strategic plan implementation are, according to the Division, now fully incorporated into the Division work programme.

(b) Partnerships

163. Partnerships form the basis for the work of the Division in assisting UNEP to fulfil its mandate to keep the world environment situation under review and place environmental data and information in the public domain for management and policy-relevant decision making. In performing its assessment and reporting function, the Division collaborates widely with external partners, including United Nations offices, programmes and agencies such as the Department of Economic and Social Affairs, UNDP, UN-Habitat, , FAO, UNESCO, WHO, the World Bank and WMO, among others; regional and subregional intergovernmental agencies, information and space programmes such as the National Oceanographic and Atmospheric Administration, the National Aeronautics and Space Administration, the Global Change Research Program and the European Space Agency, regional development banks, GEO collaborating centres and member institutions of the Consultative Group on International Agricultural Research. Others include non-governmental organizations such as IUCN, the World Resources Institute, WWF, the Asian Freshwater Institute and others; national Governments, assessment and monitoring agencies and a host of environmental institutions worldwide. The Division's collaborative activities with the private sector are not very strong. Besides a few organizations, such as the Economic and Social Research Institute and the private sector links forged by WCMC, there is little collaboration with the private sector. Some have argued that the Division's limited interaction with the private sector is a result of the fact that the GEO report is of little practical relevance to business and industry because it (a) fails to trace its environmental impact back to the economic activities that

[c] Capacity-building for Sustainable Development: an overview of environmental capacity development activities, UNEP 2002.

generated them; and lacks national level resolution. Among the Division's key partnerships in the area of assessment is its work with WCMC.

(i) World Conservation Monitoring Centre

164. WCMC is one of the Division's key partnerships for providing information for policy and action for conserving species, forests, protected areas, mountain ecosystems, freshwater and marine ecosystems and habitat affected by climate change, such as polar regions. Although the Division is not involved in all the activities implemented by WCMC, it has administrative responsibility for the partnership.

165. The species programme conducts analysis and provides information on plants and animals to support conservation and sustainable use. Among the key outputs produced and managed in this programme are the species database, including subsets of data created to meet specific use needs, the trade database of the Convention on International Trade in Endangered Species of Wild Flora and Fauna secretariat and a number of initiatives to support conventions, key among which are the Global Strategy for Plant Conservation and Global Taxonomy in support of the Convention on Biological Diversity, services to the Convention on the Conservation of Migratory Species of Wild Animals and a database of species listed under the European Union wildlife regulations.

166. In the area of forests, WCMC delivers a range of products to support its activities in the area of information and capacity-building at the regional, national and international levels for the protection, conservation and restoration of the world's forests. Among the fruits of this work are the World Atlas of Great Apes and their Conservation, guidelines for biodiversity assessment and monitoring for protected areas and maps added to archive databases for forest restoration. WCMC further collaborates with the World Commission on Protected Areas and IUCN to compile information on protected areas of the world for the production of comprehensive data sets and maps. Among the many products are the World Database on Protected Areas, the United Nations list of protected areas and publications listing World Heritage sites and transboundary protected areas of the Pacific islands.

167. In the area of marine and coastal environments, WCMC has developed and maintains a large information base in GIS format, especially on sensitive coastal ecosystems, coral reefs and mangroves of the world, and the World Atlas of Sea Grasses, to mention only a few.

168. In the area of freshwater, the centre has produced global assessments of areas of special importance for freshwater biodiversity, with the aim of aiding improved planning and management at the regional and global levels.

169. Other key activities include the Centre's work on habitats affected by climate change, such as polar regions, and work on the relationship between trade and the environment and the wider aspects of biodiversity assessment.

170. At the time of this evaluation, as a result of a report by the United Nations Office of Internal Oversight Services, which raised issues related to the governance structure and the legal agreements on which the partnership was founded, discussions were being conducted within UNEP and with WCMC with the aim of streamlining the relationship between the Centre and UNEP.

B. Early Warning Branch

1. Early Warning Section

171. Early warning involves the identification and assessment of emerging environmental threats that may negatively affect the long-term vulnerability of people, ecosystems and the services they provide. Some examples of early warning activities in the Division include environmental degradation, which increases the vulnerability of ecosystems; cumulative environmental threats such as pollutants which increase the vulnerability of ecosystems; long-term issues on which scientific evidence may be inadequate, but where assessments have identified possible environmental problems.

172. The Division has indicated[d] that it supports early warning activities in the areas of short-term major events, such as hurricanes, cyclones, tornadoes, climatic variations related to El Niño and droughts, as well as geographical processes such as earthquakes and tidal waves, and is directly involved in partnerships designed to ensure the more timely delivery of data and information on such natural hazards. However, the Division focuses primarily on identifying issues which take much longer to develop and might be better identified as "emerging environmental threats". A review of the evidence indicates that most of the substantive work in this area to date relates to participation in inter-agency

[d] Status of DEWA Early Warning Activities in Support of Disaster Management. Contribution to the Environment Disaster Management in UNEP Meeting, UNEP-DEPI, 18 May 2005, Gigiri.

early warning technical meetings, attendance at conferences on disaster reduction coordination, participation in planning meetings for the tsunami early warning system and technical assistance in the area of environmental data and information management. Some studies have been conducted on the buffering capacity of mangroves and coral reefs and the Section has participated in the plans and programme activities of the Global Observing System.

173. The Division participated in a partnership of 60 countries, the European Commission and 43 international organizations to develop the Global Earth Observation System of Systems (GEOSS). The system involves an assessment of the state of the earth, which is coordinated on a continuing basis at the national, regional and global levels. A review of the work programme of the Group on Earth Observations does not immediately reveal the Division's substantive role in the development of GEOSS.

174. In the area of collaboration within UNEP and with other United Nations agencies on early warning and disaster activities, the Division indicates that a task force exists within UNEP made up of DEWA, DEPI and DTIE. The task force participates within the framework of OCHA, for example, on the Tsunami Task Force on Early Warning and Mitigation Systems in the Indian Ocean, led by UNESCO.

175. In our judgment, the early warning activities of the Division have yet to be clearly defined and resourced. Only one staff member and one Junior Professional Officer support the early warning subprogramme element. The lines between environmental assessment and early warning activities are still blurred and the links between UNEP work in environmental emergencies and its overall work in early warning and environmental assessments need to be better conceptualized. UNEP has programmes in separate divisions (DEPI and DEWA) on post-conflict assessment and environmental emergencies, on the one hand, and early warning and assessments, on the other, and clear links have not been established between them. Support for emergency response to marine pollution is further nested in a separate division (previously dealt with by DEC, marine pollution is now handled by DEPI) without any linkage to the work in the other two divisions.

2. Data and Information Management Section

176. According to the draft strategic plan for the Division,[e] the Data and Information Management Section in the Early Warning Branch works towards three major outcomes. This involves ensuring that:

(a) Relevant and high quality data about the environment is available to support the monitoring, assessment and early warning activities of UNEP;

(b) Data and information used by DEWA are placed in the public domain. Data and information are considered a public good and the Division is committed to the free and open exchange of data;

(c) UNEP is recognized as an authoritative source of data and information on environmental change and environmental trends internationally.

177. The Division works towards these outcomes through a number of projects and programmes, examples of which include INFOTERRA, GRID, the GEO data portals and UNEP.Net:

(a) INFOTERRA

178. The Global Environmental Information Exchange Network (INFOTERRA) received its mandate at the 1972 Stockholm Conference on the Human Environment, which recommended the establishment of a mechanism for the exchange of environmental information and experiences among countries. In response to this recommendation, UNEP established the INFOTERRA network in 1974. The network operates through a system of government-designated national focal points, which at present number

179. An INFOTERRA national focal point is essentially a national environmental information centre usually located in the ministry or agency responsible for environmental protection. The primary function of each centre is to provide a national environmental information service.

180. The Division supported the national focal points by providing technical services and publishing reference tools such as the EnVoc Multilingual Thesaurus of Environmental Terms, the International Directory of Sources, training manuals, sourcebooks and promotional materials. A capacity-building programme assists focal points in developing countries.

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[e] "Keeping our changing Environment under Review", Strategic Plan, DEWA, Draft November 2004.

181. It has been argued that there has been no discernable development or any significant activity on the INFOTERRA website since 2000. As a result of evolutions in Internet technology, the network and its approaches to data collection need to be re-evaluated and the network, if still required, should be integrated into the existing data collection and management processes of the subprogramme.

(b) Global Resource Information Database

182. Established in 1984, GRID is a globally distributed system for the exchange and management of data and information concerning natural resources and the environment. The GRID system is a network comprising 11 cooperating centres around the globe. The aim is to provide and facilitate access to environmental data and information for decision-making and policy setting, and to provide the basis for a review by UNEP of the state of the world's environment and facilitate early warning of emerging environmental threats.

183. GRID-Geneva and GRID-Nairobi were the first centres to be launched in mid-1985. GRID-Nairobi, located at UNEP headquarters in Kenya, and GRID-Geneva are, for the most part, funded and staffed by UNEP. GRID-Nairobi is concerned with regional and subregional state-of-the-environment databases for Africa. It provides access to geo-spatial data, integrates the data through geographical referencing and defined functional linkages and provides environmental data useable by both national and international decision makers and scientists. In particular, GRID-Nairobi has facilitated the implementation of AEIN and the Africa GEO data portal.

184. To provide reliable environmental assessments, GRID-Geneva, which manages the GEO data portal, specializes in handling and analysing spatial and statistical data on environmental and natural resource issues through computerized GIS and remotely-sensed imagery. Over the years, GRID-Geneva has compiled an archive of global, European and other geo-spatial databases as part of its information management function. These data, which are typically in digital format, include maps, satellite imagery, statistical tables and reports.

185. In response to the new UNEP priorities for action as laid down in the Nairobi Declaration, GRID-Geneva has sharpened its focus to provide early warning on emerging environmental stresses and threats, to mobilize environmental information to backstop international action in crisis situations, and to provide value-added information products. GRID-Geneva also closely monitors developments in information technologies and examines their utility for environmental monitoring and policy formulation and creates client-specific databases and Internet websites.

186. GRID-Geneva is also responsible for coordinating the European programme of the UNEP Division of Early Warning and Assessment and serves as its main contact point with European (mostly Geneva-based) United Nations agencies and with various regional institutions such as the European Environment Agency and the European Commission's Joint Research Centre. In addition, the office also carries out capacity building activities and collaborates on specific projects with subregional organizations in the Commonwealth of Independent States and the Central and Eastern European and Mediterranean regions.

187. Two other GRID cooperating centres are managed by United Nations staff in Asia and the Pacific (GRID–Bangkok) and in North America (GRID-Sioux Falls). Another key GRID centre is GRID-Arendal. Its primary mission is to provide environmental information, communications and capacity-building services for information management and assessment. The centre focuses on making credible, science-based knowledge comprehensible to the public and to decision-makers to facilitate sustainable development.

188. Additional national centres were opened mainly in the 1990s, several of which no longer function. A draft policy on GRID centres prepared in 1995 raised some of the challenges that the GRID network system was facing:

> "One of the problems historically for GRID in achieving its full potential has been the lack of guidelines for establishment of new GRID centres. This has resulted in difficult coordination of the system and often less contribution towards UNEP's objectives than originally anticipated from some centres " [f]

189. Interviews with staff in the Division confirm these observations even today. Despite the fact that some of the GRID centres, notably GRID-Geneva, GRID-Arendal, GRID-Sioux Falls, GRID-Nairobi and GRID-Bangkok, are commended for their quality work and that there is recognition of the expertise that certain external GRID centres have on specific geographic areas (e.g., GRID-Christchurch expertise on Antarctica), there is uncertainty regarding the status, role and functionality of a number of the

[f] Draft policy on Grid Centres – Terms and Conditions for Existing and New Centres, p.3, 1995.

national centres. A staff member noted that clear terms of reference were never established for the centres and that "some appear to be no more than a sign on the door".

190. Another issue that was raised in the interviews relates to the technological evolution that has taken place since the establishment of the centres. The GRID centres were established within the context of environmental data scarcity and limited ability to access data, a situation which no longer obtains. Much of the software that was originally unique to the GRID system for developing computer graphics for image analysis and GIS is now widely available.

191. While there are concrete examples such as the GEO data-portal (GRID-Geneva) and the support that GRID-Nairobi provides to GEO for Africa, the role of the GRID network as a whole and how its work feeds into the assessment process and ultimately into the production of GEO remains unclear.

192. There is widespread recognition of this fact among all staff members in the Division and particularly in the Data and Information Management Section, and to address this issue, a technical review of the GRID network is taking place concurrently with this evaluation. It is expected that the outcome of this review will result in some strategic recommendations that will point the way forward for GRID in terms of its role and its functional relationship with the rest of the subprogramme and UNEP as a whole.

(c) GEO Data Portal

193. A GEO data portal was developed in 2000 to improve the empirical base of GEO and harmonize data used for analysis and illustrations. The portal started out by providing data sets covering the GEO-3 themes and advanced tools for charting and trends analysis and online queries. The development of the GEO data portal was then backed up by CD-ROM products such as the GEO-3 data compendium and the regional portal for Africa and Latin America and the Caribbean. Negotiations were held with various partner agencies to share their data through the GEO data portal. By 2004, collaboration with the United Nations Statistical Division, the World Glacier Monitoring Service, the secretariat of the Basel Convention on the Transboundary Movement of Hazardous Wastes and their Disposal, GEMS-Water and others had been strengthened through the GEO data portal, and major databases such as the River Basin Information Service and the GEMS-Water database had been made accessible over the Internet.

194. Currently the online database holds more than 450 variables that can be analysed and displayed as maps, graphs or tables. The datasets can also be downloaded in a variety of formats, supporting further analysis and processing by the user. The contents of the GEO data portal cover a broad range of environmental themes such as climate, disasters, forests and freshwater, as well as categories in the socio-economic domain including education, health, economy, population and environmental policies

195. Although primarily targeting the GEO user community (UNEP offices, GEO collaborating centres) extensive use of the portal is also made by other United Nations agencies, universities, schools, civil society and the general public. The data providers include many primary data-collection agencies within the United Nations system and other key partners, including the Statistics Division of the United Nations Secretariat, UNEP, FAO, UNESCO, WHO, the World bank and the Organisation for Economic Co-operation and Development. [g]

(d) UNEP.net

196. In late 2000, the Division launched a new initiative with the aim of developing a global facility that would harmonize existing and new networking initiatives at the global, regional and national levels and provide access to information via multiple pathways. UNEP.net was set up to provide a set of global environmental information portals on the Internet. It was designed to take advantage of cutting-edge information and communications technologies to provide a gateway to environmental information on the Internet. It would provide three interlinked services through a regional portal, a thematic portal and an information service that would deliver selected information covering all themes and regions, for example, environmental news or maps showing protected areas worldwide. The coordination goal was that within a given country institutional sources would act as one coherent national environmental network working with UNEP to implement UNEP.net at the national level.

197. The global facility never managed to establish the shared global clearinghouse as envisaged, however. Instead, it put the focus on maintaining regional UNEP.net portals, notably the European portal, operated by DEWA-Europe in conjunction with the main partner, the European Environment Agency.

198. Neither was the goal of achieving greater integration among disparate networks such as GEO, GRID, ENRIN and INFOTERRA achieved. In the proof of concept phase, there was heavy emphasis on

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[g] GEO-Data – An Introductory Users Guide, downloadable from the Portal.

technical development issues related to the integration and sharing of in-house information. Nevertheless, according to Division staff, a decision to implement a new and separate system was made, although a number of similar activities were being implemented in the Division (e.g., the environment directory). In 2002, after over $1.2 million had been spent on the initiative, UNEP.net was halted and an evaluation was undertaken by GRID-Arendal. The conclusion of the evaluation was:

> "..that the risks of continuing the development of UNEP.net are major. There is a high probability of ending up with a project that cannot be finished because of lack of funding, that there is no long-term sustainable solution for the operation and the maintenance, and that the user community and the potential stakeholders show continued little interest in the system."[h]

199. The above statement underpins the views of many of the persons interviewed by the evaluation team. For example, some mentioned that UNEP.net had been the idea of one man (the former Division Director) and that there had never been a clear idea of what UNEP.net was within the Division. Two broad and opposing views of UNEP.net can be discerned within the Division, namely, that it is a valid concept that was implemented wrongly, and that it is an outdated concept, given the current state of technology. A new version of UNEP.net, which was to be re-launched at the special session of the Governing Council held in Dubai in February 2006 has since been postponed. It remains unclear how the Division intends to support the continuing process of developing UNEP.net while its validity is being questioned.

200. As the examples above illustrate, the Division has over the years undertaken a number of important initiatives in order to place data in the public domain and reaffirm the role of UNEP as an authoritative source of environmental information and data. Some, such as the GEO data portal, have been successful, and others are facing challenges in terms of overall direction and relevance due to advances in technology.

201. One of the main concerns in the operations of the Data and Information Management Section is the lack of a permanent head of the Section. The reporting lines in the section are unclear. In addition, it would seem that the relative frequency with which changes are made in the directorship of the Division has led to various attempts to develop strategies for the Section, but that no proper follow-up has been done.

202. Another thorny issue related to the data and information subprogramme element deals with legacy programmes such as INFOTERRA, GRID and ENRIN. Common to most of these programmes is the fact that they were established through Governing Council decisions and can only be revoked, amended, or eliminated through Governing Council decisions. While there is agreement that something needs to be done to resolve these legacy issues, there is disagreement in the Division as to what to do.

203. For historical reasons and as a result of the skills available in the Division in data systems work, there has been a tendency to develop web pages for Division activities. The result is a proliferation of web pages that do not conform to the Web protocols designed for UNEP; this has become a matter of to UNEP and is an area that requires attention. Recent efforts to address the issue have been confirmed by the Division of Communication and Public Information.

204. At the time of this evaluation, the situation in the Data and Information Management section is one of fragmentation and it is unclear how the work of various staff members supports the early warning and assessment work of the Division. Recognition of the state of affairs in the Section has led to a decision to organize a Section retreat in August 2005 for the purpose of preparing a coherent strategy.

C. Monitoring and evaluation

205. Monitoring of the implementation of the Division's activities is conducted at both the project and subprogramme levels. Subprogramme monitoring is done every six months**,** consistent with the oversight requirements of the United Nations Secretariat and the Governing Council. For the most part, monitoring of the subprogramme activities over the three bienniums has been done at the output level without any attempt to monitor outcomes. Perhaps the structure of the work programme for the 2006-2007 biennium, in which indicators are developed at the results level, will facilitate monitoring of results rather than outputs and activities. By implementing its self-assessment work plan for the next biennium, the Division might be getting closer to determining the results of its work and ultimately its effectiveness on a continuing basis.

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[h] UNEP.net Review 2002, GRID Arendal.

206. Our review of the Division's self-evaluation reporting on projects indicates that, in addition to the 2000–2001 biennium, when self-evaluation reporting was very poor throughout the organization and, for that matter, in the Division, a substantial portion of the Division's activities have not been reported on through the self-evaluation mechanism. While 24 projects were listed in the Division in 2001 in the projects database, only between five and eight were reported on between 2002 and 2004. Annual self-evaluation reporting is a monitoring device to allow programme and project managers to reflect on the implementation of activities, results achieved and lessons learned from project design and implementation and needs to be used to inform future programme implementation.

207. While this is the only comprehensive review of the Division since the October 1997 review by the Evaluation and Oversight Unit, a surprisingly large number of evaluations of key components of the subprogramme have been conducted. Among the most important are reviews of GEO and its processes (2000), a SWOT analysis of GEO and its processes (2004), a GEO user profile and impact study (2004) and an ongoing technical review of the GRID network. Besides these key evaluations, a substantial number of project evaluations have been done by the Evaluation and Oversight Unit, in collaboration with the Division.

208. The Division seems to take the results of evaluation activities seriously and itself commissioned most of the studies mentioned above. Indeed, a number of key recommendations from those studies designed to improve the assessment processes and GEO have been implemented. To the extent that the recommendations of those studies inform the activities of the subprogramme, one would conclude that the Division is at the forefront in learning from the implementation of its activities through evaluation in the organization. However, besides the GEO user study (which we have noted is not technically a study to determine the impacts of GEO), no substantive studies have been conducted to determine whether the assessment products and services produced have, indeed, resulted in the intended changes and impacts.

Annex I

Terms of reference for the evaluation of subprogramme 1, Environmental assessment and early warning

1. Background

The Division of Early Warning and Assessment (DEWA) is responsible for the delivery of subprogramme 1. The Division was created under the UNEP Functional Structure of 1999 out of the old subprogramme 5 Global and Regional Servicing and Support, Programme Element 5.2 Environmental Assessment, Regional Networks and UNEPNet/Mercure. The new Division has continued activities in the areas of environmental assessment and reporting, systems and networks for data/information generation, analysis and observing and early warning; environmental science and research; and access to environmental information and public participation in decision-making.

Since 1999, the overall objective for subprogramme 1 has not changed substantially, with continued emphasis on informing decision-making processes and providing scientific knowledge and information for decision makers. The overall objective of the subprogramme as approved by the Governing Council in 2003 has been "to strengthen scientific knowledge and understanding at the international and national levels to support environmental management and decision-making that takes into account sustainable development" (UNEP/GC.22/6).

In its mission statement laid out in its new strategic plan "Keeping Our Changing Environment under Review" (revised draft –DC/30-11-04), the Division pledges

> "To monitor, analyse and report on the state of the global environment, assess global and regional environmental trends and provide early warning of emerging environmental threats".

The new strategic plan, which is expected to be finalized in 2005, directs strategic action in the targeted areas of (a) Scientific assessment and reporting; (b) Early warning, monitoring and data management; and as cross-cutting (c) capacity-building.

The Division has two branches, namely, Environmental Scientific Assessment and Early Warning, and also comprises six regional coordinators and networking offices located in the UNEP regions. The Environmental Scientific Assessment Branch is responsible for strengthening the scientific base of UNEP; the comprehensive and global thematic components of the Global Environment Outlook (GEO), international thematic assessments, monitoring and classification systems (MA, GIWA, LADA, IAASTD, GLCN and GEMS); partnerships; capacity-building; and outreach and communications. The Early Warning Branch deals with data and emerging environmental issues, links to natural disasters, environment and conflict and global observing systems.

1.1. Legislative mandate

The current programme of the Division responds to the programme of work for 2004-2005. It refers to the following document, General Assembly resolutions and Governing Council decisions: A/55/6 (Sect. 12) and Corr. 1, General Assembl resolutions 2997 (XXVII), 32/197, 47/191, S-19/2, 53/242, 55/2, 55/199, 55/200, 56/12, 56/12, 56/50, 56/95 and 56/193 and Governing Council decisions 20/1, SS./2, SS.I/1, SS.II/1, SS.VII/2, SS.II/4 and SS.II/7.

The subprogramme also responds to the Plan of Implementation of the World Summit on Sustainable Development:[a]

Paras. 7(1), 28, 29, 36, 37, 38(g) and (h), 41(d) and (e), 65(a), 66(c), 101, 108, 109(b), and (c) and 110(a) and (b).

1.2. Objective and scope of the evaluation

The objective of this evaluation is to determine accomplishments and achievements of the Division of Early Warning and Assessment.

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a. *Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002* (United Nations publication, Sales No. E.03.II.A.1 and corrigendum), chap. I, resolution 2, annex.

The evaluation will examine the success of delivery of programme results in the main areas of work, which are environmental assessment and early warning, networking and data management.

The evaluation will look at strengths and weaknesses in building capacity for conducting, facilitating and supporting development of integrated environmental assessments.

The evaluation will examine collaboration between the Division of Early Warning and Assessment and the UNEP divisions DEPI, DEC, DTIE, DPDL, DRC and regional offices, DCPI and DGEF, and collaboration with other United Nations bodies, intergovernmental organizations, international regional and national non-governmental organizations, scientific and environmental centres, private sector organizations, networks and groups.

The evaluation will also access the effects from the restructuring of the Organization in 1999 on activities implemented by the Division of Early Warning and Assessment.

The scope of the evaluation covers the period from 2000 to mid-2005. The UNEP programmes of work for 2000-2001, 2002-2003 and 2004-2005 are the main reference documents for the evaluation. The new programme of work for 2006-2007 will be consulted during the evaluation.

Performance indicators and indicators of achievement specified in the relevant programme of work and general evaluation parameters of appropriateness, effectiveness and efficiency, impact and sustainability will be used to measure achievements.

1.3. Methodology

Findings of the evaluation will be based on the following:

(a) Desk review of relevant costed work plans, project documents, financial and monitoring reports, six- monthly programme and project progress reports, manuals, guidelines, self-evaluation reports, web sites and publications;

(b) Interviews with Division staff located at headquarters and outposted staff;(c) Interviews with relevant UNEP staff;

(c) Interviews with target stakeholders and partners;

(d) Interviews with selected UNEP permanent representatives;

(e) Interviews with direct beneficiaries may be considered;

(f) Stakeholder questionnaire(s) may be used as deemed necessary.

2. Terms of reference

A. Relevance and appropriateness of programme objective(s) and strategy

- Establish how the activities undertaken by the Division contribute to the attainment of the subprogramme's overall objective, UNEP mandate, and the World Summit on Social Development's Plan of Implementation and the Millennium Development Goals

- Evaluate how, and to what extent the expected accomplishments and programme strategy elements of the subprogramme are met, taking into account indicators of achievements and planned outputs

- Determine the complementarity of the expected accomplishments and programme strategy elements to other relevant programme objectives, such as those of partnership agreements;a

B. Overall programme performance

- Assess assumptions and risks under which the subprogramme is delivering its outputs and how these risks are managed

- Assess the relative importance attributed by the Division to each of its branches and eleven elements of its programme strategy within its focal areas

- Identify impacts and/or accomplishments, intended and unintended, generated/to be generated by the subprogramme, and assess the significance of such impacts/accomplishments

C. Effectiveness and efficiency

- Assess the effectiveness and cost-effectiveness of the activities related to the delivery of the programme strategy in:

- Promoting international cooperation among Governments, the scientific community and relevant United Nations organizations with regard to environmental assessment and monitoring activities
- Supporting and conducting global integrated environmental assessments (Global Environment Outlook reports) and other global, regional and subregional assessments
- Producing targeted environment assessments on priority issues to provide early warning on critical environmental issues
- Producing and disseminating environmental materials and tools in cooperation with partner institutions to support assessment and reporting activities
- Facilitating and strengthening capacities and capabilities for environment assessment, reporting and information systems at national level
- Facilitating and supporting management and access to environmental knowledge and information by maintaining information networks
- Supporting the development of appropriate global environmental monitoring and information systems through cooperation with global observing systems and research programmesb

- Evaluate the timeliness, usefulness, quality and scientific credibility of the reports, publications, training manuals, and Internet resources produced, workshops and activity initiatives, and identify areas that may require improvement in order to maximize their benefits
- Identify administrative, operational and/or technical problems and constraints that have influenced the effective implementation of programme activities

D. Cooperation

- Assess the effectiveness of tools and internal mechanisms established for sharing of information and creating synergy within the Division
- Assess the extent to which the programme has engaged and collaborated with other UNEP divisions in the focal areas, in particular in facilitating policy development and improvement by informing decision-making processes
- Examine the level and benefits of involvement of target stakeholder groups and external partners in the Division's activities
- Assess the extent to which the programme has been able to take up opportunities for joint activities and pooling of resources with other networks, organizations and institutions

E. Sustainability

- Assess the extent to which the programme has been able to mobilize resources for its activities and how the use of such funds has been prioritized within the existing programme of the Division
- Assess the extent to which assessments conducted and information systems established are sustainable at global, regional and national levels, taking into consideration the ownership created of such products and networks

F. Lessons learned

- Identify lessons learned from the implementation of the programme and suggest ways in which these lessons can be used to improve the implementation of the Division's activities and improve delivery of the UNEP mandate

G. Recommendations

- Identify strengths and weaknesses in the Division's implementation of activities and make recommendations, which will assist UNEP to better articulate the functions of the Division, as well as enhance the Division's capacity to deliver its mandate.

3. Evaluation reporting format

The evaluation report shall be a detailed report, written in English and composed of: (a) a concise summary, not exceeding five pages, including findings and recommendations; (b) a detailed evaluation report; (c) a separate section on lessons learned; (d) a separate section on findings and recommendations; and (e) annexes, all of which should be typed. The detailed evaluation report without annexes should not exceed 35 pages.

4. Outputs of the evaluation

The final report shall be written in English and printed in hard copy.

5. Resources for and schedule of the evaluation

Under the overall guidance of the Chief, Evaluation and Oversight Unit (EOU), and in close cooperation with the Director of the Division of Early Warning and Assessment, the evaluation team shall undertake a subprogramme evaluation of the Division during the three-month period from May 2005 to July 2005. There is no travel involved for this evaluation.

The draft evaluation report will be discussed with the Director of the Division before it is submitted for comments to other UNEP divisions and offices. The Unit will present a draft of the evaluation report in English by June 2005 to the Director of the Division. The Director will provide written comments on the draft report to the Unit by mid-July 2005. The evaluators will present a final version of the evaluation report by end of July 2005.

9 May 2005

Annex II

Interview guide for staff members of the Scientific Assessment Branch

Capacity-building

1. What would you consider DEWA's niche in capacity building?
2. Could you explain what actions have been taken to implement DEWA's capacity building strategy which was developed in 2002?
3. One of the activities in the capacity building strategy was to develop an early warning advisory group (UNEP, UNDP, GEF, and other institutions) has this been done?
    a. If yes, is it still functional?
4. From the strategy it seems that capacity needs assessments in the regions should have been conducted. Has this been done?
5. How have you used the capacity needs assessments in implementing your capacity building strategy?
6. In what ways has the adoption of the Bali plan affected the Division's work on capacity building?
7. How are capacity building activities at the national level focusing on dissemination of environmental information connected with other capacity building activities of the Division**?**

The GEO process

Scientific reliability

1. To what extent have the challenges of producing scientifically credible data for the GEO Assessment been addressed?
2. The 2000 evaluation of the GEO recommended among other things:
    (a) Improving adequate infrastructure for data collection;
    (b) Defining core data to be collected across collaborating centres at the national, subregional and regional levels;
    (c) Defining a common methodology for data collection.
3. Have these activities been implemented?
4. How have the quality control processes for data collection and analysis improved since GEO III?
5. In what way has the peer review and the selection processes for contributors improved since the publication of GEO III?
6. Have GEO Collaborating Centres been established in Australia and New Zealand as recommended and are they functional?
7. Have core indicators for data collection been developed for the preparation of GEO IV?

Capacity-building

1. One of the findings in the SWOT analysis of the GEO was that the training provided to CC did not adequately address their needs. What has been done to rectify this?
2. To what extent have the Collaborating Centres in developed countries been successfully used in strengthening the capacities of the Collaborating Centres in the developing regions?
3. What kind of action has been initiated to promote stronger interaction between the network of Collaborating Centres to ensure a sustainable institutional capacity within the network?
4. Have the training activities for data collection and analysis covered all data collection entities in the GEO network? What are the current deficiencies?

5. To what extent has the GEO Unit within DEWA been strengthened to provide the support required by the Collaborating Centres and other stakeholders?

Communication

1. Following the muted response of the GEO launching in Nairobi, the 2000 evaluation recommended a review of the strategy for the GEO launches. What is the current strategy to get the most publicity for the GEO?
2. To what extent are the Collaborating Centres involved in the dissemination of the GEO and its by-products? Are you satisfied with the level of dissemination taking place?
3. What is the current thinking on the frequency of the publication of the GEO?

Other

1. A GC 22 decision called for strengthening freshwater component of the water policy and strategy with respect to *inter alia* regional and global assessments of water. Has any action been taken to address this decision?

Annex III

Interview guide for staff members of the Early Warning Branch

Early warning

1. Could you describe the early warning activities of this branch?
2. How do these activities relate to the integrated environment assessment process?
3. A Governing Council decision related to early warning requested collaboration with OCHA (Joint Cooperation Unit) since 1999. What has DEWA done in this area?
4. notherdecision called for a need to develop appropriate linkages between the work of UNEP on environmental emergencies and its overall work on environmental assessment and early warning? Could you explain what actions have been taken to ensure this?
5. Could you describe the actions taken to follow up on GC 21 request to:
   (a) Support the establishment of a Joint International Maritime Organization/UNEP Forum on emergency response to marine pollution?
   (b) Continue the involvement in the Coastal Global Ocean Observing System?
   (c) Continue the UNEP/FAO initiative on ecosystem based management of fisheries and
   (d) Work with the Marine Environmental Studies laboratory?
6. What is the difference between the "Environment Watch system" and "Earth Watch Framework"?

Data and Information Management Section

1. Could you describe the functions of the Data and Information Management Section?
2. Could you explain how the work of your Section is prioritized?
3. Could you explain how your work feeds into work conducted in the GEO Section and the Capacity-building and Partnership Section?
4. Could you explain what role the GRID centres play with respect to this Section's work?
5. Could you clarify the status of the UNEP.net and explain the role DEWA/Europe is taking as the only active DEWA office working on this?
6. Could you explain the problems experienced and the rationale behind the refocusing of the UNEP.net project?
7. Could you explain the status of the Virtual University Masters Course developed by UNU and GRID-Arendal and the status of fund-aising activities for this project?
8. Could you describe how the "right" to publish and disseminate information is handled through 1) system of partners and 2) inter-agency channels of UNEP products and non-UNEP products?
9. In your opinion, to what extent are the existing tools and mechanisms adequately measuring the availability and accessibility of data and information (of GEO related products and non-GEO products) and are they having the desired impact?
10. Could you describe the peer review procedures in place in the Division for publication of products produced in Nairobi and products produced by centres and partners outside of Nairobi?

Annex IV

Interview Guide for the Office of the Director

Relevance

1. Are the original objectives for DEWA still relevant to UNEP's mandate, WSSD, MDGs? In your opinion is there a common vision within the organization of what DEWA can and should be?

Appropriateness of organizational arrangements

1. How has the functional structure enhanced or limited your ability to conduct environmental assessment and early warning?
2. How would you characterize the strategic direction in DEWA as laid out in the current strategy?
3. In your opinion, what are the reasons for the continuous change of management in the DEWA?
4. Would you say senior management provides adequate policy direction?
5. A strategy that guides DEWA has recently been developed. Did it replace any other strategies or policies?
6. In your opinion, are the roles and responsibilities of each unit/section clear?

Programme performance

1. How are assessments undertaken by the division selected and prioritized?
2. What are the challenges for DEWA in delivering its subprogramme?
3. How are these risks managed?

Intra-divisional collaboration

1. Could you explain how synergies are created internally among the units/sections of the Division?
2. Are there any areas in which you have been particularly successful in creating synergies?
3. Are there any areas where more could be done?

Interdivisional collaboration

1. Could you describe the different ways that DEWA works with the Divisions at headquarters and DTIE to ensure that the assessment and early warning work feeds into policy making and projects on the ground?
2. In your opinion, what are the challenges in ensuring increased interdivisional collaboration?
3. How are the arrangements with out posted officers to the regions functioning?
4. What is your assessment of the level of interdivisional collaboration currently taking place for the preparation of the GEO IV?

Collaboration with partners

1. Does DEWA have a strategy for promoting international cooperation among Governments, the scientific community and relevant United Nations organizations with regard to environmental assessment and monitoring activities?
2. What kinds of arrangements are in place for the selection of partners, be it within the UN System or externally (e.g. with NGO, Universities etc.)?
3. What is the Division's approach to the use of private sector partners?
4. In your opinion what role does DEWA play as an effective link between the scientific community and policy makers?
5. Could you provide some examples where DEWA has been able to take up opportunities for joint activities and pooling of resources with other networks, organizations and institutions?

Budget of the Division of Early Warning and Assessment

1. Our analysis has shown that the total expenditures over the three bienniums since 2000 have been well below the DEWA budget in the Work Program in the order of 46% in 2000-2001, 71% in 2002-2003 and 61% in 2004-2005 (as of May 2005). What accounts for these relatively large under-expenditures especially from 2000-2003?
2. Performance reports for 2000-2001 and 2002-2003 show that, for the most part, the Division had implemented planned activities. Where were resources derived from to implement those activities?
3. Our data shows that you seem to be quite successful in mobilizing counterpart contributions. How has this affected your internal capacity in DEWA?
4. To what extent does DEWA benefit from Partnership Agreements with bilateral donors?
5. What is your assessment of the Partnership Agreements with bilateral donors?

Administrative and financial arrangements

1. What is your assessment of the financial and administrative arrangements between UNON and your office?

Other

1. Are there any areas where you would like DEWA to play a more important role in the future within UNEP?

Annex V

List of interviewees

1. Marion Cheatle, Acting Director, Division of Early Warning and Assessment
2. Ivar Baste, Chief, Assessment Branch
3. Noberto Fernandez, Senior Programme Officer, Early Warning Section
4. Timo Maukonen, Senior Programme Officer
5. Anna Stabrawa, Programme Officer
6. Gerry Cunningham, Programme Officer
7. Munyaradzie Chenje, Regional Coordinator
8. Kakuko Nagatani Yoshida, Acting Regional Coordinator
9. Asbindu Singh, Regional Coordinator
10. Kaveh Zahedi, Acting Director, UNEP World Conservation Monitoring Centre
11. Sean Kahn, Programme Officer
12. Johannes Akiwumi, Acting Head, Data and Information Section
13. Ron Witt, DEWA Regional Coordinator-Europe and Manager, GRID-Europe
14. Dan Claasen, former Deputy/Acting Director
15. Consultant, GRID
16. Collaborating centres (3): Abdel-Rehim Ahmad - CEDRE, Egypt; Jane Barr - Commission for Environmental Cooperation (CEC); David Stanners- European Environment Agency
17. Tim Kasten, Chief, Natural Resources Branch, Division of Environmental Policy Implementation
18. Ahmed Djoghlaf, Director, Division of Global Environment Facility Coordination
19. Eric Falt, Director, Division of Communications and Public Information
20. Halifa Drammeh, Deputy Director, Division of Policy Development and Law
21. Cristina Boelcke, Director, Division of Regional Cooperation
22. Monique Barbut, Director, Division of Technology, Industry and Economics
23. Bakary Kante, Director, Division of Environmental Conventions
24. Theodor Kapiga, Chief, Programme Coordination and Management Unit
25. Ananda Diaz, Programme Officer, Programme Coordination and Management Unit
26. Bruce Noronha, Programme Officer, Programme Coordination and Management Unit
27. Christian Marx, Programme Officer, Programme Coordination and Management Unit
28. Yunae Yi, Programme Officer, Programme Coordination and Management Unit
29. Niklas Hagelberg, Junior Programme Officer, Programme Coordination and Management Unit

Annex VI

List of documents reviewed

1. Programme of work for 2000–2001, Subprogramme 1: Environmental assessment and early warning. United Nations Environment Programme.
2. Programme of work for 2002–2003, Subprogramme 1: Environmental assessment and early warning. United Nations Environment Programme.
3. Programme of work for 2004–2005, Revision, Early warning and assessment. United Nations Environment Programme.
4. Programme performance report. Subprogramme 1: Environmental assessment and early warning. 2000–2001.
5. Programme performance report. Subprogramme 1: Environmental assessment and early warning 2002–2003.
6. Programme performance report. Subprogramme 1: Environmental assessment and early warning 2004–2005.
7. Costed work plan for 2000–2001, Revision, Environmental assessment and early warning. United Nations Environment Programme.
8. Costed work plan 2002–2003, Summary, Division of Early Warning and Assessment (DEWA).
9. Costed work plan 2004–2005. Division of Early Warning and Assessment (DEWA).
10. Programme performance report of the United Nations for the biennium 2002–2003. (A/59/69)
11. Governing Council of the United Nations Environment Programme. Governing Council decisions (GC.18).
12. Governing Council of the United Nations Environment Programme, (UNEP/GC.20/22).
13. Governing Council of the United Nations Environment Programme. Governing Council decisions (GC. 22)
14. Governing Council of the United Nations Environment Programme (UNEP/GC.23/6/Add.1)
15. Office of Internal Oversight Services, Audit No. AA2002/05/05/01: Audit of the UNEP Division of Early Warning and Assessment. September 2003.
16. Capacity-building for sustainable development: an overview of UNEP environmental capacity development activities, December 2002.
17. UNEP strategy for capacity-building for environmental assessment and early warning, 2002-2005, draft, November 2002.
18. Bali Strategic Plan for Technology Support and Capacity-building. Governing Council of the United Nations Environment Programme. Nairobi, 14-15 January 2004. (UNEP/GC.23/6/Add.1)
19. Bali Strategic Plan for Technology Support and Capacity-Building: Implementation. Draft. July 2005
20. Keeping our changing environment under review. Strategic plan 2005–2007. Early Warning and Assessment. United Nations Environment Programme.
21. The Bali Strategic Plan for Technology Support and Capacity-Building: A roadmap for DEWA Implementation, Draft. April 2005
22. Vision and mission. UNEP-WCMC Strategic Plan, 2003/2004.
23. DEWA's New Way Forward. Building on Achievements, Products and Services 2000–2001. Version 1.1.
24. Earthwatch: Environment Assessment. Policy on GRID Centres. Terms and conditions for Existing and New Centres. Draft. May 1995.
25. Environment Assessment and Early Warning Strategy for 2003–2004. Regional Resource Centre for Asia and the Pacific.

26. Implementation of the Yokohama Strategy and Plan of Action for a Safer World: The United Nations Environment Programme Activities in Managing Environmental Emergencies. World Conference on Disaster Reduction (WCDR). Kobe, Hyoga, Japan. 18–22 January 2004.

27. Synthesis of Responses on Strengthening the Scientific Base of the United Nations Environment Programme. Intergovernmental Consultation on Strengthening the Scientific Base of the United Nations Environment Programme. Jeju, Republic of Korea, 29–31 March 2004. UNEP/GCS. VIII/5/Add.3.

28. Strengthening the Scientific Base of the United Nations Environment Programme. Nairobi, 14–15 January 2003.

29. Report of the Scientific and Technical Meeting on Strengthening the Scientific Base of the United Nations Environment Programme, Nairobi, 12–13 January 2004 (UNEP/SI/STM/1).

30. Global Resource Information Database (GRID). Terms of reference to review current capabilities of GRID. August 2005.

31. Statement by the Global Intergovernmental and Multi-stakeholder Consultation on the Fourth Environment Outlook, Nairobi 19–20 February 2005. (UNEP/GC.23/CRP.T)

32. Implementation Plan: Internet based information System for Discovering and Accessing Scientific and Technical Data and Information (UNEP.net).

33. Status of DEWA Early Warning Activities in Support of Disaster Management. Contribution to the Environment Disaster Management in UNEP Meeting, UNEP-DEPI, 18 May 2005, Gigiri.

34. 2002 Review of UNEP.net. November 2003

35. SWOT Analysis and Evaluation of the GEO-3 Process from the Perspective of GEO Collaborating Centres.

36. GEO Data. An Introductory Users' Guide.

37. Global Environment Outlook 3. Past, Present and Future Perspectives. February 2002.

38. GEO Year Book 2003. United Nations Environment Programme.

39. Global Environment Outlook. User Profile and Impact Study (UNEP/DEWA/RS-04-1), 2004.

40. Current Status of the Science Initiative. February 2005.

41. UNEP. Evaluation of Environmental Assessment. December 1994, PDEU/CPAS

42. UNEP. Evaluation of the Environmental Assessment Subprogramme, EOU, October 1997.

43. UNEP. Evaluation Report of Global Environment Outlook – 1 and -2 Processes.

44. UNEP. GEO Latin America and the Caribbean Environment Outlook, 2000.

45. UNEP/USGS. Selected Satellite Images of our Changing Environment.

46. UNEP/USGS. One Planet, Many People. Atlas of our Changing Environment, 2005.

47. UNEP, 2003. Changes in the State of Conservation of Mt. Kenya Forests 1999–2002. Interim Report.

48. UNEP, 2003. African Environment Outlook Case Studies. Human Vulnerability due to Environment Change in Africa. Executive Summary.

Annex VII

Division of Early Warning and Assessment strategies

Strategy	Status
1. DEWA's New Way Forward: Building on Achievements, Products and Services, 2000–2001	Will be replaced by Keeping Our Changing Environment Under Review – Strategic Plan 2005–2007.
2. Keeping our Changing Environment Under Review – Strategic Plan 2005–2007	Currently being finalized
3. Policy on grid centres – terms and conditions for existing and new centres 1995	Review of GRID currently being undertaken
4. DEWA Capacity-building strategy 2002	Currently being updated in the light of the Bali Strategic Plan
5. Bali Strategic Plan for Technology Support and Capacity-building	Implementation Plan currently being developed
6. Early warning strategy	Currently under development
7. Data and information management strategy	Currently under development
8. UNEP.net Strategy	To be presented at Governing Council special session in Dubai, February 2006 (postponed)
9. WCMC strategic plan 2003/2004	Status unknown (Governance structure and relationship to UNEP currently under discussion and negotiation).
10. Environment assessments and early warning strategy 2003/2004, Regional Resource Centre for Asia and the Pacific	Status unknown