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**Intergovernmental Review Meeting on the
Implementation of the Global Programme of Action
for the Protection of the Marine Environment
from Land-based Activities**

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Item 5 of the provisional agenda*

**Review of implementation of the Global Programme of Action for the
Protection of the Marine Environment from Land-based Activities at
the international, regional and national levels**

**Progress in implementing the Global Programme of Action for
the Protection of the Marine Environment from Land-based
Activities at the national, regional and international levels over
the period 2007–2011**

Note by the secretariat

Introduction

1. The Global Programme of Action for the Protection of the Marine Environment from Land-based Activities was adopted by 108 Governments and the European Commission in an intergovernmental conference held in Washington, D.C., in November 1995. The Programme represents a clear commitment by national Governments, international and regional organizations and programmes, non-governmental organizations and major groups to protecting and preserving the marine environment from the adverse impact of land-based activities. The Programme calls for comprehensive, continuing and adaptive action and provides recommendations and criteria for their development at various levels, with a focus on action by Governments. It provides a comprehensive yet flexible framework to assist countries in fulfilling their duty, in accordance with international law, to preserve and protect the marine environment from sewage, physical alterations and the destruction of habitats, nutrients, sediment mobilization, persistent organic pollutants, oils, litter, heavy metals and radioactive substances. Pursuant to paragraph 36 of the Programme, there have been two intergovernmental reviews of progress in implementing the Programme: the first in Montreal, Canada, in 2001 and the second in Beijing in 2006.

2. The present report provides an overview of the implementation of the Programme by countries since 2006 and gives details of the assistance provided by the United Nations Environment Programme (UNEP) in its role as the secretariat of the Programme through the UNEP/Global

* UNEP/GPA/IGR.3/1.

Programme of Action Coordination Office and other actors. As secretariat, UNEP is tasked with facilitating and promoting the implementation of the Programme through international, regional and national action.

3. In Beijing, Governments agreed that, over the period 2007–2011, the focus would be on mainstreaming the implementation of the Programme within national development planning and budgetary mechanisms. They indicated that mainstreaming would require the integration of the Programme across sectors and ministries and into domestic and international aid budgets, development plans, strategies and actions. Furthermore, through the Beijing Declaration on Furthering the Implementation of the Global Programme of Action, they agreed that, to help focus the implementation of the Programme more effectively over the same period, they should devote additional effort, finance and support to address point and non-point source nutrients, including municipal, industrial and agricultural wastewater, as major and increasing source categories directly affecting human health, well-being and the environment, including marine ecosystems and their associated watersheds.

4. In line with this approach, Governments also agreed that over the period 2007–2011 the Coordination Office should facilitate the implementation and mainstreaming of the Programme at the national level so as to assist countries in assessing how the conservation of marine and coastal ecosystems contributed to poverty alleviation and the achievement of internationally agreed development goals and to support them in mainstreaming the sustainable development of oceans, coasts and islands into national planning and budgetary mechanisms. Lastly, they agreed that there should be a focus on and strengthening of the UNEP regional seas conventions and programmes to implement the Global Programme of Action, and they called upon the Global Environment Facility (GEF) to continue to support and drive the implementation of the Programme by supporting projects.

5. Several important considerations should be kept in mind with regard to the present report. First, the primary responsibility for implementing the Programme lies with Governments. Second, the Programme remains a valuable and flexible tool for the achievement of the various goals and targets set by the international community that relate to coastal and marine environment and their associated watersheds. Accordingly, Governments and stakeholders are able to implement the Programme in various ways and under different initiatives. For example, action on persistent organic pollutants, a major source category under the Programme, has been taken under the Stockholm Convention on Persistent Organic Pollutants. Similarly, countries now adopt analogous approaches to the Programme, such as integrated coastal zone management and/or integrated water resources management plans. For these reasons, it is not possible systematically to capture in a brief report the full extent of how countries are moving forward with the implementation of activities related to the Programme. The present report is therefore simply a summary and an overview, although additional information on national action has been provided in document UNEP/GPA/IGR3/INF/5.

6. The specific role of the Coordination Office in assisting countries in implementing the Programme is described herein. Particular stress is laid on activities where the Office has supported action by Governments. It is important to note, however, that the Office delivered the results as stated herein with only the resources allocated to the programme of work approved in 2006, as no additional moneys were forthcoming. It should also be noted that, during the reporting period, the Office had only four Professional staff members and one General Service staff member, whose salaries were paid from the Environment Fund. UNEP also mobilized extrabudgetary resources to support the implementation of activities.

I. Key achievements

7. The progress outlined herein demonstrates the political determination of Governments to undertake tangible action to tackle the underlying causes of marine degradation resulting from land-based activities. Many Governments have integrated the Programme across sectors and ministries and in national budgets, development plans and strategies. The annex to the present report gives an overview of the implementation of the Programme by Governments over the period 2007–2011. The strategic direction set in Beijing on the implementation of the Programme through the reinforcement of the UNEP Regional Seas Programme and the development of strategic partnerships with GEF, the GEF-supported international waters focal area and the various regional seas conventions and action plans have all been instrumental in bringing about these results. The above notwithstanding, much remains to be done to protect the marine environment from land-based activities.

A. National implementation of the Global Programme of Action

1. National programmes of action

8. A national programme of action is the policy framework envisaged in the Global Programme of Action to facilitate the implementation and mainstreaming of the Programme at the national level. Based on information received from Governments, some 72 countries have established framework national programmes of action since the inception of the Programme. Since 2006, 15 countries have begun to develop national programmes of action, 8 have revised their national programmes of action and many have successfully integrated coastal and marine environmental management and pollution reduction measures into national sustainable development plans or strategies and budgetary mechanisms. In addition, 17 countries have reported having comparable policies enabling them to address land-based sources of marine pollution consistent with the Programme. Details on the status of national programmes of action are provided in document UNEP/GPA/IGR3/INF/5.

9. Some countries have been implementing their framework national programmes of action since 2006 through policy measures and pilot projects that tackle priority issues. These pilot projects aim to demonstrate sustainable management approaches and test new technologies, such as the use of constructed wetlands for wastewater management, the stimulation of multiagency cooperation and the development of partnerships between State and non-State actors to address land-based sources of coastal and marine pollution. Partnerships with non-State actors (non-governmental organizations and private-sector institutions) contribute significantly to the development of new institutional arrangements for coastal resources management and to addressing land-based sources of marine pollution through the application of appropriate technology and management systems suited to local circumstances. These pilot projects and policy measures also contributed to the implementation of the Bali Strategic Plan for Technology Support and Capacity-building¹ and fostered South-South cooperation. GEF and other development partners have offered technical and financial assistance to many of the projects through the Coordination Office, while significant resources have been provided by participating government institutions and other national partners.

2. Mainstreaming of coastal and marine issues into national development plans and budgetary mechanisms

10. Pursuant to decisions taken in Beijing, the Coordination Office, in partnership with the Stockholm Environment Institute, produced a guidance document entitled "Making Mainstreaming Work: An Analytical Framework, Guidelines and Checklist for the Mainstreaming of Marine and Coastal Issues into National Planning and Budgetary Processes". Following the finalization of the document, the Coordination Office organized regional training workshops, in partnership with Governments, the Regional Seas Programme and other organizations, to familiarize national Governments and key stakeholders with the concept of mainstreaming and the key steps in introducing mainstream coastal and marine issues into national planning and budgetary processes, leading to integrated planning.

11. These workshops took place in Asia in November 2007, Eastern Africa in May 2008, the Caribbean in July 2008 and the South Pacific in September 2009. They were attended by senior officials of the ministries of environment and of other ministries such as planning, finance, public utilities, tourism, water resources and fisheries, all of which have a significant stake in the maintenance and improvement of the environmental quality and ecosystem functions of estuarine, near-shore and ocean waters. They afforded policymakers the opportunity to recognize the contribution made by coastal and marine resources to national gross domestic product and the livelihoods of coastal populations.

12. The regional workshop for Asia, held in Chennai, India, was organized in collaboration with the Ministry of Environment and Forests of India and the Institute for Ocean Management of Anna

¹ The Bali Strategic Plan for Technology Support and Capacity-building, adopted by the UNEP Governing Council/Global Ministerial Environment Forum at its twenty-third session, constitutes an agreed approach to strengthening the capacity of developing countries and countries with economies in transition at all levels and provides systematic, targeted, long-term and short-term measures for technology support and capacity-building. In particular, the Plan seeks to improve the coordination of disparate efforts to strengthen capacity by various multilateral and bilateral institutions. It does so by providing a framework for strengthening cooperation between UNEP, multilateral environmental agreements and other bodies engaged in environmental capacity-building, including the United Nations Development Programme, the Global Environment Facility, civil society and other relevant stakeholders.

University. The representatives of the ministries of environment, finance and planning of Bangladesh, India, Indonesia, the Philippines, Sri Lanka and Viet Nam participated.

13. Senior government officials from ministries and agencies responsible for environment, economic affairs and finance from Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, South Africa and the United Republic of Tanzania attended the Eastern Africa regional workshop held in Port Louis. It was hosted by the Ministry of Environment and National Development Unit of Mauritius and facilitated by the secretariat of the Amended Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean.

14. The Caribbean regional workshop was hosted by the Ministry of Public Service and the Environment of Jamaica, and facilitated by the secretariat of the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention)/UNEP Caribbean Environment Programme. Government officials from the ministries of environment, economic affairs and finance of the Bahamas, Barbados, Belize, Jamaica, Trinidad and Tobago and Saint Lucia, together with representatives of the Caribbean Development Bank and the Organization of Eastern Caribbean States, attended the workshop.

15. The South Pacific regional workshop was organized by the Permanent Commission for the South Pacific, and was attended by representatives nominated by the national focal points of the South-East Pacific Action Plan representing Chile, Colombia, Ecuador, Panama and Peru, and representatives of various government and non-governmental institutions from Ecuador.

16. These regional mainstreaming workshops facilitated the sharing of national-level experiences relating to the integration of coastal and marine environmental issues into national development plans and budgets. The participants concluded that, to drive the mainstreaming process, it was important to set priorities that had wide and high-level support and good prospects for success, and to articulate those priorities based on an economic analysis that demonstrated the full value of the sustainable management of marine and coastal resources to national development.

17. In follow-up to these regional mainstreaming workshops, several countries achieved progress in their efforts to integrate coastal and marine environmental management issues into the wider national frameworks of governance (see document UNEP/GPA/IGR3/INF/5). For example, the Government of Indonesia focused on strengthening the link between river basin management, land-based sources of pollution and the impact of climate change to facilitate the integration of coastal issues into national development frameworks and budgets, and to reduce poverty. It also began to harmonize various existing rules and regulations, such as the Spatial Planning Act No. 26 of 2007 and the Coastal and Small Islands Management Law No. 27 of 2007.

18. The Government of India, in its efforts to implement its national programme of action, embarked upon a large-scale coastal zone management programme addressing policy and legal issues and set up pilot projects in several key coastal states. It also established a national centre for sustainable coastal management to promote sustainable coasts through increased partnerships, conservation practices, scientific research and knowledge management for the benefit and well-being of current and future generations.

19. In the Caribbean, the Government of Jamaica incorporated key areas of concern identified in its national programme of action into national policy and legislative frameworks. These became an integral part of its national environmental action plan, which operates in three-year cycles and whose implementation is monitored through an annual report. The national programme of action also supported the development of a master plan for sustainable tourism development in the form of the Blue Flag Programme, increases in beach license fees and an improved understanding of the benefits of an integrated watershed and a coastal zone management approach.

20. In Belize, the completion of the national programme of action was accompanied by legislative changes to the Environmental Protection Act, including the passing of the Effluent Limitations Regulations and the Integrated Water Resources Management Act. The national programme of action influenced the implementation of solutions to environmental and coastal issues to the extent that it enabled a greater focus on environmental actions in support of national development priorities. Guyana, which finalized the development of its national programme of action in 2009, drafted new standards for industrial effluent discharge into the environment and established an inter-agency coordinating mechanism to integrate public health into the main budgetary process, using the Global Programme of Action approach.

21. Integrative planning and cross-agency coordination were strengthened in Saint Lucia. Through the development of its national programme of action and coastal zone management policies and

actions, Saint Lucia successfully promoted marine and coastal environmental protection throughout key sectors of its economy, including the development of recreational water quality standards.

22. The Coordination Office, in its efforts to facilitate mainstreaming, also assisted countries in conducting reviews, introducing policy reforms to use resources effectively and efficiently, finding viable domestic resources, making the most of foreign assistance and optimizing possibilities for tapping international financial institutions and commercial financing. In Sri Lanka, the Ministry of Environment and Natural Resources, based on a 2008 study on the development of market-based instruments for environmental management in Sri Lanka supported by the Coordination Office, enacted the Environmental Conservation Levy Act, No. 26 of 2008, which empowered the Ministry to impose an environmental levy exclusively for environmental conservation on specific products and services that clearly posed an environmental hazard. The revenue accruing from that levy can be used to take corrective action to eliminate or alleviate the hazard.

23. In Trinidad and Tobago, the Government established a green fund by imposing a 0.1 per cent tax on the gross sales and receipts of any company doing business in the country. The fund, which has to date accumulated millions of United States dollars, is used to support projects for sustainable environmental management.

24. In the light of these experiences, the Coordination Office also organized workshops to share cross-regional mainstreaming experiences: in Hanoi in 2008 during the meeting of the Global Forum on Oceans, Coasts and Islands and in Manila in 2009 during the East Asian Seas Congress. The aim was to inform and reflect on countries' experiences in mainstreaming and thus to define a collective strategy further to expedite the process to ensure that mainstreaming focused on solutions with a strong evidentiary (economic and physical) and institutional basis.

25. Lastly, and in keeping with the approaches outlined above, it should be noted that the Global Programme of Action and its national programme of action and mainstreaming approaches helped to instigate broader approaches to integrated coastal management. In China, the development of a national programme of action and associated coastal pollution control programmes is being embedded in its twelfth five-year plan, which covers the period 2011–2015. The Government of Seychelles, revising its environment management plan for the period 2011–2020, said that the plan constituted a national environmental strategy. The Ministry of Environment and Mineral Resources of Kenya finalized its integrated coastal zone management action plan for the period 2011–2015. In Japan, the Basic Act on Ocean Policy was enacted in 2007. The “comprehensive governance of the oceans” and “integrated management of the coastal zone” stipulated in this legislation are intended to protect the marine environment from land-based activities.

26. Based on experience, strong leadership and political will remain vital to supporting the process of translating the Global Programme of Action into national programmes of action, to the implementation of long-term activities and to ensuring the integration of coastal issues in the overall national development framework. Legislation dealing with coastal and marine resources needs to tackle many land-based pressures upon coastal and marine environments. At the same time, greater support in developing environmental financing strategies and other supporting mechanisms is needed. Furthermore, integrated coastal management, as a continuous, proactive and adaptive process of resource management that builds on participation and provides a framework for the management of multisectoral activities and maintains options for future uses of resources, could also be used as a complementary framework to harmonize sectoral planning and to resolve conflicts surrounding the use of coastal resources.

B. Addressing key source categories

27. The following section reviews the progress made in addressing key land-based sources of pollution identified under the Global Programme of Action that are in line with the decision reached by Governments in Beijing to focus on nutrients, wastewater and marine litter.

1. Nutrients

28. In the Beijing Declaration, Governments resolved to devote additional effort, finance and support to address point and non-point source nutrients, including municipal, industrial and agricultural wastewater, as major and increasing source categories directly affecting human health, well-being and the environment, including marine ecosystems and their associated watersheds.

29. Accordingly, the Coordination Office organized meetings and consultations with Governments and other relevant stakeholders to design a comprehensive nutrient management programme. In a meeting of policymakers, fertilizer industry representatives, representatives of the science community and United Nations agencies held in May 2007 in The Hague (co-sponsored by the Ministry of

Infrastructure and the Environment of the Netherlands), the Coordination Office presented the primary design of a nutrient programme and the architecture of a global partnership. This was subsequently presented to a wider group of experts during the fourth International Nitrogen Conference, held in Brazil in 2007, to solicit feedback and support. This consultative process led to the establishment of a global partnership on nutrient management, which was launched formally on 6 May 2009 in New York during the seventeenth session of the United Nations Commission on Sustainable Development.

30. The Partnership brings together Governments, scientists, policymakers, the private sector, non-governmental organizations and international organizations to address the growing problem of nutrient over-enrichment.² It recognizes the need for strategic, global advocacy to trigger actions by Governments and other stakeholders in moving towards lower nitrogen and phosphorous input into human activities, and aims to raise awareness and facilitate the exchange of good practices to tackle the root causes of harmful algal blooms. It provides a platform for Governments, United Nations agencies, scientists and the private sector to forge a common agenda so that policies and investments are what could be termed “nutrient proofed”. It also provides an arena in which countries and other stakeholders can establish more cooperative relationships in international and regional forums and agencies that deal with nutrients. It is guided by a steering committee, chaired by the Government of the Netherlands. The Coordination Office acts as the Partnership’s secretariat.

31. With support from partners, the Coordination Office secured funding from GEF for a project on global foundations for reducing nutrient enrichment and oxygen depletion from land-based pollution in support of the global nutrient cycle. The project aims to deal with the lack of a sufficient governance and management framework for effective action on reducing nutrient input and improving efficiency of use. It intends, first, to provide countries with the information, tools and policy options, including scaling-up and replication, in a systematic and accessible way. This is necessary to analyse and take cost-effective action in developing nutrient reduction strategies for the benefit of coastal areas and stakeholders. Second, it seeks to drive global, regional and national action through stakeholder partnerships to raise awareness of the benefits of more effective nutrient management. Lastly, it is intended to provide a platform for the adoption and application of the tools, policy options and information developed. It is expected that this approach will provide policymakers with a road map that will highlight where investment and action can be most cost-effective.

32. Two key nutrients, nitrogen and phosphorus, remain vital to sustaining crop production and ensuring food security. They are also involved in complex cycles with an environmental impact. Understanding of the nitrogen cycle is improving as a result of the work of the International Nitrogen Initiative, which is a member of the Partnership. International Nitrogen Initiative European and North American centres have completed their regional assessments, but additional support is needed for other regions (e.g., Africa, Asia and Latin America and the Caribbean) to complete the same assessment process. Where phosphorous is concerned, the priority is to update scientific knowledge. While the understanding of physical and chemical processes within the soil-plant system of the phosphorous cycle has greatly improved over the past decades, biological processes are less well understood and are not yet integrated into fertilization recommendations and decision-support systems. The phosphorous pools and flows in agriculture and waste must urgently be quantified at various levels (global, continental and watershed). Assessing the potential of recycling organic nutrient sources (in particular livestock manure and sewage sludge) and developing practices that improve their use efficiency are also priorities. A more precise understanding of the global nutrient cycle, covering nitrogen and phosphorous, is envisaged as an important area of action for the development of policy options based on sound scientific facts, and is therefore proposed in the programme of work of the Coordination Office to be considered at the third session of the Intergovernmental Review Meeting.

2. Wastewater and sewage

33. The UNEP/Global Programme of Action wastewater programme works on the premise that water supply and wastewater treatment are closely linked. The wastewater programme promotes specific action at the local and national levels aimed at dealing with sewage through the use of alternative solutions, including low-cost technologies, appropriate financial mechanisms and partnerships. It creates an enabling environment for wastewater collection, treatment and reuse (i.e., for agricultural purposes) and its reallocation to the natural environment. It focuses on building capacities at the local, national and regional levels and scaling up innovative and sustainable approaches in wastewater management through the delivery of training courses adapted to regional specificities.

2 Further information can be found at <http://www.gpa.unep.org/gpnm.html>.

34. The Coordination Office has trained municipal wastewater managers in improving such management for coastal cities, working with the UNESCO-IHE Institute for Water Education, among others. The emphasis of the programme is on promoting community-based sanitation and wastewater management practices. The aim is to achieve such practices through training that will develop skills in building and maintaining water supply and sanitation infrastructure, and improve expertise in the monitoring and quality assurance of the projects. The training is based on the guidelines for municipal wastewater management drawn up by UNEP, the Water Supply and Sanitation Collaborative Council, the World Health Organization and the United Nations Human Settlements Programme (UN-Habitat) and was developed in the framework of the Train-Sea-Coast Programme of the United Nations Division for Ocean Affairs and the Law of the Sea.³

35. In 2010, UNEP, UN-Habitat and the United Nations Secretary-General's Advisory Board on Water and Sanitation, in partnership with the members of UN-Water, the United Nations mechanism for inter-agency coordination on water resources,⁴ published a report entitled *Sick water? The central role of wastewater management in sustainable development*. The primary aim was to mobilize and draw from the collective experiences and expertise of UN-Water partners to take on the challenges posed by excessive and unregulated discharge of wastewater into the natural environment. The report was simultaneously launched in Nairobi on the 2010 World Water Day and in Rio de Janeiro, Brazil, during the fifth session of the World Urban Forum. The report identifies threats to human and ecological health and the consequences of inaction, while presenting opportunities where appropriate policy and management responses over the short-term and longer-term could trigger employment, support livelihoods, boost the health of populations and ecosystems and contribute to more intelligent water management.

36. To tackle immediate consequences, the report recommended the adoption of a multisectoral approach to wastewater management as a matter of urgency, incorporating principles of ecosystem-based management from the watersheds into the sea and connecting sectors that will reap immediate benefits from better wastewater management. It also emphasized the importance of a planning process that created an enabling environment for innovation and the need for innovative financing of design, construction, operation and maintenance of appropriate wastewater infrastructure. Lastly, it suggested that, in the light of rapid global change, wastewater management plans should be developed against future scenarios, not current situations, and solutions must be socially and culturally appropriate and economically and environmentally viable for the future. A UN-Water task force on wastewater proposed the establishment of a multi-stakeholder collaborative agenda on wastewater that, among other things, would respond to the challenges posed in the report.

37. Turning to the Caribbean, although Caribbean Governments recognize the need to take on domestic wastewater management issues, their priority to date has been the financing of potable water and larger centralized wastewater treatment systems. Significant challenges remain with regard to funding decentralized and community-based treatment systems and obtaining affordable financing for wastewater infrastructure improvements at both the national and community levels. To fill these financing gaps, UNEP joined with the Inter-American Development Bank to establish a Caribbean regional fund for the management of wastewater to finance innovative projects addressing the collection, transport, treatment, reuse and/or safe disposal of domestic wastewater in the wider Caribbean region. The testing of innovative financial mechanisms in pilot countries, supported by regional institutional policy and legal reforms, will form the basis for improving wastewater management systems throughout the wider Caribbean region and establishing a sustainable framework for wastewater management.

38. The fund supports the implementation of the Protocol concerning Pollution from Land-based Sources and Activities to the Cartagena Convention. It sets ambitious goals to regulate domestic sewage discharges into the waters of the wider Caribbean region.

3 The Train-Sea-Coast Programme is part of the United Nations TRAIN-X network, which comprises eight training programmes implemented by United Nations organizations with various fields of specialization. All programmes share similar objectives and approaches to training. Since its inception in 1992, the network has been coordinated by the United Nations Development Programme.

4 UN-Water comprises representatives of 28 United Nations organizations and external partners representing various organizations and civil society. It was established to promote coherence and coordination in United Nations system initiatives related to its scope of work and to contribute to the implementation of the agenda defined in the United Nations Millennium Declaration and by the World Summit on Sustainable Development. Its scope encompasses all aspects of freshwater and sanitation, including surface and groundwater resources and the interface between freshwater and seawater and water-related disasters.

3. Marine litter

39. UNEP has highlighted plastic debris in the oceans as an emerging environmental issue. Given its slow rate of degradation in the marine environment, it continues to accumulate while breaking down into smaller particles and microplastics. Concern has been expressed regarding the potential impact of persistent bioaccumulation and the toxic compounds released from such debris. In the *UNEP Year Book 2011*, it is noted that the role of plastics as a vector for transporting chemicals and species in the ocean is as yet poorly understood, but it is a potential threat to ecosystems and human health.

40. Following the second session of the Intergovernmental Review Meeting, in Beijing in 2006, significant attention was paid to the problem of marine litter under the auspices of the UNEP Regional Seas Programme and the Coordination Office, culminating in the publication of a global review of the approaches taken to mitigate the problem, and the publication of guidelines on the survey and monitoring of marine litter and on the use of market-based instruments to address the problem. Considerable work was also undertaken by the UNEP Regional Seas Programme in association with the Food and Agriculture Organization of the United Nations (FAO) to examine the threat posed by lost or abandoned fishing gear that continues to catch fish, known as “ghost fishing”. A joint 2009 publication by FAO and UNEP⁵ outlined the impacts and causes of the problem, in addition to possible preventive, mitigating and curative measures. As the Coordination Office and Regional Seas Programme view marine litter as a key cross-cutting issue, they promoted the development of regional action plans on marine litter to tackle the problem.

41. The Coordination Office, in partnership with the National Oceanic and Atmospheric Administration of the United States of America and others bodies, organized the fifth International Marine Debris Conference, held in March 2011 in Honolulu, United States. Participants discussed research progress and shared strategies and best practices to assess, reduce and prevent the impact of marine debris. They refined and endorsed the Honolulu Commitment, which outlines 12 actions to reduce marine debris. They also drafted the Honolulu Strategy, a global framework strategy for a comprehensive effort to reduce the ecological, human health and economic impact of marine debris globally.

C. Training and capacity-building activities to support the implementation of the Global Programme of Action

42. In Beijing, Governments clearly recognized that the lack of capacity faced by developing countries was a major challenge that hampered the successful implementation of the Global Programme. They noted that capacity-building should be achieved in close cooperation with the secretariats of the regional seas conventions and action plans and members of the United Nations Development Group, thus facilitating links with United Nations common country assessments, the United Nations Development Assistance Frameworks and other development plans .

43. With regard to building capacities in line with the Bali Strategic Plan, the Coordination Office, in partnership with UNESCO-IHE Institute for Water Education and various regional and national institutions, conducted 73 training courses in 30 countries and trained 1,426 professionals, of whom one third were female. The training courses on municipal wastewater management were delivered within the framework of a project on pollution reduction through improved municipal wastewater management in coastal cities in Africa and Caribbean countries with a focus on small island developing States. The training courses contributed to improving the skills and knowledge needed in project identification, planning and financing at the municipal level in water, sanitation and wastewater management.

44. In addition, the Coordination Office trained 27 instructors from 17 countries. They received learning-by-doing exposure to logistic, pedagogical and methodological approaches used to facilitate workshops.

45. The evaluation of the training programme noted improved skills in and knowledge of project identification, planning and financing at the municipal level in water, sanitation and wastewater management. The training of local and regional instructors contributed to increased capacity to provide such training independent of external support. There is also evidence that some training participants were able to influence the planning actions of their organizations using the skills that they acquired in carrying out objective-oriented planning and in the systematic involvement of stakeholders in critical phases of the planning processes. Participants are also networking with one another, thereby contributing to improved exchange of knowledge and the implementation of best practices.

⁵ FAO and UNEP 2009, *Abandoned, lost or otherwise discarded fishing gear*, UNEP Regional Seas reports and studies No. 185 and FAO Fisheries and Aquaculture Technical Paper No. 523.

46. In partnership with the Coordinating Body on the Seas of East Asia and the International Maritime Organization, the Coordination Office organized a training workshop in Guangzhou, China, to strengthen the capacity of member countries in fulfilling their obligation regarding the implementation of the multilateral environmental agreements related to marine pollution, including the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto and as further amended by the Protocol of 1997.

47. The Regional Organization for the Protection of the Marine Environment under the Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution organized capacity-building activities in support of the implementation of the Action Plan for the Protection and Development of the Marine Environment and the Coastal Areas. The training programmes were aimed at enhancing the capabilities of member States (Bahrain, Iran (Islamic Republic of), Iraq, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates), primarily with regard to the implementation and undertaking of environmental assessment, environmental management, legal reforms and supporting relevant institutional and financial arrangements for the protection of the marine environment with a view to promoting human health and well-being.

48. In this regard, a regional workshop for legal and technical experts on the Protocol for the Protection of the Marine Environment against Pollution from Land-based Sources to the Kuwait Convention was conducted in Manama in October 2008. Participants reviewed the requirements for the effective implementation of the Protocol and urged member States to revisit their action plans to ensure appropriate institutional arrangements and incorporate the Protocol's provisions into their national legislation.

49. A regional workshop on modelling and monitoring of coastal marine processes was conducted in Tehran in February 2007, in cooperation with the Intergovernmental Oceanographic Commission of the United Nations, Educational, Scientific and Cultural Organization. It dealt with integrated coastal area management principles and drew upon successful examples to promote such applications in the region. Given the popularity and success of this workshop, a regional workshop was conducted in Abu Dhabi in March 2009. It was funded by regional resources and conducted by local persons using regional examples to demonstrate the progress achieved in promoting integrated coastal area management since 2007.

50. The Regional Organization for the Protection of the Marine Environment also organized training sessions on integrated information systems and developed a system incorporating major regional databases containing coastal contaminant surveys, remote-sensing data and oceanographic cruise results. Besides the three said databases, the system also has a dedicated module for country-level data presentation to enable member States to present exchangeable information on land-based sources of marine pollution and their impact.

51. Over the period 2007–2011, the Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden carried out 10 regional training sessions and workshops to build its member countries' capacities to deal with land-based sources of marine pollution. The training focused on municipal wastewater management and design of municipal wastewater ponds, restoration of coral reefs following damage by boat or ships, mangrove management and restoration, assessment of marine litter, and planning and preparedness for oil spills.

52. The Caribbean Environment Programme Regional Coordinating Unit conducted workshops in Grenada and Suriname in 2009 to raise awareness of the adverse impact of land-based sources of pollution on the marine environment, particularly on national gross domestic product, and the consequent need for ratification of the Protocol concerning Pollution from Land-based Sources and Activities to the Cartagena Convention. A visible consequence of those advocacy and capacity-building efforts was the entry into force of the Protocol in 2010.

53. The Coordination Office and the secretariat of the South Asian Seas Action Plan organized national workshops in February and March 2010 in Bangladesh, India, Maldives and Sri Lanka that involved national focal points and key stakeholders to develop beach certification programmes to promote the concept that a clean beach was a tourist haven.

54. In partnership with the secretariat of the South Asian Seas Action Plan and the South Asia Cooperative Environment Programme, the Coordination Office organized a five-day regional training workshop on marine resources sampling and data collection and interpretation in India in September 2009. It was co-sponsored by the Ministry of Earth Sciences of India and attended by senior officials of the Ministry of Environment, together with representatives of the Governments of Bangladesh, Maldives, Pakistan and Sri Lanka.

55. The Coordination Office organized an international workshop on coastal vulnerability and management of deltas in partnership with the Ministry of Environment and Forests of India, the Land-Ocean Interactions in the Coastal Zone project and the Institute for Ocean Management of Anna University in Chennai in December 2009. It facilitated the sharing of experiences and knowledge on the environmental effects of hydrological alterations, biogeochemistry and nutrient budgeting on deltas, their impact on the agriculture and fisheries sectors and, as a corollary, on human lives.

D. Regional cooperation in the implementation of the Global Programme of Action

56. The role and importance of regional organizations and the regional seas programmes were clearly acknowledged by the participants at the intergovernmental conference to adopt a global programme of action for the protection of the marine environment from land-based activities. The participants elaborated on the institutional framework for the implementation of the Global Programme of Action, as reflected in document UNEP(OCA)/LBA/IG.2/7. In paragraph 74 of the Global Programme, UNEP is requested to promote and facilitate the implementation of the Global Programme at the regional and subregional levels through, in particular, a revitalization of the regional seas programmes.

57. In the Beijing Declaration, Governments reaffirmed the importance of collaboration with the Regional Seas Programme to strengthen UNEP, regional seas conventions and programmes, in addition to other regional conventions, agreements and programmes for the protection of the marine and coastal environment, to serve as effective mechanisms to further the implementation of the Global Programme through means such as the development and implementation of protocols addressing land-based pollution sources and activities.

58. The regional seas conventions and action plans continue to provide the key regional policy framework to implement the Global Programme and other global instruments dealing with the protection of the marine environment. The 18 regional seas programmes (involving some 140 countries) have successfully promoted coordination between regional and global conventions and serve as an important vehicle for gathering information, facilitating the exchange of experiences and mobilizing political support for actions devoted to maintaining the ecological integrity of the coastal and marine environment. Two key legal instruments, land-based sources and activities protocols and integrated coastal zone management protocols, negotiated and adopted within the framework of the various regional seas conventions, stand as clear examples that the regional seas programmes contribute to countries' efforts to protect their coastal and marine environments from land-based sources and activities.

1. Land-based sources and activities protocols

59. The Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention), amended in 1996, entered into force on 11 May 2008. It takes into account the objectives outlined in the Global Programme of Action. Article 15 of the Protocol states that the meeting of the parties is to adopt by a two-thirds majority the short-term and medium-term regional action plans and programmes containing measures and timetables for their implementation to eliminate pollution from land-based sources and activities, and particularly to phase out inputs of substances that are toxic, persistent and liable to bioaccumulation. These measures and timetables become binding on the 180th day following the notification date for the parties that have not voiced any objections.

60. The parties have already adopted three such regional plans (on emission limit values for biochemical oxygen demand from urban sources; phasing out of persistent organic pollutants; and phasing out of DDT) and additional plans (on emission values for biochemical oxygen demand from the food sector; reduction of mercury; and phasing out of nine additional persistent organic pollutants) are under consideration for adoption at the seventeenth meeting of the Conference of the Parties to the Barcelona Convention, which will take place in January 2012.

61. In the Caribbean, the Protocol Concerning Pollution from Land-Based Sources and Activities to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region entered into force on 11 July 2010. It provides a regional framework setting out general obligations including the establishment of legally binding effluent limitations for domestic sewage, and the development of plans for the reduction and control of agricultural non-point sources.

62. The Coordination Office, through a regional GEF-funded project on addressing land-based activities in the western Indian Ocean, worked with the secretariat of the Amended Nairobi Convention to develop a protocol for the protection of coastal and marine environment from

land-based sources and activities in the Eastern and Southern African region. The final act of the Protocol was adopted by a conference of plenipotentiaries in April 2010, and the Protocol was signed by all member States. During the sixth meeting of the Conference of the Parties, the member States urged the contracting parties to implement the Protocol, including through policy, legislative and institutional interventions, where appropriate, and requested the contracting parties to compile, by the end of 2011, a synthesis report on the activities undertaken further to the implementation of the Amended Nairobi Convention and its protocols.

63. The Coordination Office worked in collaboration with the Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of the West, Central and Southern African Region and a GEF-funded project on the Guinea Current large marine ecosystem in the development of a protocol concerning cooperation in the protection and development of marine and coastal environment from land-based sources and activities in the Western, Central and Southern African region. At its ninth meeting, the Conference of the Parties to the Convention agreed to submit the final agreed draft protocol for national review to enable its adoption by a conference of plenipotentiaries.

64. The Coordination Office implemented the legal component of a GEF project on ecosystem recovery in the Black Sea and, in cooperation with the permanent secretariat of the Black Sea Commission, provided technical and legal support for the revision of the Protocol on the Protection of the Marine Environment of the Black Sea from Land-Based Sources and Activities to the Convention on the Protection of the Black Sea against Pollution. The Protocol was extensively discussed and negotiated by the contracting parties. Advocacy and outreach materials were also produced in the six national languages of the Black Sea region (Bulgarian, Georgian, Romanian, Russian, Turkish and Ukrainian), explaining the need and reasons for the revision of the Protocol, and incorporating the new provisions. The final draft protocol was presented at a ministerial meeting and diplomatic conference in Sofia on 7 April 2009, at which it was adopted and signed by all the Black Sea countries. It has already been ratified by Georgia.

65. Within the framework of a GEF project to draft a convention and action programme for the protection of the Caspian Sea environment, and as interim secretariat of the Framework Convention for the Protection of the Marine Environment of the Caspian Sea, the UNEP Regional Office for Europe and the Coordination Office have supported the development and negotiation of a protocol on the protection of the Caspian Sea against pollution from land-based sources and activities. The Conference of the Parties to the Convention, at its third meeting, held in Aktau, Kazakhstan, in August 2011, took further preparatory steps for the signing of the protocol. The 2012 programme of work adopted by the Conference of the Parties includes the adoption and signature of the protocol during the fourth meeting of the Conference of the Parties.

2. Integrated coastal zone management protocol

66. Within the framework of the Mediterranean Action Plan, the parties to the Barcelona Convention adopted an integrated coastal zone management protocol on 21 January 2008. It entered into force on 24 March 2011 and an action plan will be submitted for adoption at the seventeenth meeting of the Contracting Parties, in January 2012. The protocol is comprehensive and forward-looking. It articulates the definition of coastal zones and coastal setbacks, makes provisions for the development of coastal strategies and strategic environmental assessments, and reports on the implementation of the protocol.

67. At its sixth meeting, the Conference of the Parties to the Nairobi Convention took a decision to use an integrated coastal zone management approach to the long-term sustainable development of coastal and marine areas of the western Indian Ocean region, agreed to develop such a protocol and requested the Nairobi Convention secretariat to support its development through a consultative process. To this effect, a legal and technical working group with two representatives per country was established to draft the protocol. The draft prepared by the working group is under review.

3. Examples of other regional cooperation and regional policy responses

68. During the East Asian Seas Congress, hosted in 2009 by the Partnerships in Environmental Management for the Seas of East Asia, the Government of the Philippines and other partners,⁶ the participants reaffirmed their commitment to expediting the implementation of the Global Programme of Action within the framework of the sustainable development strategies for the seas of East Asia.

⁶ The Coordination Office is a partner of Partnerships in Environmental Management for the Seas of East Asia and a member of the East Asian Seas Partnership Council. The congress and ministerial forum are organized every three years to review progress in the implementation of the sustainable development strategies for the seas of East Asia.

The President of the Philippines called upon the participants to show political commitment to translate the shared vision of East Asian countries reflected in the sustainable development strategies for the seas of East Asia into action through the enactment of appropriate policies and legislation to bring various government organs together, and also to bring Governments and other actors on to one platform for dialogue, policy and institutional reform to facilitate concerted action. Executive Order 533 of the Philippines is an illustration of integrated coastal management becoming mandatory as a planning framework. This order also devolved authority to local and subnational governments to allow them to design and implement programmes on the ground through the introduction of taxes, fees and other economic instruments.

69. At a ministerial forum held as part of the East Asian Seas Congress, the participants adopted the Manila Declaration on Strengthening the Implementation of Integrated Coastal Management for Sustainable Development and Climate Change Adaptation in the Seas of East Asia Region, in which they reiterated their commitment to implementing the Global Programme of Action, agreed to implement integrated coastal management in at least 20 per cent of the region's coasts and adopt national coastal and ocean policies in 70 per cent of the countries by 2015. They also decided to report on the state of coastal health every three years at the East Asian Seas congresses.

70. At the third Asia-Pacific Economic Cooperation oceans-related ministerial meeting, held in Paracas, Peru, the participants adopted the Paracas Declaration in which ministers committed themselves to focusing on the sustainable development and protection of the marine environment, the impact of climate change on the oceans, free and open trade and investment, and the role of oceans in food security. They acknowledged that marine ecosystems were being used for an increasing variety and intensity of activities, resulting in more stress on those systems through, among other issues, habitat damage, marine and land-based pollution and invasive species. The ministers therefore noted that conserving the integrity of marine ecosystems required urgent attention, and recognized that the greatest possible benefits from marine environments could be obtained by acquiring a better understanding of oceans and their associated economic, social and environmental benefits, and improving ability to sustainably manage marine ecosystems, particularly through better understanding and implementation of ecosystem-based management.

71. The Baltic Marine Environment Protection Commission (also known as the "Helsinki Commission")⁷ is promoting the application of an ecosystem approach to the protection of its marine environment. In 2007, in Krakow, it adopted a time-bound targeted regional action programme within the framework of the Baltic Sea Strategic Action Plan radically to reduce pollution in the Baltic Sea and restore its good ecological status by 2021. One major highlight of this new plan is that it ushers in a new era of marine environment protection by including the concept of maximum allowable nutrient (nitrogen and phosphorus) input and aiming to maintain the ecological status of the Baltic Sea. It also contains provisional country-wise annual nutrient input reduction targets to halt the degradation of the sea.

72. The Commission for the Protection of the Marine Environment of the North-East Atlantic⁸ has reaffirmed its commitment to delivering an ecosystem approach, adopting the North-East Atlantic environment strategy and joint assessment and monitoring programme (2010–2014) at its ministerial meeting in Bergen, Norway, in September 2010. The new strategy is informed by a 2010 quality status report that confirms qualified improvements for key Global Programme of Action sources. For example, nutrient discharges to eutrophication problem areas have fallen by 85 per cent compared to 1985 levels for phosphorus, whereas those for nitrogen only by up to 50 per cent. Discharges of radionuclides from nuclear installations have fallen, and radiation doses to humans and marine life from this pollutant are low in the regions encompassed by the Commission.

7 The Commission comprises the Governments of Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, the Russian Federation and Sweden, together with the European Union.

8 The Commission for the Protection of the Marine Environment of the North-East Atlantic is the mechanism through which 15 Governments of the western coasts and catchments of Europe, together with the European Union, cooperate to protect the marine environment of the North-East Atlantic under the 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic. The 15 Governments are those Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom of Great Britain and Northern Ireland.

E. Building partnerships and consensus at the international level for the implementation and mainstreaming of the Global Programme of Action into the international agenda

73. The present section outlines how the Global Programme of Action is becoming increasingly visible at the international level, as highlighted by its integration into the mandates of international bodies and instruments and the growing number of international partnerships that address Programme-related issues. In addition, progress has been made in providing technical guidance at the sectoral level on Programme-related issues such as the management of wastewater and nutrients. To benchmark the progress made in implementing the Programme, however, global assessments of Programme-related topics are required and continued support for such activities is needed.

1. Global Environment Facility

74. Further to the Beijing Declaration, in which Governments called upon international financial institutions and mechanisms expeditiously to finance activities of the Global Programme of Action, the GEF contribution to the implementation of the Programme has increased significantly. During the fourth replenishment, covering the period 2007–2010, the GEF Council approved a mandate for using integrated ecosystem-based approaches for the management of transboundary water resources. In the GEF international waters strategy, particular attention was paid to four priority global challenges,⁹ one of them being reducing nutrient over-enrichment and oxygen depletion from land-based pollution of coastal waters in large marine ecosystems consistent with the Programme.

75. Under that strategy, GEF committed itself to supporting projects and programmes addressing economic and ecological problems associated with oxygen-deficient water (known as “dead zones”) related to excessive levels of nitrogen and phosphorus pollution and oxygen-demanding substances, as part of its work on large marine ecosystems and in support of the Programme through the implementation of national policy and legal and institutional reforms to reduce land-based sources of nitrogen and other pollutants consistent with agreed transboundary action programmes and the Global Programme of Action. It is worth noting that, during the fourth replenishment, 30 projects (2 global, 14 regional and 14 national) received some \$160 million from GEF with an additional \$2.2 billion as co-financing to tackle land-based sources of coastal and marine pollution in line with the Programme.

76. Under the GEF fifth replenishment strategy, it was noted that the reduction of land-based sources of marine pollution would continue to demand GEF attention, particularly with regard to nutrients from sewage and agriculture that contributed to the alarming spread of coastal dead zones and had adverse effects on coral reefs. It was also noted that GEF pilot successes that supported the Programme and nitrogen pollution reduction would continue to reduce land-based nutrient pollution of shared large marine ecosystems and their coasts. The aim is to attract global attention to the disruption of the nitrogen cycle and to limit the expansion of dead zones that interfere with food security and livelihoods. National and local policy, and legal and institutional reforms to reduce land-based inputs of nitrogen and other pollutants will be pursued. It is recognized, however, that support for the Programme can only be provided at a limited level given the restricted replenishment funding to help address disruption to the global nitrogen cycle.

2. Small island developing States

77. UNEP supported small island developing States primarily by providing environmental policy guidance and coordination at the regional and interregional levels. The Coordination Office and Regional Seas Programme assist such States in developing and implementing an ecosystem management approach, integrated coastal zone management plans, integrated water resources management plans and strategies to prevent further marine and coastal degradation and its consequences.

78. UNEP is acting as an implementing agency for three small island developing State regional projects funded by GEF on integrated water resources management.¹⁰ Through its small island

9 Restoring and sustaining coastal and marine fish stocks and associated biological diversity; reducing nutrient over-enrichment and oxygen depletion from land-based pollution of coastal waters in large marine ecosystems consistent with the Global Programme of Action; balancing overuse and conflicting uses of water resources in transboundary surface and groundwater basins; and reducing persistent toxic substances and testing adaptive management of waters with melting ice.

10 The UNEP/GEF-supported projects are on integrating management of watersheds and coastal areas in Caribbean small island developing States (covering Barbados, Cuba, Dominica, the Dominican Republic, Grenada, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines and Trinidad and Tobago); implementing sustainable integrated water resource and wastewater management in the Pacific Island countries (covering the Cook Islands, Fiji, Kiribati, the Marshall Islands, Micronesia (Federated States of) Nauru,

developing States unit, it facilitates the exchange of experiences and lessons learned throughout such States. The three regional projects have been afforded the opportunity to participate in the development of a resource book and a manual on integrated water resources management for small island developing States.

79. UNEP also supported the national, regional and global preparatory processes for the five-year review of the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States, which took place during the sixty-fifth session of the General Assembly, in September 2010. It provided input to and support for the preparation of national assessment reports and other relevant documents, and to the organization of regional preparatory meetings. It also provided input to the inter-agency publications and reports issued at the meeting.

80. The Coordination Office provided technical and financial assistance to small island developing States in response to specific calls made in the Mauritius Strategy, and tackled priority problems identified through national consultative processes in such countries as Comoros, Mauritius, Seychelles and Trinidad and Tobago.

3. World Oceans Conference 2009

81. At the World Oceans Conference held in Manado, Indonesia, in May 2009, Governments expressed concern that marine ecosystems continued to be threatened by land-based and sea-based pollution, poor land-use planning and social and economic pressures. They recognized that healthy and productive coastal ecosystems had a growing role in mitigating the effects of climate change on coastal communities and economies in the near term and that an integrated coastal and ocean management approach was key in promoting resilience, and thus fundamental to preparing for and adapting to the effects of climate change. Importantly, they committed themselves to striving to reduce pollution of ocean, coastal and land areas.

4. UN-Water

82. The Coordination Office, based on the conclusions of the *Sick Water?* report, facilitated the establishment of an UN-Water task force on wastewater management. Through the task force, UN-Water aims to highlight the issues surrounding wastewater management, including the extent of wastewater management worldwide, its role in integrated water resource management, its effects on health and the environment, and the market and non-market costs of neglecting wastewater management; to increase the awareness of Governments, at the national and municipal levels, of the dividends of investing in wastewater management; and to strengthen United Nations system collaboration on activities related to wastewater management with a view to assisting Governments in creating an enabling policy environment. A major output expected of the task force is a multi-stakeholder collaborative agenda on sustainable wastewater management articulating the longer-term actions by UN-Water member agencies, partners and other relevant stakeholders, areas and mechanisms for collaboration between stakeholders and links with other contemporary issues.

5. Global Forum on Oceans, Coasts and Islands

83. The Forum brings together an informal association of ocean leaders from Governments, intergovernmental and international organizations, non-governmental organizations, the private sector, donors and scientific institutions to discuss how to advance the implementation of the global oceans agenda. During the reporting period, it organized several major meetings and prepared key documents that analysed the synergies and gaps in policymaking, and conducted outreach activities. The Coordination Office has provided significant support to the Forum's work.

6. International Year of Sanitation

84. The General Assembly designated 2008 as the International Year of Sanitation with the overall objective of accelerating progress in providing adequate basic sanitation for the 2.6 billion people worldwide who lacked access to that fundamental human right. The Coordination Office acted on behalf of UNEP as a member of the UN-Water task force on sanitation and worked with other members to raise awareness of sanitation issues, in particular wastewater issues, to accelerate progress towards the Millennium Development Goals target to reduce by half the proportion of people without access to basic sanitation by 2015. Through its work the Coordination Office promoted a broader concept of sanitation, which is not strictly restricted to the provision of household sanitation services

Niue, Samoa, Solomon Islands, Palau, Papua New Guinea, Tonga, Tuvalu and Vanuatu); and implementing integrated water resource and wastewater management in Atlantic and Indian Ocean small island developing States (covering Cape Verde, Comoros, Maldives, Mauritius, Sao Tome and Principe and Seychelles).

(i.e., taps and toilets), but all the other components of the waste management process, including the protection of water sources, water supply, wastewater collection, treatment and reuse (i.e., for agricultural purposes, and reallocation to the natural environment).

7. International assessments and knowledge generation on issues related to the Global Programme of Action

85. In line with the normative mandate of UNEP and its role in increasing the knowledge base on land-based pollution of marine and coastal areas, the Coordination Office, its partners and United Nations agencies worked to generate new knowledge and/or synthesize existing knowledge in a form useful for policymaking for the protection and sustainable use of coastal and marine resources.

8. Regular process for global reporting and assessment of the state of the marine environment, including socio-economic aspects

86. The United Nations General Assembly, through its resolution 60/30 of 29 November 2005, decided to conduct an assessment of assessments and endorsed the need for a regular process for global reporting and assessment of the state of the marine environment, including socio-economic aspects, both current and foreseeable, which would build on existing regional assessments. The findings of the group of experts undertaking the assessment of assessments called for the establishment of a better coordinating mechanism of ocean assessments and governance, building on the strengths of the existing institutions and processes. The Global Programme of Action acted as an initial catalyst for a global assessment through its relationship with the Joint Group of Experts on the Scientific Aspects of Marine Pollution.

9. *Global Marine Biodiversity Outlook*

87. The *Global Marine Biodiversity Outlook* prepared by the UNEP Regional Seas Programme provides a systematic subglobal overview of the documented information on marine biodiversity, the pressures that confront marine biodiversity currently and its management frameworks. It is evident from the report that marine biodiversity faces increasing pressures from land-based sources of pollution, ship-source pollution and fishing. The report concludes that, without significant management intervention, marine biological diversity is likely to deteriorate substantially over the coming 20 years with growing consequences for the resources and physical security of coastal States. The report provides a snapshot of the situation in 2010, highlights the effectiveness of various management responses to date, establishes a baseline and proposes indicators for assessing the impacts of policy measures on the health of the marine environment.

10. Introductory guide to taking steps towards marine and coastal ecosystem-based management

88. The introductory guide to taking steps towards marine and coastal ecosystem-based management published by UNEP supports the implementation of the UNEP ecosystem management subprogramme. It recognizes the general failure of a sectoral approach to environmental management and takes a more holistic view of the links between ecosystem service delivery and human needs – an ecosystem approach – in the development and implementation of environmental management programmes and activities. It highlights the need for and importance of ecosystem-based management of oceans and coasts as they provide many valuable services. It also acknowledges that the future role of ecosystems for human well-being increasingly depends on developing countries' capacity to manage human uses and impacts to ensure their health, and to prevent self-repairing capacity being undermined by overfishing, pollution and unplanned urban development, among other things. It sets out principles to guide management towards long-term sustainability of marine and coastal ecosystems and to assist countries and communities in taking steps towards making marine and coastal ecosystem-based management operational, from strategic planning to on-site implementation.

11. *Building the foundations for sustainable nutrient management*

89. The above-mentioned report, published by the Coordination Office as the secretariat of the Global Partnership on Nutrient Management, scopes out what is important, what is successful and who needs to be persuaded in shaping effective nutrient management. It recommends four foundations for the building of a shared interest and agenda between and within countries; stakeholder engagement and partnerships; the communication and mainstreaming of best practice tools; and integrated approaches to guide cost-effective decision-making. It concludes by charting how strategic action by countries – the communication and mainstreaming of key messages and best practices – prompted and supported by partnerships, stakeholder engagement and integrated approaches can lead to effective nutrient management and to the benefits that it brings.

II. Conclusion

90. The progress outlined herein has demonstrated that the Global Programme of Action remains a valuable and flexible tool to achieve the goals and targets set by the international community as they relate to the coastal and marine environment and their associated watersheds. The evidence presented has shown that, in the management of the coastal and marine resources, including in addressing land-based sources of pollution, the economic dimension that was missing or had been overlooked has since been recognized. It should also be noted that Governments and other stakeholders have increasingly recognized the contribution of coastal and marine resources to their national economies and their enormous income-generating potential when they are sustainably managed with adequate safeguards.

91. The third session of the Intergovernmental Review Meeting will take place in January 2012, just a few months before the United Nations Conference on Sustainable Development will be held in Rio de Janeiro in June 2012. At the Conference, global leaders will meet to discuss the green economy in the context of sustainable development and poverty eradication, the institutional framework for sustainable development and other emerging issues. In view of this, the third session of the Intergovernmental Review Meeting is crucial to strengthening and building strategic partnerships on coastal and marine protection, and to reaching an agreement on a series of five-year multilateral and multi-stakeholder action plans for the realization of the objectives of the Global Programme of Action that the global community adopted in 1995.

Annex

Summary overview on the implementation of the Global Programme of Action at the national, regional and global levels over the period 2007–2011¹¹

Creating the necessary enabling conditions for successful implementation					
National level		Regional level		Global level	
Targets	Progress up to 2011	Targets	Progress up to 2011	Targets	Progress up to 2011
Twenty new national programmes of action are developed.	<p>This has been partially achieved</p> <p>Eleven countries completed their national programmes of action over the reporting period: Cameroon, Cuba, the Democratic Republic of the Congo, Gabon, Guyana, Indonesia, Jordan, Malaysia, South Africa, Thailand and Viet Nam</p>	<p>Three new land-based sources and activities protocols are developed in regional seas programmes.</p>	<p>This has been achieved.</p> <p>The final act of the Protocol for the Protection of the Coastal and Marine Environment from Land-based Sources and Activities in the Eastern and Southern Africa Region was adopted by conference of plenipotentiaries in April 2010 at which the Protocol was signed by all parties to the Amended Nairobi Convention.</p> <p>A land-based sources and activities protocol for the Abidjan Convention has been finalized. The parties agreed in 2011 to circulate the final agreed text of the draft protocol for necessary national approvals to enable its adoption by a conference of plenipotentiaries.</p> <p>Supported the development and negotiation of a land-based sources and activities protocol to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea. The programme of work for 2012, adopted by adopted by the Conference of the Parties to the Convention at its third meeting, includes the adoption and signature of the protocol at the fourth meeting of the Conference of the Parties.</p>	<p>Thirty per cent of national integrated water resources management plans, developed as per the World Summit on Sustainable Development 2005 target, address the Global Programme of Action.</p>	<p>This has been partially achieved.</p> <p>Most integrated water resources management plans developed by small island developing States address the Global Programme of Action.</p>
Thirty existing national programmes of action are updated	<p>This has been partially achieved.</p> <p>Nine countries are</p>	<p>Three existing land-based sources and activities protocols are</p>	<p>Two land-based sources and activities protocols revised</p> <p>The Coordination Office provided technical and legal</p>	<p>The economic valuation of goods and services that the</p>	<p>Valuation works have been carried out under the South China Sea project, the Guinea</p>

¹¹ The table indicates achievements made with regard to the proposed targets and indicators set for the period 2007–2011 in monitoring and assessing the implementation of the Global Programme of Action as submitted to the UNEP Governing Council/Global Ministerial Environment Forum in 2007. The targets and indicators are based on the UNEP/GPA 2006 publication *Ecosystem-based management: Markers for assessing progress*.

or revised.	currently updating or revising their national programmes of action: Albania, Bosnia and Herzegovina, Côte d'Ivoire, Croatia, Malaysia, Mexico, Montenegro, Serbia and Turkey.	updated or revised.	<p>support in the revision of the Protocol on the Protection of the Marine Environment of the Black Sea from Land-Based Sources to the Convention on the Protection of the Black Sea Against Pollution.</p> <p>In the Mediterranean, the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean entered into force on 11 May 2008.</p> <p>In the Caribbean, the 1999 Protocol Concerning Pollution from Land-Based Sources and Activities to the 1983 Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region entered into force on 11 July 2010.</p> <p>The Regional Organization for the Protection of the Marine Environment under the Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution urged its member States at the training of legal and technical experts held in Manama in October 2008 to revisit their action plans to ensure appropriate institutional arrangements and incorporate the provisions of the Protocol for the Protection of the Marine Environment against Pollution from Land-based Sources into their national legislation.</p>	coast and oceans provide is included in the follow-up to the Millennium Ecosystem Assessment report.	<p>Current large marine ecosystem project and the protection of the Caspian Sea Environment project.</p> <p>Efforts are under way to carry out Millennium Ecosystem Assessment follow-up in countries in Africa, Asia, Caribbean, and Latin America through the ProEcoServe project.</p>
Forty local governments have improved capacity to address municipal wastewater.	<p>This has been achieved.</p> <p>In 30 countries a total of 1,426 local-level professionals have been trained to improve their skills and knowledge in project identification, planning and financing at the municipal level in water, sanitation and wastewater management.</p>			Five international programmes address the Global Programme of Action.	<p>This has been achieved.</p> <p>UN agencies, programmes and initiatives, namely IOC/UNESCO, UN-Habitat, GEF, UN- Water, UN-Oceans, UNDP and FAO have programmes and activities directly relevant to the Global Programme of Action.</p>
Implementation: Changes in the institutional mandates, legislations, policies and investments					
National level		Regional level		Global level	
Targets	Progress up to 2011	Targets	Progress up to 2011	Targets	Progress up to 2011
Twenty national programmes of	This has been partially achieved.	Five regional seas programmes have	This has been achieved.	Twenty-five partnerships	This has been partially achieved.

<p>action are mainstreamed into poverty reduction strategy papers and/or in the United Nations development assistance frameworks.</p>	<p>Several countries have mainstreamed the Global Programme of Action: Algeria, Barbados, China (Bohai Sea), Indonesia, Montenegro, Morocco, Philippines, Saint Lucia, South Africa and Sri Lanka.</p> <p>Efforts are under way in the Democratic Republic of the Congo and Viet Nam.</p>	<p>received increased financial contributions from countries and/or other institutions for activities related to the Global Programme of Action.</p>	<p>Regional Seas programmes, namely the Coordinating Body on the Seas of East Asia; the Caribbean Regional Coordinating Unit; the Mediterranean Action Plan; the Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region; the Permanent Commission of the South Pacific; and the Nairobi Convention received increased contributions from their member States and mobilized resources from various sources to support implementation of programmes and activities related to the Global Programme of Action.</p>	<p>effectively address the Global Programme of Action or several of its components.</p>	<p>Global Programme of Action issues are addressed through the Global Forum on Oceans, Coasts and Islands; UNEP/GPA and United States National Oceanic and Atmospheric Administration partnership to support Caribbean countries to develop and implement national plans of action; the partnership between UNEP/GPA and Partnerships in Environmental Management for the Seas of East Asia to implement sustainable development strategies for the Seas of East Asia; the International Nitrogen Initiative; the Global Partnership on Nutrient Management; the Global Waste Management Partnership; UNEP/GPA and UNESCO/IHE Institute for Water Education partnership for the delivery of a wastewater training programme; and the Global Transdisciplinary Processes for Sustainable Phosphorous Management.</p>
<p>Twenty countries have undertaken institutional and legal reforms</p>	<p>This has been partially achieved.</p> <p>Reforms have taken place</p>	<p>Five regional seas programmes have received increased capacity building</p>	<p>This has been achieved.</p> <p>The Coordination Office, in cooperation with other partners, provided technical support to the Nairobi</p>		

better to address the Global Programme of Action.	in Barbados, Finland, Germany, Kenya, Madagascar, Malaysia, Philippines, Sri Lanka, the United Kingdom, the United States and Yemen.	support from regional and global institutions for activities related to the Global Programme of Action.	Convention, Abidjan Convention, the Coordinating Body on the Seas of East Asia, the UNEP Caribbean Regional Coordinating Unit, the Permanent Commission for the South Pacific, the Mediterranean Action Plan, South Asian Seas and the Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region.		
Twenty countries have increased their allocation of domestic resources to investments related to the Global Programme of Action.	This has been partially achieved. Increased allocations have taken place in China, Finland, Kenya, Malaysia, Mozambique, Sri Lanka, Sweden, the United Kingdom and Yemen.	Two regional seas programmes have harmonized their legislation related to the Global Programme of Action.	This has been achieved. Land-based pollution protocols are being implemented in the Caribbean, North Atlantic and Mediterranean. In the Mediterranean and the Regional Organization for the Protection of the Marine Environment Sea Area national laws are being revised to respond to the needs of the protocols. The Conference of the Parties to the Nairobi Convention at its sixth meeting urged the Contracting Parties to implement the LBSA Protocol, including through policy, legislative and institutional interventions, where appropriate.		
		One regional revolving fund has been created to address issues related to the Global Programme of Action.	This has been achieved. A Caribbean regional fund for the management of wastewater was established with financial support from member States, GEF and the Inter-American Development Bank.		
Achievements: Long-term societal/ environmental quality goals					
National level		Regional level		Global level	
Targets	Progress up to 2011	Targets	Progress up to 2011	Targets	Progress up to 2011
Twenty countries have set environmental policy targets and use measurable indicators to monitor their implementation.	Progress has been made in setting targets within national programmes of action and other related policy documents.	Three regional seas programmes have agreed on regional water quality standards related to the Global Programme of Action or some of its components.	This has been partially achieved. The Nairobi Convention has developed regional water quality standards. Under a regional project on reversing environmental degradation trends in the South China Sea and Gulf of Thailand, water quality criteria have been developed and are awaiting endorsement by the member countries of the Coordinating Body on the Seas of East Asia. The Coordination Office is working with FAO to execute a Bay of Bengal large marine ecosystem project to develop regional water quality criteria and	Thirty per cent of countries report on the World Summit on Sustainable Development sanitation target, including information on wastewater collection, treatment and re-use.	This is done through the UNICEF/WHO Joint Monitoring Programme for Water Supply and Sanitation and UN-Water.

		guidelines for monitoring water quality. Once finalized these will be presented for endorsement to the South Asian Seas Programme and the Coordinating Body on the Seas of East Asia.	
Equilibrium: Dynamic balance between human society and the environment			
National level	Regional level		Global level
To be assessed post-2011			