

## II. Final draft updated water policy and strategy of the United Nations Environment Programme, 2007-2012

### Report of the Executive Director

#### *Summary*

Since its creation, water has played a key role in UNEP's programming. In fact, the Regional Seas Programme was one of UNEP's first flagship initiatives and remains today a strong keystone programme for UNEP. Since the United Nations Conference on Environment and Development (UNCED – Rio de Janeiro, 1992), the issues related to freshwater resources management have taken on an increasingly prominent role in the international arena. UNEP has reacted to this through various initiatives and freshwater activities. The importance of freshwater issues continues to rise at local, national, subregional, regional and global levels as elaborated upon in the Millennium Development Goals, the World Summit on Sustainable Development, the Commission on Sustainable Development and other forums. UNEP must continue to evolve its programming to address such freshwater issues and has thus developed the present policy and strategy.

The present document outlines UNEP Water Policy and Strategy as it relates to freshwater. UNEP starts from the premise that the water "policy" is defined by the mandates of UNEP as requested by UNEP Governing Council and the UN General Assembly and are also guided by other relevant international bodies and fora (e.g., Agenda 21, WSSD and CSD). Taking into consideration the guidance of relevant forums and the specific mandates of the Governing Council the overall goal for UNEP's Water Policy and Strategy is: *to contribute substantively to environmental sustainability in the management of water resources, utilizing integrated ecosystems approaches, as a contribution to the internationally agreed targets and goals relevant to water and socio-economic development.* The freshwater "strategy" is herein elaborated through a set of principles designed to focus UNEP work by outlining the conceptual considerations -- *ecosystems-based approaches, sound economic and social considerations and addressing risk* and operational means -- *building capacity, partnerships and stakeholder participation* through which UNEP will implement.

As pointed out in chapters II and IV of this document, mandates of UNEP on oceans and coasts and their associated strategies are provided through the Global Programme of Action on Land-based Activities (GPA) and through the Regional Seas' conventions and action plans. As such, this document does not attempt to further elaborate a strategy on oceans and coasts, but specifically focuses on freshwater issues. Nonetheless, this freshwater policy and strategy, as well as the GPA and Regional Seas Programme recognize the freshwater-coastal link and UNEP will work to address this linkage from both upstream (freshwater) and downstream (coasts and oceans) ends.

Three key components for UNEP's freshwater work are identified in assessment, management and cooperation and are tied together within a framework of integrated water resources management (IWRM). As IWRM has many elements, UNEP, with full consideration of the multi-dimensional and multi-institutional approach of IWRM, will focus on mainstreaming environmental considerations into IWRM at the regional, subregional, national and local levels, as well as to upscale such considerations to the work of other actors involved in national poverty reduction strategies and sustainable development planning.

The UNEP water policy and strategy as defined in this document will be in operation for a six-year period beginning in 2007 through 2012 and will be operationalized through the UNEP biennial Programme of Work. Implementation of the policy and strategy will be monitored by the Governing Council against the expected accomplishments and indicators outlined in Annex I to this document and recommendations for review will take place prior to the expiry of the current document.

## Acronyms

AMCEN	African Ministerial Conference on Environment
AMCOW	African Ministers' Council on Water
APELL	Awareness and Preparedness for Emergencies at the Local Level
CAMRE	Council of Arab Ministers Responsible for the Environment
CCA	Common Country Assessment
FAO	Food and Agriculture Organization
GEF	Global Environment Facility
GEMS	Global Environmental Monitoring System
GEO	Global Environmental Outlook
GIWA	Global International Waters Assessment
GPA	Global Programme of Action for Protection of the Marine Environment from Land-based Activities
GWP	Global Water Partnership
ICRAN	International Coral Reef Action Network
ICRI	International Coral Reef Initiative
ICSU	International Council of Scientific Unions
IETC	International Environmental Technology Centre (UNEP)
IMDIS	Integrated Monitoring and Documentation Information System
IMF	International Monetary Fund
IMO	International Maritime Organization
IOC	Intergovernmental Oceanographic Commission
IUCN	World Conservation Union
IWRM	Integrated Water Resources Management
MEA	Multilateral Environmental Agreements
MDG	Millennium Development Goals
NEPAD	New Partnership for Africa's Development
PADELIA	Partnership for Development of Environmental Law and Institutions in Africa
PRSP	Poverty Reduction Strategy Paper
UCC-Water	UNEP Collaborating Centre for Water
UNCED	United Nations Conference on Environment and Development
UNDAF	United Nations Development Assistance Framework
UNDG	United Nations Development Group
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training and Research
WHO	World Health Organization
WMO	World Meteorological Organization

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## I. Introduction

1. In 2000, the international community agreed on a selected set of goals, in association with the Millennium Declaration.<sup>1</sup> The Declaration provides a blueprint for poverty reduction and accelerated development and was further elaborated in the 2005 World Summit Outcome.<sup>2</sup> Only one of the Millennium Development Goals – goal 7, and specifically its targets 9 and 10 – directly concerns water and sanitation. However, the achievement of all the Millennium Development Goals hinges on the quality and quantity of available water as water plays a disproportionately powerful role through its impact on such factors as food production and security, hygiene, sanitation and health, and maintenance of ecosystem services.
2. Equitable and sustainable management of water both freshwater<sup>3</sup> and coastal and marine waters is a major challenge for all water users, particularly the poor. According to the World Water Development Report (2003), concerns about the world water crisis include doubling of the number of poor people without adequate water and sanitation; a growing gap between rich and poor and urban and rural population in water and sanitation services; the rising cost of water-related disasters; declining quality of water resources and ecosystems; underfinancing of the water sector; rising pressures on water resources; increasing agricultural and industrial water demand and pollution; and the need to strengthen water governance.
3. Since its establishment, UNEP has worked in the area of water resources assessment and management, promoting the application of collaborative approaches to water resources management. After over 30 years, water remains one of the main priorities of UNEP.
4. Many international forums have devoted significant time and effort to develop mandates, goals, objectives and targets for water resources management. These forums include UNEP Governing Council; the United Nations Conference on Environment and Development, and its outcome, Agenda 21;<sup>4</sup> the Millennium Summit; the World Summit on Sustainable Development; and the twelfth and thirteenth sessions of the Commission on Sustainable Development. Those forums have indicated, and in the case of the Governing Council defined, the mandates and responsibilities of UNEP in the area of water.
5. Implementing those mandates rather than developing new ones is the task ahead: moving from planning to action.
6. In developing the water policy and strategy, the secretariat took into consideration the fact that the twenty-third session of the Governing Council/Global Ministerial Environment Forum also adopted the Bali Strategic Plan for Technology Support and Capacity-building.<sup>5</sup> Therefore, the implementation of the mandated functions of UNEP in the area of water, particularly at the national and regional level, will be an integral component of the coherent, UNEP-wide delivery, of the Bali Strategic Plan. The activities of UNEP and its partners at the regional and national levels shall strive to be mutually supportive and contribute to strengthening national environmental management capacities and to mainstreaming the environment into economic and social development (i.e., into national strategies for poverty reduction and sustainable development).
7. The main purpose of the UNEP water policy and strategy is to facilitate a coordinated, effective and expeditious implementation of the mandated freshwater functions. In the context of the Bali Strategic Plan, the implementation imperative has become even more urgent.
8. To meet the implementation imperative, UNEP has developed the present water policy and strategy along the following lines:

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<sup>1</sup> General Assembly resolution 55/2.

<sup>2</sup> General Assembly resolution 60/1.

<sup>3</sup> The term freshwater in this policy and strategy includes surface waters, groundwater, wetlands, inland (i.e., non-coastal) saline waters, and the freshwater/coastal interface.

<sup>4</sup> *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3–14 June 1992* (United Nations publication, Sales No. E.93.I.8 and corrigenda), vol I: *Resolutions adopted by the Conference*, resolution 1, annex II.

<sup>5</sup> UNEP/IEG/3/4, annex

- (a) Identifying the mandates of UNEP in the field of water;
- (b) Defining a set of strategic principles to focus the work of UNEP;
- (c) Identifying key components of UNEP freshwater activities; and
- (d) Mechanisms for operationalization and monitoring progress.

## II. Mandates of UNEP on water

9. UNEP water policy is defined in part by the overall mandate of UNEP as set forth in the resolutions of the United Nations General Assembly and the UNEP mission:
 

“To provide leadership and encourage partnership in caring for the environment by inspiring, informing and enabling nations and people to improve their quality of life without compromising that of future generations.”
10. In 1997, the Nairobi Declaration on the Role and Mandate of the United Nations Environment Programme<sup>6</sup> further elaborated the mandate to include in particular the roles agreed in Agenda 21 Chapter 17 on oceans and Chapter 18 on freshwater.
11. Decisions of the eighteenth, nineteenth, twentieth and twenty-second sessions of the Governing Council/Forum set forth programmes for UNEP involvement in coral reefs, integrated coastal area and river basin management and the control of marine pollution from land-based activities. Specifically, the nineteenth session and the fifth special session also requested UNEP to place a high priority on freshwater and assist developing countries in strengthening their capacities to assess freshwater and develop and implement integrated water resources management plans through regional cooperation. Governing Council twenty-three further defined elements of a freshwater policy that were lacking in previous policies and strategies (e.g., groundwater). The Governing Council also provided mandates<sup>7</sup> on technology transfer for water resource management and pollution control, urban and rural sanitation, groundwater, and promoting corporate social responsibility, all of which have important contributions to make to integrated water resources management.
12. In 2000, the international community identified the key development priorities through the establishment of goals associated with the Millennium Declaration (Millennium Development Goals). Primary global priorities were identified to be the reduction of poverty and hunger, improvement of human health and achievement of environmental sustainability.
13. In recognition of the seriousness of the freshwater situation in many parts of the world, and of the fact that improved water management is essential for achieving broader economic development goals, in 2002 the World Summit for Sustainable Development adopted the target to develop integrated water resources management and water efficiency plans by 2005.
14. The eighth special session of the Governing Council/Global Ministerial Environment Forum, “stressed that integrated water resources management (IWRM) incorporating an ecosystem approach is a key building block for achieving the water, sanitation and human settlement targets ... for promoting economic growth and achieving targets on health and poverty reduction.”<sup>8</sup>
15. The twenty-third session of the Council/Forum adopted the Bali Strategic Plan for Technology Support and Capacity-building to strengthen the capacity of the Governments of developing countries and countries with economies in transition to enable them, among other things, to achieve their environmental goals, comply with international agreements and implement the programmatic goals set by the Governing Council and other internationally agreed development goals. The indicative thematic areas to be addressed through the Bali Strategic Plan relevant to water include freshwater, pollution, chemicals, waste management, conservation of wetlands, transboundary conservation and sustainable management of natural resources environmental emergency

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<sup>6</sup> Governing Council decision 19/1, annex.

<sup>7</sup> Governing Council decisions 10/19, 11/7, 13/19, 21/1, 22/2, 22/6, 22/7, 23/2,

<sup>8</sup> See document UNEP/GCSS.VIII/8, para. 5.

preparedness and response, sanitation, oceans and seas and coastal areas and land and forest ecosystems.

16. At its thirteenth session, the Commission on Sustainable Development called on Governments and the United Nations system, *inter alia*, to accelerate the provision of technical and financial assistance to countries in preparing nationally owned integrated water resources management and water-efficiency plans tailored to country-specific needs. Additionally, the ninth special session of the Governing Council/Global Ministerial Environment Forum adopted the Strategic Approach to International Chemicals Management (SAICM) which calls for *inter alia* the integration of chemicals management issues into policies for food safety, water and marine ecosystem management.
17. UNEP has been given a lead role in environmental issues as they relate to the sustainable development of oceans and coasts. This role is implemented in particular through the Global Programme of Action for Land-based Activities and the Regional Seas Programmes, each of which has its own strategic planning and workplan development processes. In the field of freshwater, the overall direction for the UNEP water programme is defined by the Governing Council decisions noted above and is guided by resolutions of various intergovernmental forums also noted above – and thereby constituting the freshwater policy. Following the mandate of Governing Council decision 23/2, the present document from here forward presents a strategy to implement this policy.

### III. Goal and objectives

18. Taking into account the mandates noted above, the overall goal of the UNEP water policy and strategy is to contribute substantively to environmental sustainability in the management of all water resources, utilizing integrated ecosystems approaches, as a contribution to the internationally agreed targets and goals relevant to water and socio-economic development.
19. The objectives of the UNEP Water Programme, distilled from its mandates, are:
  - (a) Improved assessment and awareness of environmental water issues;
  - (b) Improved environmental management of basins, coastal and marine waters, including the identification of linkages with ongoing international processes;
  - (c) Improved cooperation in the water sector.

### IV. Strategic principles

20. As UNEP continues to move towards implementing its water mandates and the goal and objectives above, it will be directed by the following conceptual and operational principles to focus its work.

#### A. Conceptual principles

##### 1. Promote ecosystem-based approaches

21. All UNEP work in water resources management is founded in ecosystems-based approaches. Ecosystem-based approaches factor in the full range of terrestrial and aquatic ecosystems, looking at the basin as a whole in both its upstream and downstream dimensions, including, among other things, specific ecosystems such as forests, land, wetlands, urban ecosystems and coastal zones. Similarly, the interface between freshwater and coastal ecosystems must also be taken into consideration in management plans for both types of systems. Ecosystem approaches recognize the social, cultural, economic and environmental needs for sustainable water resource management. Such needs include maintaining biodiversity and the health of the environment through consideration of environmental flows and recognizing the regulatory functions of ecosystems (e.g., wetlands) and their capacity for water recharge, as well as to act as buffers to extreme events and the impacts of urbanization. Founded in these ecosystem considerations, UNEP will work to ensure that the full hydrological cycle (including superficial water recharge) within each hydrological basin is taken into consideration in environmental assessment and management plans.

## **2. Contribute to sound economic and social development, including poverty reduction, through integrated assessment and management of water resources and associated ecosystems**

22. As stated in the Jeju Initiative leading into the twelfth session of the Commission on Sustainable Development, water is a vital resource for economic development and must be managed as such. Maintaining the health of ecosystem services is of particular importance to the poor, as well as preventing the degradation caused by unsustainable natural resource management practices. A shift is needed from an orientation towards supply-side policies to one of more integrated supply- and demand-management approaches which incorporate the value of water for irrigation, drinking water, hydropower and industrial uses while protecting ecosystem services. Consequently, UNEP will promote the greater use of economic instruments such as markets for environmental services and pro-poor environmental fiscal reforms to promote the efficient and equitable use of water. Such instruments should manage demand and generate new revenue to expand water services to the poor through the protection of water supplies, with the resultant improvements in healthcare and cost savings, and through the environmentally sound management (including reuse), treatment and disposal of wastewater. In particular, the promotion of environmentally sound management practices will include the development, adoption and use of tools (e.g., environmental impact assessments and stakeholder dialogue) for sustainable development and management of water-related infrastructure, such as hydropower and sanitation facilities.
23. In this connection, policies and technologies which reduce demand and increase available supplies (e.g., recycling, reuse and alternative sources) will be promoted in urban and rural settings. Also, policies which promote cleaner production techniques and environmentally sustainable technologies which promote efficient water use and reduce pollution will be encouraged. Where privatization of water resources is implemented, it must be carefully reviewed and considered to ensure that the necessary legal, regulatory and institutional frameworks are in place to protect natural resources so that the poor are not further disadvantaged.

## **3. Address risks**

24. Extreme hydrological events such as floods and droughts, other natural and man-made hazards and also accidental pollution of water bodies, pose major risks to growth and sustainable development, additionally, climate change and variability may exacerbate extreme events or require long-term planning for effects such as sea-level rise. These events should be addressed in the context of an integrated approach to water resources management geared towards developing prevention and preparedness measures, together with risk mitigation and disaster reduction strategies, and towards strengthening the prevention and control of pollution resulting from wastewater, solid wastes and industrial and agricultural activities. UNEP will contribute within its mandate to implementing the Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters,<sup>9</sup> which was adopted at the World Conference on Disaster Reduction held from 18 to 22 January 2005 in Kobe, Hyogo, Japan.

## **B. Operational principles**

### **1. Build national and regional capacity: Implementing the Bali Strategic Plan**

25. The Bali Strategic Plan for Technology Support and Capacity-building provides further guidance for the implementation of the UNEP water policy and strategy, particularly as it relates to coordinated action and cooperation with all relevant partners at the national and regional levels. Technology and capacity-building support by UNEP to the ongoing efforts of national Governments and other actors will be based on national and regional assessment of needs (utilizing existing assessments wherever possible). Activities will be linked with efforts already in progress and integrated with other sustainable development initiatives, building on existing capacities. Existing coordinating mechanisms, such as the United Nations Development Group, the UNEP/United Nations Development Programme (UNDP) memorandum of understanding and the resident coordinator system, will be utilized to the fullest extent possible to avoid duplication of efforts.

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<sup>9</sup> See A/CONF.206/6 and Corr.1, chap. I, resolution 2.

## 2. Build on existing programmes and partnerships and form new partnerships

26. Partnership is essential for addressing complex and interlinked water issues. Neither UNEP alone, nor any other organization alone, can fully support Governments in meeting the monumental mandates and challenges described above. That being the case, UNEP will build on existing programmes and partnerships and at the same time establish new ones where appropriate. UNEP, as the United Nations agency responsible for policy guidance and coordination in the area of the environment, will work closely with other United Nations agencies through UN-Water and with regional bodies, municipal authorities, scientific institutions, non-governmental organizations, the private sector and relevant sectoral ministries to ensure that ecosystem-based approaches are fully integrated into water resources management.
27. The use of established programmes and partnerships within UNEP will continue to be evaluated for effectiveness and built upon as appropriate. These include, inter alia, legislative assistance through the Partnership for Development of Environmental Law and Institutions in Africa (PADELIA); assessment through the Global Environmental Monitoring System (GEMS) Water programme; secretariats of the multilateral environmental agreements; the Global Environment Outlook (GEO); technology innovations from the International Environmental Technology Centre (IETC); the International Waters Portfolio of the Global Environment Facility (GEF); the Rainwater Partnership, the GPA, Coral Reefs, and Regional Seas Programmes.

## 3. Promote multistakeholder participation

28. Participation by all stakeholders is fundamental to sustainable water resources management. Active consultation and transparency in the process significantly increase the likelihood of sound development and implementation of water resources management initiatives. UNEP actions will promote the inclusion of all relevant stakeholders in water resource planning and management -- including infrastructure development -- with a particular emphasis on women and indigenous groups as they are often the most adversely affected by unsustainable management.

## V. Freshwater-coastal interface

29. In recent years, the Governing Council, and therefore the UNEP secretariat, has focused its attention on the downstream parts of basins, (i.e., the coasts and further on into the oceans). The Regional Seas Programme was one of the first UNEP programmes and remains an important component of the UNEP Water Programme. More recently, this traditional role has been strengthened through programmes such as GPA, support to small island developing States within the framework of the Barbados Programme of Action for the Sustainable Development of Small Island Developing States<sup>10</sup> and the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States,<sup>11</sup> and attention to coral reef issues through cooperation with the International Coral Reef Initiative (ICRI) and the International Coral Reef Action Network (ICRAN).
30. These coastal and ocean programmes are governed by their own intergovernmental processes, such as the intergovernmental review meetings of GPA or the conferences of parties or intergovernmental meetings of the Regional Seas conventions and action plans. These intergovernmental processes define the policies, strategies and programmes of work of the coasts, oceans, islands and coral reef programmes to which UNEP contributes and will continue to be a strong and integral part of a broader UNEP water programme.
31. Given the above, the present document does not attempt to further define a policy or strategy for oceans and coasts, but focuses specifically on freshwater, including due consideration to interactions with the coastal and marine environment.

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<sup>10</sup> *Report of the Global Conference on the Sustainable Development of Small Island Developing States, Bridgetown, Barbados, 25 April–6 May 1994* (United Nations publication, Sales No. E.94.I.18 and corrigenda), chap. I, resolution 1, annex II.

<sup>11</sup> *Report of the International Meeting to Review the Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States, Port Louis, Mauritius, 10–14 January 2005* (United Nations publication, Sales No. E.05.II.A.4 and corrigendum), chap. I, resolution 1, annex II.

32. With the recognition that water occurs in a continuum from freshwater through the coastal zone to the ocean, an important element of the UNEP freshwater strategy relates to the development of concepts and mechanisms for the linked management of freshwater resources and coastal waters. Freshwater resources play an important role in the coastal environment and to some degree coastal developments affect upstream freshwater resources. Depending on the scale, upstream/downstream integration may include fully integrated river basin-coastal area management planning or building in effective mechanisms for coordinated freshwater and coastal zone management. UNEP, as the secretariat for GPA and several Regional Seas programmes, will ensure that the implementation of the freshwater strategy complements the implementation of GPA and Regional Seas action plans and conventions and vice versa.<sup>12</sup>

## **VI. Freshwater strategy**

33. The overall objectives of the UNEP Water Programme are noted in chapter III above. For freshwater, this objective will be implemented within the overall framework of integrated water resources management and efficiency plans. The term “integrated water resources management” as defined by the Global Water Partnership (GWP)<sup>13</sup> and used in this policy and strategy is a process which promotes the coordinated development and management of water, land and related resources in order to maximize the resulting economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.
34. Integrated water resources management involves a wide range of elements – laws and regulations, policies, stakeholder participation, management plans, etc. – and incorporates aspects including science, technology, economics, culture and society. Incorporating all these elements and aspects also ensures that integrated water resources management is designed and implemented from the standpoint of multiple objectives (including the allocation and management of water resources and water infrastructure) rather than a single environmental objective.
35. Though holistic IWRM planning and implementation is key to tying together these elements, it must be noted that an IWRM plan is not a pre-requisite for UNEP action and assistance. Many countries are in need of more immediate action and technology support and capacity-building to review existing policies, laws, management practices (e.g., water resource allocation), and environmentally sound infrastructure development. Such identified needs already provide a basis for UNEP support, while an IWRM planning process can continue on a parallel track to provide for longer-term incorporation into national poverty reduction strategies and sustainable development plans.

## **VII. Key components for freshwater**

36. So far, this document has outlined key mandates which UNEP has been given for water resources and has also outlined key strategic principles to focus and guide UNEP activities in the area of water. UNEP activities in the area of freshwater are organized into three key components: assessment; management; and cooperation towards mainstreaming environmental considerations into integrated water resources management. These three mutually supportive and interconnected components provide the basis to support an environmentally focused approach to integrated water resources management process at national, subregional, regional and global levels.
37. The three components are described below and are further elaborated upon in Annex 1 which describes programmatic interventions, the expected accomplishments and UNEP’s comparative advantage in each area.

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<sup>12</sup> In addition to the GPA ([www.gpa.unep.org](http://www.gpa.unep.org)) UNEP also supports the FreshCo Partnership ([www.ucc-water.org/Freshco](http://www.ucc-water.org/Freshco)) and the White Water to Blue Water Initiative ([www.ww2bw.org](http://www.ww2bw.org))

<sup>13</sup> Global Water Partnership Technical Advisory Committee, TEC Background Paper No. 4: Integrated Water Resources Management (Stockholm: Global Water Partnership, 2000), p. 22.

## A. Assessment

38. Assessments which build the knowledge base for water resources and related ecosystems are the primary element for developing, implementing and evaluating appropriate management measures that take into account the needs of the environment and society. Such assessments must focus not only on the water resources themselves – in terms both of quantity and quality – but should also include the assessment of related ecosystems.
39. Assessment of water resources has three main functions at the national, regional and global levels:
  - (a) To provide a knowledge base from which to develop, manage, monitor and evaluate water resources programmes and to encourage the integration of sustainable water resources management into development policies and processes;
  - (b) To raise awareness and inform stakeholders (including the public) of water resources issues and concerns, including demand;
  - (c) To assess threats, trends and emerging issues where future action may be needed.
40. Effective water resource management – policy, planning and implementation – depends on an accurate and scientifically credible knowledge base of water resources and water demand, together with socio-economic factors. A sound knowledge base allows the formulation of management plans which are specific on the local, national, subregional and basin-wide levels and is also a basis for action programmes. Likewise, monitoring of water-related ecosystem conditions within an area being managed under a water resources plan provides feedback to decision-makers to enable modifications to the plan so as to assess the value of the hydrological services of the ecosystems and of the water resources to maximize sustainable use. Water resource assessments at the subregional, regional and global levels can inform regional and global decision-makers and the public, who can then better guide action programmes.
41. To inform stakeholders, assessments must be clear and tailored to specific audiences while maintaining their scientific integrity. Such information must facilitate and enable interaction and participation by all sectors of society to make informed choices and decisions about managing water resources. As noted above, awareness that includes the interconnectivity of water-related ecosystems is imperative to provide stakeholders with an understanding that enables ecosystem-based water policies to be established which fully reflect the economic, social and environmental value of the resource.
42. The UNEP assessment component will provide information on threats, trends and emerging issues. Threats from natural water-related hazards and threats to water resources are not static. Assessments of new and emerging areas must also be at the core of UNEP work. This will include providing information on the environmental aspects of the world water situation. Information on trends and possible alternative scenarios can assist in anticipating problems and in taking corrective action before it becomes too late. This subcomponent is also at the heart of an ecosystem-based approach as impacts of concern in interrelated ecosystems can be telltale signs for impending disaster in others. Included in such assessment work will be assessment of potential threats from climate change to ensure that management plans can include climate change adaptation measures.

## B. Management

43. Integrated water resources management provides an ecosystem-based approach to water resources management which encompasses both water quality and quantity. It builds on the interconnectivity between the various components of the natural resource base, i.e., of ecosystems, and links it with the institutional, social and economic elements of water resources management to provide the integrated management framework needed to deal with the particular problems related to the sustainable maintenance of the ecosystems and the services which they provide.
44. Integrated water resources management also encompasses technical and governance perspectives:
  - (a) A technical perspective which combines interactions between land, groundwater, surface water and marine resources with respect to quality as well as quantity and the requirements of the ecosystems;

(b) An environmental governance perspective, which includes two key elements, cross-sectoral integration in water resources management and the integration of all stakeholders in the planning and decision-making process:

(i) Cross-sectoral integration makes the institutional linkages between the sectors using or impacting on water resources and water-related ecosystems and implies that water related developments within all economic and social sectors must be taken into account in the overall management of water resources. Thus, water resources policy must be integrated into national economic and national sectoral policies. This means recognizing the value of water and addressing its risks while at the same time ensuring that sustainable management of water resources is effectively integrated into the social and development pathway which is adopted;

(ii) Stakeholder integration ensures that actors such as water users, local and national authorities, regional and subregional bodies and institutions and also United Nations and international financial institutions are involved in decision-making and management. Stakeholders will vary according to the management and planning level considered. Indigenous peoples, women, and the poor in particular have knowledge to bring which can provide new and innovative ideas for management and efficiency plans.

45. Within an integrated water resources management framework, there are three pillars within which UNEP will focus its interventions to address the technical and governance perspectives:

(a) The enabling environment: the general framework of national and international policies and strategies, legislation, financing mechanisms, and the dissemination of information for water resources management stakeholders. This framework enables all stakeholders to play the appropriate roles in the sustainable development and management of the resource;

(b) The institutional functions: these allow effective interaction between various administrative levels and stakeholders. Collaborative mechanisms and forums are needed to facilitate cross-sectoral integration and stakeholder participation so that the integration of environmental water management functions into an overall water resources management framework is strengthened;

(c) Management instruments: these include operational instruments for effective planning, regulation, implementation, monitoring and enforcement. With such instruments, decision-makers will be able to make informed choices between actions. These choices must be based on agreed policies, available resources, environmental impacts and the social and economic consequences. Management instruments also include practical and technical guidance and technologies for water resources management.

## **C. Cooperation**

46. This section outlines cooperation mechanisms at the national, regional, subregional and global levels through which UNEP will deliver on the environmental assessment and management components described above. At each level, the avenues for cooperation with various partners are identified to ensure that a coordinated policy and strategic framework goes hand-in-hand with a coordinated delivery framework for joint interventions with partners. There are also some common cooperation mechanisms which UNEP will follow at all levels, including an emphasis on United Nations system-wide cooperation in policy, strategy and implementation and on the need to engage international financial institutions wherever appropriate and possible so as to maximize impact and assist developing countries and countries with economies in transition.

### **1. National level**

47. National Governments, having committed themselves to the Johannesburg Plan of Implementation, have primary responsibility for implementing the 2005 integrated water resources management target. That being the case, there must be the political will to ensure coordinated national action, accompanied by the allocation of domestic resources. The United Nations system has also committed itself to assisting countries where national capacities are limited. Effectiveness of action at the national level and the need for national ownership require that national Governments must

give ongoing direction to the United Nations system on their needs and the responses to them which they request.

48. As noted in section IV B above on operational principles, the Bali Strategic Plan provides supplementary guidance for increasing effectiveness at the country level in the areas of technology support and capacity-building. That starting point for improving effectiveness must be the development of a coherent UNEP programme for Governments, to be carried out in cooperation with relevant partners (in particular through the UN country teams), and clearly based on national priorities and national needs – i.e., demand-driven. On the basis of an identification of those needs, UNEP will work with partners to support national technology support and capacity-building to deliver implementation of the water policy and strategy where requested by Governments.
49. Response to Governments' requests for technology support and capacity-building at the national level will be responded to, in cooperation with partners and in particular with other United Nations agencies, for example through the common country assessment/United Nations Development Assistance Framework system, and will make full use of the UNEP/UNDP memorandum of understanding. The Secretary-General, in his report entitled "In larger freedom: towards security, development and human rights for all"<sup>14</sup> on the occasion of the 2005 World Summit, emphasized that the United Nations as a whole needs a more integrated structure for environmental standard-setting and that regional activities at the country level should benefit from synergies, on both normative and operational aspects, between United Nations agencies, making optimal use of their comparative advantages to realize an integrated approach.<sup>15</sup> Consequently, programme coherence between all United Nations agencies, Government agencies, national institutions and donors working in a particular country is essential. Also, the Bali Strategic Plan and its implementation as outlined by UNEP in document UNEP/GCSS.IX/3/Add.1, should be considered in tandem with the water policy and strategy.
50. National implementation will focus on the importance of sustainable water resources management for poverty reduction. That being the case, UNEP will work with others to build national capacity to integrate water resources management into national poverty reduction strategies and sustainable development plans. Recognizing also the key role of cities, UNEP will work to integrate water resource management issues into city development strategies. It will also provide normative assistance and support for policy development to both developed and developing countries to promote integrated water resources management for sustainable development worldwide.

## 2. Regional and subregional levels

51. Coordination of UNEP water-related activities at the regional and subregional levels will be achieved through strengthened and reinforced UNEP Regional Offices, Regional Seas, out-posted offices and other mechanisms already in place. Consistent with national-level implementation of the water policy and strategy, technology support and capacity-building efforts at the regional and subregional levels will also follow the Bali Strategic Plan. UNEP activities will also support regional and subregional strategies defined by intergovernmental bodies, including basin organizations. UNEP will implement the water policy and strategy through its cooperative frameworks with environmental ministerial forums, such as the African Ministerial Conference on the Environment (AMCEN), the Council of Arab Ministers Responsible for the Environment (CAMRE) and the Forum of Ministers of the Environment of Latin America and the Caribbean, regional ministerial forums on water, such as the African Ministers' Council on Water (AMCOW), the African Union (AU), other forums and processes such as the New Partnership for Africa's Development (NEPAD), and also through relevant regional multilateral environmental agreements. UNEP will promote the strengthening/formation of regional networks for information exchange, capacity-building, and for catalyzing South-South cooperation. It will also support the formation of networks at the ecoregional level and for catalysing North-South cooperation.
52. As hydrological basins are often crossed by political boundaries, progress towards sustainable development goals may require international cooperation. In such transboundary basins, including

<sup>14</sup> A/59/2005 and Add.1, Add.2 and Add.3.

<sup>15</sup> Ibid., para. 212. See also annex, subpara. 8 (i).

river basins with water flowing from one country to another and groundwater resources shared by countries, riparian countries may establish regional or subregional arrangements, taking into account national conditions as well as the greater characteristics of the overall basin, within an economic, social and environmental context. UNEP, in cooperation with other international partners and funding mechanisms (e.g., the Global Environment Facility) may provide normative environmental support (e.g., assessment and dialogue) as well as capacity building, if requested by all of the affected riparian countries.

### **3. Global level**

53. As the key agency within the United Nations system responsible for policy guidance and coordination in the field of the environment, UNEP will support system-wide efforts to integrate its relevant activities into a cohesive and complementary programme to maximize United Nations impact while at the same time respecting the relative strengths and capacities of the various agencies in the United Nations system.
54. In so doing, UNEP will work closely through UN-Water and with the United Nations Environmental Management Group to ensure that ecosystem approaches are fully taken into account in United Nations and intergovernmental policy discussions on water resources. Efforts will be made to encourage the secretariats of relevant multilateral environmental agreements to promote integrated water resources management within their mandates.
55. To address specific issues, collaborative arrangements for the implementation of the UNEP water policy and strategy will be made with specialized programmes and institutions including civil society; the autonomous secretariats of multilateral environmental agreements; UNDP, through its memorandum of understanding with UNEP; the United Nations Development Group (UNDG); the United Nations Human Settlements Programme (UN-Habitat); the International Maritime Organization (IMO); the Food and Agriculture Organization of the United Nations (FAO); the World Conservation Union (IUCN); the United Nations Institute for Training and Research (UNITAR); the World Bank, in particular within the framework of GEF; the International Monetary Fund (IMF); the International Oceanographic Commission (IOC) of the United Nations Educational, Scientific and Cultural Organization (UNESCO); the World Meteorological Organization (WMO); the International Council of Scientific Unions (ICSU) in global observing systems; and the World Health Organization, WMO and UNESCO within the framework of GEMS Water.
56. UNEP, UN-Habitat and WHO have a particularly important role to play in dealing with the integrated issues of water, sanitation and human settlements in accordance with the decisions adopted by the Commission on Sustainable Development at its thirteenth sessions.
57. UNEP will build a clearing-house mechanism through the Bali Strategic Plan which will complement existing mechanisms such as the GWP Toolbox, the Japan Water Forum database, UNESCO Water Portal, the United Nations Department of Social Affairs web-based best practices, and UNDP Cap-Net. This clearinghouse will promote synergy, the shared learning of experiences, reduce duplication of efforts with other agencies and match delivery to demand.
58. UNEP will forge and strengthen partnerships at the global level with major groups as a means of drawing on the range of available mechanisms and expertise to promote the sustainable management and use of water resources and to identify best-practice responses to environment-related freshwater issues. This will include working through existing international partnerships such as the World Water Council, the Water Alliance, the Japan Water Forum, the Rainwater Partnership and the GWP, and will also include forming other relevant partnerships as necessary.

## **VIII. Operationalizing the strategy in the UNEP programme of work**

59. Every two years, UNEP presents its biennial programme of work and budget to the Governing Council at its regular session. The biennial programme of work is drafted by the secretariat and reviewed by the Governments before final debate and adoption by the Council. This policy and strategy therefore provides direction to the secretariat in its drafting of the programme of work:

expected accomplishments, indicators of achievement and specific activities and outputs; for the period 2007-2012

60. Annex 1 and 2 of this policy and strategy provide more specific direction to the UNEP secretariat for the development of its programme of work as they describe the relevant areas of UNEP's comparative advantage in the environmental field and topical focal areas.
61. UNEP will work to ensure that UNEP-implemented water projects funded by the Global Environment Facility and other sources create maximum synergies and complementarities with the projects and activities carried out under the water policy and strategy. Additionally, UNEP will seek extrabudgetary funding, in particular through partnerships with donors, to maximize implementation of this water policy and strategy.

## **IX. Monitoring the water policy and strategy**

62. UNEP will regularly monitor implementation of the water policy and strategy through its internal monitoring procedures. The overall expected accomplishments and indicators of each of the components of the strategy are described in Annex 1 and will be elaborated upon through the biennial UNEP programme of work. As the water policy and strategy will guide the development of the programme of work, and consistent with the intrinsic principle on building on what already exists, the United Nations results-based system for monitoring implementation of the programme of work (i.e., the Integrated Monitoring and Documentation Information System, IMIDIS), used by UNEP, will be utilized to provide day-to-day monitoring of the water policy and strategy and for the development of annual and biennial UN reporting.
63. Formal qualitative implementation reports will be provided to Governments at the regular sessions of the UNEP Governing Council and will be used to gauge progress made towards the stated goal and objectives elaborated through the three main components of assessment, management and cooperation, and in accordance with the Annex I indicators. Regional, intergovernmental and other forums will further facilitate continuous and systematic reviews.
64. Two years prior to the expiry of this policy and strategy (2010), the secretariat will prepare a draft, updated policy and strategy for the subsequent six-year term of 2013-2018. This will be circulated to the regular session of the Governing Council in 2011, such that a final draft may be circulated no later than September 2012 for consideration by the GC in 2013.
65. However, during the six-year term of the water policy and strategy, should circumstances warrant an earlier update to consider unforeseen and emerging issues, the Governing Council may make such a request at its regular session.

## Annex I Areas of Programmatic Intervention in Freshwater

Expected Accomplishment	Indicators	Areas of UNEP Comparative Advantage
<b>Component 1 – Assessment*</b>		
<b>1.1. Provide knowledge base</b>		
<ul style="list-style-type: none"> <li>Integrated assessments address environmental aspects of water and support national development planning and policy (e.g., PRSPs, UNDAF)</li> <li>Policy relevant environmental assessments and environmental profiles are developed for IWRM priority setting and monitoring effectiveness of management initiatives, as well as for compliance and enforcement</li> <li>Technology-support and capacity-building for environmental assessment of water resources is provided at the regional, sub regional and national levels</li> <li>Economic valuation of water related ecosystem services and water resources are fully integrated into water resource development and management scenarios</li> <li>Regional, sub regional, national and local stakeholders are able to carry out assessments towards the restoration of degraded surface and groundwater related ecosystems</li> <li>Relevant regional organizations are assisted (upon request) to develop and maintain regionally harmonized water databases and assessment reports, paying due attention to freshwater-coastal interaction, transboundary waters and groundwater</li> </ul>	<ul style="list-style-type: none"> <li>Integrated water resources management processes and plans are based on scientific, economic and rational priority setting and revised based on continuous monitoring and adjustment</li> <li>Priority consideration is given to the economic value of ecosystem services related to water resources in national development plans</li> <li>Environmental profiles are used in setting priorities and for implementation of BSP needs assessments</li> <li>Environmental assessments are conducted for ecosystem restoration</li> <li>Regional water basin environmental issues are well understood and acted upon by relevant actors</li> <li>Regional water resource assessment methodologies are based on comprehensive, quality data sets</li> </ul>	<ul style="list-style-type: none"> <li>Identification or development of integrated assessment methods on water quality and quantity issues and related ecosystems</li> <li>Assist in the development of integrated assessments at national, regional and global level (not only methods, but actual assessments)</li> <li>Support the development of national environmental profiles</li> <li>Capacity-building for socio-economic assessments to assess the value of water resources (surface, coastal and groundwater)</li> <li>Assist in the development of institutional frameworks to translate assessment results into policy</li> <li>Identify or develop methodologies and build capacity for surface and groundwater ecosystem restoration for ecosystems degraded by natural or human induced impacts</li> <li>National and regional capacity-building on the use of environmental assessment methodologies for integrated water resources management planning, implementation and monitoring – including for transboundary water resources when requested</li> </ul>
<b>1.2 Raise awareness and inform stakeholders on water resources issues</b>		
<ul style="list-style-type: none"> <li>Decision makers and other stakeholders are made aware of the importance of integrated water resources management for achievement of MDGs, and in particular poverty reduction</li> <li>Increased awareness among stakeholders of the value of water resources and the interlinkages between related ecosystems (e.g., freshwater-coastal) and their</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholders are actively engaged in IWRM processes and bring valuable contributions to ensure competing uses for the overall benefit of society -- particularly the poor – are taken into consideration</li> <li>IWRM plans address freshwater-coast</li> </ul>	<ul style="list-style-type: none"> <li>Develop tailored integrated water assessments (including social and economic information) for specific audiences, including for the development of poverty reduction strategy papers and United Nations Development Assistance Frameworks</li> <li>Promote understanding of the interlinkages between freshwater and coasts</li> </ul>

\* Interventions in Components 1 and 2 will be implemented cooperatively with partners as indicated in Component 3

Expected Accomplishment	Indicators	Areas of UNEP Comparative Advantage
<p>related ecosystem services</p> <ul style="list-style-type: none"> <li>Long-term macro economic consequences and progress in non-action areas (e.g., health, poverty, hunger) are monitored</li> <li>Improved access to water resource environmental assessment information</li> <li>All relevant actors support well-defined national environmental priorities impacting on socio-economic development</li> </ul>	<p>interlinkages, groundwater and water resource augmentation (e.g., rainwater)</p> <ul style="list-style-type: none"> <li>Poverty reduction strategy papers and Common Country Assessments/United Nations Development Assistance Frameworks include environmental water resource concerns</li> </ul>	<ul style="list-style-type: none"> <li>Promote better understanding of groundwater and water resource augmentation (e.g., rainwater) in an IWRM context</li> <li>Identify and develop an environmental water resources information database, including information on relevant clean technologies</li> <li>Dissemination of information and guidelines on surface- and groundwater quality and the safe reuse of treated wastewater</li> <li>Identification and dissemination of traditional knowledge and best practices</li> </ul>
<b>1.3 Provide information on threats, trends and emerging issues</b>		
<ul style="list-style-type: none"> <li>Global community is informed on primary and emerging threats to the environmental integrity of water resources</li> <li>Dialogue forums provided for trends and emerging issues that impact upon the environmental aspects of water resources</li> <li>Environmental state of global water resources is kept under review and the international community, all stakeholders and the general public are well informed</li> <li>Alternative environmental scenarios developed for water resources management</li> </ul>	<ul style="list-style-type: none"> <li>Integrated water resources management processes and plans take into account natural disasters (such as hurricanes, droughts and floods), climate change and adaptation</li> <li>Alternative water resource development scenarios (e.g., hydropower, desalinization) and their environmental impacts are assessed in the context of local and national development strategies</li> <li>Water resource scenarios consider relevance of related ecosystem services</li> <li>Environmental aspects of global water resources and related emerging issues are discussed at global fora</li> </ul>	<ul style="list-style-type: none"> <li>In cooperation with others, collect and disseminate information on threats, trends and emerging issues such as climate variability, urbanization, water infrastructure, desertification, deforestation, etc.</li> <li>Development of scenarios on impacts of threats to water resources to ensure that integrated water resources management considers contingencies</li> <li>Expand availability and use of information on environmental flows and their relevance to IWRM</li> <li>Development and dissemination of global state of water resource reports (e.g., GEO)</li> </ul>
<b>Component 2: Environmental Management</b>		
<b>2.1 Create enabling environment</b>		
<ul style="list-style-type: none"> <li>National environmental legislative and policy frameworks are developed to support IWRM plans and processes</li> <li>IWRM financing mechanisms are created that include consideration of payment for ecosystem services</li> <li>Regionally differentiated IWRM environmental policies and legislative frameworks are developed, built upon the structure and foundation of UNEP's Water Policy and Strategy</li> <li>National IWRM plans are supportive of wider regional/river basin management plans (including for transboundary basins)</li> </ul>	<ul style="list-style-type: none"> <li>Environmental components of IWRM plans are solid and defensible and well grounded in national development frameworks</li> <li>National financing options and funding levels in support of environmental components of IWRM are increased</li> <li>Value of water resources for both human and environmental purposes are incorporated into national development strategies</li> <li>Regional entities and commissions have</li> </ul>	<ul style="list-style-type: none"> <li>Provide policy support to incorporate environmental aspects of water resource management and the economic value of water related ecosystems into national poverty reduction strategy papers and sustainable development plans</li> <li>Capacity building in payments for ecosystem services using for example the UNECE code of conduct on payments for ecosystem services in integrated water resources management.</li> <li>Provide guidance and technical and legal support to governments on environmental aspects of IWRM, including on the relevance of freshwater-coast interlinkages</li> </ul>

Expected Accomplishment	Indicators	Areas of UNEP Comparative Advantage
<ul style="list-style-type: none"> <li>• Policy and legislative frameworks including the value of ecosystem services are supported for the management of transboundary basins, where requested by all relevant parties</li> <li>• Enhanced application of ecosystem approaches as an overarching policy and programmatic framework for IWRM with all partners</li> </ul>	<p>environmentally sound legislative and policy frameworks for joint management of water resources</p> <ul style="list-style-type: none"> <li>• Regional IWRM plans give due consideration to the value of ecosystem services</li> <li>• Global environmental frameworks for water resource management are founded in IWRM</li> </ul>	<ul style="list-style-type: none"> <li>• Promote integration of GEF-supported international water projects into national sustainable development planning</li> <li>• Provide legislative and policy support to develop or implement IWRM based transboundary basin management initiatives, where requested by all relevant riparian governments</li> </ul>
<b>2.2 Institutional functions</b>		
<ul style="list-style-type: none"> <li>• Strengthened and reformed national institutions to address the full range of environmental issues associated with IWRM</li> <li>• Relevant national institutions consult with each other on environmental aspects of water resource management issues as part of their core operations</li> <li>• Local, national and regional inter-institutional dialogues on key water resource management issues are facilitated where requested that include all relevant stakeholders</li> <li>• Increased cooperation and networking between institutions across relevant sectors (including freshwater and coastal sectors) at the national, subregional, regional and global levels on environmental aspects of water resources</li> <li>• IWRM plans contain practical guidance on cross-sectoral integration of relevant institutions within the context of national and sectoral development plans and goals</li> </ul>	<ul style="list-style-type: none"> <li>• National institutional mandates and work plans accommodate the environmental aspects of water resource management</li> <li>• Recommendations of national, regional/subregional and global dialogues are incorporated into IWRM plans</li> <li>• Institutional frameworks are established to address transboundary water concerns</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthen and support reform of national environmental institutions and regional cooperative mechanisms for water resources.</li> <li>• Facilitation of inter-institutional dialogue meetings on environmental aspects of IWRM at the local, national and regional levels</li> <li>• Facilitate creation of institutional mechanisms whereby all stakeholders contribute to IWRM</li> <li>• Assist interested and concerned governments in establishing dialogue mechanisms to enable stakeholders to interact on the freshwater-coast interface</li> <li>• Support establishment of regional/subregional institutions that address environmental aspects of IWRM collectively</li> </ul>
<b>2.3 Management Instruments</b>		
<ul style="list-style-type: none"> <li>• Environmental guidelines, methods and other tools and operational instruments for IWRM are developed and made available at the national, regional and global levels</li> <li>• Coordinated environmental technical support and capacity-building at the national, subregional, and regional levels in the use of IWRM instruments</li> <li>• Innovative and environmentally sustainable technologies are available for IWRM</li> <li>• Conservation finance mechanisms and instruments are</li> </ul>	<ul style="list-style-type: none"> <li>• Ecosystem services, conservation finance and water resources valuation are integral aspects of IWRM planning and processes</li> <li>• Water resource managers have the necessary environmental technologies, technical and management tools at their disposal to implement IWRM</li> <li>• Sound technical implementation of IWRM and water efficiency planning at the national, subregional and regional levels</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and promote development and transfer of low-cost technologies, including alternative water supplies such as desalination, wastewater reuse, pollution prevention and rainwater harvesting, and water efficiency</li> <li>• Identify and promote operational instruments to support protection and rehabilitation of basins and their ecosystems</li> <li>• Identification or development of guidelines for: <ul style="list-style-type: none"> <li>- prevention and preparedness guidelines, together with risk mitigation and disaster reduction, including early-warning systems for water resources</li> </ul> </li> </ul>

Expected Accomplishment	Indicators	Areas of UNEP Comparative Advantage
actively incorporated into IWRM		<ul style="list-style-type: none"> <li>- consideration of interconnected ecosystems (e.g., land, forests), including freshwater-coast interlinkages;</li> <li>- capacity-building for monitoring compliance and enforcement; and</li> <li>- financing ecosystem-based approaches towards IWRM</li> </ul>
<b>Component 3: Cooperation</b>		
<b>3.1 National level</b>		
<ul style="list-style-type: none"> <li>• Ongoing national IWRM processes include integration and mainstreaming of environmental considerations in cooperation with other development partners</li> <li>• National governments express political will, commitment and ownership of national IWRM processes and plans</li> <li>• National environmental policies and mechanisms for IWRM are communicated to the local (city) level</li> <li>• UNEP work towards promoting environmental aspects of IWRM at the country level under the BSP umbrella is fully aligned with other actors (in particular other UN-Agency partners)</li> <li>• Where previously absent, national IWRM processes are initiated with fully integrated environmental components and in cooperation with other development partners</li> </ul>	<ul style="list-style-type: none"> <li>• National IWRM planning and processes include strong environmental considerations</li> <li>• National budgets reflect commitment to IWRM</li> <li>• Coherent delivery of United Nations support at the national level in the context of UNDG</li> <li>• Cities embrace national IWRM environmental principles and practices applied at the local level</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate environmental capacity needs in cooperation with development partners for water resources management</li> <li>• Catalyse and facilitate IWRM environmental capacity at national level within the framework of the Bali Strategic Plan (through workshops and guidelines) for assessment and management.</li> <li>• Technical environmental workshops and guidance that improve knowledge and access to innovative and appropriate technologies.</li> <li>• Promote integration of UNEP-supported water activities at the national level with those of other actors such as the United Nations, GEF, bilateral donors and development banks</li> <li>• National level environmental related water resource management initiatives implemented in the context of the UNEP/UNDP MOU</li> </ul>
<b>3.2 Regional and subregional levels</b>		
<ul style="list-style-type: none"> <li>• Strengthened regional networks to deliver regionally consistent and mutually supportive IWRM programmes that contain strong environmental components/considerations</li> <li>• Environmental aspects of IWRM are incorporated into ongoing or newly initiated regional and subregional processes in cooperation with other development partners and regional networks and intergovernmental institutions</li> <li>• Cooperative frameworks are provided, where requested by all relevant parties, for dialogue on transboundary waters and infrastructure development (e.g., hydropower)</li> </ul>	<ul style="list-style-type: none"> <li>• Regional and subregional networks and institutions incorporate components of UNEP water policy and strategy into IWRM plans and processes</li> <li>• National governments and other stakeholders at the regions and subregional levels strive to reach consensus on management of transboundary waters</li> </ul>	<ul style="list-style-type: none"> <li>• Support to regional networks (e.g., AMCOW, CAMRE) in their efforts to promote integrated water resources management.</li> <li>• Provide institutional and technical capacity-building for the environmental management of shared basins and aquifers where requested, including the freshwater-coast interface and consideration of economic factors</li> </ul>

Expected Accomplishment	Indicators	Areas of UNEP Comparative Advantage
<b>3.3 Global Level</b>		
<ul style="list-style-type: none"> <li>• Environmental aspects of UN-Water are strengthened through UNEP's contribution</li> <li>• Global coordinating mechanisms (e.g., MEAs) benefit from UNEP support to their water resources initiatives and programmes</li> <li>• Global progress towards IWRM plan development and implementation is monitored, in particular the environmental aspects</li> </ul>	<ul style="list-style-type: none"> <li>• Global actions in water resources avoid duplication and maximize complementarity of activities</li> <li>• Relevant multilateral environmental agreements develop water programmes tailored to their specific needs and complementary initiatives are undertaken between relevant MEAs</li> <li>• Global IWRM indicators and monitoring schemes are developed and include clear environmental aspects</li> </ul>	<ul style="list-style-type: none"> <li>• Provide support for environmental water resource management as a contribution to UN-Water, the United Nations International Decade for Action, "Water for Life", 2005–2015, the Global Water Partnership and other relevant global organizations and actively participate in promoting ecosystems-based approaches to water resources management</li> <li>• Work with UN-Water and other development partners to monitor progress towards the WSSD IWRM 2005 target that includes environmental considerations</li> <li>• Consistent with the Bali Strategic Plan, develop a database and clearing-house mechanism of relevant UNEP activities worldwide in the field of environmental capacity-building</li> <li>• Support the secretariats of the multilateral environmental agreements to promote the values and components of the UNEP water policy and strategy</li> </ul>

## Annex 2: Thematic Areas for Strategic Intervention

Strategic Principle	Thematic areas	Relevant UNEP Programmes and Initiatives
<b>Promote ecosystem-based approaches</b>	<b>Groundwater (including groundwater/surfacewater connectivity)</b>	<b>Global Environment Monitoring System (GEMS) Water</b> <b>Global International Waters Assessment (GIWA)</b>
	<b>Ecosystem restoration</b>	<b>Iraqi Marshlands</b>
	<b>Freshwater-coastal linkage</b>	<b>GPA/Regional Seas</b> <b>Fresh-Co Partnership</b> <b>UNEP Collaborating Centre on Water and Environment (UCC)</b> <b>Collaboration through UN-Water</b> <b>White Water to Blue WaterCoral Reef Programme</b>
	<b>Environmental flows: quality and quantity issues</b>	<b>GEMS/Water</b> <b>GIWA</b> <b>UCC</b>
	<b>Water resource augmentation (e.g., rainwater and desalinization)</b>	<b>Rainwater Partnership</b> <b>Pilot Demonstration Projects</b>
	<b>Transboundary water resources management</b>	<b>Regional Seas</b> <b>UCC</b> <b>UNECE code of conduct on payments for ecosystem services in integrated water resources management</b>

Strategic Principle	Thematic areas	Relevant UNEP Programmes and Initiatives
Contribute to sound economic and social development, including poverty reduction	Sanitation, wastewater collection, reuse and reallocation	<b>Global Programme of Action for Land-based Activities</b> <b>Regional Seas</b> <b>Nairobi River Basin Project</b>
	Mainstreaming environment into development processes	<b>Poverty and environment programme</b> <b>Pro-Poor Markets for Ecosystems Initiative</b> <b>UCC</b> <b>Bali Strategic Plan</b>
	Environmentally sustainable technologies	<b>Bali Strategic Plan – Technology Support component</b> <b>Pilot Demonstration Projects on:</b> <ul style="list-style-type: none"> <li>-Sanitation and Wastewater Management</li> <li>-Drinking water provision</li> <li>-Eco-towns and integrated solid waste management</li> </ul>
	Legal instruments	<b>Partnership for Development of Environmental Law and Institutions in Africa (PADELIA)</b>
	Water demand management and water conservation	<b>UCC</b> <b>Resource augmentation -3Rs principle and tapping alternative resources</b>
	Dams and hydropower	
	Infrastructure development for water resources management	
	Water and the MDGs	<b>Poverty and Environment</b> <b>Rainwater harvesting</b>
Address risks	Adaptation to climate variability	Awareness and Preparedness of Emergencies at Local Level

Strategic Principle	Thematic areas	Relevant UNEP Programmes and Initiatives
	<b>Extreme hydrological events</b>	<b>(APELL)</b> <b>Post Conflict and Disaster Management</b> <b>Managed aquifer recharge with rainwater as an adaptation to climate change</b> <b>MEA support</b> <b>UNEP/UNIDO network of National Cleaner Production Centres</b>
	<b>Water pollution control</b>	
	<b>Environment and security –post disaster management</b> <b>Disaster Prevention and Risk Management</b>	
	<b>Waste management /Cleaner production</b>	
	<b>Chemicals</b>	
<b>Build national and regional capacity</b>	<b>Technology transfer</b>	<b>Bali Strategic Plan</b> <b>China –Africa capacity building programme</b> <b>UCC</b>
	<b>South-south cooperation</b>	
	<b>Water sector capacity-building needs assessment needs</b>	<b>Bali Strategic Plan</b> <b>UNEP/UNDP Memorandum of Understanding</b> <b>UCC</b>
<b>Build on existing programmes and partnerships and form new partnerships</b>	<b>Legal instruments</b>	<b>Partnership for Development of Environmental Law and Institutions in Africa (PADELIA)</b>
	<b>Rainwater harvesting</b>	<b>Rainwater Partnership</b>
	<b>Urban water resources</b>	<b>Cities Alliance</b> <b>Sustainable Cities Programme</b> <b>Waste water management</b>

Strategic Principle	Thematic areas	Relevant UNEP Programmes and Initiatives
Promote multi-stakeholder participation	Gender and water	<b>Gender and Water task force</b> <b>Global Water Partnership (GWP) /GWA</b>
	Intergovernmental/inter-stakeholder dialogue	UCC