

## **GPA STRATEGIC ACTION PLAN TO ADDRESS MUNICIPAL WASTEWATER AS A MAJOR LAND-BASED POLLUTANT AFFECTING COASTAL ZONES AND MARINE ECOSYSTEMS**

*In the period 2000-2001 a major mandated task of the UNEP/GPA Coordination Office is to forward and coordinate the implementation of the GPA Strategic Action Plan on Municipal Wastewater. A global consultative process is part of this Action Plan.*

### **Rational for the Strategic Action Plan**

Domestic wastewater discharges are considered one of the most significant threats to sustainable coastal developments worldwide. The priority for action on “sewage” was identified by:

- The Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (Washington, 1995);
- Seven regional workshops of Government-designated experts held in the period 1996-1998 in the framework of UNEP’s Regional Seas Programme and involving more than 60, mostly developing, countries;
- UNEP Governing Council (decision 20/19B.1.d) who requested the Executive Director in cooperation with other relevant organizations to explore the possibility to convene a global conference to address sewage as a major land-based source of pollution, affecting human and ecosystem health.

Municipal wastewater discharges (that is, the wastewater discharged from households, commercial undertakings, small industries and hotels) are of particular importance due to their concentrated impact. Wastewater improperly discharged to freshwater and coastal environments presents a variety of concerns, such as: (a) pathogens that may result in human health problems, (b) increase in suspended solids, (c) significant nutrient inputs, and (d) higher levels of biochemical oxygen demand (BOD). The state and the health of the oceans are closely related to ecosystem and public health concerns and food security issues. The sustainable use of oceans contributes in many countries significantly to the economy and the social wellbeing of the population. The income and nutrition of many people, particularly in poorer countries, depend directly on the use of coastal and marine resources - fishing and tourism being obvious examples.

### **Aim of the Strategic Action Plan**

This Strategic Action Plan aims at supporting the efforts of States to address the serious public health problems and the degradation of coastal ecosystems that result from the disposal in coastal areas of inadequately treated municipal wastewater. It does so through, amongst others, the development of Recommendations for Decision-making and associated Knowledge Base; and the holding of regional meetings - including partnership meetings - and global consultations.

The strategic plan builds upon, develops and enhances the relevant sections on sewage of the GPA (especially paragraph 97).

## The three components of the Strategic Action Plan and expected results

### 1. Assessment

The main envisaged outputs are:

- a. A Global Review of the State of Affairs, including the extent of the problem, hotspots and root-causes;
- b. Four regional reports on
  - **socio-economic opportunities and potential partners**; supported by
  - case studies illustrating the **environmental, social and economic benefits** of action and no-action; and
- c. An analytical paper on
  - challenges, opportunities and benefits;
  - the effects of improper sewage management on health; and
  - the difficulties of sewage management in large urban centres.

### 2. Management

The main envisaged outputs are:

- a. **A Global Knowledge Base.** This is part of the GPA Clearing-House and will describe in detail the information contained in the Recommendations for Decision-makers (see below), making the electronic linkages to relevant information sources. Recommended practices and procedures will be illustrated by case studies of best practices and experiences. The Knowledge Base will evolve continuously. The GPA information and data **clearing-house** on sewage and sanitation, lead by WHO, will be used as a vehicle for access, dissemination and further development of the Knowledge Base.
- b. **Recommendations for Decision-Making.** This is a guide for local and national decision-makers and professionals, based on the Knowledge Base, on appropriate and environmentally sound wastewater management systems, including treatment. It will contain key principles and annotated checklists of recommended practices and procedures. It will detail ranges of approaches, infrastructures and tools available to practitioners and policy makers. The checklists will address, amongst others,
  - Technology, developing the relevant sections of the GPA and addressing, amongst others, infrastructure, cleaner production and best practices;
  - Management, including regulations and legislation; operation and maintenance; appropriate charges and their collection; establishment of emission limits and surveillance, and economic and financial instruments;
  - Institutional arrangements, including the structure of the administrative system, capacity building, public participation and information needs;
  - Sustainability, addressing the long term requirements of wastewater management systems;
  - Domestic resource mobilization, detailing the possibilities to mobilize within the municipality or nation the required financial resources; and
  - International resource mobilization to supplement the domestic resources.

For each of the entries in the checklists the Recommendations for Decision-Making will identify the issues that need to be addressed and the factors that need to be considered. It will provide information allowing the decision-makers and practitioners to assess

economic, social and environmental benefits and costs related to different options. It will highlight key principles that they are recommended to adopt.

- c. **Regional Cooperation for Innovative Actions.** Regional meetings will bring together national and local experts, private sector, international financial institutions, potential donors and other stakeholders. These meetings will:
- i. Review the Recommendations for Decision-Making as detailed above and develop regional annexes as required, to reflect common views of stakeholders on priorities, capacities and needs;
  - ii. Share technical, administrative and financial experience and expertise as related to the Recommendations for Decision-Making;
  - iii. Identify demonstration projects, which illustrate the application of the Recommendations for Decision-Making. The aim is to have per region one to two demonstration projects, either existing or new, illustrating innovative approaches, whether in technology, partnership-creation or resource mobilization from either domestic or international resources;
  - iv. Provide a forum for partnerships creation, based on identified regional capacities, opportunities and partners; and resulting in pre-investment studies;
  - v. Identify regional resource centres and list existing relevant projects;
  - vi. Identify priority measures to address transboundary/international problems.

The regional meetings are scheduled to take place in the first half of 2001. It is expected that in 4 regions the proposed meetings can address all the above mentioned aspects and will become real partnerships meetings (i.e. Caribbean, Eastern Africa, West Asia and East Asia). Preparatory work in other regions might not have progressed enough to allow for partnerships meetings. In such cases the meetings will discuss the Recommendations for Decision-Making and identify demonstration projects etc. as appropriate. The partnership meetings in those regions will be held after the Intergovernmental Review of the implementation of the GPA of 2001. The regional meetings will be co-organized with Regional Coordination Units of UNEP's Regional Seas Programme, UNEP's Regional Offices and other partners as appropriate. As much as possible, the meetings will be combined with initiatives by other regional partners such as financial institutes and development banks, economic commissions, etc.

The Regional Cooperation for Innovative Actions process will generate information and experience, relevant to the countries in the region. This information and experience will form the basis of the regional GPA clearing-house. The establishment of these regional clearing-houses is coordinated under the GPA clearing-house initiative.

d. **The Global Consultative Process**

The Governing Council decision 20/19B.1.d requested the Executive Director of UNEP to explore, in cooperation with other agencies, the possibility to convene a global conference on sewage. After consultation with WHO, Habitat, the WSSCC and other potential partners, it was considered appropriate to have, instead of a single conference, a global consultative process consisting of three parts:

- (i) A high level segment, associated with the first Intergovernmental review meeting of GPA, planned for late 2001. To this high level segment the results of the regional meetings will be presented and the Recommendations for Decision-Making submitted for endorsement. The meeting will be requested to assess if the process and outputs of the implementation of the Municipal

Wastewater Action Plan as described above could be used to guide the development of similar activities for the other source categories, identified in the Global Programme of Action (such as nutrients, heavy metals, and habitat modification);

- (ii) A section for professionals to disseminate the recommended procedures and practices of the Recommendations through participation and collaboration in planned global conferences, organized by professional associations or other partners (such as the 10<sup>th</sup> Stockholm Water Symposium in August 2000, the 5<sup>th</sup> Global Forum of WSSCC in November 2000, and the International Symposium of UNESCO/IOC and the World Water Council in June 2001), to reach out to the municipal wastewater professionals; and
- (iii) A Partnership Market section, which will be integrated in the regional meetings as outlined above.

### 3. **Coordination**

This Action Plan is a collaborative proposal of UNEP, the World Health Organization (WHO), Habitat (UNCHS) and the Water Supply and Sanitation Collaborative Council (WSSCC) and represent a concerted action by these four agencies each building on their comparative advantage. The UNEP/GPA Coordination Office is soliciting input and cooperation from other potential partners, including the World Bank, regional organisations, Regional Offices, etc.

The results of the Action Plan will be used as examples of innovation, especially in the field of funding and partnerships as called for by the The Hague World Water Forum and will contribute to the Bonn 2002 Water Conference and other preparations for RIO+10.

### Time frame (2000-2001), main responsibilities and needed resources for GPA Strategic Action Plan on Municipal Wastewater

	Output	Level*	Main responsibility	Needed Resources in US\$	2 0 0 0				2 0 0 1				
					1	2	3	4	1	2	3	4	
Assessment	State of Affairs review	G	GPA Office	Funded	■	■							
	Four regional reports	R	GPA Office	Funded	■								
	Analytical paper: • Opportunities • Human health • Urban developments	G G G	GPA Office WHO Habitat	Funded		■	■						
Management	Global Knowledge Base: hard copy As Clearing-House	G G	GPA Office GPA Office/WHO	Funded 50,000				■		■			
	Recommendations For Decision-Making	G	GPA Office	Funded		■	■						
	Regional Cooperation for Innovative Action	R	RCU/RO - Finance institute	800,000; 50 % funded (100,000/region)					■	■	■		
	Information in regional Clearing- House	R	RCU/RO	200,000 (50,000/region)		■	■	■	■	■	■		
	Global Consultative Process with • GPA Review Meeting • Technology Conferences	G	UNEP with - Habitat/WHO - Prof. Association	100,000			■	■		■			■
Coordination	Coordination	G	GPA Office	50,000	■	■	■	■	■	■	■	■	■

\* R = Regional; G = Global level; RCU: Regional Coordination Unit of UNEP's Regional Seas Programme; R.O.: UNEP's Regional Office  
1 man-month is US\$ 7,500  
UNEP/GPA Coordination Office P.O.Box 16227 2500 BE The Hague The Netherlands  
Tel: (+31) 70 311 4460; fax: (+31) 70 3456 648; email: [gpa@unep.nl](mailto:gpa@unep.nl); <http://www.gpa.unep.org>