









GLOBAL PROGRAMME OF ACTION FOR THE PROTECTION OF THE MARINE ENVIRONMENT FROM LAND-BASED ACTIVITIES

World Water Week Series Issue 2

# WASTEWATER

## **Municipal Wastewater Management**



Some four children die every minute in developing countries from diseases caused by unsafe water and inadequate sanitation. On average, 250 million cases of gastroenteritis occur worldwide every year from bathing in contaminated water, and 50,000-100,000 people die from infectious hepatitis. The global burden of human disease caused by sewage pollution of coastal waters has been estimated at 4 million lost person-years annually.

The discharge of untreated domestic wastewater has been identified as a major source of pollution in most of the UNEP Regional Seas. About 90% of sewage and 70% of industrial wastes in developing countries are discharged into water courses without treatment, often polluting the usable water supply. Coral reefs and precious habitats are disappearing and biodiversity is decreasing, fishing and agricultural potential are being lost, while poor water quality is reducing income from tourism and the value of real estate.

Such concerns have helped push the international community to ensure that the targets of the 2000 Millennium Development Goals and the 2002 World Summit on Sustainable Development (WSSD) address improved access to safe drinking water and adequate sanitation. The target agreed by the WSSD on water and sanitation is 'to halve, by the year 2015, the proportion of people who are unable to reach or to afford safe drinking water and the proportion of people who do not have access to basic sanitation.'

Population growth, rapid urbanization, and increasing water supply and sanitation provision to meet the 2015 targets will all generate increased problems from wastewater pollution. At present, only about a tenth of the domestic wastewater in developing countries is collected, and only about a tenth of existing wastewater treatment plants operate reliably and efficiently. Ignoring wastewater pollution issues proves costly, in human, ecological and financial terms. Discharging untreated wastewater to the natural environment directly affects the primary resource for drinking water supply, essential ecosystem functions and the sustainable use of water. Increasing sanitation coverage, therefore, requires public sewage collection and treatment systems, so as to prevent raw sewage from entering groundwater, surface waters and coastal areas. A sustainable approach to sanitation includes wastewater collection, treatment and reuse. Reusing wastewater should be considered more often as an important option, especially in water-scarce regions. Also ecological sanitation has proven to be a viable alternative to implement in different local settings. Overall, the same number of people in both urban and rural areas (1.1 billion) will require improved sanitation by the target year of 2015. This means that 400,000 additional people will have to be supplied with services each day.

A global consensus is emerging on how to address municipal wastewater collection and treatment in a sustainable manner. Guidelines on Municipal Wastewater Management and its Ten Key Principles for local and national action were considered by over 100 countries at the UNEP/GPA Intergovernmental Review meeting in 2001. Aimed at setting a new global standard in the field of sustainable municipal wastewater management, the Ten Key Principles cover policy issues, management approaches, technology selection and financing mechanisms. They have been developed jointly by UNEP, the World Health Organization, UN-HABITAT and the Water Supply and Sanitation Collaborative Council, and supported by UNICEF as a result of the jointly established Strategic Action Plan on Municipal Wastewater.

Best practices and successful innovative approaches urgently need intensifying and scaling up. Sharing knowledge on appropriate and environmentally sound technologies is a current practice among others through sourcebooks and web-based knowledge bases like

GPA Outreach supports the preparatory work for the Second Intergovernmental Review Meeting (IGR-2) of the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA)

This World Water Week Series of GPA Outreach is produced by Stakeholder Forum and the Global Forum on Oceans Coasts and Islands, in collaboration with the UNEP/GPA Coordination Office and the Stockholm International Water Institute.











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## WASTEWATER continued

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### Guidelines on Municipal Wastewater Management:

#### 10 Key Principles

- Secure political commitment and domestic financial resources as absolute prerequisites for appropriate wastewater management.
- 2. Create an enabling environment for sustainable solutions at both national and local levels.
- 3. Develop integrated and demand-driven management systems combining the collection and treatment of wastewater with drinking water supply and the provision of sanitation services.
- Prevent pollution at the source, use water efficiently, and apply appropriate low cost technologies for wastewater treatment.
- Make water users and polluters pay for services based on social equity and solidarity to reach cost-recovery.
- 6. Use time-bound targets and indicators environmental integrity as well as on public health or economic welfare to make actions successful.
- Implement measures step-by-step while exploring alternatives to reach long-term management goals.
- Involve all stakeholders through partnership from the very beginning to secure their commitment.
- Link the municipal wastewater sector to other economic sectors to ensure financial stability and sustainability.
- 10. Introduce innovative financial mechanisms, including private sector involvement.

Sanitation Connection (SANICON). Capacity building through pilot projects and training 'on the spot' will enhance further implementation. Partnerships that actively and effectively implement innovative approaches are key to success. These partnerships rely heavily upon strong commitment, shared responsibilities and - just as important - shared risks among all stakeholders.

During the UNEP/GPA Second Intergovernmental Review (IGR-2) a Partnership Day will be held on GPA related issues, including on Municipal Wastewater and Sanitation, which relevant partners will participate. These organisations play a crucial role in implementing the GPA Municipal Wastewater and Sanitation programme, either through their own activities or in partnership with governments and other stakeholders. During the IGR-2 a forum will be provided where existing partnerships implementing this GPA programme can meet, chart a course of action for the coming five years, and interact with the government representatives and stakeholders participating in IGR-2. In addition the creation of new partnerships will be encouraged, which could contribute to the implementation of the Wastewater and Sanitation programme. See page 5 for more information.

For further details on the Municipal Wastewater and Sanitation Programme, see http://www.gpa.unep.org/bin/ php/programs/sap/index.php

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### The Train-Sea-Coast GPA Receives New **Funding**

#### The Wastewater Problem

In many parts of the world, sewage is discharged directly into open water without treatment. Such uncontrolled discharge is on of the most serious threats to the productivity and biodiversity of the world's oceans.

### Training as part of the solution

Water Education, the United Nations Development domestic wastewater. The programme trains managerial Programme UNDP and in the framework of the UN staff and facilitates stakeholder involvement and thereby Division for Ocean Affairs and the Law of the Sea strengthens a weak link in the chain between political DOALOS Train-Sea-Coast Programme in response to the decisions at the national level and implementation at the challenges faced by countries in addressing municipal local level. wastewater problems.

The programme strengthens capacity at the local level towards:

- Achieving the Johannesburg Plan of Implementation target on sanitation
- Improving environmental conditions in coastal regions
- Improving human health.

The training courses offered contribute to building decentralized capacity by strengthening municipal efforts The GPA joined forces with the UNESCO-IHE Institute for to identify, design and finance projects to collect and treat

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## **ENGAGING STAKEHOLDERS IN** THE IGR-2 AND PREPARATORY **PROCESS**

IGR-2 Update aims to provide key information about the Declaration. Felix Dodds, Executive Director of the this World Water Week Series of GPA Outreach will gpa.html include details on the IGR-2 preparatory process, agenda, and supporting documents.

Review Meeting (IGR-2) of the UNEP Global Programme Forum, it organised an event for stakeholder from the Latin of Action for the Protection of the Marine Environment American and Caribbean Region. Workshop participants from Land-based Activities (GPA) will be held in Beijing, identified problems, challenges, and constraints to China. The Intergovernmental Review Meetings are a protecting the marine environment from land-based forum where Governments and other stakeholders meet to activities and developed recommendations for furthering review the status of the implementation of the Global the implementation of the GPA. Programme of Action and decide on action to be taken to strengthen the implementation of the GPA.

of consultations have been organised by the UNEP/GPA information Coordination Office to gather feedback on various agenda (www.stakeholderforum.org/gpa.html). Stakeholder Forum items of IGR-2. A number of partners and organisations also publishes a monthly online newsletter in collaboration have offered their support to this process. To this end, with the UNEP/GPA Coordination Office, GPA Outreach, with the UNEP/GPA Coordination Office to conduct preparatory process for the IGR-2 and provide background stakeholder consultations in preparation for the IGR-2. The information on GPA related issues. purpose of these dialogues is to enable a broad range of local, national, and regional stakeholders (including those From 19-30 June, Stakeholder Forum, in collaboration with who are unable to attend the IGR-2 in China) to share their the UNEP/GPA Coordination Office, also hosted on online positions and experiences on protection of the marine dialogue on the theme of Our Expanding Urban Coast: A environment in advance of the IGR-2.

Meeting was held on 27-28 June 2006 in Paris, France. learned and best practices. Over 120 people from more issues to be addressed during the Ministerial Segment of Physical Alteration and Destruction of Habitat, and IGR-2. During the middle of June, Stakeholder Forum Nutrients. convened consultations in London and New York with representatives from Major stakeholders. Non-governmental organizations, trade continue its work of engaging stakeholders in the unions, women, and youth were among the Major Groups preparatory process of the IGR-2. Two events on the GPA represented. The purpose of the meetings was to develop will take place at World Water Week in Stockholm. Please stakeholder inputs to the IGR-2 Preparatory Meeting, see page 6 for more information. We look forward to your including specific amendments to the draft Beijing



Second Intergovernmental Review Meeting (IGR-2) of the Stakeholder Forum, attended the Preparatory Meeting to Global Programme of Action for the Protection of the represent these stakeholder inputs. A summary of this Marine Environment from Land-based Activities. Articles in position is available at www.stakeholderforum.org/

Stakeholder Forum is also hosting regional stakeholder consultations on the GPA in collaboration with the UNEP/ On 16-20 October 2006, the Second Intergovernmental GPA Coordination Office. In March at the World Water

To support the preparatory work for the IGR-2, Stakeholder Forum has developed a dedicated website to Throughout the preparatory process of the IGR-2, a series provide stakeholders with easy access to background and official documents Stakeholder Forum for a Sustainable Future is partnering to inform stakeholders of the latest developments in the

Threat to the Marine Environment and Human Health. The purpose of the online dialogue was to raise awareness of In preparation for the IGR-2, an Informal Preparatory the GPA and to collect stakeholder experiences, lessons Some 50 representatives from 23 countries attended the than 40 countries signed up to the online dialogue to meeting to advance the preparation of the draft official explore the links between the marine environment, coastal documents for IGR-2 and to seek guidance on some of the urbanization and Integrated Management Approaches,

> Groups and other In the upcoming two months, Stakeholder Forum will active participation!

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### Towards a Successful Sustainable Sanitation Implementation 2006-2015: A Partnership on **Municipal Wastewater and Sanitation**

Day 2 of the Second Intergovernmental Review Meeting (IGR-2) of the Global Programme of Action is Partnerships Day. The Partnerships Day is a forum where existing and new partnerships that implement the GPA will meet and interact with government representatives and other stakeholders participating in IGR-2. Partnership Spotlight promotion, household sanitary arrangements and sewage Partnerships that will be featured at the IGR-2.

(SAP) on Municipal Wastewater, jointly developed with UNEP, World Health Organization (WHO), UN-HABITAT and Water Supply and Sanitation Collaborative Council (WSSCC). was adopted at the GPA's Intergovernmental Review Meeting in 2001 in Montreal, sanitation issues at the global, regional and national level, Canada. The Strategic Action Plan on Municipal the partnership will collaborate on a number of issues: Wastewater has been prepared to further develop the guidance given on sewage in the Global Programme of . Action and to promote concrete action at the local and national levels aimed at addressing sewage as one of the major source categories impacting the coastal and marine environment, particularly by promoting the use of alternative solutions, including low cost technologies, appropriate financial mechanisms and partnerships and creating an enabling environment for action.

Within this framework, a set of Guidelines on Municipal Wastewater Management and the associated 10 Keys for local and national action were developed. UNICEF also supports the 10 Keys. Aimed at setting a new global standard in the field of sustainable municipal wastewater management, the 10 Keys cover policy management approaches, issues,



technology selection and financing mechanisms. (See pages 1-2 for more information).

A sustainable approach to sanitation includes wastewater collection, treatment and reuse. Overall, the same number of people in both urban and rural areas (1.1 billion) will require improved sanitation by the MDG-target year of 2015.

UNEP/WHO/WSSCC/UN-HABITAT/UNICEF partnership will use the opportunity given during IGR-2 to discuss revision of the Strategic Action Plan on Municipal

Wastewater with a view of including the present work of the GPA on urban sanitation, as well as rural sanitation, in order to address the environmental dimension of sanitation, following the UNEP Governing Council Decision 23/2, Paragraph 9.

The UN Task Force on Water and Sanitation and the United Nations Secretary General's Advisory Board on Water and Sanitation (March 2006) will raise awareness and gear up political will on three main aspects: hygiene aims to profile a selection of the more than twenty treatment, and also promote the sustainable approach to sanitation in order to broadcast the messages of CSD12 and CSD 13. Greater attention will be paid to the The Global Programme of Action's Strategic Action Plan development and application of capacity of implementing organisations in line with the UNEP Bali Strategic Plan for Technology Transfer and Capacity Building.

first In order to continue addressing the wastewater and

- Assessment: Contribute to the special report series of the Joint Monitoring Programme on Water and Sanitation (JMP, WHO/UNICEF)) addressing the discharge of municipal wastewater.
- Policy and normative action: Continue disseminate and promote the effective use of the existing 10 Keys and Guidelines on Municipal Wastewater Management, as well as the extension of SAP on rural sanitation; and continue to promote the sustainable sanitation cycle, comprising wastewater collection, treatment, re-use and safe reallocation to the natural environment thus contributing to the achievement of the JPOI 2015 target on Sanitation.

The Partnership aims to produce a Revised Strategic Action Plan on Municipal Wastewater on urban and rural sanitation; jointly develop a JMP special report addressing the discharge of municipal wastewater with UNEP partnering with UN-HABITAT in the WHO/UNICEF lead JMP report, which is the institutionalised forum to report on progress made with respect to the MDG/WSSD targets on Water and Sanitation. The Partnership will also jointly develop a best practices report on the promotion of the sustainable sanitation cycle; promote and better integrate the environment dimension in the project formulation cycle; and ensure more sustainability through the implementation of activities in the partners' programme.

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For IGR-2, the Partnership will prepare the following materials, which will be distributed at a workshop on Partnerships Day at IGR-2, to be held on October 17, 2006:

- paper UN-Water Thematic Initiative: "Issue Sanitation Access" on collaborative activities of UN-agencies on how to contribute to the "Water for Life" Decade, 2005-2015.
- Updated sourcebook on environmentally sound technologies (if possible a workshop will be organised during which the existing UNEP IETC's "Environmentally Sound Technologies Wastewater Treatment for the Implementation of UNEP/GPA Guidance on Municipal Wastewater" and the IETC/IWA published "International Source Book on Environmentally Sound Technologies for Wastewater Stormwater Management" will be discussed).

Experts in the field will be invited to speak at the workshop, which will be followed by a discussion on future challenges for joint implementation of the Partnership.

For more information about this Partnership, please contact:

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http://www.gpa.unep.org/bin/php/programs/

sap/index.php

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#### **New funding**

With major new funding from the European Union-African, Caribbean, and Pacific Group of States (ACP) Water Facility and the Global Environment Facility GEF, this programme will expand in the coming three years and is expected to train an additional 1,200 experts in 60 course deliveries.

#### Languages and local instructors

The training material is fully documented and already exists in English, Chinese, Spanish, Portuguese, Russian,

Turkish a n d translations. North-South knowledge transfer i s combined with South-South knowledge sharing. An increasing pool of local instructors

"I learned quite a bit during the five day training and can honestly say I will apply the process in my course of work here at Guam EPA."

Si Yuus Maase, course participant in Guam, Northern Pacific, June 2006

are involved in anchoring the training courses in the local context.

#### **Technology Support to Island States**

As part of the programme activities in the Pacific region, a CD-ROM was compiled by UNEP/GPA and UNESCO-IHE jointly with the Secretariat of the Pacific Regional Environment Programme SPREP, the University of the South Pacific and the South Pacific Applied Geoscience Commission SOPAC. The CD-ROM contains:

- A compendium of technologies appropriate for Pacific islands,
- A tutorial in Project Cycle management to identify feasible solutions,
- Three software tools to support decision-making, and
- A document library with 100 publications on management and technologies.

#### Achievements until the IGR-2

Between December 2003 and July 2006, a total of 380 professional from 28 countries in Africa, Europe, Latin America, Asia and the Pacific have been trained. Most of the beneficiary countries are party to the various Regional Seas Conventions and Action Plans and represent an integral part of the implementation of the UNEP/GPA at the regional level. Ten of these countries belong to the Small Island Developing States (SIDS). The next course is scheduled August 2006 for the Regional Organization for the Environment of the Red Sea and the Gulf of Aden (PERSGA).

More information about this training is available at: http:// www.gpa.unep.org/ training

"Although the course was about wastewater management, my major benefit from the course was that I have gained a new perspective for problem solving. Problem analysis and objective analysis parts extended my vision. Thanks."

Fatih Anket, course participant in Trabzon, Turkey, September 2005

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Solutions to Protect the Environment from Land-based Activities: Stakeholder meeting will take place on Wednesday at World Water Consultation

Tuesday 22 August, 2006

Evening Session (17:15-18:45), Folkets Hus, Room 300, World Water Week in Stockholm

In preparation for the GPA's Second Intergovernmental Review Meeting (IGR-2), which will be held in Beijing, China from 16-20 October, this side event will bring together stakeholders from around the world to discuss issues threatening the marine environment. Stakeholders will have the opportunity to comment and prepare a implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities, while discussing the roles of stakeholders and national governments in developing solutions to these problems. The outcomes of this side-event will input into the upcoming GPA's IGR-2.

### <u>Agenda</u>

- Presentation on the Global Programme of Action and IGR-2
- Presentation by representative of the Government of China on the IGR-2 in China (to be confirmed)
- Presentation by Dr. Biliana Cicin-Sain, Co-Chair and Head of Secretariat, Global Forum on Oceans, Coasts, and Islands on the role of partnerships and Partnerships Day at IGR-2
- Presentation by Felix Dodds, Executive Director of Stakeholder Forum on stakeholder engagement in the preparations for the IGR-2
- Question and Answer/discussion in response to the presentations
- Review of the advance copy of the Beijing Declaration on furthering the implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities and preparation of stakeholder position and input to the Declaration

Marine As a follow up to the side-event on Tuesday, a second Week:

> African Stakeholder Consultation: Developing Solutions to Protect the Marine Environment from Land-based Activities in the African Context

> > Wednesday 23 August, 2006 Lunch Session (12:15-13:15) Norra Latin, Room 255

This meeting will bring together stakeholders from Africa position on the draft Beijing Declaration on furthering the and those working on water issues in Africa to consider the GPA in the context of the African context.

> For information on the outcomes of these events, please visit www.stakeholderforum.org/gpa.html



The GPA was adopted in 1995 by 108 Governments and the European Commission in response to the increasing threat to the marine environment from human activities on land. The GPA is

designed to be a source of conceptual and practical guidance for national and/or regional authorities for devising and implementing sustained action to prevent, reduce, control and/or eliminate marine degradation from land-based activities.

The United Nations Environment Programme acts as the secretariat for the GPA. The UNEP/GPA Coordination Office, located in The Hague, The Netherlands supports the implementation of the GPA by: promoting and facilitating the implementation of the GPA at the national level and the regional and sub-regional level and playing a catalytic role with other organisations and institutions in the implementation of the GPA at the international level.

For more information please visit www.gpa.unep.org

# **CONTACTS**

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