

INTERNATIONAL WATER QUALITY GUIDELINES FOR ECOSYSTEMS

By

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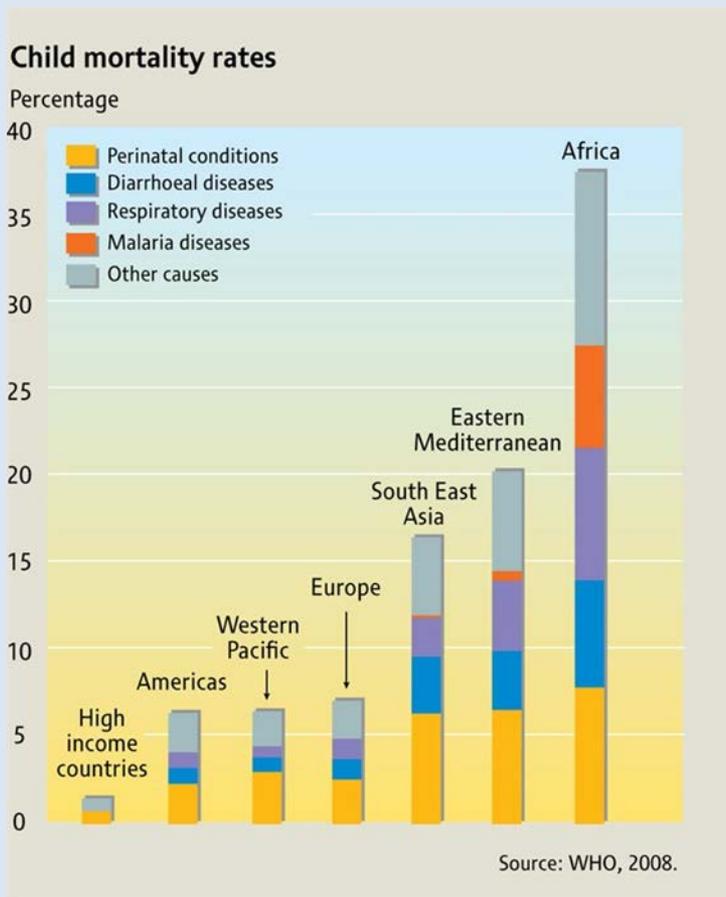
UNEP

Presentation outline

- Why water quality, Alarming trends
- UNEP scope of work
- GC/EA decision
- Development of international water quality guidelines for ecosystems
 - Purpose
 - Process
 - Organization



Why water quality?



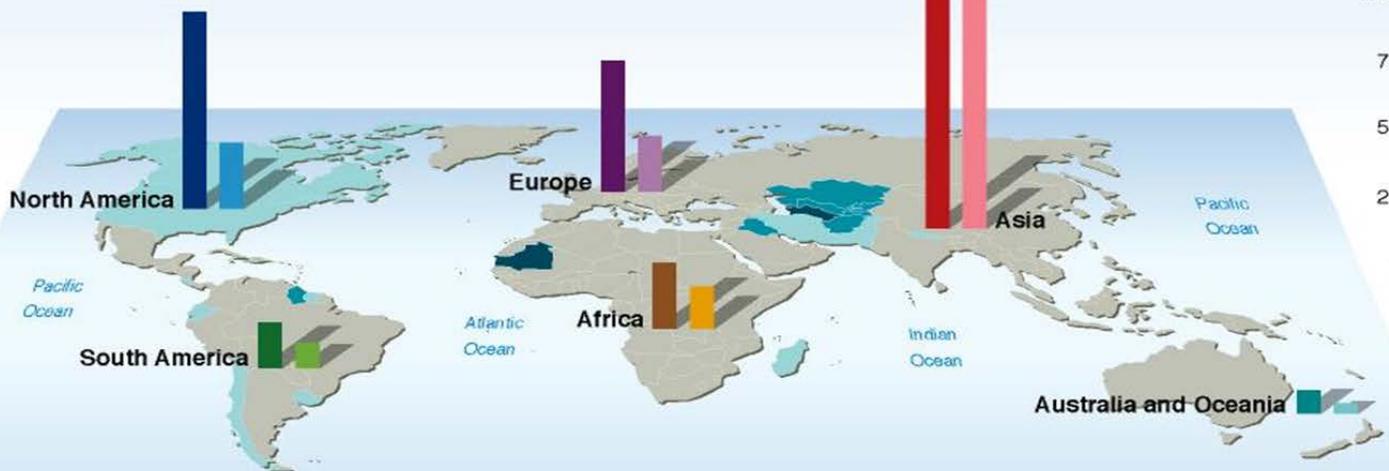
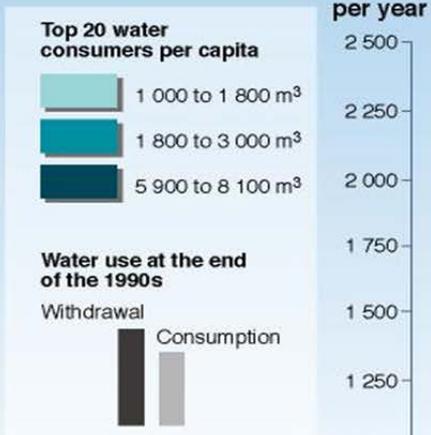
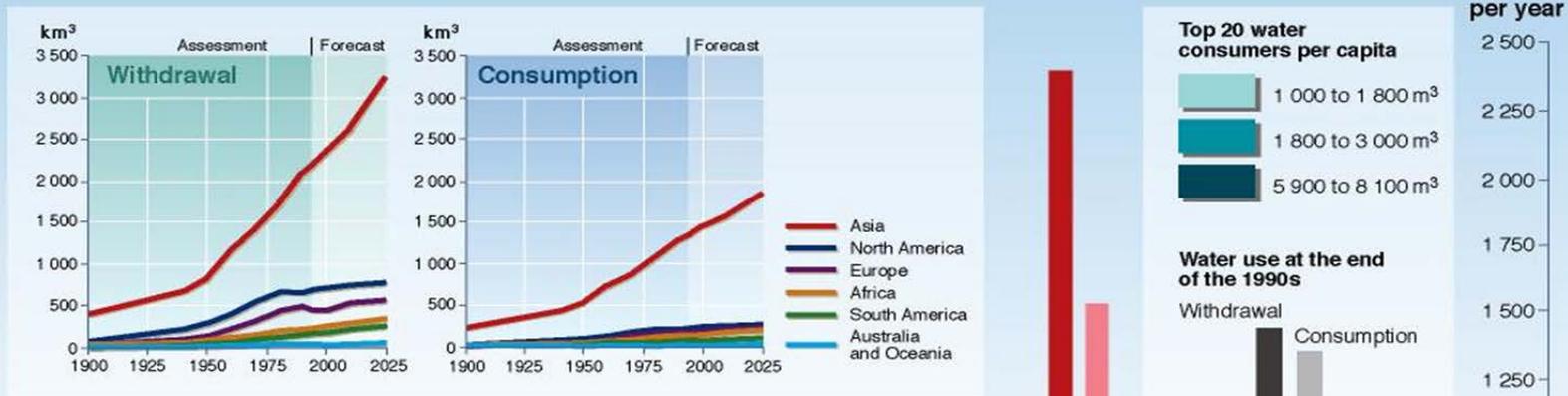
MA outcome:
60% of ecosystems services degraded -Aquatic most affected



1.8 million under-fives die annually from diarrheal diseases

Alarming trends: Water Quantity

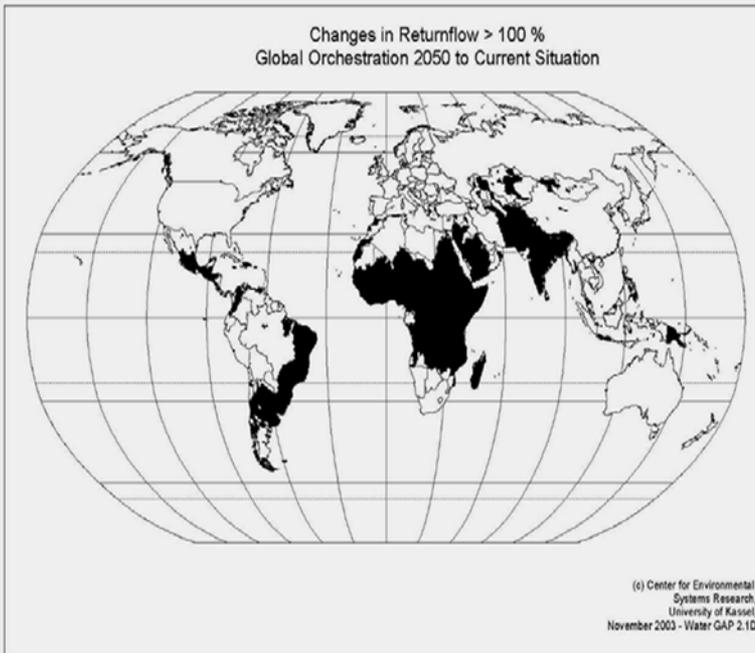
Global Water Withdrawal and Consumption



Source: Igor A. Shiklomanov, State Hydrological Institute (SHI, St. Petersburg) and United Nations Educational, Scientific and Cultural Organisation (UNESCO, Paris), 1999; World Resources 2000-2001, *People and Ecosystems: The Fraying Web of Life*, World Resources Institute (WRI), Washington DC, 2000; Paul Harrison and Fred Pearce, *AAAS Atlas of Population 2001*, American Association for the Advancement of Science, University of California Press, Berkeley.

Alarming trends: Water Quality

Waste water discharge at least doubling by 2050



Low current rate of waste water treatment in developing countries

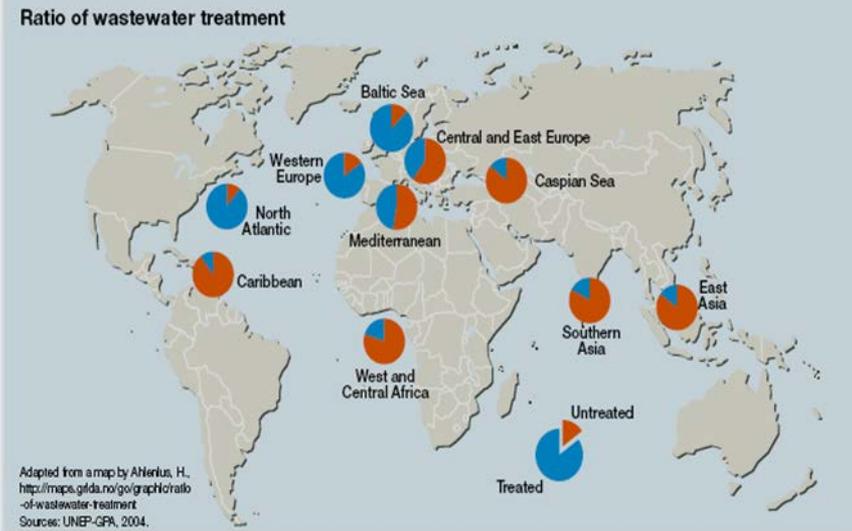


Figure 17: The ratio of treated to untreated wastewater reaching water bodies for 10 regions. An estimated 90 per cent of all wastewater in developing countries is discharged untreated directly into rivers, lakes or the oceans (UN Water, 2008).

Ecosystems need Water: Water needs Ecosystems



Central to water security

Reversing the trends



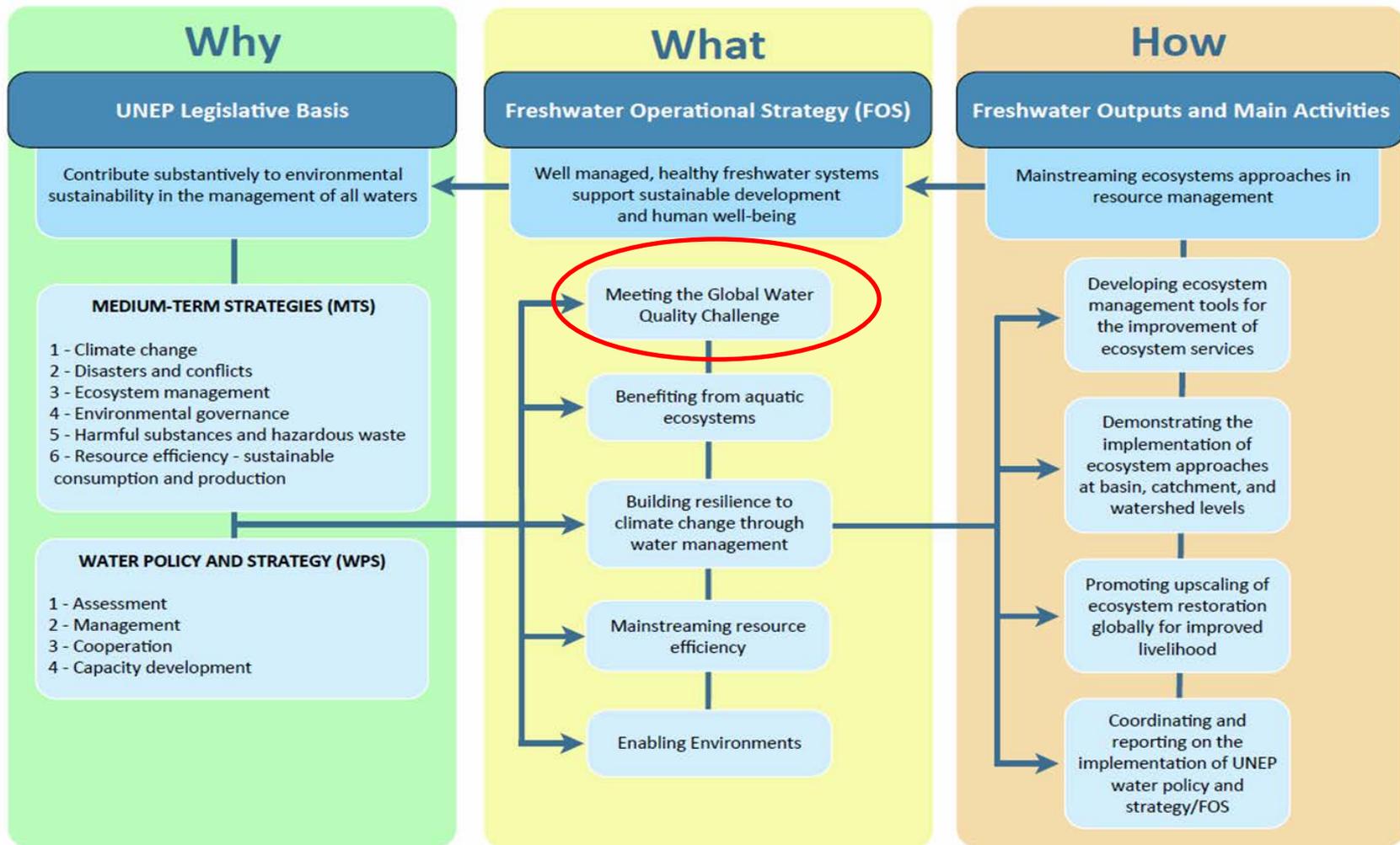
Conduct **global & regional assessments** & expand **monitoring & data collection**

Develop international **water quality guidelines for ecosystems**, regionally-tuned (set a benchmark)

Look broad - link water quality management with air quality, land & coastal management.



Rationale and scope of work 2012/2013



GC/EA decision 27/3

Operative paragraph 1: *‘Requests the Executive Director, in partnership with Governments, scientific institutions, United Nations agencies and other relevant stakeholders, particularly those from developing countries, to develop International Water Quality Guidelines for Ecosystems that may be voluntarily used to support the development of national standards, policies and frameworks **taking into account existing information** while integrating, as appropriate, all relevant aspects of water management’.*



Process: responding to decision 27/3

WP1

- Global Compendium on Existing Water Quality Guidelines

WP2

- 1st World Water Quality Assessment Report

WP3

- A Global Partnership on Wastewater – ‘The Global Wastewater Initiative (GWI)’

WP4

- Development of international water quality guidelines for ecosystems

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Purpose

- will provide a set of scientifically sound parameters, indicators and possibly threshold values
- will enhance the capacity of transnational, national and subnational authorities to manage their water resources and aquatic ecosystems
- will save countries individual efforts and costs needed to establish standards and water use regulations
- will provide guidance for implementation

Water Quality Guidelines

Guidelines for Aquatic Ecosystems

- Chapter 1
Scope of the Guidelines
- Chapter 2
Framework for Applying the Guidelines
- Chapter 3
Guidelines for Aquatic Ecosystems
- Chapter 4
Monitoring & Assessment

Support Documents to the Guidelines for Aquatic Ecosystems

- Guidelines for Implementing the Guidelines
- Adapting the Guidelines for Site-specific Conditions
- Reference Volume on Aquatic Ecosystems
- Guidelines for Monitoring & Reporting

- Raw Drinking-water Supply
- Recreation & Aesthetic Values
- Agriculture Irrigation & livestock
- Aquaculture Products & human use
- Technical & Industrial Applications
- Cultural & Spiritual Values

WP4

- Development of international water quality guidelines for ecosystems

Process

a

- Mobilization/ inception phase

b

- Development of guidelines

c

- Global and region consultations

d

- Outreach, dissemination and capacity building

e

- Monitoring and improvement of guidelines

- Development of international water quality guidelines for ecosystems

Organization

- **UNEP:** overall coordination and facilitation
- **UNU-EHE and GWSP:** undertake background research and compile initial guidelines
- **Countries/Regions:** review and provide regional specific recommendations
- **GC/EA:** review and approve the guidelines providing global legitimacy

Thank you