



SWITCH to the Future and the Future of SWITCH

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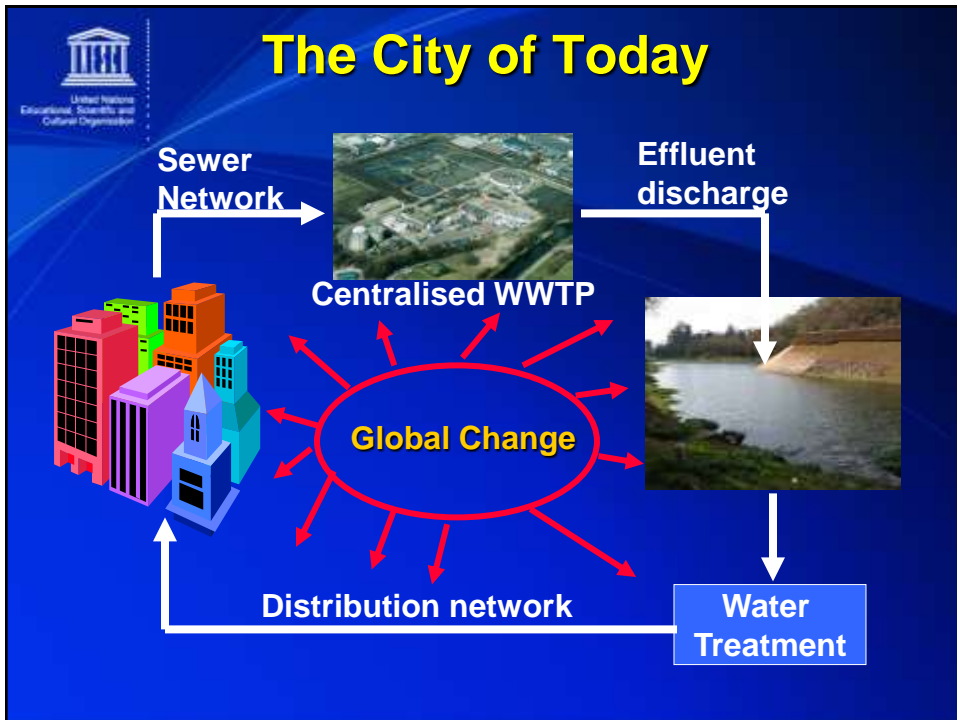
5th SWITCH Scientific Conference, Lodz, Poland, 13-16 October, 2010




Presentation outline

- **Switch to the future – a strategic approach**
- **Picture the city of the future**
- **The future of switch**




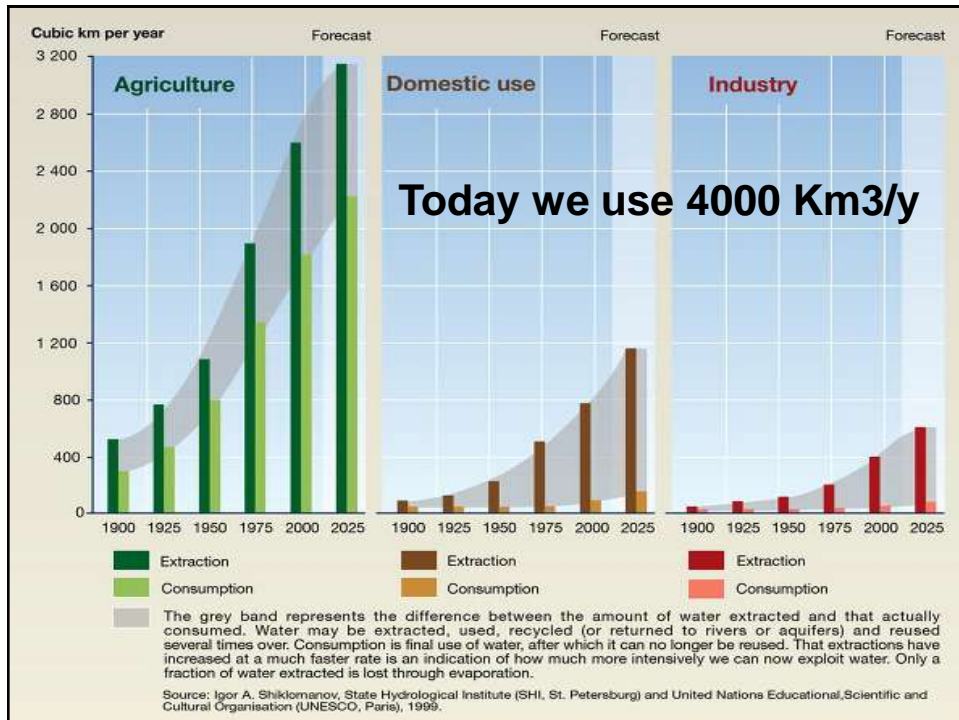




CHALLENGES

- 1 billion people without safe water
- Over 2 billion without improved sanitation
- Some 5 billion live near polluted water
- Millions (often children) die from water borne disease
- Massive Pollution of Vital Water Resources
- 1 billion people hungry!



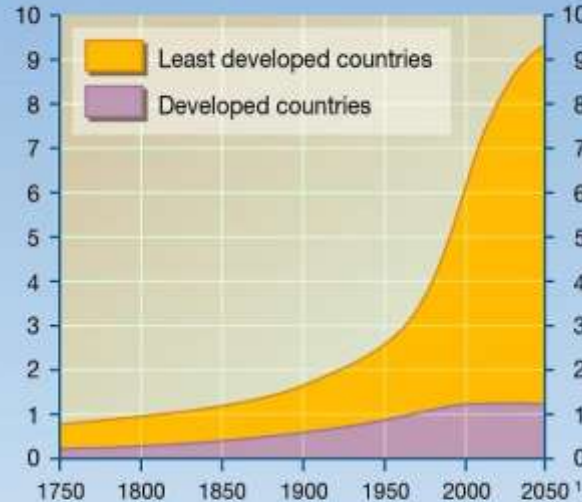


Virtual water

- 75 l for a glass of beer (300 l/l)
- 50 l to produce a kg of spinach
- 636 l to produce 1 kg of potatoes
- 713 l to produce 1 kg of cucumber
- 1300 l to produce 1 kg of barley
- 40 l for a slice of wheat bread
- 130 for a cheese sandwich
- 15000 l to produce a kg of meat
- 70 l for one apple
- 12 to 20 million l to grow a hectare of rice

People are central in the water quality and quantity battle

Billion human beings



1. According to the medium hypothesis of the United Nations.

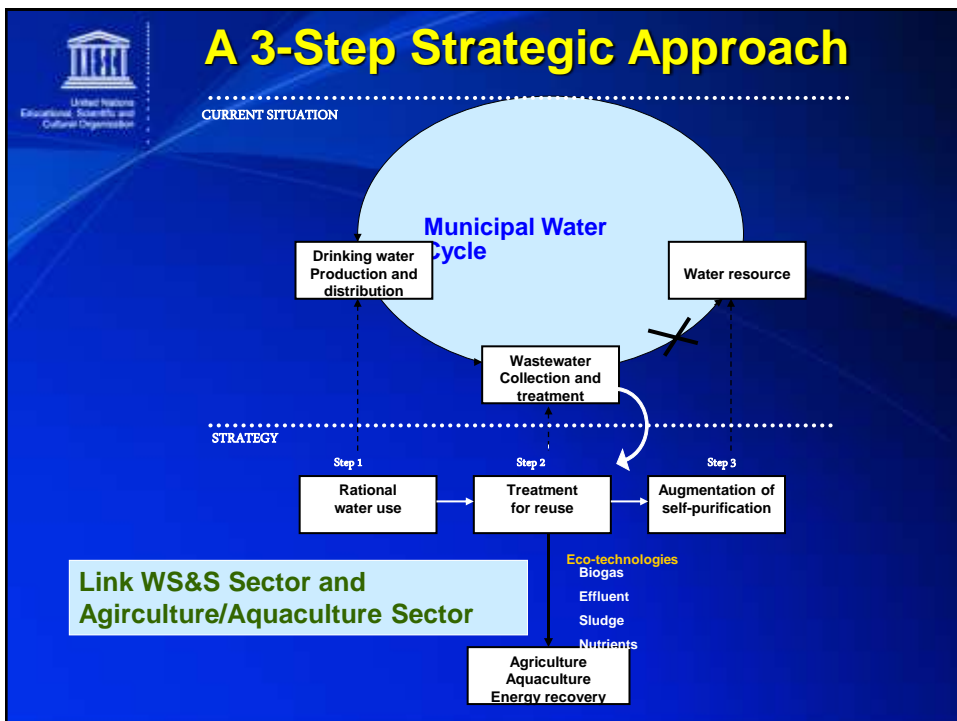
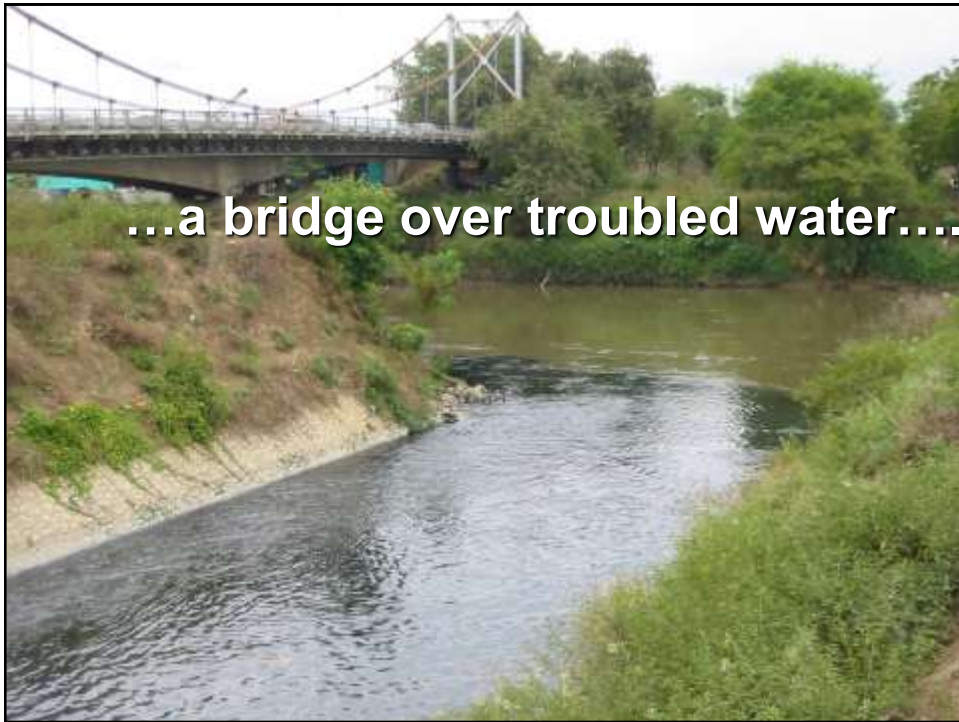
Sources: *World Population 1998, The World at Six Billion* (October 1999) et *World Population Prospects: The 2006 Revision* (February 2007), United Nations, department of social and economics affairs, population division New York.

CHALLENGES

- Depletion of Groundwater sources
- Subsidence of land surface
- Massive Pollution of Vital Water Resources
- Rapid urbanisation
- Endocrine disruptors
- Sharp increase in world wide water use
- Increased number of extreme weather events, floods/draughts

Solve problems without creating new ones





SWITCH:

A Partnership for Sustainable Urban Water Management



Picture Water in the City of the Future







Picture the City of the Future

- We learned to live with water by building flexible cities
- We do no longer use water to transport wastes
- We use a fraction of the water use of 30-50 years ago
- We have effective water and waste recovery schemes
- We apply multiple-use chains for water



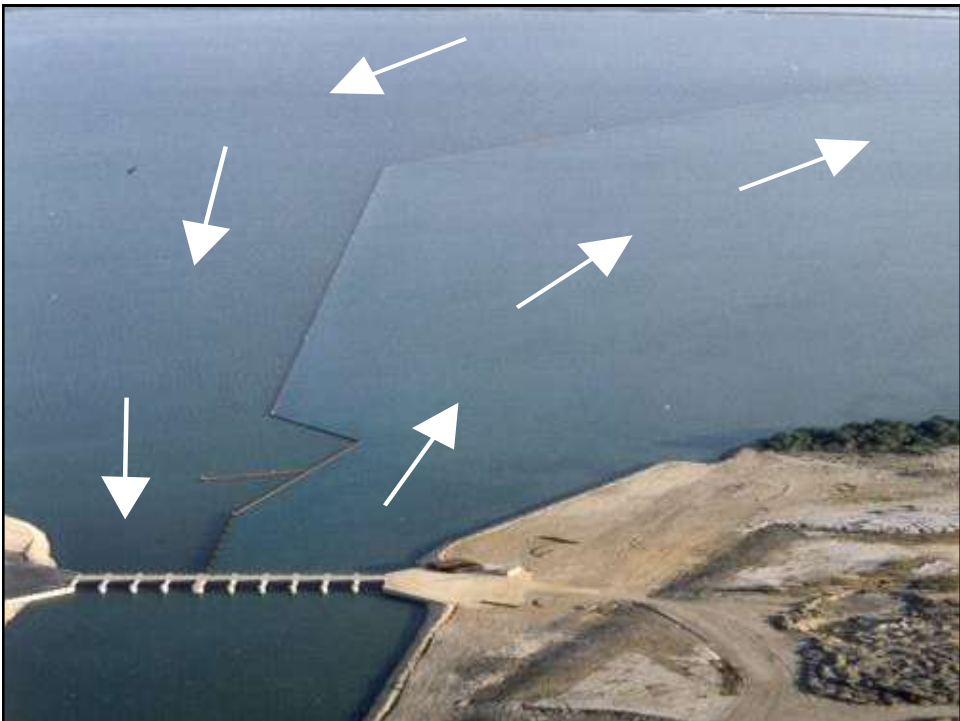
Waterscapes

for drainage, retention, recharge, esthetics



Eco-hydrology



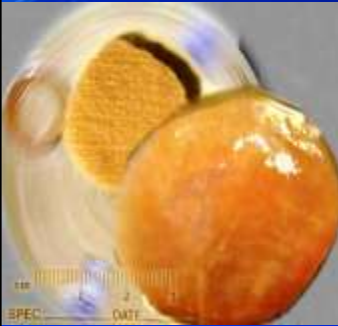


Floating buildings adjustable to any flow regimen





Science or Science Fiction?



The idea of food that is not grown by conventional agriculture is actually not so far from reality as we might think

The Future of SWITCH







United Nations
Educational, Scientific and
Cultural Organization

SWITCH

From Project to Programme

- **SWITCH** - Global
- **SWITCH-in-Asia** - Asia and Pacific
- **SWITCH-in-Africa** - Africa
- **SWITCH-in-LAC** - Latin America & Caribbean
- **SWITCH-in-ArabStates** - Arab Region





United Nations
Educational, Scientific and
Cultural Organization

SWITCH-in-Asia

PROJECT
TRANSITION

Transitioning from Sustainable Water and Sanitation Services for Healthy People and Healthy Environment to selected countries

Project location
Selected countries in Asia and the Pacific

Project objectives
To develop and implement a sustainable water and sanitation service for healthy people and healthy environment in selected countries in Asia and the Pacific

Project results
The project results in a sustainable water and sanitation service for healthy people and healthy environment in selected countries in Asia and the Pacific

Project impact
The project impact in a sustainable water and sanitation service for healthy people and healthy environment in selected countries in Asia and the Pacific

Project budget
The project budget in a sustainable water and sanitation service for healthy people and healthy environment in selected countries in Asia and the Pacific

Background
The project is a part of the SWITCH-in-Asia programme, which aims to develop and implement a sustainable water and sanitation service for healthy people and healthy environment in selected countries in Asia and the Pacific

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SWITCH-*in-Asia*

Scope:

- 10-12 Demo 'Cities' for full scale testing
- Large scale collaborative **action research** programme
- Training, capacity building and awareness raising
- Two phases: start up (1.5 years) and full implementation (4.5 years)
- Budget requirement: **US\$ 55 million** (build up in sub-projects)
- Subsequent investment scheme: **billions of US\$**



SWITCH-*in-Asia* Regional Partnership Workshop

- Regional Partnership Workshop December 2009, 80 participants from 16 countries
- The participants identified some 20 possible projects



SWITCH in-Asia PROGRAMME

- SWITCH-in-Asia is a **region based** programme
- Development through a **number of national projects**
- Interlinked with **Asia Pacific Learning Alliance**

Box 1. Participating Countries in SWITCH-in-Asia

The regional programme will be developed through a number of national projects in selected countries and cities throughout the region, each demonstrating concrete aspects of innovation towards sustainable UWM. A preliminary list of possible countries participating in SWITCH-in-Asia include the following*:

Australia, Bangladesh, Cambodia, China, India, Indonesia, Japan, Kiribati, Korea (Rep of), Malaysia, Nepal, the Philippines, Samoa, Singapore, Timor-Leste and Vietnam.

*SWITCH-in-Asia is an open-ended initiative and invites additional countries in the region to join at any time during the implementation. Please contact us for more information (contact info at the end of the brochure).



Hanoi Lakes



Map indicating lakes in downtown Hanoi



Ankor Wat - Cambodia



