

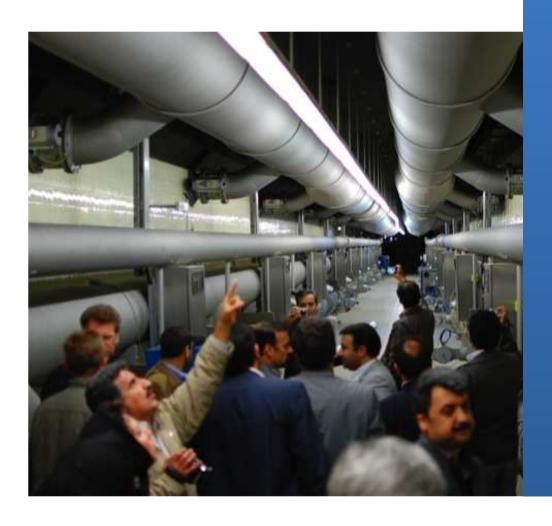
# Education for Water Professionals Research/Innovation on Water Challenges Capacity Development in the Water Sector

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## PRESENTATION OUTLINE

#### **PROGRAMME**

- UNESCO & Water
- o About UNESCO-IHE
- Core Activities
  - o Education
  - o Research
  - o Innovation
  - o Capacity Development
- o At a glance
- o Q&A



### **UNESCO & WATER**

UNESCO is the largest body within the United Nations system dealing with the most comprehensive range of water activities.

#### **UNESCO's water activities:**









- International Hydrological Programme (research)
- 2. UNESCO-IHE Institute for Water Education (capacity development)
- 3. Secretariat of the World Water Assessment Programme (data)





### **ABOUT US**

UNESCO-IHE is the largest international graduate water education facility in the world.

The Institute confers fully accredited MSc degrees and PhDs.

Since 1957 the Institute has provided postgraduate education to more than 15,000 water professionals from over 160 countries, the vast majority from the developing countries and countries in transition.

The Institute carries out numerous research and capacity development projects throughout the world.



### CORE ACTIVITIES



## EDUCATION RESEARCH INNOVATION CAPACITY DEVELOPMENT

- water sector professionals
- engineers
- scientists
- consultants and
- decision makers

- water sector ministries and departments
- municipalities
- water boards and water utilities
- training and research institutes
- industries
- non-governmental and private sector orgs





## THERE IS A NEED

2.5 billion people worldwide are without access to hygienic sanitation facilities – including 1.1 billion who defecate in the open.

It is generally women who are burdened with the task of collecting water, which can take up to 26% of their time.

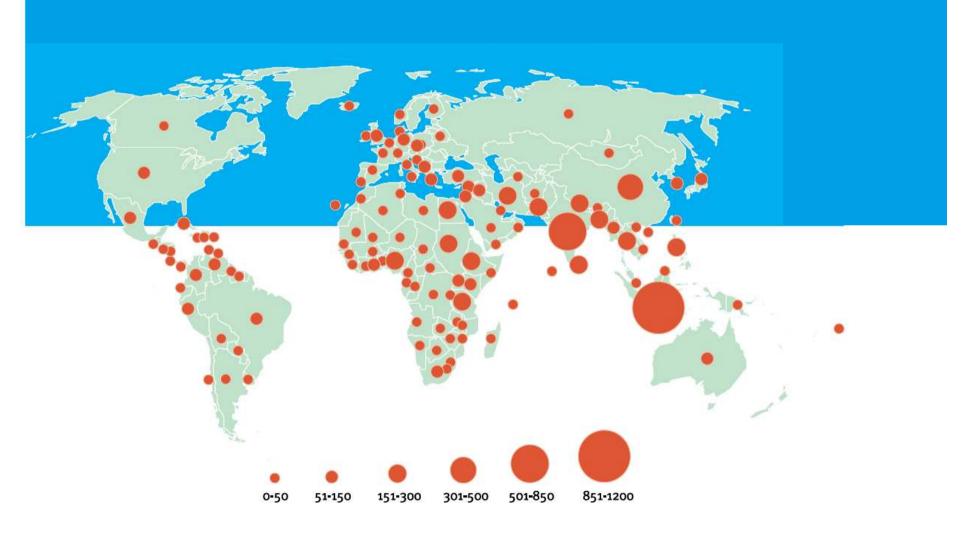
18% of the population in sub-Saharan Africa relies on an improved drinking water source that is more than 30 minutes away.

2.2 million children will die from diarrhea and related disease this year, 80% in their first years of life.



### **ALUMNI NETWORK**

Since 1957 the Institute has provided postgraduate education to around 15,000 water professionals from over 160 countries, the vast majority from the developing world.



## EDUCATION



UNESCO-IHE offers a wide range of accredited educational programmes.

These are designed for engineers, social and natural scientists and managers.

Approximately 98% of our graduates return to their home countries upon graduation.



## MASTERS PROGRAMME



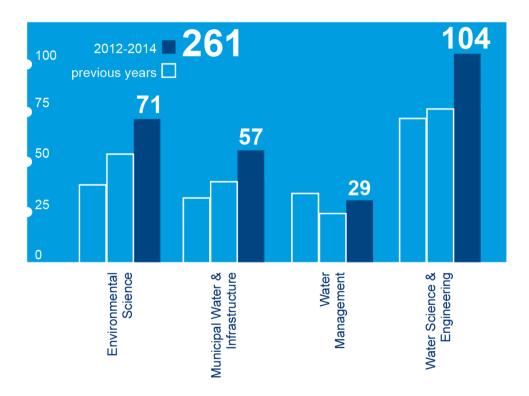
UNESCO-IHE offers 4 accredited International Master of Science programmes, with a total of 22 specializations.

The 18-month MSc programmes are designed for professionals who want to deepen their expertise, and wish to gain substantial insight into the global water agenda.



#### NUMBER OF MSC STUDENTS

Participants | Academic period



## MSC PARTICIPANTS

## SHORT COURSES





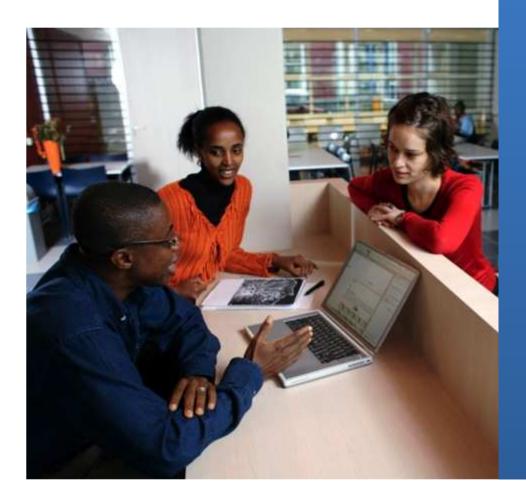
UNESCO-IHE offers a wide range of short, intensive and highly specialized courses for mid-career and senior experts who wish to upgrade and refresh their knowledge and skills.

The short courses are held in Delft and vary from 1 to 4 weeks. They also vary in focus and content, ranging from specialized technical issues, to management challenges and approaches.



## ONLINE COURSES





UNESCO-IHE offers high-quality online courses. The innovative delivery format makes learning exciting, flexible, interactive and efficient.

The online courses are beneficial to professionals working in public and private institutions, NGOs, and academic institutions. Ideal for professionals with jobs and families, who want to upgrade their skills from the comfort of their home or office.



## TAILOR MADE TRAININGS





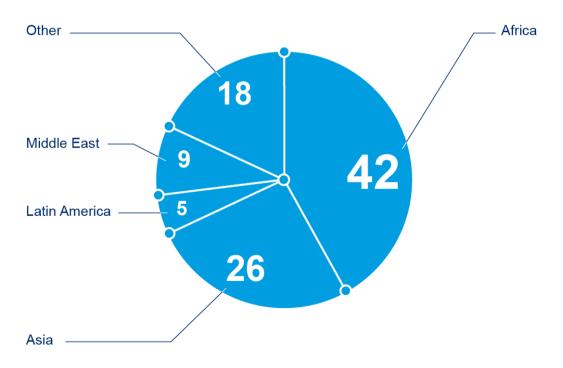
#### SOME EXAMPLES

Project Management
Operations Management
Strategic Management and PPPs
Change Management
Urban Drainage in Developing Countries
Solid Waste Management
Water Transport and Distribution
Environmental Planning
Water Law and Institutions
Applied Modelling & MWR
Integrated Coastal Zone Management



### REGIONAL DISTRIBUTION OF PARTICIPANTS

#### Percentage



#### 2012-2013



## RESEARCH



## Research is a vital component of UNESCO-IHE's mission.

Research is conducted under 4 horizontal and 2 crosscutting themes:

- Safe drinking water & Sanitation
- Water-related Hazards & Climate Change
- Water & Ecosystems Quality
- Water Management & Governance
- Water, Food & Energy Security
- Information and Knowledge Systems



## PHD PROGRAMME

Currently over 130 PhD fellows from around the world are enrolled at the Institute in water-related research.

PhD fellows do scientific research, often with conclusions that directly influence their region.

They participate in problem-focused and solution-oriented research on development issues.

This results in an inspiring research environment.



## INOVATION

"Innovation is the most powerful force for change in the world" (Bill Gates).



Innovation case -the smart eSOS toilet (by Prof. Damir Brdjanovich)
The innovative emergency Sanitation Operation System (eSOS) concept provides a sustainable, innovative, holistic and affordable sanitation solution before, during and after disasters.



## CAPACITY DEVELOPMENT



UNESCO-IHE provides capacity development services to knowledge institutes and water sector organizations.

Through these activities, the Institute increases its global impact and helps to build sustainable organizations.

These organizations will be equipped to properly manage water resources and deliver water and sanitation services to all communities.

Services include institutional development projects, tailor-made training and policy advice.



## STRENGTHENING KNOWLEDGE INSTITUTES



#### SOME EXAMPLES

- Curriculum development & improvement
- o Adapting training materials to local conditions
- Modernization of knowledge
- Staff development (Training of Trainers)
- Staff development for R&D (PhD research projects)
- o Improvement of laboratory facilities for training and R&D
- Improvement of access to information (Libraries, Networks)
- o Improvement of Management System
- Development of career planning/incentive system (HRD)



### 2012 at a Glance

16 PhD graduations 261 new MSc students 159 full-time staff equivalents over the whole year: 53% academic and 47% non-academic staff 193 MSc degrees awarded 11 active post-doctoral researchers 4 MSc programmes related to water and 131 registered PhD fellows 359 professionals in 62 regular environment with 22 specializations short courses

240 participants in 17 online courses

177 running projects

Total turnover of just under € 34 million

A refresher seminars held for alumni

Overall positive result of € 81,000



#### THANK YOU FOR YOUR ATTENTION

UNESCO-IHE Institute for Water Education www.unesco-ihe.org