



018530 - SWITCH

**Sustainable Water Management in the City of
the Future**

Integrated Project
Global Change and Ecosystems

D4.1.15 , D4.1.16 , D 4.1.17 & D 4.1.19

**List of Training activities work package
4.1**

**Water use in sanitation and waste
management**

Start date of project: 1 February 2006

Duration: 60 months

Revision [final]

Project co-funded by the European Commission within the Sixth Framework Programme (2002-2006)		
Dissemination Level		
PU	Public	√
PP	Restricted to other programme participants (including the Commission	
RE	Restricted to a group specified by the consortium (including the	
CO	Confidential, only for members of the consortium (including the Commission Services)	



Trainings:

1. Technology selection Module

Venue and dates:

Summer School "Sustainable sanitation" – Delft, September 22-26th, 2008

Multiple Criteria Framework for the Selection of Urban Sanitation Systems

<http://www.unesco-ihe.org/About/News/Summer-course-on-Sustainable-Sanitation>

http://www.switchtraining.eu/index.php?id=5471&cmd=view&view_id=58

Summer School "Sustainable sanitation" – Delft, September 2009

Multiple Criteria Framework for the Selection of Urban Sanitation Systems
& Ecosan experiences

Target group: students and professionals in the field of water management

Description: A summer school which aims to highlight key aspects of sustainable sanitation of domestic wastewater. The course focuses in particular on characterisation of waste and wastewater streams, centralised and decentralised systems, innovative post-treatment systems, recovery and reuse of resources, public and environmental health and the economic and institutional barriers for the introduction of sustainable sanitation.

Within the module: Detailed characterisation of waste and wastewater streams along with technical possibilities and bottlenecks for collection and transport, centralised and decentralised sanitation systems in relation to sustainability criteria, Recovery and reuse of resources (water, nutrients and energy), public and environmental health aspects and economic and institutional barriers for the introduction of sustainable sanitation systems

2. Sustainable sanitation Module

Target group: Professionals and experts in urban environmental management from Chinese municipalities

Venue and dates:

Training Course of Urban Environmental Management and Urban Sustainable Development for Nanjing Environmental Specialists and Urban Managers.
Wageningen, The Netherlands, December 2008.

Training Course of Urban Environmental Management and Urban Sustainable Development for Nanjing Environmental Specialists and Urban Managers Wageningen, The Netherlands, 25 November 2009

REFRESHER COURSE 2009 CHINA - Integrated water management and reconstruction of water services for water managers in the post earthquake areas of China. Wulumuqi, China, 5- 7 August 2009.



Description: These courses are aimed to train municipal staff in different domains of water management. The main objective is to transfer knowledge of best practices. For a fast developing country as China, sustainable strategies for water management are key factors to allow further growth and development. The sustainable sanitation module focuses on introduce the different available technologies for sustainable sanitation. An overview of examples in the world is shown and some descriptions about technical features are presented. It also covers the contents of technology selection module.

3. Managing Wastewater in the City of the Future,

Target group: Local government professionals from the City of Munoz working in departments relevant for wastewater management such as sanitation utilities, urban planning, housing, environmental management, health, etc.

Venue and dates:

Munoz, Philippines, 27-28 July 2010

Description:

The workshop aims to create awareness and knowledge on alternative, more sustainable, approaches to urban wastewater management and the associated benefits that these bring. The workshop is tailored to the wastewater situation in the Philippines and will encourage participants to:

- share their expertise in urban wastewater planning issues
- assess existing wastewater strategies and plans against sustainability principles
- identify institutional arrangements necessary for putting a more sustainable wastewater management approach into practice

Furthermore, the facilitators will provide presentations on the key aspects of sustainable urban wastewater management as well as relevant examples from cities throughout the world.

4. Faecal Sludge Management Training

Target group: Local and regional stakeholders

Venue and dates:

5-9 July 2010 | KNUST-Kwame Nkrumah University of Science and Technology
Accra , Ghana

Description:

On site sanitation systems are the most widely used facilities in Ghana. This means that the pit contents must be regularly de-sludged. Since treatment is incomplete for the sludge on site, faecal sludge can pose serious health problems if it is not treated



and disposed of safely. The objective of this training is to provide participants with information on the importance of treating faecal sludge and the natural treatment systems and simple management tools available to do so.

http://www.switchtraining.eu/index.php?id=5471&cmd=view&view_id=77

5. Technology selection for sustainable municipal wastewater management in Costa Rica

Target group: Local and regional stakeholders

Venue and dates: 22-26 November 2010 | Univalle, Unesco - IHE
City to be defined , Costa Rica

Description:

The main objectives are: 1) Promote integral thinking: e.g. effect of drinking water consumption on wastewater production; the idea of reusing wastewater to reduce drinking water consumption; scenario thinking (climate change, population growth, economic development, ...) and stakeholder involvement; 2) Spread some basic knowledge on technologies and technology selection, which should help to better evaluate proposals from (external) consultancy companies or donors on their merits, including socio-economic aspects (e.g. cost recovery).

6. Ecological Sanitation Training Course

Target group: Local and regional stakeholders

Venue and dates: 25/1/2011 – 27/1/2011. Institute of Environmental and Water Studies / Birzeit University

Description:

Within the framework of the project "Sustainable Water Management Improves Tomorrow's Cities' Health" funded by the EU, "Ecological Sanitation Training Course" was conducted by the Institute of Environmental and Water Studies at Birzeit University in cooperation with the House of Water and Environment in Palestine.

The programme aimed to raise the skills of school teachers and environmental professionals in dealing with water and environmental issues in Palestine which will have positive impact on the coming generation to be an environmental friendly generation. The course specifically concentrated on EcoSan concept. The training material covered the following topics:

1. Wastewater characteristics
2. Sustainable development: need for EcoSan
3. Wastewater as a resource: nutrients, water and energy
4. Health hazards of wastewater: pharmaceutical compounds; microbial content
5. Source separated waste water streams
6. Standards and regulations
7. Wastewater management concepts



7. SWITCH Pilot Training: Managing Wastewater in the City of the Future in Lima

Target group: The audience of the pilot training included professionals working in the field of sanitation and coming from different disciplines, including architecture, civil engineering, sanitation engineering, chemical engineering, agronomy and economy.

Venue and dates: Lima, Peru. 15-16 December 2010

Description:

The participation in the diploma involved the development of three lectures in Spanish with a duration of two hours each covering: the experiences of Switch in greywater treatment and reuse; the possibilities for upgrading source separated excreta via anaerobic digestion, the European experiences and their applicability to the Latinamerican case; and the design of alternative sanitation systems with an emphasis on decision making methodologies.

The delivery of the training was accomplished during two days in interaction with the participants and other trainers. The training itself took place in the Campus of Universidad de la Molina in Lima.

The material developed was translated into English and is made available along with the Spanish version as part of this deliverable.

8. Pharmaceuticals course.