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From vision to action
UN WATER
WATER FOR LIFE

Case study: Water supply and sanitation systems in Vietnam

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Short summary

Most of the water related programs have focused mainly on the quantitative aspects such as water supply and sanitation coverage, number of water facilities whereas water quality is often not addressed appropriately. Water quality that comprises drinking water, wastewater and sanitation constitutes an important feature for health, well being and the environment. The challenge of water quality management consists of the lack of a comprehensive framework that allows the use of science to assist in development of adequate policy for water quality management and translation of science into action.

A case study on water supply and sanitation system from Vietnam will be used as an example to discuss the above-mentioned topics. We will discuss how the WSP and the risk analysis framework can be used to integrate science and policy and promote the translation of science into action, applied in water quality domain.

Key words:

Reducing pollution ; Eliminating dumping of hazardouse waste ; Minimising release of hazardous chemicals and materials - achieve sound management of chemicals through their life cycle ; Reducing untreated wastewater ; Increasing recycling and safe reuse ; Protect, restore and sustainable use of inland freshwater related ecosystems ; Prevent the introduction and significantly reduce the impact of alien species ; Reduce economic losses ; Protection of the poor and vulnerable

Issues addressed:

Water quality (pollution, dumping of toxic materials, wastewater management, recycling, reuse, restore ecosystems and aquifers)

The challenge for water quality management is the lack of a comprehensive framework. A pathway for both innovative technology and science based analysis to move into an action oriented program has not been developed for most countries.

Risks (mortality, economic losses caused by natural and human-induced disasters)

The risk analysis (comprising risk assessment, management and communication) is a useful framework to systematically address the water and health risk paradigm.

Tools for implementation:

Governance: Institutions / legal framework: Water Safety Plan (WSP) and Quantitative Microbial Risk Assessment (QMRA) have been used as approaches to assist the decision making process for water quality management. QMRA is widely applied to assess health risk related to water consumption and exposure to water pathways.

Lessons learned:

Triggers: Promote and Implement the use of Water Safety Plans and Quantitative Risk Assessment

Drivers: Public, Private, Users

Barriers: Application of WSP and QMRA remains difficult in developing countries due to the lack of capacity and their acceptance.

What has worked well?

What could be improved?

The way forward:

Links: