Technology Fact Sheet

Recovering and reusing water[i]

1) Technology description

- There are central wastewater treatment facilities in urban residential areas and in industrial areas. Treated wastewater will be reused in industries and agriculture later.
- Laws and regulations on industrial and urban wastewater treatment have been issued before discharging wastewater.

2) Socio-economic benefits

- Diversifying sources of water supplies.
- Reducing production costs by recycling water.

3) Environmental benefits

- Environmentally-friendly, reducing wastewater discharge and pollution, preventing diseases.
- Sustainable development of surface and ground water resources.
- Protecting wetland ecosystems.
- Reducing energy consumption and GHG emission.

4) Status of technology

- The technology has been applied in the wastewater treatment plant concentration of urban residential areas or the industrial wastewater treatment plant.

5) Application potential

There is a huge demand in urban and industrial areas.

6) Contribution for adaptation

The recovered and reused water helps to diversify and conserve sources. By using retreated water for multi purposes (except to drinking) can reduce degradation of water sources and prolong their longevity. Moreover, retreated water can be pumped directly to the ground for recharging and preventing salinity intrusion in estuaries.

7) Barriers

- Institutional capacity and policy is not strong; there are many overlapping views in the policies and cannot meet the fact.
- Low awareness of environmental protection.
- Increased production costs due to wastewater treatment.
- Lack of confidence in the quality of reused water.
- Most cities do not have a wastewater treatment plant that meet requirements.
- Many technologies are still under research; therefore the technology has not been fully commercialized.

8) Costs

Implementation and technology application costs

- The investment cost of water treatment systems, technology transfer and operating costs as well as water quality requirements for the output to be reusable.

Incremental costs to adapt to climate change (compared to conventional technology)

- The cost to adapt to climate change depends on process technology and operating costs, maintenance, and equipment maintenance in terms of more severe climate change.

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[i] **This fact sheet has been extracted from TNA Report - Adaptation for Vietnam. You can access the complete report from the TNA project website http://tech-action.org/**