Technology Fact Sheet

Harvesting runoff rain water for public storage[i]

1) Technology description

- It is used to harvest rain water from mountain cracks, rivers, streams etc... to store in small reservoirs or public tanks, or household barrels for household uses or production in dry periods.
- Commonly used by villagers in mountainous areas in the north such as Cao Bang, Ha Giang and the Central Highlands. Small reservoirs are under construction for agricultural and domestic uses in northern highlands or the central region.

2) Socio-economic benefits

- Securing water supply for households and production in dry season periods.
- Reducing costs and time spent on long distance water transportation.
- Stabilizing domestic and production activities in agriculture or livestock in dry areas.

3) Environmental benefits

- Reducing flood, erosion, helping to adapt to climate change.
- Reducing energy consumption and GHG emission.

4) Status of technology

- Commonly used by villagers in mountainous areas in the north such as Cao Bang, Ha Giang and the Central Highlands. Small reservoirs are under construction for agricultural and domestic uses in northern highlands or the central region.

5) Application potential

Highly applicable in arid areas, semi-arid areas, rural areas, in the mountains or highlands.

6) Barriers

- Possible conflicts over access the water sources.
- Negative impacts on the environment and ecosystem in the downstream of the reservoir.
- Risks of spreading epidemic for human and animals due to using the same public source of water.
- Difficulty in locating and determining the proper scale of reservoir or public's storage to meet the requirements.
- Projects are normally needed survey, planning, designing, and construction many technical items while the poor local conditions make it difficult to demonstrate.
- Requiring high investment cost that the poor local community cannot afford.

7) Costs

Implementation and technology application costs

- Investment funding requirements often depend on building location, size of the reservoir, type of work (backfill, concrete dams), pipe costs and other factors. The initial investment cost for the reservoir typically ranges from 6USD/m^3 for soil dam and 270USD/m^3 for concrete dam.

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

- It increased operating costs and maintenance process is designed with the ability to adapt to 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/**