Technology Fact Sheet for Adaptation

Drinking water quality improvement through continued surveillance during and after extreme weather events [i]

Sector	*Health*
Adaptation needs	How to prevent water borne diseases by continued surveillance of drinking water quality
Technology name	Establishment of monitoring system to detect contaminated water sources and sources of contamination unfit for human consumption
How this technology contributes to adaptation	Identification of water sources contaminated with disease causing pathogens by regular testing Monitoring of purification of drinking water will ensure the quality Contaminated sources can be cleaned and used preventing local shortages The technology can be used to communicate with the local community at different levels, thus improving participation and thus enhancing hygienic practices
Background/Notes, of the technology option sourced from ClimateTechwiki, Seminars etc.	Centers for Disease Control and Prevention, Health Water; *Water related emergencies and outbreaks,* Centers for Disease Control and Prevention*; Safe Drinking Water Home,* Water related emergencies and out breaks National Water Supply and Drainage Board. Annual Report, 2009 Ministry of Water Supply and Drainage; *Corporate Plan 2012-2016*; National Water Supply and Drainage Board
Implementation assumptions, How the technology will be implemented and diffused across the sector	The current status of access to safe drinking water is 80% out of which 39% is pipe borne water; The total sanitation coverage is 85.7%. The plan is to increase the pipe borne water coverage to 47.1% by year 2016. The majority of people use well (Dug as well as Tube wells) and surface water from streams and tanks for drinking and other purposes. Therefore it is imperative to establish the surveillance mechanisms in advance. If the climate change affects badly there will be shortage of water not only in rain fed dry and arid zones but in urban and suburban areas

	where the pipe borne water is the main supply route. The surveillance of water quality will be much needed in such instances as well. The surveillance should include physical, chemical, microbiological and other parameters as warranted by the event. The Public Health network can be used to implement the technology. The NGOO and UN agencies and Government agencies involved in WASH activities can also participate in the activities. The initiative shall be monitored at the Divisional level with the assistance of the District level health authorities. Prolonged and regular application of the technology will reduce the impact of water borne diseases and at the same time provide thee health personnel to introduce other health practices to the community.
Cost	1500 $ US/District

Impact Statement- How this option impacts the country development priorities	
Country social development priorities	Income generation during and after an extreme event as well as in protracted droughts is seasonal and temporary Education gained through the technology transfer will help the population to avert water borne diseases
Country economic development priorities	Only a limited number of temporary jobs will be created Capital investment will be bearable
Country environmental development priorities	NO GHG emissions Environmental pollution is minimal and ecosystem degradation is also minimal as chemical use will be restricted.
Costs	
Capital cost	-
Operational & Maintenance costs	500 $US/District
Daily Supply capacity per facility	Functionality will be 24/7.
Up-scaling potential	80 % coverage in the country in three years

Local context	
Opportunities/ Barriers	Ample opportunities are available as many rural areas depend on well or river water. Participation by the public in normal times and less enthusiasm by the health authorities during non emergency periods
Country status	The practice on available and being implemented. Not regularly done in some vulnerable areas.
Timeframe	Mid 2012- end of 2015

[i] **This fact sheet has been extracted from TNA Report – Technology Needs Assessment Reports For Climate Change Adaptation – Sir Lanka. You can access the complete report from the TNA project website http://tech-action.org/**