

Private Sector Initiative actions on adaptation

Title of case study	SkyHydrant Water Purification Technology
Name of organization(s)	Siemens
Business sector	Science and Technology
Region(s) relevant to case study	 ☐ All regions ☒ Africa and the Arab States ☒ Asia and the Pacific ☒ Caribbean and Central America ☐ Europe ☒ Least Developed Countries ☐ North America ☐ Polar regions ☐ Small Island Developing States ☒ South America
Country(s) relevant to case study	Multiple
Adaptation sector(s) relevant to case study	□ Business □ Education and training □ Food security, agriculture, forestry and fisheries □ Human health □ Oceans and coastal areas □ Science, assessment, monitoring and early warning □ Terrestrial ecosystems □ Tourism □ Transport, infrastructure and human settlements □ Water resources □ Other (please specify):
Adaptation activity	Scarcity of clean water is an ever-increasing global problem and is already being exacerbated by climate change. To help the UN achieve its goal of reducing the number of people without access to clean water to one half of today's level by 2015, a team from Siemens Water Technologies has developed the portable water-purification system SkyHydrant and established the SkyJuice Foundation to ensure the system will be used effectively in developing countries and disaster areas. SkyHydrant purifies unclean water by pumping it through a membrane of ultra-fine fibers. It can produce up to 20,000 litres per day of exceptionally pure drinking water

that surpasses World Health Organization (WHO) quality specifications.

To date, the SkyJuice Foundation has installed around 450 water purification units throughout Sri Lanka, Indonesia, East Timor, Nepal, Pakistan, Thailand, Oman, Kenya, South and Central America and India. The systems are installed in schools, hospitals, clinics, internally displaced persons camps and villages. Thousands of people now have access to continuous, safe drinking water.

Siemens has also assisted the Singapore government in supplying much needed fresh drinking water as about half the country's requirement of water currently needs to be imported from Malaysia. Siemens provides a wastewater purification system which filters water to required World Health Organization (WHO) and the U.S. Environmental Protection Agency (EPA) standards. A water purification plant in Kranji is now being expanded. By 2012, its capacity will be boosted to 210,000 m³ per day in order to meet 20 % of the city's water requirements.

Cost-benefit

The SkyHydrant system does not require electric power or purification chemicals, and with an annual cost of less than 20 euro cents per person, it is affordable for even the poorest communities in developing countries, including those communities affected by climatic disasters. It is therefore a business model with good potential for Siemens.

The expansion of the Kranji water purification plant is possible because the Siemens' recycling process is cost-effective and much cheaper than other water purification methods such as desalination. Concerned about water resources, a number of delegations from other Asian countries have also expressed interest in this technology.





Source: www.skyjuice.com.au

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