



Partnering to Promote Adaptation

Business has a role to play in the coordinated efforts to mitigate and adapt to climate change. Governments in Durban must work to harness the innovation, investment and drive of the private sector to begin to meet the urgent adaptation needs of countries today.

The private sector, in partnership with governments, can provide the technical expertise and solutions to cost-effectively meet adaptation needs.

The World Bank estimates that the “cost between 2010 and 2050 of adapting to an approximately 2°C warmer world by 2050 is in the range of \$70 billion to \$100 billion a year.”¹ The private sector, in partnership with governments, can provide the technical expertise and solutions to cost-effectively meet these adaptation needs.

Business can offer strategic planning advice and technologies to increase the resilience of infrastructure to extreme weather events, to cultivate the more efficient use of scarce resources such as water, and to generate our electricity from more sustainable, low-carbon sources.

Infrastructure & Planning

Planners of roads, railways, water systems, electricity grids and buildings must incorporate into their designs a resiliency to extreme weather events in both developed and developing countries.

The construction of more energy efficient, green buildings not only provides an opportunity to reduce demand on the electrical grid, thereby reducing GHG emissions, but also leads to the lower operating cost and smaller environmental footprint of these buildings.

Building Sustainable, Distributed Energy Systems

Energy that is generated at the same location where it is consumed, also known as distributed or decentralized generation, not only brings energy to communities that are currently off-the-grid, but also reduces



The AMORE program provides energy access to over 500 rural communities. Photo: Winrock International.

the vulnerabilities of a grid system exposed to extreme weather events. Distributed generation can help a country meet its adaptation, mitigation and development needs.

In the Philippines, **Winrock International** has been partnering with USAID, the Philippine Department of Energy, SunPower Foundation, and other private sector partners to bring energy access to remote off-grid barangays in Mindanao. To date this program, AMORE², through installation of photovoltaic (PV) solar home systems and micro-hydro power systems, has energized over 14,000 households and 200 schools in more than 500 rural communities or ‘barangays’ since 2002. It has also increased access for more than 20,000 individuals to safe water.

By maximizing efficiency in a high-performance building, including structural plans to withstand earthquakes or floods, policy-makers and planners are ultimately saving lives and resources.

The use of “smart” information communication technologies (ICT) that manage demand on an electricity grid can also enhance the ability of a network to survive a climate-related interruption.

1 The World Bank. <http://climatechange.worldbank.org/content/adaptation-costs-global-estimate>.

2 For more information, please see: <http://www.amore.org.ph>.

3 For more information, please see: <http://www.skyjuice.com.au>.

4 Project partners included: UN Habitat, Lawrence Berkeley National Laboratory/ UC Berkeley, Stockholm Environment Institute, and Climate XL. For more information, please see: <http://www.ase.org>.

Improving Resilience of Utilities

Lake Victoria, East Africa’s massive freshwater lake, is the source of sustenance for 35 million people in surrounding Uganda, Tanzania and Kenya. However, with the emergence of more intense and less predictable weather patterns the region is facing challenges of drought and land erosion. As the water levels of Lake Victoria have begun falling over recent years, the ability of local hydropower facilities to generate enough electricity to deliver reliable water supply service has been affected.

The delivery of water is an energy-intensive service. In many sites the water is mechanically pumped from the lake to water treatment facilities, then again to higher elevation storage tanks and finally to end users. The **Alliance to Save Energy** worked with several partners⁴ and three water utilities in the Lake Victoria region to provide capacity building and training to enable them to anticipate and address climate-related risk and to incorporate measures, such as hydrological modeling and water demand management, that will help the utilities operate more energy efficiently and become more climate resilient. Newly established climate change committees in water utilities in Kisii, Kenya, Bukoba, Tanzania, and Masaka, Uganda are now well positioned to prioritize and implement measures in their own climate change adaptation plans.



The Alliance team and two utility operators tour an intake site in Kisii, Kenya. Photo: Alliance to Save Energy.



After the devastating earthquake in Sichuan Province, China in May 2008, the SkyHydrant system was quickly able to bring clean water for drinking, cooking and washing to the displaced residents of Jiangyou. Photo: Siemens Corporation.

Delivering Disaster Relief & Purified Water

Siemens’ Water Technologies has developed SkyHydrant, a lightweight, sustainable and affordable water filtration system for humanitarian projects and emergency and disaster relief, and created the SkyJuice Foundation to disseminate the technology. The SkyHydrant purifies water using state-of-the-art membrane technology, functions independently of the external power supply and weighs just 20 kilograms. One single filter can provide 10,000 liters of drinking water per day. With annual costs 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. To date, the SkyJuice Foundation has installed around 450 systems in 16 countries on 4 continents.³

About the BCSE

The Business Council for Sustainable Energy (BCSE) represents a broad portfolio of existing clean energy business sectors, including renewable energy, supply-side and demand-side energy efficiency, natural gas and electric utilities in North America.

The Council has represented the views of clean energy industries in the United Nations Framework Convention on Climate Change (UNFCCC) process since 1992. For more information, please visit <http://www.bcse.org>.



www.bcse.org