

The Global Sustainable Energy Island Initiative

The Honourable Tom Roper, Climate Institute

The forty-three members of the Alliance of Small Island States (AOSIS) are among the most vulnerable to global climate change with its accompanying sea level rise and increased extreme weather events.

Most Small Island Developing States (SIDS) are already ill equipped to deal with their existing environmental problems, such as coastal and coral degradation, explosive population growth, over development and pollution. These will worsen as the impacts of land submergence, beach erosion, coral damage and storms take their toll.

Climate change threatens the very existence of many AOSIS members even though they are the innocent – the smallest emitters of greenhouse gases (GHGs). Nations such as the Maldives, Tuvalu and Kiribati are just a few metres above sea level.

Compounding the challenge of global warming, most SIDS struggle with expensive and sometimes unreliable fossil fuel imports. Diesel is the dominant source of electricity, at least for those with it, and can cost as much as US 40 cents/kWh. However, 70% of Pacific Islanders still don't have access.

The previous chairman of AOSIS, Samoa's then Ambassador to the United Nations, the Hon. Neroni Slade, has best explained the challenge and the opportunity:

"The Small Island States can, by promoting a clean energy environment, set an example for the rest of the world. Too much of our national budgets are spent on fossil fuels for diesel generation of electricity. This is a drain on our economies and does not work towards a solution to the problems of climate change. When the tanker comes in, the foreign reserves go out.

Far too little attention has been given – amongst the Small Island States leadership and by the donor countries – to the development of alternative means of energy".

Fortunately the need for change has coincided with the greater affordability and availability of alternatives to fossil fuel. The cost of renewable energy has come down dramatically. SIDS are especially suited to utilise combinations of modern renewable energy technologies and energy efficiency measures.

Finding an International Solution

Ambassador Slade challenged the Climate Institute, a Washington DC-based NGO, to work with AOSIS. As a result, the Global Sustainable Energy Islands Initiative (GSEII), a consortium of international NGOs and multilateral institutions, has been organised to support SIDS and potential private investors and donors by bringing renewable energy and energy efficiency projects, models and concepts together into national sustainable energy plans. The GSEII seeks to showcase national efforts that significantly reduce GHG emissions. At the GSEII, we have entered an alliance with UNIDO, which is backed by grants from the UN Foundation, the Rockefeller Brothers Fund and others.

Our aims are to:

- Help transform energy systems to renewables and foster energy efficiency;
- Link energy, national development and climate change issues;
- Persuade governments and utilities to adopt sustainable energy plans;
- Act as a catalyst in facilitating donor and private sector investment;

- Encourage the commercialisation of renewables and the transfer of technology and technical expertise; and
- Create opportunities for new investment tools such as the Clean Development Mechanism.

Overcoming the Barriers

To succeed, a number of barriers have to be overcome. Most SIDS lack technical knowledge and skilled personnel, and there are still few successful demonstration projects that can be seen and touched. Utilities depend on diesel, and their staffs have little or no experience of renewables or access to resource assessments. The Maldives, for instance had no engineer with renewable energy expertise. In addition, renewables often have a high upfront cost, while utilities suffer from a scarcity of finance.

The Cabinet of the beautiful Caribbean nation of St. Lucia was the first to approach us for assistance. Working with the Government, utility, business and the community, a comprehensive energy plan has been prepared and adopted by the Cabinet – www.climatechange.gov.lc. The aim is to have renewables account for new capacity, replace outdated diesels and encourage energy efficiency.

Dominica and Grenada have joined the project and jointly announced their ambitious targets at the World Summit in Johannesburg.

Dominica's former Prime Minister, the late Pierre Charles, said "my country, known as the Nature Island of the Caribbean, has long embraced the principles of sustainable development and sees clean energy as a fundamental requirement for economic and social progress." The national target, building on existing 33% use of hydropower, is to achieve 65% renewable energy by 2010.

"Our dependence on expensive foreign energy has done nothing to help development or deliver affordable energy to the poor. Small Island States need support from developed nations to succeed in their energy plans – technical assistance, new technologies, soft financing and joint venture partners," he added.

St. Lucia's then Foreign Minister Hon. Julian Hunte, told the Summit that financial incentives were already being provided by his Government to support renewable energy investments and that tariffs on clean energy imports had been removed.

Grenada's Health and Environment Minister, Hon. Clarice Modeste Curwen, pointed to policy and legislative reform, projects such as wind energy for the island of Carriacou and energy efficiency.

Last November joint discussions between GSEII, UNIDO and officials of the three governments identified more than twenty project opportunities including wind, geothermal, solar and efficiency technologies. An exciting scheme is being worked up, harnessing local credit union funds to finance solar hot water units and create new local industries.

The development of national sustainable energy plans requires:

- Setting up a National Working Group on Sustainable Energy;
- Adopting targets for energy transformation
- Carrying out resource assessments;
- Identifying renewable energy and energy efficiency projects;
- Removing barriers, including legislative, to commercialisation; and
- The approval and involvement by the Government and other stakeholders.

Success will require capacity building, community education and awareness campaigns, and the sharing of experiences with other regions and islands. It will also need hitherto scarce donor,

international bank and private sector investment. There is a real risk that most SIDS will miss out on opportunities for the sale of carbon offset credits through the Clean Development Mechanism.

Initial Successes

Successes are starting to appear, particularly through the World Bank's Prototype Carbon Fund, though mostly outside the islands. Fund deals include wind power in Honduras and Morocco, micro hydro in Guatemala, biomass in Nicaragua and the introduction of compact fluorescent lamps in Mexico.

The Fiji Department of Energy has, amongst other initiatives, developed a village-based hybrid wind, solar and diesel scheme, and provides mini hydro and coconut oil options elsewhere. The Fiji Electricity Authority is negotiating for a major wind power investment to service the grid.

Encouraged and assisted by the Pacific Power Association, the ocean-wide regional electric utilities organisation, five Pacific nations and the European Union are finalizing individual country sustainable energy projects.

The GSEII partners aim to continue their Caribbean work, possibly adding additional nations and help develop sustainable energy plans for Pacific and Indian Ocean countries. The UN-sponsored review of the 1994 Barbados Plan of Action to be held in September in Mauritius provides an excellent opportunity for the showcasing of successful demonstration projects.

We must show the Mauritius participants and the international community that sustainable energy is not only an environmental necessity, but also makes economic and social sense.