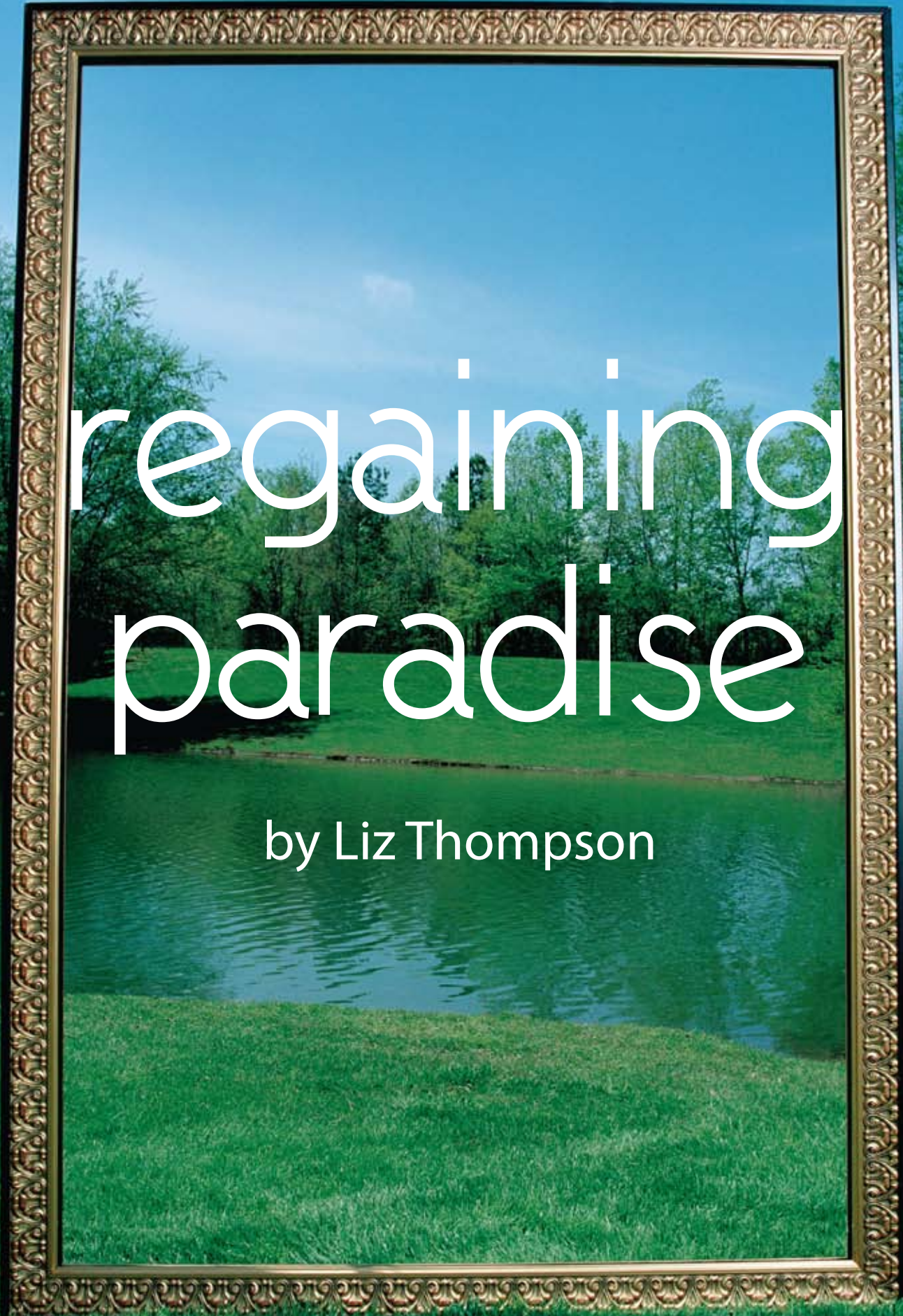


Liz Thompson, the former Energy and Environment Minister of Barbados, was named a UNEP Champion of the Earth in 2008. The award is given annually to outstanding environmental leaders who have significantly influenced the protection and sustainable management of the planet's environment.

Each issue of Our Planet features the views of one of UNEP's Champions. For more information on the UNEP Champions of the Earth award see <http://www.unep.org/champions/>



regaining paradise

by Liz Thompson

In his epic poems *Paradise Lost* and *Paradise Regained*, John Milton explores the existence of paradise — and of losing and then regaining it. His theme, of course, is spiritual, but the concept of losing paradise could equally apply to the possible impact of climate change on the ecology and economy of the globe. Nowhere is this more likely than in the Small Island Developing States (SIDS). Their size, population and resource base severely constrain their production capacity, making them peculiarly vulnerable to environmental problems and economic shocks. They are on the front line of damage from climate change.

Many see the Caribbean as presenting a snapshot of the landscape of paradise. But they do not see how climate change threatens to distort or destroy the islands' idyllic image by damaging their physical environment, undermining economic gains and permanently compromising their peoples' quality of life. Fortunately, severe as the threat is, the prescription for regaining paradise is available. It is to reduce greenhouse gas emissions (and by so doing shrink our carbon and ecological footprints), and to pursue a paradigm of industrialization and social and economic development which is sustainable because it is predicated on renewable and infinite resources instead of finite, expensive and increasingly inaccessible fossil fuels.

UNDP's Human Development Report reminds us that climate change is “the defining human development issue of our generation” and cautions that “it is still a preventable crisis, but only just.” This strikes an almost dire note when measured against the degree of uncertainty as to the outcome and final commitments expected from the 2009 Copenhagen conference to replace the present arrangements under the Kyoto Protocol.

Amazingly, the debate among policy makers and their negotiators continues to focus on nuances of language and the placement of brackets and punctuation — all in the name of protecting their national interest. To many people, such interests appear obscure, abstract and likely to be rendered irrelevant unless the global community can agree on strict fixed targets with specific time frames for reducing greenhouse gas emissions. This is imperative for SIDS: the environmental and economic danger they face will not be alleviated, to say the least, by the two degree increase in global temperature around which consensus seems to be coalescing. At current levels of 0.7 degrees, SIDS are on the edge of survival. A further 1.3 degree temperature increase will push them into crisis.

Caribbean SIDS — working assiduously to achieve the best development outcome, even though they bear only marginal responsibility for global greenhouse gas levels — have set targets for incorporating renewable energy technologies. They recognize that their rapid diffusion is critical for both cutting emissions and achieving sustainable development. Settled targets for renewables differ among the islands but generally range from 15 per cent to 30 per cent of total energy by 2020. Renewable energy projects have been and are being developed, many with the support of the Caribbean Renewable Energy Development Programme — an initiative of the Energy Ministers of the Caribbean Community to “reduce barriers to the increased use of renewable energy thus reducing the dependency on fossil fuels while contributing to the reduction of greenhouse gas emissions.”

Caribbean development can be anchored on renewable energy. Several initiatives are in progress: Jamaica has a CDM-certified wind farm and the utility companies in Barbados, Guyana, Grenada and Dominica are also preparing to use wind power. Jamaica is experimenting with hydroelectricity, cogeneration from bagasse and biomass and is already adding ethanol to petrol. Some islands have landfill gas recovery; others are taking steps toward it. St Kitts Nevis is working on geothermal energy. The Barbados National Energy Policy 2007 allows householders and corporations to

feed power from renewable sources into the national grid. Barbados already uses solar water heaters from its mature indigenous industry. It is the largest supplier of these units to other Caribbean islands, and one Barbadian manufacturer has even set up a factory in Nigeria. Guyana, with vast land and water resources, is developing biofuels and bagasse, and is working towards hydroelectricity. Finally, there has been much discussion about exploiting the temperature differential between surface and bottom temperatures in the Caribbean Sea through Ocean Thermal Energy Conversion.

The commendable efforts of Caribbean SIDS require greater collaboration from the international community. The developed countries, which are the largest emitters of greenhouse gases, have never quite fulfilled their commitment to make available adequate financial and technical resources to support the goal of poor developing countries, especially SIDS, of achieving sustainable social and economic development. The Caribbean thrust toward renewable energy technologies has the potential of creating competitive advantage, developing the kind of technology typical of the global knowledge economy which precipitates improvements in quality of life. The use of renewables earns revenue, reduces carbon footprints, diminishes dependency on fossil fuels, saves foreign exchange on petroleum products and ultimately enables sustainable development. These features characterize Brazil's highly successful experiment with ethanol.

Regional organizations calculate that in 2004 the cost of importing 100 million barrels of oil into the Caribbean was \$6.5 billion, an exorbitant sum for the area's SIDS, already attempting to cope with food price increases and a shrinking share of global trade. The PetroCaribe agreement was the prescribed cure. Its terms include deferring payment for 60 per cent of supplied fuel for 25 years at a maximum interest rate of 2 per cent per annum. However, without identified funding or a clear strategy and implementation schedule for introducing renewable energy technologies, Caribbean signatories to PetroCaribe are digging a deep hole of debt from which they will find it very difficult to emerge. The twin state of Antigua and Barbuda graphically illustrates the point. In 2007 the country's population was estimated at 70,000 with a GDP of \$1 billion. From the middle of 2006 to mid 2007, it accrued a debt under PetroCaribe of US \$44.1 million. By December 2007, the total indebtedness of the twelve Caribbean and four Central American countries to Venezuela for fuel under the agreement had already reached \$1.17 billion. How will they repay that colossal sum?

Venezuela has some marine boundary disputes across the region — and some of the islands of the Eastern Caribbean that are in its debt are about to offer marine territory for oil exploration. Will those offshore resources be claimed or offered against the debt owed? The situation could potentially allow Venezuela inextricably to entrench itself and assert sovereignty or influence over several islands' hydrocarbon resources. It may therefore be argued that apart from the universal urgency of the economic and ecological drivers of the introduction of renewable energy, geopolitical considerations also make it imperative that developed countries help Caribbean SIDS to establish a Renewable Energy Fund to finance the research, development and implementation of renewable energy technologies with the potential to transform and protect Caribbean society. The upcoming negotiations must recognize that reducing carbon emissions and establishing a renewable energy framework is required now. These measures are necessary globally — but are urgent for SIDS.

Paradise can be entirely lost, or the climate crisis can be halted and paradise regained. Whether we hold on to paradise is entirely up to us. We must make the required decisions and take the actions necessary to combat climate change as we journey toward Copenhagen. 