

Conference Topic: Climate Variability and Change

Are our laws and institutions ready for climate change?

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ABSTRACT

Should we venture to consider the impacts of climate change on Caribbean small islands we will all arrive at one conclusion – phenomenal. Indeed our islands are already experiencing the palpable effects of climate change, causing droughts that affect the availability of water and food security, damage to coastal infrastructure, loss of biodiversity and the emergence of health and well-being concerns.

As pressure mounts on the developed world to curb greenhouse gases, the contribution of developing countries to climate change is also being assessed. The reality is that just 20 percent of the world's contributors account for about 90 percent of global emissions. Negotiations at December's United Nations Climate Change Conference in Copenhagen resulted in the *Copenhagen Accord* an interim international agreement that includes \$30 billion in financing by wealthy nations to help developing nations such as ours curb their emissions over the next three years (with a goal of increasing funding up to \$100 billion by 2020).

Climate change as an occurrence promises to negatively impact all of our resources and national development. Yet our laws and institutions remain set in a pre-climate era perhaps awaiting a jolt of reality and sense of remorse at how we could have availed ourselves of resources to stem these impacts.

We must reform our thinking. Climate change is an enormous and complex national development issue with which we must treat through an appropriate institutional framework that is equipped to negotiate our climate future, mindful of our main objective - to secure our economic future. Given what's at stake, are our environmental management agencies the best institutional venue for leading climate change issues? At a minimum should they be the sole venue? Most importantly, what are the plausible alternatives?

The challenge of climate change requires a permanent change in the way our societies work and necessarily the way our laws and institutions are set out. This paper examines why we must act now, proposes how the laws and institutions of Caribbean small islands can be designed to function in the wake of climate change and how we should now move forward.

INTRODUCTION

Core scientific evidence confirms that climate has changed, is changing and will continue to change for as long as we care to take notice. Should we venture to consider its impacts on the small islands of the Caribbean we will all arrive at one conclusion – phenomenal. Projections show that this warming will be accompanied by an increase in heavy rainfall events and other temporal and spatial changes in precipitation patterns, and by more intense or frequent cyclones/hurricanes. Arable land, water resources and biodiversity are already under pressure from increases in population on small island states and the unsustainable use of available natural resources. Indeed our islands are already experiencing the palpable effects of climate change¹ causing droughts which affect the availability of water and food security, damage to coastal infrastructure, loss of biodiversity and the emergence of health and well-being concerns.

The region reflects a high dependence of economies and livelihoods on natural resource-dependent sectors such as agriculture, mining, tourism, forestry and fisheries. With climate change, impacts on these key sectors, tourism and agriculture in particular, every aspect of our economy, society and environment - really our entire national development framework will face critical negative challenges to economic growth, prosperity and stability. In short any significant adverse effect caused by climate change on even one of the economic sectors or resources of Caribbean countries left unattended “will ultimately influence the extent to which we can successfully pursue the goal of sustainable development².” The impacts of climate change are therefore not just physical, but will have long-lasting economic effects. The Stern Review on the Economics of Climate Change estimated that without acting, the overall global costs and risks of climate change would be equivalent to losing 5%-20% of global Gross Domestic Product each year, now and forever. In short climate change therefore represents the greatest economic challenge facing Caribbean countries in the twenty-first century.

The Climate Change Convention establishes basic obligations for all governments: including the development of national GHG mitigation programs, facilitation of adaptation to climate change impacts, and promotion of technological development. The Kyoto Protocol specifies particular sectors where these national GHG programs should be targeted, including energy, transport, industry, and forestry Negotiations at the follow-up December 2009 Climate Change Conference in Copenhagen resulted in the Copenhagen Accord: an interim international agreement that includes \$30 billion in financing by wealthy nations to help developing nations curb their emissions over the next three years (with a goal of increasing funding up to \$100 billion by 2020). The Accord called for "decisive and immediate action" on climate change and underlined "the vital importance of achieving the strategic objective of limiting the global average temperature increase to not more than 2°C above pre-industrial levels". The scale of the undertaking makes it urgent for all major economies, including the United States, China, India, Brazil, Russia, Japan and the E.U., to honour their existing commitments – made in Monterrey in 2002, and strengthened at EU Councils in June 2005

¹ Kenrick R. Leslie, Executive Director of the Caribbean Community Climate Change Centre

² The Hon Stephenson King, Prime Minister of Saint Lucia and lead CARICOM Head of Government for Sustainable Development

and at the July 2005 G8 Gleneagles Summit – to double aid flows by 2010 in the first instance.

CLIMATE AND DEVELOPMENT

Climate change is posing a risk to humans, the environment and the economy. Under the Climate Convention developing country governments have agreed to take action to mitigate and adapt to climate change by developing programmes that reduce emissions and follow a new pathway to sustainable development. For Caribbean countries it will involve adapting the way things are done in order to respond to the changing circumstances presented by climate change. In doing so they must ensure that they adapt in the most sustainable manner, basing decisions on sound science, risk analysis, understanding of vulnerabilities, and an examination of the knock-on effects (including costs and benefits) on other parts of the system – i.e. on other organisations and the natural environment. Caribbean countries will be required to promote cost effective measures to reduce greenhouse gas emissions, including increased energy efficiency and increased use of appropriate low carbon and renewable energy technologies as part of their national policies.

In terms of strategy, the Climate Change Convention instructs Parties to be “guided” by the principle that policies and measures to protect the climate system should be integrated into national development programmes. This is reinforced by the Kyoto Protocol to the Convention by observing that developing countries commitments to mitigation should be advanced “in order to achieve sustainable development.” Thus, under the climate agreements, sustainable development and climate protection objectives are to be pursued in an integrated and complementary fashion. Instituting these programmes could run into tens of billions of dollars which the low incomes of Caribbean countries will find difficult to finance and for which they have little capacity to institute. Caribbean countries will need assistance to compare their options for reducing emissions, and to understand the costs and feasibility of those options in order to address their climate change obligations under the Climate Convention and meet their development goals.

Caribbean countries were among the first to start work on adaptation and collectively now have a large portfolio of completed, ongoing and planned adaptation projects. Work began under the Caribbean Planning for Adaptation to Climate Change (CPACC) project in 1997, which identified climate change scenarios and calculated potential losses. These efforts have now grown into a comprehensive adaptation programme, the Mainstreaming Adaptation to Climate Change (MACC), and projects under the Special Program on Adaptation to Climate Change (SPACC) are now under way. Although adaptation has not yet been fully mainstreamed into development, it nevertheless represents a coherent approach to mainstreaming. The SPACC recognises that any action or response to further the adaptation process must be established within institutional arrangements that marry climate and development to provide solutions to problems of acknowledged challenges.

Mainstreaming climate change adaptation and mitigation responses in the development planning process will be critical for Caribbean countries. Experiences so far show a number of barriers and opportunities to mainstreaming climate change adaptation in developing

countries. In any event it will be important that adaptation measures are instituted within the context of the continued economic development, circumstances and aspirations of Caribbean countries. The SPACC does not however address the legal and institutional implications of adaptation to climate change at the national level.

THE INSTITUTIONAL CHALLENGE

Climate change deals with a wide mix of issues that are inherently multi-sectoral. As such decisions in one field cannot be made without considering their impacts in the other giving rise to the need for appropriate integrated institutional approaches. Mainstreaming climate change adaptation and mitigation responses in the development planning process will therefore be critical. Adaptation decisions themselves do not impact sectorally but nationally. Every aspect of the Government's work needs to consider how it might be affected by the changing climate, as part of the routine practice of government policy making, spending and investment decisions. Indeed the options and incentives that are available to adapt to climate variability and change are shaped by a range of non-climate related policies and institutional arrangements. As these decisions are likely to have impacts beyond the organisation that makes it adaptation decisions must be approached in an overall development context via national and sector planning.

Given the long-term nature of climate change and its inherent uncertainty, it is vital that policies are designed with sufficient flexibility to respond to changing circumstances as the costs and benefits of responding to climate change become clearer over time. Impacts may even vary across the region, and may require different adaptation measures from country to country; underscoring the need for flexible policy. By affording flexibility in the institutional arrangements for climate change, Caribbean governments would not need to choose between averting climate change and promoting growth and development but instead would introduce integrated institutional management as the primary vehicle for making progress towards sustainable development.

Caribbean laws and institutional arrangements regarding climate change remain set in a pre-climate era. Traditional institutional arrangements in Caribbean countries evidences “fragmented entities, have overlapping responsibilities, with no clear coordination mechanism, and in many cases are self-regulating” (Nurse *et al*, 2001). As a consequence, there is often insufficient inter-agency collaboration, incoherence in overall policy framework and in some instances, and lack of security in legal authority (Anderson, 2002). Within this framework climate change is generally managed sectorally within the remit of environmental and natural resources management agencies. This state of affairs present serious challenges in structuring effective institutional arrangements that builds adaptation into decision-making at the national level.

Since Rio, there have been attempts to promote a multi-sectoral approach to environmental issues through the enactment of integrative environmental management legislation. These pieces of legislation generally establish an environmental entity and vest it with the duty to coordinate the environmental functions of other agencies to establish a national framework for the sector. This has been effected in the *National Conservation and Environmental*

Protection Act 1987, of St. Kitts and Nevis (Act No. 5 of 1987) as amended by the *National Conservation and Environment Protection (Amendment) Act, 1996* (No. 12 of 1996). This was followed in rapid succession by the *Natural Resources Conservation Act 1991* of Jamaica, (Act 9 of 1991), the *Environmental Protection Act 1992* of Belize, (No. 22 of 1992), the *Environmental Management Act 1995* of Trinidad and Tobago, (No. 3 of 1995), (as replaced by the *Environmental Management Act 2000*, (No. 3 of 2000), and the *Environmental Protection Act 1996* of Guyana Act No. 11 of 1996). In 1999 St. Lucia adopted the *National Conservation Authority Act 1999* (No.16 of 1999) (Anderson 2002). These legislations are a major springboard for achieving the goal of improving institutional coherence and substantive regulation of environmental management. They however have shown several weaknesses and have had mixed reviews. Among the weaknesses that have been experienced within these institutions has been the challenge to maintain a focus on specific issues sufficient to develop and implement necessary programmes. This is borne out, for example in Jamaica, by the delays and frustration of development which has been a primary reason for the movement towards merger of the NRCA, the Town Planning Department (TPD) and the Land Development and Utilization Commission (LDUC) into one body known as the National Environmental Planning Agency (NEPA) in Jamaica (Anderson 2002).

There is also an international dimension to the implementation of climate change mitigation strategies. To help countries meet their emission targets, and to encourage the private sector and developing countries to contribute to emission reduction efforts, negotiators of the 1997 Kyoto Protocol to the UNFCCC included three market-based mechanisms – Emissions Trading, the Clean Development Mechanism and Joint Implementation. By setting emission targets, emissions reductions took on an economic value³. One significant dimension relates to the reliance on offsets as a mechanism in reducing global greenhouse gases. Offsets were enshrined as a tool of climate mitigation in the 1997 Kyoto Protocol as the Clean Development Mechanism (CDM). Through the mechanism developed countries may earn certified emission reduction (CER) being a standardised offset instrument, through emission-reduction projects in developing countries in exchange for financial and technological assistance. Offset funding could provide revenues for energy and natural resources programmes in developing countries (including Caribbean countries) while they simultaneously meet their obligations under UNFCCC. The implementation of these mechanisms can be quite complex and instituting them will require Caribbean countries to have a specific institutional focus and specialist expertise available to ensure that beneficial arrangements are entered to.

Of interest in this context is that the US is poised to introduce Cap-and Trade legislation a pertinent aspect which allows their facilities to offset up to 15% of their emissions limits by purchasing credits on the international emission trading market. With right planning, small island developing Caribbean states could position themselves to obtain from their closest developed country nation the resources needed to adapt to climate change without compromising their national development.

³ <http://cdm.unfccc.int/about/index.html>

IDENTIFYING THE BEST VENUE

Climate change is not only a massive threat to the global environment; it is also perhaps the greatest economic challenge facing us in the twenty-first century. It demands an urgent and radical response across the developed and developing world. In full recognition of this wealthy nations have reassigned climate matters to robust ‘energy’ agencies signifying the centrality of energy as a “make or break” economic issue and for which climate modifications carry serious economic implications. The United Kingdom provides an example of this major institutional shift. The Department of Energy and Climate Change (DECC) was created in October 2008 in the United Kingdom (UK), to bring together energy policy (previously with BERR, which is now the Department for Business Innovation and Skills and Climate Change Mitigation Policy (previously with the Department for Environment Food and Rural Affairs). For the UK energy and climate-change policies go hand in hand in order to make the adjustments that are required to transition to a lower carbon development path.

Caribbean environmental management laws are silent on the role of environmental management entities in promoting the economy though the linkages between economic development and environmental management are reasonably perceptible through, for example, their powers to establish environmental standards and criteria, permitting, pollution control and of programmes by which environmental quality objectives are to be achieved. Linking economic development to these functions is therefore not necessarily a radical concept and is on par with the premise that we do not have to choose between a healthy environment and a vibrant economy.

Adaptation measures needs to be mobilized and filtered down through the ranks of line ministries to facilitate appropriate sector planning and implementation. A major challenge will be to review their policies and operations in the light of the risks of climate change, and consider the options for adaptive action. This will require high-level political support for climate policy development. Successful responses to climate change at the national level rely on a set of enabling conditions and elements that incorporate adequate institutional arrangements, systematic planning capacity, consistent policies and regulatory frameworks. Presently climate matters are generally dealt with by environmental management entities in the Caribbean. With their coordinating function, integrated legal framework, powers that link to economic development and a portfolio that includes the diverse and multi-sectoral issue of climate change, Caribbean environmental management entities appear to be well-positioned as appropriate central venues for the wide-ranging climate tasks. But climate is not only an environmental issue and the obligations that are to be attended to venture into actions that impact a complex range of issues foremost among which is economic development . Prompted by the changes undertaken by our developed country counterparts it would be reasonable for Caribbean countries to consider other institutional options that would deliver an effective climate agenda.

Three institutional options may be considered in this regard. The first could be to establish a Climate Board/Committee within the existing environmental management entity. Such a Board/Committee should be chaired by a high level official with members having expert

capabilities in *inter alia*, energy, economics, financing, negotiations, environment, social development and planning. Addressing climate change in the context of sustainable development necessitates a holistic approach that aims to ensure an improved quality of life over a long-term time frame, rather than focusing on achieving short-term gains. A fundamental weakness of this organisational approach would be that it operates independently of other customary institutional arrangements and may find difficulty in mobilising line ministries and maintaining consistency for the actions it proposes leading to limited leverage on the issue. In addition to which Board membership cannot be guaranteed – an obstacle to expected long-term consistency.

The other option would be to accord ministerial standing to climate matters. So far the research shows that where national adaptation programmes exist, they tend to be more effective when they are situated within a ministry with a high level of leverage over others⁴. In Trinidad and Tobago for example during 2004-2007, environmental management was discharged via two administrative methods - the Environmental Management Authority which focused on implementation and the Ministry of Public Utilities and the Environment, which was responsible for overall environmental policy. A similar arrangement occurred for the Natural Resources Conservation Authority in Jamaica. In this context the word “Climate” will be included in the title of the Ministry. This arrangement can also present challenges for the organisation to maintain strong coordination across line ministries and government institutions with climate matters becoming one item among the many already being discharged by the Ministry. Acquiring suitable experts for the associated tasks can prove difficult too as the best experts tend to veer away from public service appointments. Set within a Ministry framework the delivery of services could take on a ‘business as usual’ manner, inapt to a demanding climate agenda.

The third option is a combination of the arrangements proposed in 1 and 2. Accordingly a Climate Board/Committee will be established within the Ministry of Climate. The environmental management entity may also be housed under the same Ministry. This does not however preclude considerations to position Climate under any other Ministry. For example in the UK it is the Ministry of Energy and *Climate*, for Denmark and the European Union, the Ministry of *Climate* and Energy. The climate agenda should be driven not by the usual ductile philanthropic objectives known to pervade the environmental agenda but by the objective of directing our sustainable development path fully recognising the implications for the country’s economic development. The Climate Board/Committee can lead and work with developed countries to coordinate and harmonise climate change related technical and financial assistance and other benefits from developed countries to secure resources for adaptation. No doubt the institutional capacity and human resources in Caribbean countries will need to be strengthened as a matter of course.

The institutional arrangement proposed as the third option may not be that different from what some other state environmental agencies in developed countries have been doing to maintain the linkage between climate and development. By way of example the

⁴As is the case in Kiribati where the programme was situated first within the Ministry of Finance and Economic Planning and then moved to the Office of the President.

Commissioner of Environmental Protection in the Department of Environmental Protection in New Jersey, US has appointed an assistant commissioner for economic development in establishing a joint agenda signalling the relationship and economic implications of implementing climate requirements.

CONCLUSION

Caribbean governments are alive to the international commitments given to work towards the attainment of sustainable development and the integration of environment and development in decision-making. It is clear that meeting international commitments under UNFCCC has implications for institutional and legislative arrangements. The state of knowledge about the most effective institutional arrangement to facilitate adaptation is still sparse and there exists a lack of tools, guidelines, documented good practices and lessons learned, especially those related to mainstreaming adaptation into national and sector policies, planning processes, and regulations. But while no blueprint can be advanced we need to avoid becoming too locked to particular institutional approaches. The widespread and disruptive effects of climate change demand that a high priority be assigned to addressing climate change. Coherence in mainstreaming climate change adaptation does not imply selecting only one approach. As such there must be a willingness to experiment and tolerate mistakes in both planning and implementation of climate change policy.

The potential for sweeping negative impacts to the livelihood and well-being of Caribbean countries caused by climate change should lead them to treat with the subject at a Ministerial level. The establishment of a Climate Change Committee/Board within environmental agencies chaired by a high-level official vested with a mandate to determine measures for mitigating and adapting to climate change within an economic development context can provide a constructive beginning. As a fundamental tool, adequate institutional arrangements will assist Caribbean countries to implement immediate, tangible, on-the-ground adaptation measures; strengthen the enabling environment for adaptation; and enhance their adaptive capacity as a whole. These reforms will make a qualitative change in the governance, transparency and accountability for climate change and promote synergy across sectors for a more effective response to climate change. And as to climate legislation? It is yet early in the day for Caribbean countries to legislate for this subject. It is advisable that efforts be directed towards building capacity, learning from our experiences and developing clear policy on the subject as the first order of the day.

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Glossary of terms

Adaptation: any adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

Mitigation: an anthropogenic intervention to reduce the anthropogenic forcing in the climate system; it includes strategies to reduce greenhouse gas sources and emissions and enhancing greenhouse gas sinks.

Greenhouse gases (GHG): Gaseous constituents of the *atmosphere*, both natural and anthropogenic, which absorb and emit radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere, and clouds. This property causes the greenhouse effect.

From the Glossary of Terms used in the IPCC Fourth Assessment Report.
