Positions of Social and Political Actors in light of the Impacts of Climate Change in Central America and the Caribbean

THE CASE OF JAMAICA

Joan Grant Cummings
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Jamaica and the Eastern Caribbean

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This paper is a contribution from the Jamaica Office of Friedrich Ebert Stiftung (FES) to a regional project encompassing Central America and the Caribbean, which seeks to identify the approaches and strategies of the main social and political actors as they respond to the challenges posed by climate change to the countries of these two regions. Through an examination of the work of different sectors in Jamaica, the paper gives a brief account of the country’s journey in addressing climate change. Elements of the responses from both central and local governments, trade unions, the private sector, the wider civil society, including the media and the academy are highlighted. The information shared is gathered through mainly desk research, using online sources, publications, conference reports, media articles and online interviews. The sources quoted are by no means exhaustive, however, they do provide a broad overview and picture of climate change work being done in Jamaica at this time.

It could be argued that living on a Small Island Developing State (SIDS), many Jamaicans have never truly doubted the reality of climate change. Fisherfolk and farmers in particular, have noted the changes over many years, even though they may not have been able to name them. Like other vulnerable communities, who are not responsible for climate change in the Caribbean, fishing and farming communities are the ones which are affected disproportionately. There are long term implications not only for their own survival and livelihoods, but also for national food security and for the viability and sustainability of the country’s main economic sectors.
In the Caribbean, one clearly identified common problem is the increasing sea level and extreme weather conditions related to climate change which affects Haiti, Cuba, Dominican Republic and the English-speaking Caribbean as well. This short paper seeks to demonstrate how key actors in Jamaica are responding to these challenges, and hopefully, will provide opportunities for identifying regional approaches and strategies to reduce the impacts of climate change. These could include sharing information on the use of technical assistance and enhanced community involvement and education about mitigation as well as adaptation measures.

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INTRODUCTION

Jamaica became a Party to the United Nations Framework Convention on Climate Change (UNFCCC) in January 1995 and a member of the Kyoto Protocol in June 1999. In keeping with its obligations under the Convention the Initial National Communications of Jamaica for 1994 was prepared, with the support of the UNDP in 1999. In its Initial National Communication, Jamaica underscored the vulnerability of the country’s economy, social and physical nature to climate events (Meteorological Service of Jamaica, 1999).

To advance action on climate change, the Planning Institute of Jamaica (PIOJ), (2008, 2012), as well the University of the West Indies (UWI), Mona, which established the Climate Studies Group, have developed research-based education materials for different sectors in the public. These have been accompanied by three (3) Knowledge, Attitudes, (Behaviour) Perceptions (KAP) Climate Change Surveys (MACC 2005, and PIOJ and CARIMAC, 2012). Community-based education materials (JET, 2008) and strong advocacy by civil society organizations as well as informed media reporting and education strategies, have moved the issue forward.

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1.

THE GOVERNMENT OF JAMAICA (GOJ):
Approaches to Climate Change

In 1994, Jamaica with other Small Island Developing States (SIDS) participated in the first Global Conference on the Sustainable Development of Small Island Developing States (Barbados, 1994). Central to the government’s argument is the fact that SIDS are open to external shocks, and that their environment is inter-related with and interdependent on their economic and social development. SIDS such as Jamaica are vulnerable to global Climate Change, given that their economies and living conditions are concentrated in coastal and low lying areas (Barbados, 1994). The government based on the global science, and the increasing variability in and the frequency of climate events in Jamaica, affirmed its belief that global climate change was real. In order to underscore its seriousness about climate change, the GOJ signed the UN Framework Convention on Climate Change (UNFCCC) in January 1995, followed by its submission of the Initial Communication for 1994, as well as becoming a member of the Kyoto Protocol in 1999.

Since that time, Jamaica has worked primarily with regional CARICOM partners and the University of the West Indies (UWI) to elevate its knowledge and decide on a plan of action. Between 2004–2007, through the Mainstreaming Adaptation to Climate Change Project (MACC), Jamaica set about using the ‘learning by doing’ approach on Climate Change in capacity build-
ing, institutional capacity building, strengthening the knowledge base of different stakeholders and deepening public awareness. The strategy includes: watershed management and protection; biodiversity conservation; protecting the integrity of the coastline and coral reefs, fish feeding grounds, other aquatic fauna and flora; planned development in terms of the built environment; assessing new, renewable and affordable sources of energy; among other things.


In May 2009, Jamaica began its participation in the Caribbean Regional Strategic Program for Climate Resilience (SPCR) (CCCCC, 2008) to demonstrate ways in which climate risk and resilience may be integrated into core development policies, planning and implementation (PIOJ website, www.pioj.gov.jm). The Phase One Report was expected in Parliament in June 2013 (JIS, 2013).

The programme’s goals are prioritization of vulnerable communities, especially in coastal areas; rehabilitation of watersheds; improvement of coastal ecosystems; maintaining forest resources; and improve climate change awareness. In 2013, the GOJ established a Climate Change Advisory Board to lead the mainstreaming of Climate Change issues in the public sector, draft a national policy on Climate Change and establish a Climate Change Department of 20–30 people to implement the work-plan. Media headlines describes the plan and actions as “. . . Taking Shape” (Jamaica Observer, July 2012).

Most recently, the PIOJ completed two publications in 2012 entitled “2012 State of the Jamaica Climate: Information for Resilience Building” and “2012
State of the Jamaica Climate: Information for Resilience Building – Summary for Policymakers” which were presented on March 6, 2013 to the Climate Change Minister and which have been tabled in Parliament. The Minister has since indicated that $7M towards Climate Change Adaptation has been included in the budget of the 2013/2014 Estimates of Expenditure (JIS, 2013). However, there are still signs that not all Ministries within central government have made the Climate Change connection. In a recent on-line communication with the Jamaica Environment Trust (JET, 2013), one of Jamaica’s foremost environment NGOs, JET cited recent actions by the Ministries of Agriculture and of Tourism, which have demonstrated a lack of understanding of the links between the environment and development, with implications for Climate Change.

By the end of 2013, the Government of Jamaica had moved closer to completing a national Climate Change policy.

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Local Government Structures

Within Jamaica there are 14 parishes, with elected Mayors and Councillors that make up the main local government structures called Parish Councils. Two of these in the urban area, have been amalgamated to form the largest municipality in the country – the Kingston and St. Andrew Corporation. Local Government is often cited as being the closest government to the people and as such is thought to be the most accessible government when disaster strikes (Commonwealth Secretariat, 2008). As a result, due to its assumed close proximity to the community, local government is believed to have the advantage of responding faster and more effectively to local climate events. As a member of the Commonwealth, Jamaica’s local government officials have always been active in the Commonwealth Local Government Forum (CLGF). Within this forum Climate Change has been discussed and agreed as a priority issue for local government (Commonwealth Secretariat, 2008).

Even before the advent of the UNFCCC and the Kyoto Protocol, Commonwealth Heads of Government at their meeting in Malaysia in 1989 discussed and made several pronouncements on climate change. In 2007 they agreed to the Lake Victoria Commonwealth Climate Change Action Plan

THE LOCAL GOVERNMENT STRUCTURES:
Where Are They In Climate Change?
2007. This sets out priority actions for Commonwealth Governments, including for Local Governments (Commonwealth Secretariat, 2007).

It is the Councillors and Mayors who see the everyday signs and impact of climate change in communities. With the guidance of the Office of Disaster Preparedness and Emergency Management (ODPEM), they mitigate the worse impact of floods and landslides by overseeing community based climate change adaptation and disaster risk reduction education programmes; drain and gully cleaning; maintenance of rural and parochial roads; management of over 900 rural water supply systems; solid waste management; beach maintenance; town and country planning; building approval for residential and commercial developments; maintenance of shelters; relief and welfare services; etc. (Government of Jamaica website, www.gov.jm. Retrieved March 31, 2013).

While long overdue plans are underway to entrench Local Government in the Jamaican Constitution (CCPG, 2004), politically, the positions of local government officials are similar to those of their counterparts in Central/National government. This occurs particularly if the local government leadership has the same Party affiliation as the National government of the day. The main issue for local government is the availability of adequate funds transferred to them.

The OAS-ODPEM study entitled “Economic and Community Vulnerability Assessment of Climate Change in Jamaica” (OAS-ODPEM, 2010), piloted community education on disaster risk reduction in two Parishes, and is to be deployed throughout other Parishes at a later date. They demonstrated the importance of planning, coordination and monitoring of Climate Change impact at the Parish level. In addition, local communities used education materials developed by civil society organizations, to gain an overall understanding of Climate Change (Christian Aid, 2009).
References


JAMAICA’S TRADE UNIONS:
Is Climate Change Related To Workers’ Rights?

Jamaica’s trade unions have a strong history in the development of the country and are strongly affiliated with the two main political parties. In fact, Jamaica’s development as a free independent state from Britain was greatly precipitated by the formation and action of trade unions (JIS, 2006). However, with the advent of globalization, free trade and neoliberalism, trade unions in Jamaica have been contending with the disproportionate negative impacts on workers in the developing state, for example, job type, working conditions, pay, among other concerns (Jamaica Observer, February 5, 2012).

This has been further exacerbated by the global financial crisis that has now pushed Jamaica back into the arms of the International Monetary Fund (IMF). The present economic conditions and the impact in particular on low income wage earners, have all affected the ability of unions to engage both their members, and the country in general, about key national issues, such as the implications of climate change (unofficial discussions with union activist, April 2013).

However, through its membership in the International Labour Organization (ILO) and the International Free Trade Unions Congress, union leaders in Jamaica have been privy to discussions on Climate Change and Disaster Risk Reduction, pertinent to their workers and the economy. The ILO and
its global membership support action on global Climate Change and believe that the appropriate resources and supports from government should be made available to national unions, so that they can assist their workers with addressing the impact of climate change. Jamaican trade unions as members of the ILO support this action plan coming out of ILO discussions on Climate Change. For its upcoming 102nd Session, the ILO will be presenting a paper on “Sustainable Development, decent work and green jobs”. (www.ilo.org, retrieved April 17, 2013). What Jamaican trade unions also recognize is that Climate Change will continue to affect new patterns of production, consumption and employment. (Unofficial and unpublished interview, conducted April 15, 2013). So far, Jamaican trade unions support the following positions identified in current ILO research that Climate Change may create job losses in some industries, especially high-intensive energy-use ones; will strongly impact workers in key sectors; will create a need for job transitions to the ‘Green Economy’; and workers within certain sectors may be more at risk. These include transportation, mining, agriculture, fisheries, healthcare, ports, energy, solid waste, and tourism.

Two Canadian Union researchers/activists presented an insightful paper to trade unionists at a March 2010 ILO Workshop entitled “Trade Unions and Climate Change: Its Impacts on Employment and Labour Markets” (Lipsig-Mumme and LaFleur, 2010). The research gave an insight into how Climate Change impacts and transforms many inter-related issues such as productivity; restructuring of the public sector; the need for new skills and re-training; greening of jobs; technology transfer and cooperation, among others.

References

The main private sector membership organization in Jamaica is the Private Sector Organization of Jamaica (PSOJ). The PSOJ has a multi-sectoral membership of different sized businesses. The Mission of the PSOJ is “to effectively advocate for the implementation of public policy that enables strong sustainable private sector led economic growth and development” (PSOJ website, www.psoj.org). The organisation seeks to influence national policy issues of a political, social, or economic nature through well-researched negotiating positions, that serve its wide-ranging membership and contribute to the overall well-being of the Jamaican society.

One of the Standing Committees of the PSOJ is the Energy and the Environment Committee. The focus on energy most closely approximates the organization’s work on Climate Change (online communication with PSOJ, President, April 17, 2013). An excerpt from the Energy Policy of the PSOJ outlines the concerns about the cost of energy, dependence on imported oil for over 90% of its energy needs, and how the inefficient use of energy is negatively impacting business competitiveness, the nation’s productivity and economic growth. Towards this end, the PSOJ advocates for the State to urgently implement measures to significantly reduce the cost of energy, diversify energy sources, and facilitate paths to cleaner, and more energy efficient
fuels. The PSOJ also points out in its proposed energy policy, that while it respects the symbiotic relationship between a sound energy policy and environmental integrity, it will continue to call on public and private sector decision-makers to ensure environmental priorities are properly accounted in the national energy options (PSOJ, online communication, April 17, 2013).

In regards to Vision 2030, Goal 4, Outcome 14, which speaks to Climate Change, the PSOJ believes that sound environmental management in Jamaica requires the convergence of private sector operations and interests with government policies and institutional structures within the framework of international best practices and sustainable development for poverty reduction. Additionally, private sector interests note that Goal 3 of Vision 2030 speaks to a prosperous economy and among the outcomes are energy security, energy efficiency and internationally competitive industry structures. The PIOJ in one of its first publications on Climate Change (PIOJ, 2008) also outlined implications for development in view of the impact of climate change on the activities of this sector. The private sector at the very minimum would require leadership that insists on the inclusion of climate change in the strategic, corporate and business planning of the PSOJ and its individual members; education and training on new technologies; the necessary resources; collaboration and partnerships.

THE PRIVATE SECTOR AND THE CLIMATE CHANGE KAPs

The private sector is one of the key stakeholders/sectors included in the 2005 and the 2012 Climate Change KAP Surveys. A comparison of the sector’s position, knowledge and attitude about Climate Change is included in the 2012 Climate Change KAP. In the 2005 Climate Change KAP, a special questionnaire was administered to the private sector. The outcome indicated that about two-thirds of the businesses questioned said Climate Change was important. Yet, while 73% of those surveyed believed they had a role in Climate Change adaptation, only 8.2% revealed they were involved in some way in
the shaping of government policy. Those who felt that they had a role in Climate Change believed the most important issues were proper waste disposal; efficient energy use; creating less pollutants and emissions in the air; and education of employees and clients. However, they also believed adaptation measures, though necessary, were expensive and difficult to maintain.

The 2012 Climate Change KAP indicated that the knowledge base of the private sector about Climate Change had increased, though not significantly. The tourism, agriculture, and energy sectors registered the greatest concerns. Further, an unacceptably high number – 71.3% of companies, did not have Climate Change included in their business/corporate/strategic plans, and over 80% reported not being involved in any partnerships or collaboration with others on Climate Change.

References


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Jamaica has over 200 years experience in building and working through social development organisations (CIVICUS, 2006). What started as a post-abolition volunteer movement has evolved into the development of hundreds of organizations, identified by the stakeholders or issues of concern. Today these organizations are known as civil society organizations (CSOs). CIVICUS (2006) has proffered a definition of civil society as “... the arena outside of the family, the state and the market where people associate to advance common interest” (CIVICUS, 2006). Jamaican CSOs focus on a diversity of issues and constituencies such as: youth; children; seniors; women; LGBT; people with disabilities; people living in poverty; the homeless; farmers; fishers; with focus issues such as sustainable development; trade; the economy; the environment; violence against women; gender equality; good governance; child development; among others. CSOs are further divided into the main groups of Non-governmental organizations (NGOs), Faith-Based Organizations (FBOs); Environmental Organizations (ENGOs), and Community Based Organizations (CBOs).

A number of publications recording the types and number of CSOs in Jamaica have been produced (Bryan, 1990; Sayle, 1994; IDB, 2005; CIVICUS, 2006). However, despite the prolific number of CSOs, the capacity and sustainability of the CSOs are of great concern (CIVICUS, 2008).
Civil Society Organizations (CSOs) in Jamaica have embraced the issue of Climate Change, especially as they observe the impact in their work with farmers and fisherfolk through noticeable changes to their livelihoods, and the implications for vulnerable communities in these areas (Climate Change KAP, 2012). Climate Change education is a priority for CSOs in Jamaica (Grant Cummings, 2006; Witter, 2007; CANARI, 2008). Of note also is the work of Faith Based Organizations such as the Baptists and the Moravian Church UNITAS Programmes (Environmental Foundation of Jamaica, Annual Report 2008; World Council of Churches, 2011; on-line communication with Rev. Dr. Paul Gardner, April 12, 2013).

A major limiting factor for Jamaican CSOs over the last almost two decades has been the decreasing ODA to Small Island Developing States (SIDS) such as Jamaica and the Caribbean region in particular (Mauritius Strategy of Implementation of the Barbados Programme of Action, 2005). Fortunately, Jamaican CSOs have been able to accomplish much through the Enterprise of the Americas Programme, a debt swap that formed the Environmental Foundation of Jamaica (EFJ) in 1993. Since then, over 1,200 projects implemented by CSOs have been funded by the EFJ (www.efj.org.jm). The projects include Community-Based Adaptation Strategies to Climate Change including the use of alternative fuels, solar energy; wind energy; efficient farming methods; watershed protection and rehabilitation; rain-water harvesting; disaster risk-reduction; biodiversity protection; coastal management and protection; water and sanitation; reforestation; recycling; beach maintenance and management; and education programmes. The EFJ has also supported the active engagement by CSOs in the international meetings on Climate Change and Sustainable Development such as the World Summit on Sustainable Development in Johannesburg (2002); and the International Climate Conferences in Bali, Indonesia (2007) and Durban, South Africa (2012).

This work has also been supplemented with the Small Grants Programme (SGP) of the Global Environmental Facility (GEF) which focused on Climate Change Adaptation by Community Based Organizations (GEF-SGP) in the Community Based Adaptation Programme (Rankine, 2007).
CSOs have focused more and more on working with some of the most vulnerable communities and groups (National Environment Education Committee, 2007). Communities are taught disaster mitigation and risk reduction mechanisms – including watershed protection, biodiversity conservation; discontinuation of products creating green house gases; among other adaptation strategies. Increases in the wider public education has been greatly assisted by the collaboration between CSOs and the academic community (Witter, 2007)

**References**


Environmental NGOs are a sector group within the Jamaican civil society community. Before the inception of the EFJ in 1993, there were few environmental NGOs, (E-NGOs) such as the Jamaica Environment Trust (JET); Jamaica Conservation Development Trust (JCDT); Bird-Life International; and a network of a few Parish-based NGOs such as the Portland Environmental Association; the St. Ann Environmental Association (STEPA) (EFJ Annual Report, 2004).

There have been several attempts to create an umbrella group of E-NGOs in order to more effectively deal with issues of national importance such as Climate Change. Unfortunately this has proven to be an elusive goal with the first of these attempts being the creation of the National Environment Societies Trust (NEST), (McCaulay, 2000). However, it should be noted that E-NGOs have never doubted the fact of climate change and have fully embraced the science and the impact. While there may be differing opinions as to what the focus should be, there is an underlying agreement that Climate Change exists and is impacting the Jamaican environment (Otuokon, on-line communication, April 2013). Both UWI and the JCDT agree that while there is the science of climate and greenhouse gases to contend with, there are a number of community-based impacts of Climate Change that constitute a critical part of the Climate Change phenomenon. These include conserving,
protecting, maintaining, and restoring natural ecosystems, in particular forests (Otuokon and Chai, 2009).

E-NGOs work in very select areas such as bio-diversity protection; monitoring of the formulation and the implementation of environmental regulations; protection of species at risk of extinction; creation of animal sanctuaries; research; watershed protection and management; renewable energy development (EFJ, 2004–2012).

Some E-NGOs, such as the Jamaica Environment Trust (JET) and the Jamaica Conservation and Development Trust (JCDT) have developed extensive education programmes for schools, including the JET Environment Schools Programme, and for selected communities, involving the use of publications on Climate Change (EARTHFACTS, 2008). JCDT has focused on the training of community members as game wardens; conservationists, protectors and rehabilitators of watersheds. These activities have provided entry points for education and discussion of Climate Change among the students and all sectors of the community.

E-NGOs are also more likely to be the CSOs working with the academic sector on climate change issues as part of the creation of solutions to Climate Change. E-NGOs have contributed a number of publications on the issue of disaster risk reduction and climate change (CANARI, 2010). However, there needs to be greater activity and interest on the part of international development partners, for critical points of intervention and monitoring the implementation of government’s commitments (CSEDNet/Grant Cummings, 2004; Witter 2004).

References


In December 2007, as part of a strategy to improve the coverage of the UNFCCC Conference in Bali, Indonesia, PANOS Caribbean (Indi McLymont-Lafayette), Mark Shanahan of InterNews and the International Institute for Environment and Development (IIED), created a media partnership (Jamaica Observer, January 31, 2008). These journalists who believed in the science of Climate Change and who had observed signs of the impact in mainly developing countries, were concerned that their colleagues globally, were unaware of or lacked an understanding of Climate Change.

The main objective of the partnership was to create better and more informed coverage of Climate Change developments, including the global conferences. Of great concern to the partners also, was the fact that only a few journalists from the countries and regions that would be most affected by Climate Change were present at these conferences. Those present lacked an understanding of the conference process, the issues of Climate Change and the politics of Climate Change.

This media partnership developed a training programme for journalists especially from developing countries and called it the “Climate Change Media Partnership”. They recruited fifty persons from organizations working on Climate Change who would be willing to speak with the journalists. In addition to the interviews, the journalists participated in a day long media clinic on the Conference proceedings. It was a success based on the feedback from

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the journalists, especially as the knowledge gave them access to their government officials. Jamaica’s own Petre Williams-Raynor remarked that “for most of us, it was baptism by fire. Covering this our first BIG environment conference”. Journalists went on to remark that they felt they had made valuable friendships and contacts with their colleagues and the experts they met. Some expressed regret that they did not have most of this information as they would have been able to identify assistance their countries could have used (Climate Change Media Partnership, 2008). PANOS has continued this training of journalists on different components of Climate Change within Jamaica, the Caribbean and at the global conferences (PANOS, March 2011).

Prior to this, the Mainstreaming Adaptation to Climate Change (MACC) Project in the Caribbean produced a publication in 2005 entitled “Climate Change Handbook for Caribbean Journalists”, (MACC, 2005). However, up to the point of the Bali Conference, in December 2007, regional coverage of Climate Change was very poor and sporadic.

In Jamaica today, the two daily newspapers seem to have greatly improved their coverage on Climate Change, with one the Jamaica Observer having a ‘permanent’ environment column. Since 2008, based on a review of articles in their archives, each carries at least one article per month on Climate Change or the environment. The articles speak of the economic, environmental and social costs, the impact on livelihoods especially of fisherfolk and farmers, and the impact of extreme weather events on the tourism industry (PANOS Caribbean, 2011). The issues of energy use and watershed management are also beginning to get exposure. What is also useful in their coverage is the reporting of the developments in the Global Climate Change Conferences, actions by Government and Intergovernmental agencies on the awarding of funds towards Climate Change, their purpose and progress (Jamaica Observer, March, December 2011; The Gleaner, February 2012).

PANOS has also forged a partnership with an international NGO, German Watch in order to increase climate change awareness in Jamaican society in collaboration with the PIOJ (Jamaica Observer, August 2011).
Perhaps one of the most successful contributions that the media has made to Climate Change Awareness in Jamaica is through the PANOS Caribbean project “Voices For Climate Change” (PANOS Caribbean, 2010). PANOS has used its connection with other media and entertainers to produce a music video of 25 artistes including new, emerging and experienced artists. This is used in both international awareness building (UN International Climate Conference) and in local, national and regional education programmes.

References

Within the Jamaican academic sector, over the last two decades and a half, experts in physics, climatology, biodiversity, information technology (GPS and geo-informatics), agriculture, micro-biology, geology, geography and other disciplines, noticed changes in the environment, including the physical makeup and the frequency and intensity of climate events. They also noticed in their on-going monitoring of the flora and the fauna, and other areas of research especially those located in coastal, agricultural aquatic habitats, that changes were also taking place.

Jamaica is fortunate to be home to several specialists on Climate Change located mainly at the University of the West Indies (UWI) Mona. The presence of these specialists and an early analysis of the fact of climate change led to the formation of the Climate Studies Group Mona (CSGM). The group is led by Nobel Laureate, Professor A. Anthony Chen, Physicist and Climatologist and his colleague Dr. Michael Taylor, Head of the Department of Physics. One of their most well-known education fact sheets developed by the Department is “Climate Change: Jamaica and the Caribbean. Really – what must we expect?” (Taylor and Chen, 2011). Professor Chen is a member of the Nobel Prize winning International Panel on Climate Change (IPCC) that is responsible for assessing the latest scientific developments in climate change. With the other experts, UWI is consolidating the work on Climate Change for Jamaica and the Caribbean (CSG, 2011; Jamaica Observer, June 2012).
In addition to the physics department, research and publications by other academic experts help to inform action on Climate Change, such as biologists (Webber, 2008); geologists and geographers (Hope-Thomas, 2007); economist (Witter, 2007); ICT and communications experts (Dunn, 2010) and gender specialists (Dunn/IGDS, 2013).

In respect of gender and Climate Change, the Institute for Gender and Development Studies, at the Mona Unit in Jamaica, offers an undergraduate course in Gender, Climate Change and Disaster Risk Management. The course is now in its fourth cohort, and is informed by the view that inequality between groups of males and females in social, economic and political relations affects the differential risks and vulnerabilities of each sex and their ability to cope with climate change and environmental hazards. The course introduces students to basic concepts and theories about gender and development, the governance framework to promote gender equality, and how to respond to climate change and disasters, as well as alternative approaches to reduce risks and vulnerabilities in a changing environment.

As well, the UWI has an Institute for Sustainable Development which examines issues such as cleaner production processes, eco-industrial efficiency and scenario planning. Recent reports have revealed that the Institute is also engaged in the development of building designs for Climate Change Resilient Buildings (March 20, 2013).

Research and accessible education manuals, papers, and lectures (Witter, 2007) have been forthcoming from the UWI. This has helped to inform government policy making and directions, funding proposals and solutions, public education, CSO programming, and positions in international forums.
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9.

RECOMMENDATIONS AND CONCLUSIONS

Recommendations

1. The Government needs to finalize all processes leading to the adoption of a National Climate Change Policy;
2. The National Education Strategy on Climate Change should be implemented and be made accessible to different sectors;
3. The Climate Change Division* needs to become operational so that the implementation of the national plan can move forwards, especially with regards to mainstreaming climate change understanding throughout the government;
4. Work on the gender implications of climate change and disaster risk management and reduction needs to be undertaken outside of the academic environment;
5. Civil society organizations need to be more informed, vocal and active at all levels of the struggle against climate change;
6. The government needs to re-negotiate a second debt swap to revive the grants for the Environmental Foundation of Jamaica (EFJ) programme for civil society organizations, especially focused on the effects of climate change;

*The Climate Change Division was established in the Ministry of Water, Land, Environment and Climate Change in late 2013.
7. A Standing Civil Society Forum on Climate Change needs to be a part of the national strategy to facilitate the full and meaningful participation of civil society in the solution-making and formal contributions to national, regional and international forums;

8. Greater resources need to be made available to local governments in respect of their role as ‘first responders’ in disaster response, mitigation and adaptation;

9. Greater involvement of trade unions, private sector and some public sector entities need to be actively promoted in the struggle against climate change;

10. A more radical and serious approach needs to be taken regarding the protection of the environment and development planning, especially vis-à-vis the built environment, the priorities in the economy and their impact on the climate change agenda.

**Conclusions**

Jamaica’s response to Climate Change has been largely an agreed position that Climate Change exists. While Jamaica contributes less than 1% to the phenomenon, as a Small Island Developing State (SIDS) it is extremely vulnerable to the effects of Climate Change. As a consequence, Jamaica has to prioritize adaptation strategies. These include forecasting, scenario-planning, risk reduction; conservation, rehabilitation, reforestation, integrated water management, climate modelling, the creation of hazard maps, the use of renewable energy among others. While the GOJ has undertaken many projects and gathered much information no legislation or national policy has been put in place.

Three Climate Change KAP Surveys have been done to inform a national education strategy and contribute to policy-making. However, due to nuances in the knowledge and awareness levels of different sectors of the society, a nuanced education programme will need to be developed. CSOs have been relatively active in combating climate change and carrying out advocacy on the issue at the local, regional and international levels. However, a stronger
and more coordinated strategy by NGOs and E-NGOs is necessary. The private sector is lagging behind in organization and collaboration on Climate Change.

As a whole civil society has a united position on climate change, arrived at mainly through education. CSOs and the civil society at large believe that Climate Change exists and is a fact in community life. However, some CSOs in particular Environmental NGOs (E-NGOs) use a more restricted definition of Climate Change. Others believe that dealing with the major impact of Climate Change in communities makes Climate Change more real to people. These include biodiversity protection; watershed protection and rehabilitation; conservation; marine life and coastal protection; coral reef protection and rehabilitation and reforestation.

Jamaica’s participation in Climate Change Conferences regionally and internationally has seen improvements with greater and more diverse participation. The media’s growing interest, understanding and awareness has greatly assisted this development. Jamaica’s greatest strength in the climate change framework is the knowledge and experience of its population at different levels from the fishing villages to the academy.
# ABBREVIATIONS

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<tr>
<th>Abbreviation</th>
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<tr>
<td>CANARI</td>
<td>Caribbean Natural Resources Institute</td>
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<td>CARICOM</td>
<td>Caribbean Community</td>
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<td>CARIMAC</td>
<td>Caribbean Institute of Media and Communication</td>
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<td>CBO</td>
<td>Community Based Organisation</td>
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<td>CCCCCC</td>
<td>Caribbean Community Climate Change Centre</td>
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<tr>
<td>CCPG</td>
<td>Coalition for Community Participation in Governance</td>
</tr>
<tr>
<td>CIVICUS</td>
<td>World Alliance For Citizens Participation</td>
</tr>
<tr>
<td>CLGF</td>
<td>Commonwealth Local Government Forum</td>
</tr>
<tr>
<td>CSG</td>
<td>Climate Studies Group</td>
</tr>
<tr>
<td>CSO</td>
<td>Civil Society Organisation</td>
</tr>
<tr>
<td>EFJ</td>
<td>Environmental Foundation of Jamaica</td>
</tr>
<tr>
<td>FBO</td>
<td>Faith Based Organization</td>
</tr>
<tr>
<td>GEF-SGP</td>
<td>Global Environment Facility-Small Grants Programme</td>
</tr>
<tr>
<td>GOJ</td>
<td>Government of Jamaica</td>
</tr>
<tr>
<td>IDB</td>
<td>Inter-American Development Bank</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organisation</td>
</tr>
<tr>
<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
</tr>
<tr>
<td>JCDT</td>
<td>Jamaica Conservation and Development Trust</td>
</tr>
<tr>
<td>JET</td>
<td>Jamaica Environment Trust</td>
</tr>
</tbody>
</table>
Abbreviations

JIS Jamaica Information Service
KAP Knowledge, Attitude and Perception
LGBT Lesbian, Gay, Bisexual, and Transgender
MACC Mainstreaming Adaptation to Climate Change
MetService Meteorological Service of Jamaica
NGO Non-Governmental Organisation
OAS Organisation of American States
ODA Official Development Assistance
ODPEM Office of Disaster Preparedness and Emergency Management
PIOJ Planning Institute of Jamaica
PNP People’s National Party
PSOJ Private Sector Organisation of Jamaica
SIDS Small Island Developing State
SPCR Strategic Project for Climate Resilience (Caribbean Region)
UNFCCC United Nations Framework Convention on Climate Change
UWI University of the West Indies