The Implications of the Sendai Framework for Disaster Risk Reduction 2015-2030 for the Greater Caribbean Region

Introducing the PITCA and UN-GGIM Projects

World leaders, government officials, non-governmental experts and disaster management practitioners gathered in Sendai City, Japan in March of this year for the United Nations World Conference on Disaster Risk Reduction. The conference is the third of its kind in the series of United Nations conferences on preparing for and mitigating the risk of natural disasters, and built on the foundations set by the first conference in Yokohama in 1994 and the second conference in Kobe in 2005. Referencing figures from the Global Assessment Report on Disaster Risk Reduction (GAR) 2015, the UN Secretary-General, Ban Ki-moon, reiterated the staggering annual economic losses from disasters worldwide. The report explores the large potential losses from disasters currently faced by many countries, particularly those which can least afford to invest in future measures towards resilience and the cost and benefits of disaster risk management. The conference emphasised the importance of risk reduction and the benefits of proactive response given that while disasters may have natural causes, the extent of damage and destruction is predominantly based on our own actions. Resilience, particularly in urban areas, affects a wide array of decisions: how risk is assessed, and what and where we build. Delegates completed the review of the experience gained under the implementation of the Hyogo Framework for Action (HFA) 2005-2015, and reaffirmed their commitment to enhancing their efforts in disaster risk reduction and to building resilience in the future. Following negotiations between countries, the Sendai Framework for Disaster Risk Reduction, a 15-year plan that will replace the existing 10-year HFA blueprint, was adopted. The text placed a strong emphasis on tackling the underlying drivers of risk, including ecosystem decline, bad urban planning, and land use.

The Sendai Framework for Disaster Risk Reduction articulates a very specific goal: to considerably diminish disaster risk and losses of lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries. In order to achieve this goal, countries must commit and promote involvement at all levels in the implementation of measures that will serve to combat vulnerability to disasters and increase awareness and preparedness for recovery and response. Furthermore, seven targets were

established for countries to achieve by 2030; these aim to (1) substantially reduce global disaster mortality, (2) substantially reduce the number of affected people, (3) reduce direct disaster economic loss in relation to global gross domestic product, (4) substantially reduce disaster damage to critical infrastructure and disruption of basic services, including health and educational facilities, (5) substantially increase the number of countries with national and local disaster risk reduction strategies by 2020, (6) substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation under the present framework and (7) substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people. The framework stressed that the primary responsibility for the prevention and reduction of disaster risk lies with individual states, but emphasises that this responsibility can only be carried out through cooperation with other States at bilateral, regional, and global levels. Some of the other key areas highlighted under the framework were the importance of the development and use of geographic information systems, risk maps, and the integration of disaster risk assessments into land-use policy development and implementation, including urban planning.

While the Latin American and Caribbean region share similar risks, there are characteristics at the national and local levels which must be thoroughly understood in order to determine the best course of action to promote resilience. Decision-making, therefore, must be based on a thorough understanding of the risk in all its scopes, including – but not limited to – vulnerability, capacity, environmental features and exposure of people. Given the high levels of shared risks from natural phenomena, the highly vulnerable countries of the Latin American and Caribbean region undoubtedly also share common interests in this regard. It is in this context that the regional cooperative mechanism finds its advantage: facilitating dialogue, partnership and exchange among countries and regional entities, allowing them to combine capacities to move towards sustainability and reduced vulnerability. As part of this process of cooperation, the Association of Caribbean States has collaborated with the Government of the United Mexican States to develop and implement two projects aimed at improving the use of geospatial data in order to improve resilience at the national level in the Caribbean. The projects involve firstly supporting the integration and participation of eleven Caribbean countries in the United Nations Initiative on Global Geospatial Information Management (UN-GGIM), helping to reduce the gap in the region's geospatial data infrastructure and secondly, the development of a regional platform for territorial information management, formally known as the Caribbean Platform of Territorial Information for Disaster Prevention (PITCA) project. Leadership for the project is being provided by the National Institute of Statistics and Geography of the United Mexican States (INEGI), with support and technical advice being provided by the Caribbean Disaster and Emergency Management Agency (CDEMA), the University of the West Indies, (UWI) St. Augustine Campus, the University of Guyana and the Caribbean Chapter of the Urban and Regional Information Systems Association (URISA).

The first project will seek to establish a regional spatial data infrastructure (SDI) which will, through cooperation across Member States, minimise individual investment in research and development, and facilitate technology transfer to meet the demand for geospatial data at the regional, national, and global levels. Given that there are significant asymmetries across the region in terms of institutional capacity, some of the specific objectives of the project include: a diagnosis of the regional capacity concerning use of information systems on risk for decision-making, facilitating exchange of experiences and practices concerning the generation of geospatial information, and ultimately the integration of national information systems into a regional platform for the analysis of risks. There has been a number of attempts to establish a common regional reference framework aligned with the global initiative on geospatial information management. It is expected that through collaborative efforts with the UN-GGIM: Americas committee, the project will produce a global datum that will be adopted for the Caribbean.

A significant aspect of the projects is the steps taken to ensure longevity by the establishment of a permanent home for the data in the Department of Geomatics Engineering and Land Management of the UWI. All data provided to regional governments under the projects will also be provided to the department to facilitate training of practitioners across the region and continued research. Countries will contribute their own information to the platform while using tools and models made commonly available to further risk analysis and assessment. This will address the issue of the gap in technological innovation regarding geospatial infrastructure, enhancing research capacities and technological transfers whilst promoting the sharing of skills, knowledge, ideas and coping mechanisms amongst countries.

It is not possible to avoid the occurrences of natural hazards, nevertheless national and regional entities can put measures in place to significantly reduce the physical, environmental and economic vulnerabilities by better planning and practices through the employment of territory-based, reliable information. The development of regional capacity in the Caribbean for mapping and analysis of the natural environment requires careful planning considering the costs and range of uses and users; and, more importantly: the need for sustainability. In keeping with the provisions of the new Sendai Framework, and with the implementation of these projects, the Latin American and Caribbean region is in a better position to strengthen its efforts towards building resilience in close cooperation with partners in the international community. Ultimately, the projects seek to ensure that each state incorporates a multi-hazard approach to developing resilience by adopting risk-informed decision-making. The tools that permit us to have access to better data and to make better decisions on where and what we build are now in our hands.