

# BRIEFER

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## Climate Security Drivers in the Caribbean

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This policy brief outlines key ways that climate change may exacerbate underlying security issues and the drivers of citizen insecurity and fragility in the Caribbean. A region long-tested by both extreme weather events and illicit economic activity, the Caribbean has abundant climate science and resilience expertise, but many underlying governance and security challenges which may amplify each other as climate impacts intensify. Key regional security risks driven by climate change include economic contraction, violence and criminal activity; disaster impacts and political repercussions; food and water insecurity, damage to livelihoods and social unrest; and Latin American security deterioration impacting on the Caribbean. These risks provide an opportunity for better regional and international security cooperation in disaster response scenarios, and how such collaboration could provide a strong foundation for better long-term preparedness and resilience.

### INTRODUCTION

The Caribbean is a region already highly exposed to a range of climate hazards, many of which are being amplified by climate change. In future years the region can expect more or more intense tropical storms, changing precipitation

patterns (more intense rainfalls and drought), sea level rise and ocean acidification. The region also has a 400-year history of coping with illicit maritime smuggling and challenges to the rule of law, and serious organized crime activities including gangs and cartels continue to challenge states' authority and create security threats in some Caribbean states and territories.

Climate change impacts and security threats in the region are likely to interact and amplify each other. This interaction will take place in a context of underlying structural challenges, including high unemployment, undiversified economies, livelihoods dependent on climate-sensitive natural resources and governance gaps that inhibit the effective rule of law.

The reality that climate change is a factor in the region's current and future security issues has not yet permeated the broader security or resilience discourse in the region, despite a history of cooperation around disaster response and risk reduction. But even so, adaptation and resilience planning across the region is active, and could provide a sound basis for thorough cross-sectoral understanding of the future threat landscape to support comprehensive risk management planning.

This policy brief is prepared in connection with the regional consultation of the Planetary Security Initiative in Aruba in December 2018. It provides analysis of the interlinkages between climate change and other security factors in the region, aimed at shaping a regional agenda for security and climate institutions to support comprehensive planning for a climate-resilient and secure future.

## CLIMATE HAZARD EXPOSURE

As a region composed primarily of small island developing states, the Caribbean already faces a broad range of climate hazards, and can expect to see many worsen as a result of man-made climate change. Caribbean populations, economies and infrastructure are concentrated on coasts and vulnerable to sea level rise and storm damage. The region is exposed to tropical cyclones, and has already experienced an upward trend in tropical cyclone intensity. Sea level rise will increase direct threats from flooding, inundation and storm surge, and erode beaches, impacting the tourism sector which accounts for a significant portion of many Caribbean countries' GDP. Further, poor or antiquated critical infrastructure such as water distribution networks, roadways, and electricity grids also compound state fragility and resiliency building challenges.

Longer dry seasons are projected as a result of changing precipitation patterns,<sup>1</sup> threatening food security and the economies of agricultural areas. Water security is threatened by both sea

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<sup>1</sup> *Ibid.* O. Hoegh-Guldberg, D. Jacob, M. Taylor, M. Bindi, S. Brown, I. Camilloni, A. Diedhiou, R. Djalante, K. Ebi, F. Engelbrecht, J. Guiot, Y. Hijikata, S. Mehrotra, A. Payne, S. I. Senéviratne, A. Thomas, R. Warren, G. Zhou, 2018, Impacts of 1.5°C global warming on natural and human systems. In: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [V. Masson-Delmotte, P. Zhai, H. O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, T. Waterfield (eds.)]. In Press.

level rise (salt water intrusion to ground water supplies) and projected aridity. Ocean acidification and warming increases the risk of coral bleaching, which can impact both food security and reef-based tourism and economic activity. Climate-sensitive health issues, including both vector and food and water borne diseases such as leptospirosis and dengue, are projected to increase.

As a result of its exposure to climate hazards, the Caribbean has sophisticated climate science, information-sharing and extreme weather early warning systems, as well as considerable experience building resilience to extreme weather events. Nevertheless, the scale and pace of projected climate change pose particular challenges for already under-resourced small island developing states to adapt to, even if the most ambitious climate targets are achieved. The history of regional cooperation on disaster response, including with the US, Netherlands, United Kingdom and France, could provide a strong foundation for better preparedness and cooperation going forward – although dependence on external support also creates vulnerabilities.

## UNDERLYING SECURITY ISSUES IN THE CARIBBEAN

Transregional criminal flows are not new in the Caribbean. Its location between South and North America places it on a natural transshipment route between the primary source and market regions for illegal drugs, along with Central America. Since the 1970s, the preferred route for cocaine trafficking has shifted between the Caribbean and Central America, with drug interdiction efforts in one region pushing trafficking toward the other. Cocaine seizures in the Caribbean have increased in recent years, although around 80% still transit via the US-Mexico border. Venezuela's state breakdown has increased trafficking via the Dominican Republic to both

North America and Europe, with Jamaica another key transshipment point.<sup>2</sup>

The Caribbean is also a source, transit and destination region for human trafficking, including migrant labor, forced labor and sex trafficking. Those trafficked include Latin American and Caribbean citizens, and foreign nationals from Africa and Asia who are forced into sex work or unpaid labor to pay off travel debts.<sup>3</sup> Human smugglers also operate in the Caribbean, transporting both Caribbean citizens and a smaller number of Asian and African migrants, most ultimately seeking to cross the United States' southern land border via routes through South and Central America.<sup>4</sup>

The ongoing breakdown of state function in Venezuela has led to an increase in illicit flows of goods across the region, especially to Trinidad, Aruba and Curaçao, and from Western Venezuelan districts to Hispaniola. Piracy has increased along Venezuela's Caribbean coast. Migrant outflows from Venezuela have increased dramatically, contributing to tensions in some Caribbean receiving areas and increasing exploitation of vulnerable migrants, including sexual exploitation. As of September 2018, an estimated 98,500 Venezuelans were living in the southern Caribbean, concentrated in Trinidad and Tobago (40,000; Trinidad lies 12km from Venezuela's north coast), Aruba (20,000) and Guyana (15,000).<sup>5</sup>

Gang activity is present across the region, but is particularly well-organized in Jamaica and Trin-

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<sup>2</sup> European Monitoring Centre for Drugs and Drug Addiction, 'EU Drug Markets Report', 2016, <http://www.emcdda.europa.eu/system/files/publications/2373/TD0216072ENN.PDF>; InSight Crime, 'Venezuela: A Mafia State?', 2018, <https://es.insightcrime.org/wp-content/uploads/2018/05/Venezuela-a-Mafia-State-InSight-Crime-2018.pdf>.

<sup>3</sup> US Department of State, 'Trafficking in Persons Report 2018', <https://www.state.gov/documents/organization/282798.pdf>.

<sup>4</sup> United Nations Office on Drugs and Crime, 'Global Study on Smuggling of Migrants 2018', (United Nations publication, Sales No. E.18.IV.9).

<sup>5</sup> UNHCR, 'Venezuela Situation: Responding to the needs of people displaced from Venezuela, Supplementary Appeal January-December 2018'.

idad & Tobago, where gangs and organized crime provide some civic functions (policing and welfare services) in areas where the State does not have either the political will or the resources to do so.<sup>6</sup> Some Caribbean countries also have a high level of violent crime and gun violence, with particularly high homicide rates in Jamaica, Trinidad & Tobago and the Bahamas. High levels of criminality and citizen insecurity impair economic growth and stable development in several Caribbean countries.

Violent extremist networks also have a presence in Trinidad & Tobago, which has the Western Hemisphere's highest per-capita number of foreign fighters who have traveled to join Islamic State, an estimated 89-125 people from a population of 1.3 million.<sup>7</sup> The radical homegrown Sunni organization *Jamaat al-Muslimeen* and a range of splinter Islamist groups provide ideological and financial support to global jihad, but have not carried out any domestic attacks. There is crossover between these groups and criminal gangs.

Governance challenges, corruption and weak institutions have inhibited the effective rule of law to manage these threats.

## CLIMATE-RELATED SECURITY CHALLENGES – KEY PATHWAYS FOR RISK

Ongoing climate change means that climate impacts across the region are certain to progressively worsen. This will exacerbate existing regional environmental challenges the region faces, threaten development and economic growth and further complicate or worsen governance and security challenges. These issues are interlinked, and the future impacts of climate change

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<sup>6</sup> Heather Sutton & Inder Ruprah (eds.), 'Restoring Paradise in the Caribbean: Combating violence with numbers', Inter-American Development Bank, 2017.

<sup>7</sup> John McCoy & W. Andy Knight (2017) Homegrown Violent Extremism in Trinidad and Tobago: Local Patterns, *Global Trends, Studies in Conflict & Terrorism*, 40:4, 267-299, DOI: 10.1080/1057610X.2016.1206734.

present networked threats to development, peace and stability in the Caribbean.

Summarized below are some pathways outlining how climate and security vulnerabilities might interact in the region. Considering a range of such risks can enable comprehensive, prevention-oriented climate resilience planning that supports peace and stability.

#### *Economic contraction, violence and criminal activities*

Many of the Caribbean's current security issues are rooted in a lack of economic opportunity and crime. Climate change may further limit economic options for those in the region. Caribbean economies tend to be dependent on tourism, export agriculture and other sectors which are likely to be sensitive to climate impacts such as sea level rise, tropical storms or changing precipitation patterns. If climate impacts damage Caribbean economies, it will increase the risk of frustrated livelihoods, which may in turn make livelihoods rooted in illicit economic activity more attractive to many, especially, young males. Trends that undermine economies may increase the ranks of organized crime groups and further threaten the rule of law.

Climate-linked economic contraction may also undermine the state's financial resources and ability to counter criminal activities through effective policing and well-functioning justice systems. Immediate breakdowns in the rule of law following storms can drastically reduce revenue and employment in the immediate wake of a major storm, and in the intermediate to long terms, lower private sector confidence in investment potential and recovery. Both impacts can reduce tourism numbers for significant periods of time if they create negative perceptions about a country's safety, investment potential and stability. Any impact on income from tourism can worsen this cycle for countries whose economies are highly dependent on revenue from this sector.

Many Caribbean countries are already in precarious financial positions with high debt-to-GDP ratios; China holds most of this debt and has a significant number of infrastructure projects in the region. The billions of US dollars in infrastructure-related debt to China may chip away at economic growth for decades to come as cash strapped, highly leveraged economies struggle to repay costly Chinese infrastructure contracts. There is a legitimate risk that servicing this debt may not be sustainable, particularly if tourist arrival to revenue ratios remain relatively stagnant.

#### *Disaster impacts and political repercussions*

Climate change is likely to lead to more frequent or intense tropical cyclones. Short-term shocks from natural disasters can increase citizens' frustration and lead to shakeups in governments. Successive storms can also impair economic recovery and infrastructure reconstruction efforts; the 2017 hurricane season set back development in Puerto Rico, Barbuda and other severely affected islands by years if not decades. If island economies facing more frequent or intense storms struggle to recover, the consequences for growth, opportunities and security could be significant.

Dependency on external countries for disaster response and recovery creates vulnerabilities in terms of delayed response time. Response to Hurricane Irma on St Martin from the French and Dutch militaries was criticized as slow, amidst reports of looting stores, bank robbery and theft at tourist facilities.

#### *Food and water insecurity, livelihoods and social unrest*

Climate change projections indicate a drying trend in the Caribbean. Longer-term challenges from climate-driven stressors like threatened water security and declining economic opportunities may also increase citizen frustration and may be expressed through protests or unrest.

The Caribbean imports a significant proportion of its food, with the most populous nations (Haiti, Jamaica and Trinidad & Tobago) the biggest importers. This import dependency creates vulnerability to food price spikes and food insecurity, which can be a source of social unrest. Measures to promoting domestic production through rural agricultural development that might reduce this vulnerability could be complicated by projected climate impacts, like changing precipitation patterns and increased heat and drought. Agriculture accounts for around a quarter of employment in the region, but is vulnerable to freshwater stress, which may be worsened by climate change.

#### *Regional security degradation and impacts on the Caribbean*

Climate impacts may worsen existing security challenges in South and Central America in a variety of direct and indirect ways. For example, the coffee rust fungus may continue to damage coffee production in export-dependent economies like Guatemala, El Salvador and Colombia, with knock-on repercussions for livelihoods, urban migration and underlying security challenges, including gangs and cartels. Alongside other factors, restoring Venezuela's economic and political stability may be complicated in the medium term by a shift away from fossil fuel exports, if the global economy rebalances under climate regulations.<sup>8</sup>

These impacts could be felt in the Caribbean in the form of increased narco-trafficking as Central American governments struggle to effectively counter serious organized crime. Ongoing economic and political instability in Venezuela could amplify migrant outflows in the Caribbean, and associated challenges in receiving areas.

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<sup>8</sup> Oil and gas make up around 40% of Trinidad & Tobago's GDP, as well as 80% of its exports, making it similarly vulnerable to a changing energy market. Moody's Analytics, 'Trinidad and Tobago – Economic Indicators', <https://www.economy.com/trinidad-and-tobago/indicators#ECONOMY>.

## CLIMATE SECURITY RISK MANAGEMENT IN THE CARIBBEAN

Climate impacts add urgency to ongoing efforts to strengthen governance and resilience in the region. Given the array of institutions already working regionally to increase resilience and security, integrating climate security efforts into adaptation, disaster response and security efforts could be more effective than standing up dedicated climate security institutions. Ongoing cooperation to improve regional disaster response, including through partnerships with the US and European countries, can provide a basis for security cooperation to address a range of security issues in the context of climate change. Building upon these international and cross-basin collaboration models (to include military-to-military efforts) can not only expand and elevate understanding of the climate-security related risks, but enhance response capacities to minimize loss to lives and livelihoods.

This preliminary report establishes a basis for in-depth discussion on institutional responses to these threats at the CDEMA-organized workshop in Aruba.

## CONCLUSION

This brief is intended to stimulate further investigation into the nexus of an underappreciated set of environmental and anthropogenic drivers of fragility. The interaction of slow-moving yet intensifying climate change impacts with island-state systemic deficiencies and vulnerabilities could increase the risk of popular dissatisfaction, political divisions and other pressures which together have the potential to disrupt democratic processes and hard-earned development gains in the Caribbean.

Though the trends discussed in this report require further investigation so that their individual and aggregate likely impacts on national security can be better framed, measured and re-

sponded to, it is already evident that further basin-wide consultations are needed so that the adaptive policy making and coordination on this package of new risks can be both better informed and enabled. Caribbean policymakers have reliable foresight on future climate threats to the region, thanks to regional research institutions. Such foresight capabilities, in the context of unprecedented risks to the region, give securi-

ty, development and political actors a responsibility to prepare for threats on the Caribbean's horizon.

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