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REGIONAL POLICY BRIEFING

3 OPEN ACCESS

Challenges and opportunities for more integrated regional food security policy in the Caribbean Community

Kristen Lowitt^a, Arlette Saint Ville^a, Caroline S. M. Keddy^a, Leroy E. Phillip^b and Gordon M. Hickey^a

ABSTRACT

The Caribbean Community (CARICOM) has recognized regional integration as an important development strategy for addressing the unique vulnerabilities of its member small island developing states (SIDS). Food security in the Caribbean is a fundamental social and ecological challenge in which the dynamics of regional integration are increasingly playing out. CARICOM members have subsequently identified a number of shared food security problems and have endorsed regional goals and approaches to address them; however, progress towards solutions has been slow. Recognizing that evidence-based studies on the potential factors limiting sustained progress are lacking, we undertook a comparative policy analysis to understand better the various approaches and framings of food security at national and regional levels with a view to assessing coherence. We identify considerable divergence in how regional and local policy institutions frame and approach food security problems in CARICOM and then identify ways through which the policy integration objectives for enhanced regional food security might be progressed, with a particular focus on social learning.

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INTRODUCTION

The Caribbean Community (CARICOM) is an economic grouping of 15 countries with a common colonial history. Most CARICOM nations are also small island developing states (SIDS), characterized by their small size, insularity, proneness to natural disasters, limited land availability and

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integration into global markets (Pelling & Uitto, 2001; Turvey, 2007; United Nations, 2011). These features render the Caribbean SIDS highly susceptible to a range of environmental, economic and human development challenges, which are known to be intensifying with globalization and environmental change (McGillivray, Naude, & Santos-Paulino, 2010; Pelling & Uitto, 2001; Wong, 2011).

Over the past few decades, a movement for regional integration has emerged in the Caribbean as a means of addressing the region's inherent challenges. Regional integration is broadly understood as the 'coming together of parts into a whole' (Nicholls et al., 2000, p. 1164), and is closely related to the concept of 'policy convergence', which is described as different policy positions moving towards a common point over time (Bennett, 1991). While there are different theories about how regional integration occurs, there is general agreement that it involves new forms of collaboration and coordination among actors at different scales of governance (Soderbaum, 2009).

A historic event in Caribbean integration was the establishment in 1973 of CARICOM and its allied regional institutions. The project was undertaken to improve the social and economic development of member states (O'Brien, 2011). CARICOM was therefore established on the basis of three fundamental pillars: economic integration, functional cooperation (education, health and other areas) and foreign policy coordination (Bishop et al., 2011). Since the inception of CARICOM, the respective governments have come to recognize that regional integration is crucial to enhancing development of the region. In particular, regional integration can offer a critical scale for providing public goods, creating an expanded internal market, achieving greater negotiating power in relations with other states and addressing cross-boundary environmental problems in the region (Bishop et al., 2011; Van Langenhove & De Lombaerde, 2007).

To date, however, the regional integration movement has achieved neither its aims nor potential. There have been substantial delays with implementation of new regional policies, including the establishment of a Caribbean single market economy (CSME); meanwhile, the various alliances and institutions within CARICOM often appear fragmented and incoherent in their actions (Bishop et al., 2011; Hall & Chuck-A-Sang, 2007). The problems of policy development and implementation in CARICOM have been attributed to the region's diverse geography, differences in wealth among member states, and fundamentally, the inability of the integration movement to overcome a longstanding legacy of division among small island states (Jules, 1994; O'Brien, 2011); mistrust and lack of cooperation continue to characterize inter-state relationships (Bishop et al., 2011). Geiser (1976) traces these challenges of trust and relationship-building to the region's colonial past, during which period the islands were ordered to communicate with Britain, the colonial authority, and discouraged from interacting with one another.

In this paper, we investigate the complex problem of food insecurity within CARICOM as a case study for examining the dynamics around regional integration. The food insecurity challenges facing CARICOM include an immense and escalating food import bill, declining intraregional agricultural trade, decreasing foreign exchange earnings due to the collapse of many export agricultural crops, persistent poverty especially in rural regions and underdeveloped domestic food systems (CARICOM Secretariat, 2010; FAO, 2013; Lowitt et al., 2015a; United Nations Development Program, 2012). Additional threats include rising rates of chronic diet-related diseases and unsustainability of the region's agricultural and fisheries resources posed by climate change (Francis, Nichols, & Dalrymple, 2010; Ganpat & Isaac, 2014; Wilson, 2016).

Over the past decade, CARICOM governments have undertaken initiatives to advance regional action on these issues and overcome fragmented approaches toward problem-solving. In 2004, there was a landmark effort in regional integration for enhanced food security with the formulation of the 'Jagdeo Initiative'. This was a regional strategy, proposed by the President of Guyana Bharrat Jagdeo, for repositioning agriculture in a framework of 'balanced rural development' that could support a competitive agri-food industry and domestic food security needs (Private Sector Commission, 2007, p. 3). Building on the Jagdeo Initiative, the CARICOM heads of governments endorsed, in 2010, a Regional Food and Nutrition Security Policy (RFNSP). This policy aimed to provide a coherent

framework for a range of policy actors (including national governments, civil society, private sector, regional institutions and international development partners) to work together on implementing an agreed-upon set of food security goals (CARICOM Secretariat, 2010). To support implementation of the RFNSP, CARICOM governments also approved, in CARICOM Secretariat (2011), a Regional Food and Nutrition Security Action Plan (RFNSAP), outlining a series of linked regional and national-level interventions (CARICOM Secretariat, 2011).

Despite these successive efforts, implementation of national policies, priorities and action plans for enhanced food and nutrition security in CARICOM remains challenging and incomplete (Ford, 2016). For example, following endorsement of the RFNSP, the CARICOM states were tasked with adjusting their own national food security policies and plans, in line with the regional framework. However, not all CARICOM member countries have succeeded in fully developing these plans, and few have been successful at putting them into action (Ford, 2016).

In this context, we present the results of a policy analysis that aims to explore how national governments and regional institutions, as key policy actors, frame and strategically approach the problem of food insecurity within CARICOM. We discuss the findings with a view to assessing coherence and coordination in regional food security efforts, and identifying opportunities for strengthening mechanisms for enhanced food security within the Caribbean.

METHODS

The study involved a content analysis of policy documents, strategic plans, governing frameworks and national budget speeches of national and regional institutions. These documents were selected because they offer important insights into the strategic objectives, intentions and commitments, and resource allocation of these policy actors.

Specifically, our analysis includes 2012 and 2013 national budget speeches for 13 of 15 CARICOM countries. Budget speeches for Haiti and Suriname were unavailable. At the regional level, our analysis includes the establishing agreements, acts, mandates and strategic plans of 13 regional institutions. These 13 institutions were selected because they have mandates to work in key sectors relevant to food security including agriculture and fisheries, health, environment and trade. These institutions were also identified in the RFNSP as important food security actors. We conducted internet and database searches to obtain as many of these documents as possible for each institution (Table 1). The period 2012–13 was chosen for analysis in order to assess potential convergence in food security approaches approximately two years following the endorsement of the RFNSP.

Our content analysis combined inductive and deductive reasoning to enhance reliability of coding and data analysis (Drisko & Maschi, 2016). We began with a process of open coding to identify the key food security themes emerging in the documentation (Strauss & Corbin, 1998). The main question guiding the open coding was: how is food security framed and approached in public policy? To guide the open coding process and identify themes relevant to food security, we used the broad definition of food security as put forward at the 1996 World Food Summit. We recorded the number of unique times a food security theme appeared in a document, and took detailed notes to describe similarities and differences. After the themes were identified, they were categorized into the four dimensions of food security – availability, access, utilization and stability (Table 2); these are the widely recognized dimensions of food security put forward by the FAO and which have been adopted in the CARICOM RFNSP as key areas for regional action.

We recognize that our approach, which draws on the World Food Summit definition of food security and its respective dimensions as elaborated by the FAO, does not necessarily allow us to capture other related discourses (such as food sovereignty or the right to food) that may exist among local actors. However, for the purpose of comparison, the four dimensions of food security provide a clear framework for assessing areas of convergence and divergence among national and regional actors in relation to food security priorities.

Table 1. Document sources included in the content analysis.

Regional institution	Agreement/act	Mandate	Strategic plan
Trade			
Council for Trade and Economic Development (COTED		×	
Office of Trade Negotiations (OTN)		×	
Caribbean Development Bank (CDB)			×
Caribbean Regional Organization for Standards and Quality (CROSQ),	×	×	
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Agriculture and fisheries			
Caribbean Agricultural Research and Development Institute (CARDI	×	×	×
Caribbean Regional Fisheries Mechanism (CRFM)	×	×	
Caribbean Agricultural Health and Food Safety Agency (CAHFSA)	×		
, 3 ,			
Health			
Caribbean Public Health Agency (CARPHA)	×	×	
Caribbean Epidemiology Centre (CAREC)	×	×	
Caribbean Environmental Health Institute (CEHI)	×	×	
Environment			
Caribbean Institute for Meteorolo-	×	×	
gy and Hydrology (CIMH)			
Caribbean Disaster Emergency Management Agency (CDEMA),	×	×	
Caribbean Community Climate Change Centre (CCCCC)	×		
change certific (ceeee)			

Table 2. Dimensions of food security.

Food availability	Food access	Food utilization	Food stability
Addresses the 'supply'	Pertains to economic	Addresses nutritional	Refers to stability of
side of food security.	and physical access to	status in terms of how	the food supply in the
Related to the level of	food for households,	the body uses the nutri-	event of disturbance,
food production, net	especially for the poor	ents available in food.	including weather,
trade, and levels of	and vulnerable	Also concerns food	political or economic
food stocks		preparation, diet diver-	factors
		sity and intra-house-	
		hold food distribution	

Source: FAO (2008).

RESULTS

We present our results in terms of the approaches and framings of food security, operating among national and regional-level policy institutions. To assess approaches, we examine the relative emphasis that each institution placed on the four dimensions (availability, utilization, stability, access). For framings, we explore the key themes characterizing how the different dimensions of food security are described.

Approaches to food security

The approaches to food security operating among national governments and regional institutions are represented in Figures 1 and 2. For each national government or regional institution, we generated the content analysis results by dividing the number of references to each food security dimension by the total number of references to food security recorded. Results from the 2012 and 2013 budget speeches are considered together.

These results indicate two main trends. First, regional institutions took a narrower approach to food security than national governments; and second, among the four dimensions of food security, food access received the least amount of attention among actors at both the national and regional levels.

Figure 1 shows that regional institutions often focused on one dimension of food security. For example, the Caribbean Agricultural Research and Development Institute (CARDI), the regional institution principally concerned with food security, focused mainly on food availability, with relatively little emphasis on food stability and virtually no activity in areas related to food access or utilization. Along with CARDI, the Council for Trade and Economic Development (COTED) and Office of Trade Negotiations (OTN) also focused mainly on food availability. Three regional institutions focused predominantly on utilization (Caribbean Public Health Agency (CARPHA), Caribbean Epidemiology Centre (CAREC) and Caribbean Regional Organization for Standards and Quality (CROSQ)), and a further four placed the most emphasis on food stability (Caribbean Disaster Emergency Management Agency (CDEMA), Caribbean Community Climate Change Centre (CCCCC), Caribbean Environmental Health Institute (CEHI) and the Caribbean Development Bank (CDB)). Only three institutions, including the Caribbean Regional Fisheries Mechanism (CRFM), Caribbean Institute for Meteorology and Hydrology (CIMH) and Caribbean Agricultural Health and Food Safety Agency (CAHFSA), engaged substantially in at least two dimensions of food security. Based on the documents reviewed, there was clear evidence that no single regional institution took a holistic approach to tackling all four dimensions of food security.

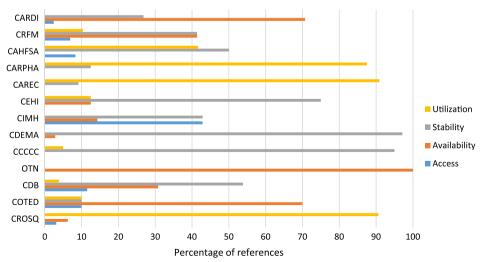


Figure 1. Relative emphasis placed on the dimensions of food security by CARICOM regional institutions.

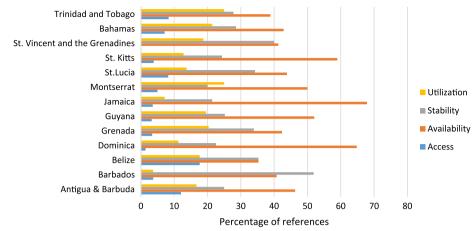


Figure 2. Relative emphasis placed on the dimensions of food security by CARICOM national governments.

We also observe that the approach to food security adopted by each regional institution generally aligned with its sectoral purpose and mandate. For example, CARPHA focused primarily on food utilization, the dimension of food security directly related to nutrition and health; CARDI focused on food availability, the dimension of food security directly related to agricultural production; and CDEMA focused on food stability, the dimension related to protecting the food supply from environmental or economic disturbance.

In contrast, Figure 2 shows that national governments generally adopted a more multidimensional approach to food security. While the 'availability' and 'stability' dimensions of food security did receive the most attention among the national governments, nearly all paid some attention to food access and utilization (Figure 2). Among the national governments, Belize paid the most attention to food access, and seemed to exhibit the most balanced approach to addressing all dimensions of food security.

Another key finding is that both regional and national actors focused least on the 'access' dimension of food security. Unlike the dimensions of availability, stability and utilization, no regional institution focused primarily on food access. Though broader in their approach to food security than the regional institutions, the national governments appeared less engaged in strategic activities dealing with food access than the other three dimensions of food security.

Framings of food security

Results of our thematic analysis (Table 3) lend further insight into how the different dimensions of food security were broadly framed by national governments and regional institutions. Our analysis reveals some convergence among national and regional institutions, with sustainable natural resource use, enhanced agricultural productivity and creating an enabling marketing environment emerging as important aspects of food availability. Likewise, chronic non-communicable diseases (NCDs) featured as a common concern for regional and national actors working in the area of food utilization. National and regional actors also displayed convergence in the food stability dimension, with a focus on climate change adaptation and resilience of the food supply to external shocks.

However, important points of divergence also emerged in the framings of food security among national and regional actors. National governments seemed to display a stronger emphasis on the social and economic contexts of food security, including issues such as rising food prices and equitable food access. While both sets of institutions emphasized productivity and sustainable

Table 3. Key themes characterizing how the dimensions of food security are framed by CARICOM
regional institutions and national governments.

Dimensions of food security	Themes	National	Regional institutions
		governments	
Availability	Sustainable use of natural resources	×	X
	Agricultural productivity	×	×
	Enabling marketing environment	X	X
	Regional distribution and transporta-		×
	tion systems		
	Training for youth and new farmers	×	
	Expansion of local agriculture and	×	
	small businesses		
Utilization	Prevention and management of	×	×
	non-communicable diseases		
	Nutritional health	×	×
	Public health promotion	×	×
	Food safety standards	×	X
	Disease monitoring		×
	School feeding interventions	×	
Stability	Adaptation and mitigation to climate	X	×
,	change		
	Protect food supply from shocks	×	×
	Resource and relief efforts after	X	X
	disaster		
	Monitoring systems		×
Access	Support rural development and	X	×
	livelihoods		
	Rising food prices	×	
	Equitable food access	×	
	Edulanie 1000 access	^	

natural resource use as important aspects of food availability, only national governments considered social issues, such as youth training and support for local agricultural businesses, in relation to production goals. A final difference is that, in contrast to national governments, regional institutions focused more on monitoring and evaluation of food security, including relevant health and environmental trends, and were more concerned with the provision of regional public goods, including distribution and transportation systems.

DISCUSSION: TOWARDS REGIONAL FOOD SECURITY POLICY INTEGRATION

The RFNSP seeks to establish a harmonized and holistic approach to food and nutrition security, and to provide a template for policy action at the national levels in CARICOM. This integrated approach recognizes that actors across different sectors and scales must 'take on board' common food security objectives if the goals are to be realized (Lafferty & Hovden, p. 1).

Our analysis reveals, however, that behind the agreed-upon goals, there are differences in how food security is strategically approached and framed at the national and regional levels. Regional institutions, while established to support integration aims, are operating with mandates to work in specific sector areas. This may explain the relatively narrow approaches to food security they have adopted. In contrast, we find that approaches to food security adopted by national governments are more multidimensional, reflecting their greater understanding of the social and economic issues tied to food security; these include rising food prices, support for small businesses, and youth employment opportunities. The more multidimensional approaches to food security displayed by national governments may be linked to the broader base of constituents they interact

with compared with regional institutions, which generates a larger set of political aims they must address. These differences in the area of food security parallel the institutional fragmentation and incoherence that characterizes the larger CARICOM regional integration movement (Bishop et al., 2011; Hall & Chuck-A-Sang, 2007).

In the light of the divergences observed in our exploratory study, we suggest there is a need for regional institutions to reconsider how they approach the challenge of food insecurity. The RFNSP noted that the governance and programming of regional institutions should be revised to incorporate a consideration of food security. While we find evidence of food security in the work of regional institutions, we also identify that their governance and programming could be adjusted to encourage more comprehensive approaches that are capable of better supporting the wider-ranging goals of national governments. To achieve this, the 13 regional institutions working on different facets of food security may benefit from interacting more closely in an effort to achieve a truly integrated approach (Bishop et al., 2011). An alternative strategy may be to establish food security as the mandate of fewer institutions with a broader scope, rather than make it the focus of a large number of sectoral-focused institutions.

However, divergent framings of complex policy problems are not unique to CARICOM food security. Previous studies have revealed that balancing multilevel ideas and interests is a key challenge facing integration movements around the world (Pavlova, Gouldson, & Kluvánková-Oravská, 2009; Treib, 2008). In this context, we observe that CARICOM food security may benefit from recent studies that view policy integration as a process of 'policy learning', in which perspectives evolve and sectoral actors continually reframe their objectives and strategies towards harmonized outcomes (Fiorino, 2001; Nilsson, 2005). Such policy learning can be differentiated into three types: technical, conceptual and social, each of which evolves into the next (Fiorino, 2001). According to Fiorino (2001), technical learning is characterized by redesigning policy instruments, and does not require major changes in objectives or strategies. Conceptual learning involves redefining policy goals and appropriate responses. Lastly, social learning builds on these capacities but focuses attention on the patterns of interaction and communication among actors; it suggests that new forms of interaction, organized around opportunities for reflexive knowledge exchange and co-learning, can contribute to concerted action and harmonized policy outcomes (Paavola et al., 2009; Stevaert & Jiggins, 2007; Temby, Rastogi, Sandall, Cooksey, & Hickey, 2015; Treib, 2008).

Based on our analysis, CARICOM food security policy shows evidence of technical and conceptual learning. A regional policy framework and objectives has been developed to promote the objective of food security as a cross-sectoral issue requiring integrated attention and action. However, evidence of social learning among policy actors appears to remain low. We have shown in previous research that challenges with community participation, mobilization of local social capital, and stakeholder disengagement and mistrust often serve to stymic collective action to advance collective progress in CARICOM agricultural development and food security (Lowitt, Hickey, Ganpat, & Phillip, 2015c; Saint Ville, Hickey, Locher, & Phillip, 2016; Saint Ville, Hickey, & Phillip, 2015). Low levels of social learning may also help explain ongoing issues of mistrust and division among island states within the larger regional integration movement (Bishop et al., 2011; Jules, 1994; O'Brien, 2011). Accordingly, we suggest that an important next steps in achieving more integrated food security policy, and potentially broader regional integration aims, will be for the region to embrace more fully social learning perspectives.

Compared with technical and conceptual learning, social learning requires a greater degree of structural openness in the policy system as a plurality of actors, including government, industry and civil society, are encouraged to interact and, through this process, come to share responsibility for policy goals (Fiorino, 2001). Over the past two decades, participation in CARICOM food security policy has been too narrowly defined (CARICOM Secretariat, 2010). The formulation of the RFNSP rested with the regional CARICOM Secretariat, while the responsibility for

development and implementation of these objectives presently (2016) rests mainly with national governments. This top-down approach is reflective of the larger CARICOM regional integration movement which has been critiqued for inviting minimal participation of civil society groups or the private sector (Nicholls, Birchwood, Colthrust, & Boodoo, 2000). From a social learning perspective, the implementation of food security policy objectives through a top-down process would need to be replaced by a cooperative approach in which all actors assume responsibilities for reaching shared policy goals (Fiorino, 2011). Achieving an integrated food security policy will likely require a new role for CARICOM national governments and regional institutions in which they can use their different authorities in ways that support participation and interaction among diverse stakeholders at different levels of the food-related policy system (Fiorino, 2001; Lowitt, Saint Ville, Lewis, & Hickey, 2015b; Lowitt et al., 2015c; Saint Ville et al., 2016).

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NOTE

1. We define food security as existing 'when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life' (FAO, 2008).

REFERENCES

Bennett, C. J. (1991). What is policy convergence and what causes it? *Journal of Political Sciences*, 21, 215–233. Bishop, M., Girvan, N., Shaw, T., Mike, S., Kirton, R., Scobie, M., Mohammed, D., & Anatol, M. (2011). Caribbean regional integration. Institute of International Relations at UWI. Retrieved from http://sta.uwi.edu/iir/documents/IIR_Research_Documents/IIRRegionalIntegrationReportFINAL.pdf

CARICOM Secretariat. (2010). Regional food and nutrition security policy. Retrieved from http://www.caricom.org/jsp/community_organs/regional_food_nutrition_security_policy_oct2010.pdf

CARICOM Secretariat. (2011). Regional food and nutrition security action plan. Retrieved from http://www.fao.org/fileadmin/templates/righttofood/documents/project_m/caricom/CARICOMRegionalFoodandNutritionSecurityActionPlan-Oct2011.pdf

Drisko, J., & Maschi, T. (2016). Content analysis. New York, NY: Oxford University Press.

FAO. (2008). An introduction to the basic concepts of food security. Food Security for Information Practical Guides. Retrieved from http://www.fao.org/docrep/013/al936e/al936e00.pdf

FAO. (2013). Caricom food import bill, food security and nutrition. Subregional Office for the Caribbean. Issue Brief #5. Retrieved from http://www.fao.org/fsnforum/caribbean/sites/caribbean/files/files/Briefs/Food%20 Import%20brief%20.pdf

Fiorino, Daniel J. (2001). Environmental policy as learning: A new view of an old landscape. *Public Administration Review*, 61, 322–334.

Ford, D. (2016). Status of national food and nutrition security policies and action plans in the CARICOM Caribbean (as at February 2016). Barbados: FAO.

- Francis, M., Nichols, Selby S. D., & Dalrymple, N. (2010). The effects of a school-based intervention programme on dietary intakes and physical activity among primary-school children in Trinidad and Tobago. Public Health Nutrition, 13, 738-747.
- Ganpat, W., & Isaac, W. (2014). Impacts of climate change on food security in small Island developing states. Hershey, PA: IGI Global.
- Geiser. (1976). Regional integration in the commonwealth Caribbean. Journal of World Trade Law, 10, 546-565.
- Hall, K., & Chuck-A-Sang, M. (2007). Caricom single market and economy: Challenges, benefits and prospects. Miami, FL: Ian Randle Publishers.
- Jules. (1994). Adult education policy in micro-states: The case of the caribbean. Policy Studies Review, 13, 415-432.
- Lowitt, K., Hickey, G., Saint Ville, A., Raeburn, K., Thompson-Colon, T., Laszlo, S., & Phillip, L. (2015a). Factors affecting the innovation potential of smallholders farmers in the Caribbean Community. Regional Environmental Change, 15, 1367-1377.
- Lowitt, K., Saint Ville, A., Lewis, P., & Hickey, G. (2015b). Environmental change and food security: The special case of small Island developing states. Regional Environmental Change, 15, 1293-1298.
- Lowitt, K., Hickey, G., Ganpat, W., & Phillip, L. (2015c). Linking communities of practice with value chain development in smallholder farming systems. World Development, 74, 363–373.
- McGillivray, M., Naude, W., & Santos-Paulino, A. (2010). Vulnerability, trade, financial flows and state failure in small Island developing states. Journal of Development Studies, 46, 815-827. doi: 10.1080/00220381003623822
- Nicholls, S., Birchwood, A., Colthurst, P., & Boodoo, E. (2000). The State of and Prospects for the Deepening and Widening of Caribbean Integration. The World Economy, 23, 1161-1194.
- Nilsson, M. (2005). Learning, frames, and environmental policy integration: The case of Swedish energy policy. Environment and Planning C: Government and Policy, 23, 207–226.
- O'Brien, D. (2011). Caricom: Regional integration in a post-colonial world. European Law Journal, 17, 630-648.
- Paavola, J., Gouldson, A., & Kluvánková-Oravská, T. (2009). Interplay of actors, scales, frameworks and regimes in the governance of biodiversity. Environmental Policy and Governance, 19, 148-158.
- Pelling, M., & Uitto, J. (2001). Small island developing states: Natural disaster vulnerability and global change. Environmental Hazards, 3, 49-62.
- Private Sector Commission. (2007). The jagdeo initiative. Technical Information Bullet No. 8. Georgetown, Guyana: The Private Sector Commission of Guyana Ltd.
- Saint Ville, A., Hickey, G., & Phillip, L. (2015). Addressing food and nutrition insecurity in the Caribbean through domestic small- holder farming system innovation. Regional Environmental Change, 15, 1325–1339.
- Saint Ville, A., Hickey, G. M., Locher, U., & Phillip, L. E. (2016). Assessing the role of social capital in influencing knowledge flows and innovation in smallholder farming communities in the Caribbean. Food Security, 3, 535-549.
- Soderbaum, F. (2009). Comparative regional integration and regionalism. In T. Landman & N. Robinson (Eds.), The Sage handbook of comparative politics. London: Sage Publications (pp. 477–496).
- Steyaert, P., & Jiggins, J. (2007). Governance of complex environmental situations through social learning: a synthesis of SLIM's lessons for research, policy and practice. Environmental Science & Policy, 10, 575-586.
- Strauss & Corbin. (1998). Basics of qualitative research techniques and procedures for developing grounded theory. London: Sage Publications.
- Temby, O., Rastogi, A., Sandall, J., Cooksey, R., & Hickey, G. M. (2015). Inter-agency trust and communication in the transboundary governance of Pacific salmon fisheries. Review of Policy Research, 32, 79-99.
- Treib, O. (2008). Implementing and complying with EU governance outputs. Living Reviews in European Governance 3. Retrieved from http://www.livingreviews.org/lreg-2008-5

- Turvey, R. (2007). Vulnerability assessment of developing countries: The case of Small-Island developing states. Development Policy Review, 25, 243–264.
- United Nations. (2011). Small Island developing states: Small Islands big(ger) stakes. Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States. New York, NY: United Nations.
- United Nations Development Program. (2012). Caribbean human development report. Retrieved from http://www.undp.org/content/undp/en/home/librarypage/hdr/caribbean-human-development-report-2012-1.html
- Van Langenhove, L. V., & De Lombaerde, P. D. (2007). Review essay: Regional integration, poverty and social Policy. *Global Social Policy*, 7, 379–385.
- Wilson, M. (2016). Food and nutrition security policies in the Caribbean: Challenging the corporate food regime? *Geoforum*, 73, 60–69.
- Wong, P. P. (2011). Small island developing states. Wiley Interdisciplinary Reviews: Climate Change, 2, 1-6.