

Institutional Design for Sustainable Urbanization in the Caribbean

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Abstract

Essentially, sustainable urbanization is a political choice. Following this proposition, this paper seeks to critically assess the policy-institutional framework that is established or being proposed to shape the urban agenda in the Caribbean. Locating the research activity within a sample of countries in the region, desk analysis of the policies and legislation corresponding to urbanization in these countries is undertaken, complemented by lesson-drawing from case studies of international experience to determine the efficacy of the region's policy-institutional framework and the extent to which it mirrors international norms. Preliminary findings suggest that sustainable urbanization remains a concept in the Caribbean as policies and legislation either predate ideas of urban sustainability, or do not target sustainability challenges adequately. The paper is part of a larger research project on sustainable urbanization in the Caribbean and therefore is intended to initiate debate and further research towards production of policy relevant information in this area of study.

Keywords: Caribbean, sustainable urbanization, policy-institutional framework, urban agenda

1. Introduction

Urban infrastructural development geared towards achieving favorable social, economic and environmental conditions, has seized the attention of governments globally. Patterns of infrastructural development currently reflect a drive towards transforming and enhancing the attractiveness and competitiveness of metropolitan areas. The notion of sustainability, the substance of which is regenerative capacity, undergirds restructuring efforts accompanied by the philosophy that redeveloped metropolitan areas will serve as models for future urban development plans. The imperative of the urban agenda in public policy is captured succinctly as follows (Allen & You, 2002): “*A quest for sustainable development is a quest for sustainable urbanization,*” not merely for the problems that are highlighted, but for the associated opportunities. The concept of sustainable urbanization is generally discussed in relation to cities. In particular the implications of sustainability for the character of the city envisaged have given rise to different conceptions of city, such as ‘sustainable city’ (Lehmann, 2010; Hassan & Lee, 2014; Michalina et al., 2021), ‘green city’ (United Nations Environment Programme, 2011; Lindfield & Steinberg 2012), ‘eco-city’ (Rapoport & Vernay, 2014) and ‘smart city’ (Kitchin, 2014; Piro et al., 2014).

Surely, it is reasonable to expect that sustainable urbanization cannot be analyzed *sans* an engagement with cities. For in the case of development goals, such an analysis is partial in light of the increasing imperceptibility of the city boundary at this juncture as confirmed in the literature (Allen & You, 2002):

(t)he urbanization process is not restricted to cities, and involves more than the social and physical dimensions of housing, infrastructure and urban services. Cities rely on their surrounding hinterland for a wide range of resources, including water, energy, building materials and sources of food. The inhabitants of large cities also make use of surrounding rural areas and open spaces for purposes of rest and recreation. Cities in return provide the goods, services and the market place for rural and agricultural production.

Sustainable urbanization is premised on the need to protect the natural environment and to improve the quality of urban life attendant on which is the promotion of balanced urban-rural development. Further, sustainable

urbanization is a complex process both from a conceptual and an empirical standpoint in which policy choice seeks to use the opportunities to combat the challenges. It concerns the achievement of a particular desirable state within an urban physical and social space that accounts for national, regional and global interactions (Roy, 2009).

Sustainable urbanization is multifaceted, not merely for the multi-disciplinary lenses through which significant goals are pursued but simultaneously it is multi-sectoral and demands multi-level governance approaches. Not to be excluded is the matter of social choice, that is, what constitutes the collective interests around sustainable urbanization at any given time. Governmental action on sustainable urbanization brings into question the type of institutions and institutional framework that are required to process decision-making and shape development outcomes. Two commonly referenced interpretations of institutions are, (i) “humanly devised constraints that structure political, economic, and social interaction,” (North, 1990/1) and, (ii) “systems of established and prevalent social rules that structure social interactions” (Hodgson, 2006). It is precisely because institutions are purposeful creations that produce incentives to act or not to act in a particular situation why the *quality* of the institutional framework, which concerns, the supportive environment facilitating action, rises to prominence. Both institutions and their frameworks delimit the capacity for social change. So proceeding on the assumption that sustainable urbanization is fundamentally a process of institutional reform, analysis must of necessity, determine the degree to which approaches to reform emphasize the value of social preferences or focus on institutional arrangements (Haggard, 2000).

The normative framework for institutional reforms in developing country reflects the values of the Sustainable Developmental Goals (SDGs) in which an urban agenda is declared in Goal 11 – *sustainable cities and communities*. Apparently, the normative framework favours both social choice and institutional approaches but with a slight leaning towards the latter given the challenging enterprise of decision-making on sustainable urbanization, that at a glance, reveals that policy coordination and sequencing are critical aspects of the overall process.

Institutional design for sustainable urbanization has much to contend with. It is about developing a framework of rules, procedures, and organizational structures in response to a sound causal theory, that foster shared values, and enable achievement of desired goals, as well as constrain behaviour and action that stymie these goals (Alexander, 2005). At the practical level institutional design has two components: the *hardware* that describes the group of actors charged with elaborating, implementing, monitoring and evaluating the reforms at micro- meso- and macro-levels of interactions and includes physical structures and human and financial resources; and the *software* that deals with the coordinative and integrative capacities of the institutions (Note 1). The nucleus of sustainable urbanization is collective choice which then makes any action on the process a political choice.

Predictions about population density and growth in relation to developing countries and the implications for small-island economies and societies, have motivated research around government responses to the urban agenda in the Caribbean. Specifically this paper, which is part of a larger research project on sustainable urbanization in the Caribbean, seeks to assess policy overtures towards incorporation of the tenets or values of the ‘paradigm’ of sustainable urbanization into the policy-institutional framework (PIF) of a sample of countries in the English-speaking Caribbean. As a disclaimer, a socio-economic profile of the region is excluded due to limitation on number of pages, but for completeness there are several references that are useful in this regard (Sutton, 2000; Harris, 2002; Hillman & D’Agostino, 2009; Organisation for Economic Corporation and Development, 2019). Locating the research activity within a sample of countries in the Caribbean, the aim is to assess the PIF that is established, or being proposed to shape the urban agenda in these countries, by answering two questions:

- (a) Is the policy-institutional framework efficacious?
- (b) Does the policy-institutional framework reflect, to any extent, international norms guiding government action towards meeting the principal challenges of an urbanizing world?

Substantive arguments are set out in the remaining sections of the paper: A relevant literature is interrogated in section 2, while section 3 describes data-collection methods. Section 4 discusses results of the institutional survey of a sample of countries in the Caribbean complemented by case studies of select urbanization policy strategies in three countries outside the region. The finale section 5 extrapolates preliminary findings of the paper with an indication of the need for continued research on this subject as the conclusion.

2. Literature Review

2.1 The Pros

A group of environmentalists that rose to prominence in the post-World War II period, sounded the alarm in path-breaking publications, about the state of the environment. These publications initiated serious discussions around

the concept of sustainability. The central thesis of this early discourse was that: *pollution, over population and the accumulation of toxins in the environment have negative implications for the future of many species including mankind* (Vogt, 1948; Osborn, 1948). A seminal contribution to the sustainable development discourse asserted the central, and what was later considered to be a controversial claim, that: “*a finite world can support only a finite population*” and that “*freedom to breed is intolerable*” as “*over breeding*” or over population creates a strain on limited resources (Hardin, 1968). Additionally, this line of argument warned of the consequences of dumping chemicals, sewage, radioactive and heat wastes into water channels and of expelling noxious and dangerous fumes into the air. Essentially, the discourse, which was contentious in parts, established a positive correlation between environmental pollution and over-population and advanced population control and an adoption of sustainable practices in development as solutions, warning of dire outcomes in the absence of such a shift: Put crassly as “*fouling our own nest*” (Hardin, 1968).

Following the 1972 United Nations Conference on Environment and Development in Stockholm, deliberate action was taken to summarize the critical themes from the conference and the publication that followed propelled the issues relating to the impact of industrial development and ecological encroachment onto the global agenda (Ward & Dubos, 1972). Nonetheless, the concept of sustainability as a development goal emerged later (Brundtland Commission Report, 1987), and gradually morphed into the paradigm of sustainable development that emphasizes *meeting the needs of the present without compromising the ability of future generations to meet their needs*. The sustainable development ‘paradigm’ was influential in shaping thinking about urban development (Barton, 2000; Wheeler & Beatley, 2014; de Jong et al., 2015). The idea of sustainability adds a new dimension to urbanization which describes the movement of population from rural to urban areas as well as the growth of towns and cities in number and size (de Jong et al., 2015). Sustainable urbanization is conceived therefore as engendering a master planning process in which economic efficiency is maximized so that natural resources that are utilized in the creation of ‘smart’ or ‘resilient’ cities connect social, economic and environmental dimensions in a balanced and mutually beneficial way (de Jong et al., 2015; Keles, 2001).

2.1.1 Conceptualizing Sustainable Urbanization

The themes incorporated into interpretations of sustainable urbanization generally straddle the *environmental, economic and social* spheres, that may include *institutions* but which are now designated a degree of separateness as ideas expand. Any attempt to understand sustainable urbanization begins firstly with **environmental protection**, an explicit criterion that is attached to advocacy for durable housing infrastructure, sufficient living areas, access to potable water and suitable sanitation as indicators. Water, mobility and transport, waste, air quality, energy, land use, and climate change are identified as thematic areas of assessment of environmental protection, with each having its own set of indicators. For instance, ‘water’ is assessed by consumption, purification quality, and water sanitation (UN-HABITAT, 2010; Michalina et al., 2021). Others attach environmental protection to the idea of a sustainable city which is designed to incorporate plans for renewable energy sources and efficient infrastructure (de Jong et al., 2015).

Indicators for carbon emission, green-space ratios, waste volumes, recycling rates, water quality, energy consumption and agricultural land loss are considered elemental to attaining the goal of sustainable urbanization (Wheeler, 1996). Which is achieved when three conditions are met: (i) rates of use of renewable resources do not exceed their rates of regeneration; (ii) rates of use of non-renewable resources do not exceed the rate at which sustainable renewable substitutes are developed; and (iii) rates of pollution of emission do not exceed the assimilative capacity of the environment (Elkington, 1997). Clearly, **conservation and a quest for renewable energy sources** are dimensions of environmental protection but in some discourses are distinguishable as an area of focus for policy. The argument is that that while the differential rates in the pace and magnitude of urbanization between countries and regions must be taken into account in determining the scope of the policy, the enduring objective is reducing the need for secure energy supply (Droege, 2018). Thus renewable energy sources as a feature of sustainable urbanization are predicated on the development of energy solutions such as solar power, efficient infrastructure, and eco-cities similar to PlanIT (*planet*) Valley in Portugal and Masdar City in Abu Dhabi, in order to meet energy consumption as well as address environmental degradation (de Jong et al., 2015; Salim, Rafiq & Shafiei, 2017).

Secondly **economic development** is exemplified in sustainable urbanisation by a greener living environment wherein cities offer density and proximity which stimulate innovation, job creation and productivity benefits for firms similar to that of urban regions like Silicon Valley (Rode et al., 2011; de Jong et al., 2015). It is asserted that sustainable economic development is growth as a product of investing profit into the creation of a more sustainable society (Munier, 2004). This investment is manifested in the reduction of industry emissions, sustainable supply chains, process and product innovations and the adoption of efficient technologies in production processes. It is argued that sustainable urbanization policies lead to economic growth which delivers benefits to the poorer parts

of a society through the creation of jobs and more taxes for welfare (Koglin, 2009). The economic dimension of sustainability is composed of two main themes – economy and employment (Michalina et al., 2021). Summarily, the economics of sustainable urbanization ideally connects the full-range of environmental goods with the satisfaction of human needs in terms of consumption, quality of life and work.

Education and training

- Social justice: inter- and intra-generational
- Participation and local democracy
- Health, quality of life and well-being
- Social inclusion (and eradication of social exclusion)
- Social capital
- Community
- Safety
- Mixed tenure
- Fair distribution of income
- Social order
- Social cohesion
- Community cohesion (i.e. cohesion between and among different groups)
- Social networks
- Social interaction
- Sense of community and belonging
- Employment
- Residential stability (vs turnover)
- Active community

Thirdly, **urban social sustainability** which is concerned with the nature of the social goals to be achieved in sustainable development, intimates of the scope and complexity of the social dimension of sustainable urbanization in policy, as well as illustrates the highest degree of conceptual confusion of all the themes. There is an attempt in the literature to distinguish between *urban social sustainability* and *social sustainability*, with little success. However, the result of this dialectic on the one hand, is a categorisation of the relative points of focus into *non-physical factors* that include education and training; social justice; health, quality of life and well-being; social inclusion; and safety, and *predominantly physical factors*, such as urbanity, attractive public realm; decent housing; local environmental quality and amenity; and walkable neighbourhood (Dempsey et al., 2011). On the other hand is the identification of eight focal areas within the social dimension of sustainable urbanization viz., education, health, housing, safety and security, equity (social, economic), social infrastructure, green space, and culture with monitoring indicators that the authors noted differed between developed and developing countries for certain themes. For example education in developing countries would be assessed by literacy rate and school enrolment; while in developed countries it would be quality of education. Culture is monitored through the level of public expenditure on cultural expressions and products (Michalina et al., 2021).

Fourthly, *institutions* or the **institutional** dimension of sustainable urbanization is the deliberate structuring of interactions to achieve balance between different spheres – public, private and civil – in the quest for development. This aspect of sustainable urbanization is further disaggregated into four primary themes - participation, urban planning, environmental management, and governance. The view is that ‘participation’ is assessed through voter turnout and the number of civil associations in operation; while the existence of sustainable and strategic urban and environment management plans are used for urban planning and environmental management. Governance is monitored through the management of public funds, using the total debt per capita of a municipality as the critical indicator (Michalina et al., 2021).

2.1.2 Criteria for Measuring Sustainable Urbanisation

Sustainable urbanization practices establish close linkages between social and economic development and environmental sustainability. But that is as far as clarity on this matter goes. For the exercise of measuring sustainability of anything is an attempt to measure the immeasurable. Aside from the fact that the concept of sustainability generates a myriad of interpretations (see e.g. Wilkinson, Hill & Gollan, 2001; Scoones, 2007; Giovannoni, & Fabietti, 2013; Purvis, Mao, & Robinson, 2019), there is the matter of context which conditions the indicators in application. The result, an abundance of techniques leading to the conclusion that there is no one-size-fits-all approach to sustainable urban development indicators. Two challenges are cited: “the lack of responsible authority and place-specific data,” with a recommendation instead that “indicators must reflect political reality, information availability and a relevant scale of analysis” (Zegras et al., 2004). Prior to the proliferation of measurement techniques, the *triple bottom-line* (TBL) framework (summarized in table 1) was proposed as a way of operationalizing sustainable urbanization (Elkington, 1997).

Table 1. Triple bottom line framework

Pillars	Description	Measurement /Indicator
Economic Prosperity	Economic value of development should be regenerative and promote sustainability for the benefit of future generations	Cost-benefit analysis Contingent valuation Material and energy accounting
Environmental Quality	Adoption of practices in urban development that do no harm or do not compromise the environmental resources for future generations. Emphasis is placed on reducing greenhouse gas emissions, efficient use of energy resources and minimizing the ecological foot-print.	Community indicator programs (CIPs) State of the environment reports (SOE's) GHG emissions per capita and per dwelling Transport alternatives to car travel Water conservation
Social Justice	Factors in people and communities in the development process. Advances that urbanization should provide value to society by raising the quality of life/standard of living for citizens, through human capital development and access to employment opportunities	Median income Housing affordability Sense of community Satisfaction with neighborhood

Sources: (Elkington, 1997; Blair, Prasad & Kehner, 2005).

Summarily the TBL construct acknowledges that urban development specifically, and economic development generally, often have deleterious environmental impacts (i.e. water, land and air pollution; elimination of ecological systems; over-consumption of resources, etc.) so it places equal weight on each of the three pillars in reframing the urban agenda towards goal attainment that promotes balance and coherence in urban development. The TBL combines the three prongs of sustainability, viz., economic prosperity, environmental quality and social justice as critical values against which development outcomes might be assessed, particularly amidst the effects of climate change and growing social and economic inequalities in countries around the world (de Jong et al., 2015; Blair et al., 2005; Wheeler 1996). More recent iteration of sustainability indicators (e.g. Michalina et al., 2021; Zegras et al., 2004) have refined the methodologies, providing decision-makers with copious amounts of conceptual tools and practical techniques.

2.2 The Cons

The *what*, of sustainable development is hardly a contentious matter, as it describes a desirable state that everyone agrees is worthy of pursuit. So while there is general agreement in the literature that sustainability (as in sustainable

development or urbanization) implies patterns of development that can produce intergenerational equity, there is confusion surrounding the *how*. Controversy already exists around *how to measure sustainability*. The traditional view of how to achieve sustainability favours a steady-state economy and maintenance of current infrastructure as important indicators of sustainability. The contemporary position is that reinvestment of profits and charting a path of ecological renewal to expand the carrying capacity of the natural environment to facilitate expansion is a better option. Between these positions is a slew of arguments exposing flaws in policy, either way.

For instance there is the perspective that the tenets of sustainability - integration of conservation practices into development processes; maintenance of ecological integrity; satisfaction of basic human needs; and equity and justice in urban development - have not been observed in actuality in many developing countries. The assertion is that there have been violations of property rights by governments and private investors causing population displacement (Keles, 2001). The suggestion is that the implications of displacement and forced resettlement, and the ramifications for urban sustainability, are not fully understood, giving rise to the urban land debate, contemporaneously (Shannon et al., 2018). The contradictory and unregulated process of sustainable urbanization is evidenced in the fact that an estimated 250–300 million people worldwide have been displaced over the past 20 years because of government land acquisition for development (Zhu et al., 2018). The conceptual dissonance articulated earlier in this section between ‘eco-friendly practices’ vs ‘steady-state economy’ adds another layer to the concerns about how to achieve sustainability.

One position is that sustainable urbanization does not imply one or the other perspective, but rather prevention of further harm to the viability of human existence and ecosystems (Wheeler, 1996). However to achieve sustainability the question of *how* must be confronted, particularly in the context of criticisms that are predicated on the view that sustainable urbanization as a concept is incompatible with human nature, and that mankind embraces religious/cultural beliefs that: (i) advance dominion and exploitation of the natural environment without consideration of cost; and (ii) the ‘paradigm’ is fueled by consumerism and capitalism (Jepson, 2004).

There seems no end to the counter-positions being proffered, with each side making plausible arguments. Thankfully, in the case of developing countries, the SDGs have neutralized the contention as since the early 2000s many countries, especially Caribbean island states, have recast their national development plans with demarcated indicators and specific timelines of between 20-30 years for realizing these, possibly drawing on the conceptual ideas in the discourse in formulating a plan for effecting *how* – methods (Blair, Prasad & Zehner, 2005); Michalina et al., 2021).

3. Method

A random sample of seven countries in the English-speaking Caribbean was selected for assessment of their PIF through desk analysis of the policies and legislation that are established or being proposed to shape the urban agenda in the region. Three main criteria guided selection: similarity in political systems or structure of government, commonality in language and ease of access to information. The countries are The Bahamas, Barbados, Belize, Dominica, Jamaica, St. Lucia, and St. Vincent and the Grenadines. Case studies of three countries outside of the Caribbean that fell within the developing country category, assisted with lesson-drawing on approaches to sustainable urbanization. A major factor influencing the choice of international cases is the ease of access to policy papers on sustainability projects. They are: Egypt, Mexico and Rwanda. Table 2 sets out the dimensions of the PIF supporting sustainable urbanization which generally proposes government action in five areas shown in ‘a-e’.

Table 2. Sustainable urbanization policy-institutional framework

a. Land use policies and planning
b. Infrastructure, housing and finance
c. Municipal administration (management and leadership)
d. Rural development
e. Environmental and sustainability procedures

In a normative sense, pursuit of policies in these areas is considered to be a comprehensive response to the problems of urbanization.

4. Results and Discussion

4.1 The Caribbean

Research is ongoing to grasp fully, the scope of the PIF supporting urbanization policies and strategies as well as to identify the nuances in each jurisdiction. However, even at this early stage, the investigation revealed that a convoluted schema of policies and legislation exists covering several issues pertaining to the challenges of urbanization. Following categorisations in the literature it was found that the *physical* points of focus dominate in regional responses, viz., planning (physical development, town and country); coastal management; urban development; land policy and development; spatial planning; housing; building; local improvement; while the *non-physical* is observable only in local governance but may exist in other intangible or less visible processes (Dempsey et al., 2011).

When the results are placed against the normative framework (see table 2) a general image of the policy-institutional context begins to emerge: All countries in the sample [7/7 = 100%] created an entity (ministry, department or agency) to administer **land use and/or planning policies**. Such an entity derives its authority from legislation that is encompassing or that distinguishes among land use, physical planning and town and country planning. In the case of **infrastructure, housing and finance** all countries surveyed [7/7=100%] had entities assigned the portfolio responsibility for each or a combination of these areas. The aspects seemingly that showed the weakest representation are **infrastructure** and **finance**, but which might be due to the former being incorporated into physical planning or urban renewal and for the latter, the centralized nature of public financial management in these countries dictates a particular approach to funding these policies which is normally through the ministry of finance. One might safely assume that finance is a cross-cutting theme.

Noticeably, informal settlements which is a problematic area for urban sustainability receives limited attention in the majority of the sample. Only a single country isolated this issue for policy attention, that is, St. Vincent and the Grenadines. Perhaps plans and programmes aimed at dealing with informal settlements form components of housing policies or urban renewal strategies. But given the potential for this issue to stymie gains towards sustainable urbanization the expectation is for it to be prioritized. One way of doing this is to create identifiable mechanisms to process and respond to the demands that fuel informal settlements. Simply put, informal settlements or the solutions relative to the phenomena must appear in the name of any entity that handles the issue to demonstrate purposive action.

With respect to the remaining three imperatives of sustainable urbanization, the results are: 71% [5/7] had institutionalized **municipal administration** in the form of elected local governments; 29% [2/7] had non-elected administrative structures at the subnational level. The focus at the subnational level appears to be infrastructure maintenance; town planning; control of land usage and area improvement. Jamaica's Local Governance Act 2016 mentions urban renewal and rural and community development and Belize's City Council Act 1999 suggests that the resolution of urban problems is the intent. An urban agenda is muted at this level though, suggesting generally that urbanisation policy strategies are the prerogative of central government in the region. **Rural development** was a priority area for a minority - 29% [2/7]. Not surprisingly, all countries in the sample [100% [7/7], created a framework for **environmental and sustainability procedures** that might be taken an organic response given the natural environmental threats that these territories face and which framework reflects to a large degree the values articulated in reformulated National Development Plans.

On the face of it, the PIF reflects to significant degrees key focal points of sustainable urbanization. The trouble is the quality of this framework, that is, whether mission and strategy uphold principles and values that sustain policy cohesion around sustainability. For instance Jamaica possesses the most intricate land use policies and urban planning frameworks. There are more than one hundred (100) pieces of legislation that deal with land usage; the principal laws being the Parish Councils Building Act, Town & Country Planning Act, Town & Country Planning (Development Orders) and the Local Improvements Act. Further, Development Orders represent one of the foremost guidance instruments within this policy framework. This institutional thickness illustrates that responsibility for urban policy is distributed across central government, local government and statutory bodies. An assessment of the legislation that enables a type of municipal administration in the sample of countries revealed provisions that target problems of urbanization that connect physical and non-physical factors.

Cityscapes are isolated for policy attention. However, a deficit is observed in implementation as local governments are not always high performers in enforcement of rules and regulations or maintenance of infrastructure in the region. The most recent case is that of the Kingston and St Andrew Municipal Corporation's (KSAMC) handling of development approvals and enforcement of building permits, which a December 2020 ruling of the Supreme Court concluded was in breach of the law. Interestingly the National Environment and Planning Agency (NEPA)

was named in the judgement indicating a degree of institutional inefficacy relative to the pursuit of sustainable urbanization in Jamaica.

Which leads to the conclusion that an urban agenda is not an ideological construct per se of the existing PIF in the region. Nor is sustainable urbanization. Policy approach to, and legislative action on, the challenges of urbanization are sweeping and *ad hoc* in character, in that, they imply a wider scope for government action with insufficient emphasis in many cases, on sustainability. National Development Plans (NDP) may be considered the most recent and comprehensive additions to the framework but with legislation and policies that predate ideas associated with sustainability it is difficult to discern institutional consistency around an urban agenda. From the cases studied, it would appear that urbanization does not form an overarching thematic area for policy but instead is handled via secondary/subsidiary legislation, which in a few instances, deals with just an aspect of urbanization suggesting that the complexity of the phenomenon might be overwhelming. The default position is climate change that has emerged as a constant in sustainable development dialogue in the region. One contradiction is that rural development is a focus for policy in all but one of the jurisdictions in the sample, but it is difficult to identify roll-out of quantifiable programmes or plans. This finding infers an urban bias in development, but to what end?

There is evidence of inchoate steps being taken in a few jurisdictions towards updating extant laws and policies and to rationalize organisations to make them fit for purpose in relation to meeting sustainability criteria against the background of the SDGs. The motive behind government actions is not always clear. For instance, since the 2020 general elections in St. Vincent and the Grenadines, the Ministry of Housing, Informal Human Settlements, Land and Surveys and Physical Planning has been disbanded. In its place are two new ministries, viz., (a) Ministry of Urban Development, Energy, Airports, Seaports, Grenadines Affairs and Local Government; and (b) Ministry of National Mobilization, Social Development, The Family, Gender Affairs, Youth, Housing and Informal Human Settlements. Urban policy competes with other important policy sectors in the Caribbean. It could be that the size of the country is an intervening variable in how portfolio responsibilities are allocated or combined. Table 3 presents a mosaic of the PIF in relation to urban policy in the Caribbean.

Table 3. Sampling the Institutional Framework Relative to Urban Policy: The Caribbean

Country	Policy/Legislation	Responsible Ministry, Department or Agency (MDA)
The Bahamas	Planning and Subdivision Act (2010)	Primary Organization <ul style="list-style-type: none"> ○ Ministry of Public Works ○ Department of Physical Planning Secondary Organization <ul style="list-style-type: none"> ○ Ministry of Environment and Housing
	<ul style="list-style-type: none"> ○ Planning and Development Act (2019) ○ Coastal Management Act CAP. 394 1998 ○ Urban Development Commission Act (Cap. 241) 1997 ○ The Town and Country Planning Act, Cap. 240 (1985) 	Primary Organizations <ul style="list-style-type: none"> ○ Ministry of Finance, Economic Affairs and Investment ○ Town and Country Development Planning Office Secondary Organizations <ul style="list-style-type: none"> ○ Ministry of Housing, Lands and Rural Development ○ Urban Development Commission
Barbados	<ul style="list-style-type: none"> ○ Belize Land Development Authority Act Chapter 181 (1980) 	<ul style="list-style-type: none"> ○ Ministry of Infrastructure Development & Housing ○ Housing and Planning Department
	<ul style="list-style-type: none"> ○ Physical Planning Act (2002) 	Primary Organization <ul style="list-style-type: none"> ○ Ministry of Economic Affairs, Planning, Resilience and Sustainable
Dominica		

		Development, Telecommunications and Broadcasting <ul style="list-style-type: none"> • Physical Planning Division
		Secondary Organization <ul style="list-style-type: none"> ○ Ministry of Housing and Urban Development
	Policy <ul style="list-style-type: none"> ○ The National Spatial Plan (In Progress) ○ Land Policy of Jamaica (1997) 	Primary Organizations <ul style="list-style-type: none"> ○ Ministry of Housing, Urban Renewal, Environment and Climate Change ○ Urban Development Corporation ○ Municipal Corporations ○ Ministry of Local Government and Rural Development ○ National Environment and Planning Agency (NEPA) <ul style="list-style-type: none"> • Town and Country Planning Authority
Jamaica	Legislation <ul style="list-style-type: none"> ○ Local Governance Act, 2016 ○ Urban Development Corporation Act, 1968 ○ Housing Act, 1968 ○ Town Country Planning Act, 1958 	Secondary Organizations <ul style="list-style-type: none"> ○ Housing Agency of Jamaica ○ Planning Institute of Jamaica ○ Jamaica Social Investment Fund
	Other Land Usage Acts <ul style="list-style-type: none"> ○ Building Act, 2017 ○ Parish Council Building Act, 1952; ○ Local Improvement Act, 1914; 	
	Policy <ul style="list-style-type: none"> ○ National Land Policy Cabinet Conclusion 263 of 2018 	Primary Organizations <ul style="list-style-type: none"> ○ Ministry of Economic Development, Housing, Urban Renewal, Transport and Civil Aviation <ul style="list-style-type: none"> • Physical Planning and Development Division <ul style="list-style-type: none"> - Development Control Authority • Housing and Urban Renewal Department <ul style="list-style-type: none"> - Project for the Rationalization of Unplanned Development (PROUD)
St. Lucia	Legislation <ul style="list-style-type: none"> ○ Crown Lands Act Chapter 5.08 (2018) ○ Physical Planning and Development Act Chapter 5.12 (2005) 	
	Policy <ul style="list-style-type: none"> ○ The Physical Development Plan is currently being updated. ○ The National Housing Policy has not been finalized. ○ The National Land Policy is under review 	Primary Organizations <ul style="list-style-type: none"> ○ Ministry of Urban Development, Energy, Airports, Seaports, Grenadines Affairs and Local Government ○ Ministry of National Mobilization, Social Development, The Family, Gender Affairs, Youth, Housing and Informal Human Settlements
St. Vincent and the Grenadines	Legislation <ul style="list-style-type: none"> ○ Town and Country Planning Act (No. 45 of 1992) 	

With respect to the paradigm of sustainable urbanization, it appears that the PIF in the jurisdictions under review shows strong fidelity to a view in the literature that in as much as sustainable development has been accepted as a conceptual framework for local planning, there continues to be difficulty incorporating the full range of its

components into policy (Kiamba, 2012; Munier, 2005; Wheeler, 1996). Table 4 shows that the jurisdictions under review in the Caribbean have largely responded positively to the broad notion of sustainability but one may conclude that an urban agenda and in particular, sustainable urbanization is still no more than an undeveloped idea both in concept and praxis.

Table 4. Responsiveness to Sustainability Thema: The Caribbean

Tenets of sustainable urbanization policy	Select Countries in the Caribbean						
	<i>The Bahamas</i>	<i>Barbados</i>	<i>Belize</i>	<i>Dominica</i>	<i>Jamaica</i>	<i>St. Lucia</i>	<i>St. Vincent and the Grenadines</i>
<i>Land use policies and planning</i>	√	√	√	√	√	√	√
<i>Infrastructure, housing and finance</i>	√	√	√	√	√	√	√
<i>Municipal administration (management and leadership)</i>	√	No formal local government	√	√	√	No formal local government	√
<i>Rural development</i>	Not identifiable in titles of MDAs*	√	√	√	√	√	√
<i>Environmental and sustainability procedures</i>	√	√	√	√	√	√	√

Results based on sample.

*MDA = ministry, department, agency

4.2 International Cases

A quick study of sustainable urbanization policy strategies at the international level reveals that the areas of focus differ at times between jurisdictions seemingly dependent on the nature and scope of the problem. There is a preoccupation with cities and townships, but housing and land administration, as well as environmental procedures are priorities. Importantly, at any given juncture, policy responses are framed within a philosophy that enounces certain principles and values that promote even-handed or pluralist approaches. For instance China's Coordinated Urban and Rural Development (CURD) approach targets urban-rural disparity in development through land use reform. CURD's ideological proposition is that *rural residents should have comparable welfare status as their urban counterparts* (see e.g. Li, 2017). From India's experience, an *ecosystems approach* is identified, while specific to the Indian State of Kanartaka, *balanced urban development* is promoted, *that combines the development processes of small, medium and large cities* in the quest for sustainable urbanization (Saraswat et al., 2022; Sastry, 2009). The Symbiocity Approach attributed to the Swedish Government promotes *a holistic, integrated and multidisciplinary approach to sustainable urban development* that elevates the role of the subnational sphere in the process. It is presented as a conceptual framework as well as a flexible guide, adaptable to local conditions and needs (Ranhagen & Groth, 2021). Housing and land administration on the other hand, are contentious areas for policy given the tensions among 'market enabling,' 'shelter for all' and 'progressive urbanism' that illustrate unconventional modalities. The intensity of the political bargains linked to government oversight of housing and land administration, especially in developing countries makes these areas critical to urban sustainability objectives.

Closer examination of sectoral policy responses in three countries, outside of the Caribbean - Egypt, Mexico and Rwanda – illustrate.

4.2.1 Case 1: Egypt – *New Administrative Capital*

Policy actions in pursuit of urban sustainability in Egypt starts with the city. The concept of 4th Generation Cities is used to distinguish current efforts at sustainable development from previous ones. Thus sustainable development strategies rest on the guiding principle that *every city will have a sustainable design that provides high living standards for its residents* (Hussein & Pollock, 2019). Inherently policy strategies value quality of life factors simultaneously with sustainable infrastructures. Besides the New Administrative Capital, other 4th Generation Cities are New Alamein City, New East Port Said City, New 6th of October City and New Luxor City, that altogether reportedly cover an area of 580,000 acres and are expected to accommodate 30 million people. Egypt tackles the challenges associated with urbanization this way: Rather than expanding the geographic boundary of Cairo, the country's current capital city, the government has commenced construction of a new administrative capital to be located east of Cairo. Construction of a new capital forms part of a *coordinated* approach to urban policy in that modernization of urban spaces is connected to de-concentration of economic activities and provision of housing.

By 2027, Cairo is expected to have a population of 24 million people which would make it the largest city in the Middle East and one of the largest cities on the African continent (Hussein & Pollock, 2019). With an increase in population size come problems such as air and noise pollution and diminished carrying capacity in terms of infrastructure and services (World Bank, 2013). The new capital is anticipated to accommodate 7 million citizens in 100 districts with 21 residential areas. Spatial planning for the new administrative capital designates space for government offices, a new parliament and a presidential palace. Development of 250 km of roads, to be complemented by construction of a monorail and a new international airport are expected to alleviate traffic congestion, one of the problems experienced in Cairo (Serag, 2017).

The design of the new administrative capital city factors in more than 600 health care and educational facilities with renewable solar energy to be the primary source of power. Provision of social housing, recreational parks and green spaces signal social justice imperatives in the midst of a quest for inflows of revenue to the city (Lewis & Abdellah, 2021). From the description of the project there is evidence of policy concentration on two broad groups of sustainable urbanization policy frameworks, viz., (i) infrastructure, housing and finance; and (ii) environmental and sustainability procedures. However, integral to the process are quality of life objectives that are targeted deliberately against the normative backdrop of the SDGs.

Despite the projected benefits – regional development that can lead to greater social equity, adequate carrying capacity and evolution of smart cities throughout the country - questions are raised in public discourse in Egypt around issues such as accessibility of this new city to the poor. Significantly there are concerns about greater degrees of urban sprawl as the new city merges with the old to form a megalopolis. Already urban sprawl has been observed in satellite cities located nearby (Serag, 2017; Lewis & Abdellah, 2021; *The National-Opinion*). Intuitively, the effectiveness of the strategies being proposed or implemented depends on the extent to which the other tenets of sustainable urbanization are adopted as policies. However sustainable development in Egypt features megaprojects focussed on infrastructure.

4.2.2 Case 2: Mexico – *Housing*

Mexico has a complex history of policy-institutional responses to urbanization problems which for obvious reasons will not be included in this paper. The goal of increasing the population's access to housing has been constant though outcomes have been paradoxical at times. Mexico's housing policy regime like the rest of Latin America, is characterized as welfarist, being more conservative up to the 1980s and liberal post-1980s. Three distinct periods in the development of housing have been identified: (i) 1930s–1960s: *minimal state intervention*; (ii) 1970s–1980s: *the institutionalisation of housing policy*; (iii) 1990s–2000s: *market-centred reforms*. The 1970s–1980s represent a watershed in social policy reforms as housing became the epicenter of government's response to socio-economic difficulties in which urbanization played a role. The Workers' Housing Fund National Institute (Instituto del Fondo Nacional de la Vivienda para los Trabajadores - INFONAVIT) and the Housing Fund of the State Workers' Social Security and Services Institute (Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado - FOVISSSTE) were created in 1972 (Leyer, 2015;).

INFONAVIT was designed on a social insurance logic which meant beneficiaries were wage workers in the formal sector. It was responsible for 'planning and coordinating housing developments utilizing sub-contractual arrangements with private companies in construction.' It granted 'soft loans to formal private sector workers for purchasing, construction or upgrading of housing units.' INFONAVIT functioned on a tripartite agreement

involving ‘recognised trade unions, employers’ organisations and the state.’ Its fund-base was a payroll tax of 5 per cent of wages paid entirely by employers. FOVISSSTE had a similar design to INFONAVIT, but targeted public sector workers with loan conditions that were generous. Military and workers of the state oil and electricity companies benefited from a smaller fund created for them. The matter of irregular/informal settlements was addressed through the National Fund for Popular Housing (Fondo Nacional de Habitaciones Populares - FONHAPO) that was established in 1981 and which gave subsidies for the construction or upgrading of homes to segments of the population that were not totally integrated into the formal economy or that benefited from INFONAVIT and FOVISSSTE (Leyer, 2015).

Reportedly, workers who accessed mortgages via INFONAVIT represented the fastest growing group of home ownership in Mexico (INFONAVIT’s contribution to private housing development 2013), making the entity the largest source of mortgages within Latin America. The housing deficit in Mexico fell by 6 percent and between 2000 and 2012, an estimated 4.5 million mortgages were provided by INFONAVIT which doubled the number of mortgages provided between 1972 and 2000). Together, INFONAVIT and FOVISSSTE were responsible for the dramatic rise in the number of public housing loans in the country, which moved from 51,000 in 1973 to more than 250,000 by the mid-1980s. In some quarters INFONAVIT is credited with the success achieved in the expansion of housing opportunities for Mexicans since the early 2000s. Policy strategies that shifted the focus of the government from construction to providing finance, enabled scale-up in the construction of housing, especially for low-income groups (The New Economy, 2013; Bredenoord & Montiel, 2014; Kim & Zangerling, 2016; Mexico, SEMARNAT, 2011).

Despite the successes, analysts point to flaws in the policy-institutional responses. At the fundamental level, construction often occurred on the periphery of cities with consequences for the design of cities, in particular the emergence of urban sprawl suggesting non-adherence to planning and zoning guidelines in some instances. Location of housing settlements great distances from city-centres posed challenges for lower income households. Usually these areas lack services and employment opportunities resulting in long commuting times to the city. And given an increase in recent years in the number of vacant housing units in these settlements the effectiveness of the policy is being undermined by seemingly weak coordination and limited attention to other elements in the equation of sustainable urbanization broadly, but more specifically to a cohesive planning framework in which supporting infrastructure such as transportation is prioritized (Burnett, 2014).

One argument is that provision of housing in Mexico is ‘fragmented and unequal,’ an outcome that is linked to the dual nature of social policy in which population groups are excluded on account of their socio-economic status. Recent reforms have seen social policy being expanded to groups that were previously excluded. Whereas INFONAVIT and FOVISSSTE represent a salutary step for housing policy, their growth was argued to be slow so that by 1989 both funds together were granting no more than a total of 100,000 loans. There have been claims of nepotism and clientelism associated with access to housing solutions in Mexico that combined with adoption of neo-liberal ideas of public provision, led to reforms to the operations of INFONAVIT and FOVISSSTE as well as reforms to housing funding and construction from the 1990s onwards (Leyer, 2015).

Perhaps the most important lesson from Mexico’s sustainable urbanization policy strategies is how the nature of institutions shapes outcomes. Public provision of housing is the quintessential arena for political conflict and demands consistent coordination and evaluation capacities. When connected to sustainability goals as is the current remit of all countries it implies that social justice objectives take precedence. Thus the extent to which policy strategies stay true to elements of the normative framework, in this case, - (i) infrastructure, housing and finance, and to some extent, (ii) environmental and sustainability procedures, is a function of the way in which institutions are structured.

4.2.3 Case Study 3: Rwanda – *Integrated Urban Design Framework*

Rwanda has utilized a number of strategies based on the idea of integration of systems to manage urbanization within the country and to achieve sustainable outcomes. These include declaration of a master plan; investments in infrastructural development, a priority of which is increasing access to housing and land via land registration and titling; deployment of green urbanization strategies; adoption of policy and programmes geared towards rural development; and initiation of plans towards a coordinated national transportation system (Murray, 2015).

Land use policies and planning are priority areas for government action in Rwanda. The Kigali Master Plan 2050 is framed within the SDGs and seeks to make cities and human settlements inclusive, safe, resilient, and sustainable. It also exhibits the new urban agenda promulgated by UN-HABITAT. Thus *Kigali aims to become the City for Citizens that respect the needs of various groups of people to create a home for all. It essentially focuses on the provision of mixed-use neighborhoods, affordable housing, and participatory rights for all its population to live*

in an inclusive environment, together with the development of public spaces and social facilities (Kigali City Masterplan 2050). Within this overarching framework have been activities such as the passage of the Land Use Planning Law (2012) and the creation of a Land Use Development and Master Plan (Ericsson & Lindberg, 2018).

Under consideration are two new population centres (cities) that are projected to accommodate more than a million inhabitants and which strategy is included in the 2050 vision, signaling infrastructural development and spatial planning as policy priorities. The design of the new cities is expected to demonstrate sensitivity to the new urban agenda that requires that the needs of inhabitants be taken into account. Part of the planning process involves examining the feasibility of non-motorized modes of transport within city boundaries. An integrated transportation system forms a critical component of Rwanda's sustainable urbanisation strategies in view of the fact that in Kigali, for example 60%-70% of commutes are on foot (Bajpai, 2014). Additionally, as one of the most densely populated countries in Africa, a well-coordinated and connected transportation system is a necessary component of its sustainable development path (Bower & Buckley, 2020).

Sustainability is pursued as well through emphasis on housing and rural development. The rising cost of housing in areas such as Kigali manifesting in escalating rental charges combined with insufficient affordable housing stock results in segments of the population, usually lower income groups, living on the periphery of cities, and contributing to urban sprawl (Bajpai, 2014). To tackle the issue of inadequate housing government has invested in the construction of low- and middle-income housing as well as implemented land registration and titling programmes. The government has also sought to regulate private construction which is carried out through the Rwanda Housing Authority that has lifted its ban on the use of mud bricks and instead provides guidelines on how to incorporate these materials into the construction process (Bower & Buckley, 2020). Simultaneously, the Integrated Rural Development Programme (IRDP) has been implemented with the aim of creating model villages with basic amenities in every district of the country (Biruta, 2016; Muvunyi, 2016). The IRDP falls under the Rural Settlement Policy that is geared towards the long-range goal of transforming rural settlements into planned communities.

Clearly these strategies demand deeper analysis. But on the face of it, one might discern from the priority actions taken, Rwanda, *from the get go* has reflected, 80% [4/5] of the elements hypothesised to be critical when a country is on a path towards sustainable urbanization. These are (i) land use policies and planning; (ii) infrastructure, housing and finance; (iii) rural development; and (iv) environmental and sustainability procedures. Analyses have acknowledged the role of leadership in sustainable urbanization policy making and implementation. For instance, the Rwandan government has greater enforcement capacity compared to other developing countries, which ensures that building codes, for example, are adhered to (Bower & Buckley, 2020; World Bank Group & Government of Rwanda. (2020). For each group of sustainability imperatives, Rwanda's policy-institutional responses illustrate a common theme – integration – thereby meeting the foremost value of an optimally designed policy-institutional framework.

4.3 Institutional design for urban sustainability: Social Learning

The approaches to sustainable urbanization reviewed in this paper indicate a high degree of institutional diversity. The pendulum swings between institutional coherence and incoherence, not because of inadequacies on the part of decision-makers but mostly on account of an apparent underestimation of the level of complexity that is inherent in the pursuit of sustainability. In fact sustainable urbanization policy strategies appear to solve one problem and create other problems as illustrated by Mexico's housing developments, or Egypt's 4th Generation Cities roll-out. Both sets of case studies of institutional design for urban sustainability revealed some variance in government responses. For instance, policy overtures in the sample of Caribbean countries mirror to a large degree normative dimensions of sustainable urbanization but domestic policy praxis has not followed through with detectable programmes. Which makes it difficult at this stage to make conclusive statements on policy or strategy efficacy as more research into goal specification and implementation plans is needed. Assessment of the sample of countries outside the Caribbean showed that governments in these jurisdictions have prioritized a problematic area for urban policy for attention within the broader frame of sustainable development. Thus at the international level, sustainable urbanization strategies appear to be project-based vis-à-vis their 'sweeping' nature in the Caribbean.

Clearly an urban agenda is multi-disciplinary as it is multi-sectoral. Authentication of sustainable urbanization in particular, demands a quantum of resources, chief among which are high level competences and skills in forecasting and scenario planning, sequencing and coordination of policy actions, and monitoring, evaluation and reform to be embedded in institutional design irrespective of the problem. The incremental approach to policy action on sustainable urbanization as an overarching goal in the Caribbean, might appear to be at variance with the international setting, at least anecdotally. Perhaps because lesson-drawing in the absence of appreciative inquiry

into the *gestaltism*, a concept borrowed from psychology to illustrate that each geographic setting from which the lessons are taken is considered a whole that is more than the sum of its parts. *Gestalt* in relation to policy learning is explained this way (Rose, 1993):

“...even though similarities exist between programs and governments, they are unimportant by contrast with the unique configuration of attributes within each society.”

Essentially the degree of adoption of new concepts and ideas in policy decisions is dictated by the context. Simply put, deeper study of the actual remit of each MDA in the region would assist in clarifying the obstacles that governments in the Caribbean must overcome in order to activate an agenda for urban sustainability.

5. Conclusion: Further Research

Any conclusion being drawn at this stage of the research would be tentative since there are areas for deeper study and analysis. However there are some incontrovertible findings to date:

- a. Policies and legislation in the Caribbean respond in large measure to the challenges of urbanization. However the PIF is dense with responsibility for urban policy spread across levels of government with very little evidence of coordination.
- b. At the international level cities and townships come in for early policy attention in pursuit of sustainability objectives. However, housing and land administration, as well as environmental procedures are priorities, indicating policy segmentation as the approach to achieving specified objectives such as housing for the lower or middle income groups, land tenure, greater social equity between urban and rural areas, or improved quality of life for inhabitants of urban spaces (cities).
- c. From the two sets of cases, an urban agenda is a more substantive undertaking than perhaps is appreciated; it is a political, social and an economic agenda; it concerns the nature of the political community and how participants in that community see themselves – whether as active participants or otherwise. These elements appear to be better understood in the international sphere than in the Caribbean.
- d. Urbanization problems and solutions are multi-dimensional and requires current organisational settings to make a quantum leap into adopting new types of interactions outside of silos which characterize public and policy management in developing countries including small territories like the Caribbean. Rwanda’s experience is an exception to the norm evidenced in the type of policy innovation, even in a developing country context.
- e. An integrated approach to sustainable urbanization policy seems obvious but policy actors in the Caribbean must overcome the predilection towards path-dependence as well as the penchant to erect institutional obstacles in order to maintain the current status quo.
- f. Sustainable urbanization in the Caribbean is an undeveloped idea both in concept and praxis. Even though all the countries under review demonstrated policy overtures towards the imperatives of the sustainability ‘paradigm,’ programme implementation remains insufficiently scaled to make an impact. *Policy talk is strong; policy action is weak!*
- g. Lessons from the global space reinforce the importance of leadership at the macro level to set the tone for systemic response.

The review of select Caribbean jurisdictions and the sample of countries outside of the Caribbean bares a common thread – the absence of an activist role for local government in resolving urban problems. Or is that the case? Are urbanization problems in Caribbean countries as well as elsewhere, the prerogative of central government? This is the direction in which this research continues, to ensure that there is clarity on the role of the subnational sphere in achieving sustainable urbanization.

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Notes

Note 1. The descriptors - *hardware* and *software* - were found in the OECD/Economic Research Institute for ASEAN and East Asia's (2018) publication where they were used in relation to SME policy design, but are found to be quite useful in amplifying the idea institutional design in this paper.

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