Sustainability in City-Regionalism

Subjects: Urban Studies

Contributor: Philip Harrison

Sustainability concerns transgress jurisdictional boundaries compelling multi-scalar and inter-jurisdictional responses. The city-region is one of the scales at which governance actors may mobilise for sustainability and this is now recognised in literatures on integrated food systems, for example. However, within the mainstream debates on city-regions, sustainability as a motivation for inter-jurisdictional governance is still given scant attention. In practice also the connections between city-regionalism and sustainability are often limited and fractious. However, there are emergent practices which offer the potential for a stronger relationship, especially where there are growing pressures for addressing environmental threats and spillovers at the regional scale.

city-region   urban sustainability   environmental politics   environmental governance   BRICS

comparative method

1. Introduction

The stretching of the urban landscape across multiple governmental jurisdictions presents confounding challenges of coordination and collective action in addressing sustainability concerns. Earlier writing on sustainability focussed on the global, national, and local scales of action but there is now growing attention to the *multi-scalar* nature of environmental governance, and to intervening scales such as the city-region that do not correspond to the traditional levels of the governmental hierarchy.

Sustainability literatures have drawn on the idea of a city-region in offering an integrated food systems approach; exploring strategic sites for energy transitions; and investigating policy and planning tensions across the objectives of competitiveness and sustainability. In the city-region literatures, however, there is still very limited reference to the sustainability dimension. In the mainstream literature there are two dominant threads to the discussion. First, there is a literature that focuses on the economic rationale for the development of city-regions, emphasizing the logics of agglomeration, growth, innovation, and competition, and here there is little, if any, reference to sustainability as a motivation or logic for city-region governance.

There is, however, a countervailing literature that has emphasized the political construction of the city-region and diversity of drivers toward city-region governance. While this literature has not *focused* on the sustainability rationale for city-region governance, emphasizing rather the political interests and conflicts behind city-region formation, it acknowledges sustainability among a multiplicity of motivations for city-region governance which may overlap or exist in parallel with each other. In addition to the territorial interests of political players these drivers may

include social demands for a redistribution of public benefits; the spatial integration agendas of planners; and a concern by environmentalists to address externalities and spillovers through collective action on a regional basis.

There is an emergent third strand of work which acknowledges that concerns with sustainability have not seeped deeply into the policies and debates around city-regions but argues that the scale of the city-region invites collective learning and practices that would support sustainability. In the sections below, the need for such a vision is implicit, but the focus is on understanding the existing links between city regionalism and sustainability drivers within selected contexts. This follows Addie and Keil (2015) who call for a careful exploration of "real existing city regionalism" which acknowledges that "regionalism is neither a mere normative ideational construct nor a set of predictable practices, but a contested product of discourses (talk), territorial relationships (territory) and technologies (both material and of power)"[1].

2 Insights from the BRICS

The use of BRICS cluster to provide these contexts is intended as a contribution to broadening the geographic foundation of the literature. While the BRICS have attracted some attention in the literatures on both city-regions and urban sustainability, they remain significantly underrepresented in scholarly work, given the reality that 40 percent of cities on the database of the Population Division of the Department of Economic and Social Affairs of the United Nations, and five of the ten largest city-regions globally, fall within this grouping of five countries. The BRICS are an immensely diverse grouping in terms of physical size, population, economic structure, growth, constitutional arrangement, political culture, and it is this diversity which provides valuable comparative insight.

It is also a cluster which faces, as indicated in the table below, major sustainability threats which are often most intense in the large agglomerations (or city-regions).

Table 1. Sustainability Indicators for the BRICS (Source: UNDP).

Indicator	Brazil	Russia	India	China	South Africa	World
Fossil Fuels as a Percentage of Total Energy Use, 2013–2015	59.1	92.1	73.6	87.7	86.8	80.6
Carbon Dioxide Emissions per Unit of GDP, 2017	0.15	0.48	0.26	0.45	0.62	0.26
Mortality atTributed to Household and Ambient Air Pollution per 100,000 of Population, 2016	30	49	184	113	87	114
Mortality atTributed to Unsafe Water and Inadequate Sanitation per 100,000 of Population, 2016	1.0	0.1	18.6	0.6	13.7	11.7
Freshwater Withdrawal as a Percentage of Total Renewable Water Resources, 2007–2017	0.8	1.4	33.9	20.9	37.7	7.7

Indicator	Brazil	Russia	India	China	South Africa	World
Domestic Material Consumption per Capita, 2017 (tonnes)	17.4	16.9	5.5	25.0	11.3	12.3
Degraded Land as a Percentage of Total Land Area, 2015	27.0	6.0	30.0	27.0	78.0	20.0
Percentage Change in Forest Area, 1990–2016	0.8	−9.9	+10.8	+33.6	0.0	−3.0

dressing sustainability concerns. The first limitation rests in the scantiness of the current practice of city-regionalism. The current structures of city-region governance are hardly adequate to the task of addressing the complex, cross-cutting concerns of environmental sustainability. There are no instances in the BRICS where there are functional, multi-facetted forms of city-region governance across all major urban regions. In Brazil, the fitful progress towards regional-scale collaboration is in apparent reverse; in Russia, meaningful collaborations in the two largest urban regions are limited to the transport sector; in India, city-region governance remains severely hamstrung by state-level interests; while in China and in South Africa, the discursive focus on 'city clusters' and 'city regions' has still to find a clear expression in governance arrangements.

A second limitation rests relates to the spatial scales at which sustainability concerns can be addressed. In the case of Russia, China and South Africa, the extreme carbon dependence of national economies can hardly be addressed by interventions at the scale of a city-region. There may be more space for regional interventions in China than in the other case as municipalities are empowered to provide their own electricity supply, and there is national support for changing the energy profile away from fossil fuels. In Russia, however, national support for a sustainable transition remains ambiguous while in South Africa a policy commitment to reducing carbon-dependence has not been matched by the necessary changes in institutions and regulations. Electricity-production remains overwhelming in the hands of a single national state-owned enterprise that is locked into a coal-based pathway.

The water sector is different and regional approaches to supply and distribution are more common. There is however often a significant disjuncture in the territorial requirements for water security and the delineation of city-regions for other purposes (for example, using criteria of economic linkage, commuting flows or contiguous urban footprints). The governance of water supply is generally constructed around river catchments and the demand for water from large urban agglomerations often requires the harnessing of water from more than one catchment, with complex technical arrangements for inter-basin transfers that extend territorially far beyond the reach of a city-region. In the case of the GCR in South Africa, water is sourced from as far as the Lesotho highlands in a grand transnational water transfer scheme while the massive South to North Water Diversion Project to support Beijing extends deep into central China. As the "ultimate survival good"[20], water security may compel regional-scale collaboration but it may also provoke intense conflict as in the case of the inter-state rivalries in India or, more locally, within the structures of water governance in the São Paulo Metropolitan Region.

Air pollution is another example of territorial mismatch. Urban agglomerations are the source of much of their own pollution and steps can be taken to clean their own backyards (for example, through a shift to public transport and stronger regulation of polluting industries). The most effective examples of sector-based city-region governance may, in fact, be in relation to the management of transport systems. In the case of the BRICS the Joint Councils on Transport Coordination in the Russian Federation are examples. However, there are many contexts where causes of air pollution are geographically expansive, and where more complex inter-scalar governance arrangements, and additional forms of horizontal coordination, may be required as a response. This is the case for Greater Delhi where air pollution is the outcome of interlocking rural and urban causes in the dense agglomeration of settlements crossing state and national boundaries in the 1 700 km Indus Valley. In South Africa, prevailing winds draw into the GCR the severe SO_2-related pollution from the mega cluster of coal-fired stations across the provincial boundary in Mpumalanga.

The third limitation relates to the politics of sustainability. Even where structures of city-region governance are in place, and sustainability concerns can be meaningfully addressed at the scale of the city-region, there is no guarantee that sustainability concerns will be addressed. Much depends on the configuration of power and interests within the city-region. Historically, sustainability concerns have not figured strongly in the agendas of the political elites in the BRICS nationally, and at regional- and city-scales. In Russia it does not pay the elites to shift from a growth path premised on cheap carbon-based energy. In China, the early reform era was characterised by a doctrine that may be described as growth at all costs, and the doctrinal commitment cascaded down the governmental hierarchy. In India, the developmental ideologies of the post-colonial elite supported industrialisation and the development of modern infrastructure such as large dams without evident concern for environmental consequences. In South Africa, post-apartheid state and society, the elites are under immense pressure to respond to the immediate economic and social consequences of apartheid, with far less pressure to address the mounting environmental crisis.

There are tough constraints in forging a strong nexus between city-regionalism and sustainability, but there are also emergent possibilities revealed through the BRICS study which provide a platform for collaborative action in the future. Brazil has been on an uneven path towards stronger regional-scale collaboration and the current reversal will, hopefully, not prove permanent. Emergent practices including voluntary collaborations between municipalities, more formally structured metropolitan councils and regionally structured water committees provide a resource for future collaborations. Brazil has the advantage of non-carbon-based energy supply, but must still ensure integrated transport systems, water security for its largest cities, and improved environmental conditions in its *favelas,* or informal settlements.

The post-Soviet story in Russia is of the disintegration of regional-scale collaboration but there has been a recent return to partial, and sector-specific, forms of collaboration, that offers a demonstration effect for integration in other domains. The aggravation of severe road congestion, rather than an environmental commitment, goaded national authorities to compel regional actors to collaborate around transport, and the practical consequence of other types of environmental damage may produce new forms of regional-scale interaction.

In India, a succession of initiatives to support collaborations at metropolitan- and city-region have been undermined by powerful state interests and weakly developed local authorities. However, the politics is changing as the consequence of the environmental crisis for daily life is becoming increasingly unbearable. Whereas the shocking environmental conditions of India's slums previously affected the economically and political marginal, the severe levels of air pollution, and threats of water cuts, impact also on the lives of the elites. India's high courts have been the leading edge of a new environmentalism but, increasingly, other agencies of government will need to show their environmental commitment if they are to ensure sustained legitimacy and this may drive new regional-scale collaborations. In China, there has already been a significant shift towards and sustainability rationale for city-region scale collaborations. The devastating environmental consequence of a decades-long economic boom has compelled China's leadership to shore up its legitimacy by emphasising environmental reconstruction. In South Africa, environmental concerns are only gradually synthesising with developmental concerns but the recent work of the GCRO has brought environmental concerns into discussion around city-regionalism.

City-regionalism is not the panacea for sustainability and comes with multiple challenges but it does potentially play a productive role within a wider framing of inter-scalar governments which allows sustainability challenges to be addressed simultaneously through different forms of territorialisation. While historical evidence for meaningful action at the scale of the city-region is limited, the practical politics of addressing the consequences of environmental crisis may be gradually strengthening the nexus between city-regionalism and sustainability.

References

1. Addie, J.., Keil, R.; Real Existing Regionalism: The Region between Talk, Territory and Technology. *International Journal of Urban and Regional Research* **2015**, *39*, 407-417, DOI: 10.1111/1468-2427.12179.