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### Governing beyond cities: the urban-rural interface

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Joyeeta Gupta • Karin Pfeffer  
Hebe Verrest • Mirjam Ros-Tonen  
Editors

# Geographies of Urban Governance

Advanced Theories, Methods and Practices

 Springer

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# Contents

## Part I Theories of Urban Governance

<b>1</b>	<b>Setting the Scene: The Geographies of Urban Governance</b> .....	<b>3</b>
	Joyeeta Gupta, Karin Pfeffer, Mirjam Ros-Tonen, and Hebe Verrest	
<b>2</b>	<b>Theorizing Governance</b> .....	<b>27</b>
	Joyeeta Gupta, Hebe Verrest, and Rivke Jaffe	
<b>3</b>	<b>Governance Networks: Conceptualization, Genealogy, and Research Frontiers</b> .....	<b>45</b>
	Tara van Dijk	
<b>4</b>	<b>Beyond the Network Effect: Towards an Alternative Understanding of Global Urban Organizations</b> .....	<b>65</b>
	Paul James and Hebe Verrest	
<b>5</b>	<b>Governing Beyond Cities: The Urban-Rural Interface</b> .....	<b>85</b>
	Mirjam Ros-Tonen, Nicky Pouw, and Maarten Bavinck	

## Part II Instruments, Methods and Practices of Urban Governance

<b>6</b>	<b>Instruments of Urban Governance</b> .....	<b>109</b>
	Stan Majoor and Klaas Schwartz	
<b>7</b>	<b>Participatory Instruments and Practices in Urban Governance</b> .....	<b>127</b>
	Michaela Hordijk, Liliana Miranda Sara, Catherine Sutherland, and Dianne Scott	
<b>8</b>	<b>Geo-Technologies for Spatial Knowledge: Challenges for Inclusive and Sustainable Urban Development</b> .....	<b>147</b>
	Karin Pfeffer, Javier Martinez, David O’Sullivan, and Dianne Scott	

**9 Big Data and Urban Governance** ..... 175  
Linnet Taylor and Christine Richter

**10 Scenario Building as a Process and Tool in Urban Governance**..... 193  
Shabana Khan, Liliana Miranda Sara, John Sydenstricker-Neto,  
Catherine Sutherland, and Michaela Hordijk

**Part III Epilogue**

**11 An Inclusive Development Perspective  
on the Geographies of Urban Governance** ..... 217  
Joyeeta Gupta, Karin Pfeffer, Mirjam Ros-Tonen, and Hebe Verrest

**Index**..... 229

# Chapter 5

## Governing Beyond Cities: The Urban-Rural Interface

Mirjam Ros-Tonen, Nicky Pouw, and Maarten Bavinck

**Abstract** If 70 % of the global population will reside in metropolitan regions by 2050, this poses new governance challenges related to urban-rural interfaces and linkages. It calls for governance that stretches across scales and beyond urban boundaries, taking into account both problems and opportunities of urbanization. This chapter reviews the literature on urban-rural interfaces and linkages and discusses suggestions for dealing with them. It also addresses three governance problems that hinder a more integrated approach towards the urban-rural interface, specifically fragmentation, institutional inertia, and the inability to realize inclusive development. Based on potential governance approaches to address these three problems, we present six institutional design dimensions for a more inclusive governance approach for urban-rural regions. Bridging organizations, nested issue-based platforms, and combining governance with strong government are identified as pathways towards inclusive urban-rural governance.

**Keywords** Urban-rural linkages • Peri-urban fringe • Urban-rural regions • Institutional design dimensions • Inclusive urban-rural governance

### 5.1 Introduction

No study on urban governance can be complete without an understanding of urban-rural interfaces and linkages. Assuming that 70 % of the global population will live in urban areas by 2050 (OECD 2012a), these spaces are likely to increase their economic, social and ecological footprint on the rural landscape (Rees and Wackernagel 1996). Meeting the urban demand for food, energy, water, timber and other resources means increased pressure on the surrounding natural environment as well as

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competition with other resource users, with potentially adverse effects on human wellbeing. Urban pollution and the emission of greenhouse gases have climate effects far beyond city boundaries. Furthermore, population flows from rural areas into urban agglomerations impact on rural and urban life (Day et al. 2014), potentially creating hardship and new opportunities. Hence, synergies are needed between policies to enhance resource sustainability, human wellbeing and climate change resilience at city level. Such synergies stretch governance across scale levels and beyond urban boundaries (Bulkeley and Betsill 2005; McGranahan 2007; Seitzinger et al. 2012).

Little has been written about how to govern the urban-rural interface. This chapter fills this gap by analysing this interface (see Sect. 5.2), reviewing the literature on peri-urban and urban-rural governance (see Sect. 5.3), presenting institutional design principles to address some major governance challenges (see Sect. 5.4) and indicating the way forward to integrated urban-rural governance. It builds on the geographical perspective of Chap. 1 in four ways. First, it analyses the contextual challenges confronting the urban-rural interface as *place* (see Sects. 5.2 and 5.3). Second, it conceives peri-urban and urban-rural interfaces as *spaces* produced by the activities and perceptions of the people who live, work, govern, commute and recreate in these spaces (see Sect. 5.2.2). Third, it addresses both the horizontal/territorial dimensions of *scale* (the urban-rural continuum, see Fig. 5.6) and the need to govern across jurisdictional and institutional scales (see Sect. 5.4). Finally, it examines *human-environment interactions*, expressed in material and immaterial flows which produce public ‘goods’ and ‘bads’ (see Sect. 5.2.2).

## 5.2 The Urban-Rural Interface

The urban-rural interface is conceived as a peri-urban transition zone with mixed livelihoods and spatial uses and flows of people, goods, capital, information, natural resources, waste and pollution between urban and rural areas (Douglass 1998; Allen 2003; Simon 2008; Rauws and de Roo 2011). This zone corresponds with the zone of direct impact of the city, where the effects of urbanization and pollution are directly felt (Phillips et al. 1999). Urban-rural and rural-urban flows represent a wider zone of influence (Simon 2008). The area comprising the core urban region, the peri-urban transition zone and the more distant rural areas is also known as the urban-rural region (Nilsson et al. 2013a; Zasada et al. 2013). This section elaborates on these conceptualizations and provides examples from developed and developing contexts.

### 5.2.1 The Peri-urban Fringe or Zone of Direct Impact

Peri-urban areas are zones where urban areas expand into surrounding rural landscapes, blurring the urban-rural distinction as a result of population growth and urban sprawl (Dwyer and Childs 2004; Ravetz et al. 2013). Urban sprawl, i.e. “the low-density expansion or leapfrog development of large urban areas into the

surrounding rural land” (Nilsson et al. 2013a: 1) leads to “a new fusion of space” “that is not rural but not yet urban” (Lerner and Eakin 2011: 312). The peri-urban fringe has a lower population density, built-up area and infrastructure than urban areas, resulting in a dynamic, hybrid and multifunctional space “characterized by strong urban influences, easy access to markets, services and other inputs, ready supplies of labour, but relative shortages of land, and risks from pollution and urban growth” (Phillips et al. 1999: 5–6). Its urban features are fragmented and uneven and the landscape still has rural elements (McGranahan et al. 2001; Allen 2003; Lerner and Eakin 2011), leading to a perception of “messy edges” (Scott et al. 2013: 44). The mixed character of peri-urban areas is reflected in (1) the heterogeneity of its population (from small farmers, to informal settlers, industrial entrepreneurs and middle-class commuters) (Allen 2003), (2) the corresponding diversification of land uses and livelihoods, and (iii) the related diversity of lifestyles (Præsthholm and Kristensen 2007). Patterns of urban sprawl differ in spatial extent, population density, and growth rate (Schneider and Woodcock 2008, UN Habitat 2013) and the nature of the peri-urban fringe varies accordingly (see Fig. 5.1, 5.2, 5.3, 5.4).

Characterized by chaotic sprawl in transition and developing countries, it is a zone of spatial restructuring in post-industrial countries (Ravetz et al. 2013: 13) where cities are sometimes even shrinking (UN Habitat 2013).

Despite the differences, peri-urban areas share common concerns in the North (Putnam 2000; Theobald 2001; Nilsson et al. 2013b; Westerink and Aalbers 2013; Zasada et al. 2013; Nilsson et al. 2014) and South (Douglass 1998; Simon et al. 2004; Simon 2008; Cobbinah and Amoako 2012) (see Sect. 5.3). However, their multi-functionality and hybrid rural-urban features allow them to develop into “zones of innovation” (Rauws and de Roo 2011: 270) and “opportunity spaces” (Scott et al. 2013: 2). Urban-oriented production and direct marketing of horticultural products, ornamental plants and fish can, for instance, increase farmers’ income (Mukherjee 2006; Simon 2008; Zasada et al. 2013; see Box 5.1).



**Fig. 5.1** Peri-urban area in Feldkirchen, Austria (Commons Wikimedia 2015a)





**Fig. 5.2** Peri-urban area in Chicago, USA (Commons Wikimedia [2015b](#))



**Fig. 5.3** Peri-urban area in New Delhi, India (Commons Wikimedia [2015c](#))

### **Box 5.1: Von Thünen Goes South!**

A classical study in economic geography and political economy is Johann Heinrich von Thünen's '*Der isolierte Staat*', published in Germany between 1826 and 1863 (Von Thünen [1875](#)). It argued that the costs and risks involved to get agricultural products to cities determine the crop choices that farmers make and that there are rings of specialization around (expanding) cities. Particularly perishable crops and livestock products were often found in a

(continued)

**Box 5.1:** (continued)

circle immediately around cities, creating niche opportunities for farmers and traders who specialize in those products.

More than 150 years later, agricultural production has been globalized. However, an important part of the world's agricultural product-consumer linkages are still connecting urban areas with their immediate hinterlands – the nearby countryside. Local family farmers face difficulties in competing with large-scale (corporate) farmers and value chain entrepreneurs in export-oriented markets (Bélières et al. 2002). Rather than producing for the urban population in long-distance metropolises, they become better connected to the demand for agricultural produce from expanding urban populations nearby (Mortimore 2003; Brookfield 2008). FAO-based figures confirm this: in Africa more than 75 % of food, feed and fibre enters local markets and less than 25 % is currently exported (Akinyoade et al. 2014). Many of these local-level exchanges are dominated by family farms and by relatively small-scale traders, transporters and service providers.

Small-scale family farms can survive and thrive if they specialize in niche products for nearby urban markets, and particularly if these are either perishable, or serve urban demand favouring local produce for these niche products (Bebbington 1999; Mortimore 2003; Hazell 2005). By doing so, family farmers contribute to food and nutrition security of their own families and urban consumers in different income brackets. This inspires contemporary scholars to rediscover Von Thünen's ideas in a period of expanding urbanization and agricultural dynamization, for research in Asia and Africa (e.g. Zaal and Dietz 1998; Burger and Zaal 2009; Greiner and Sakdapolrak 2013). Indeed, Von Thünen goes South.

*Ton Dietz*



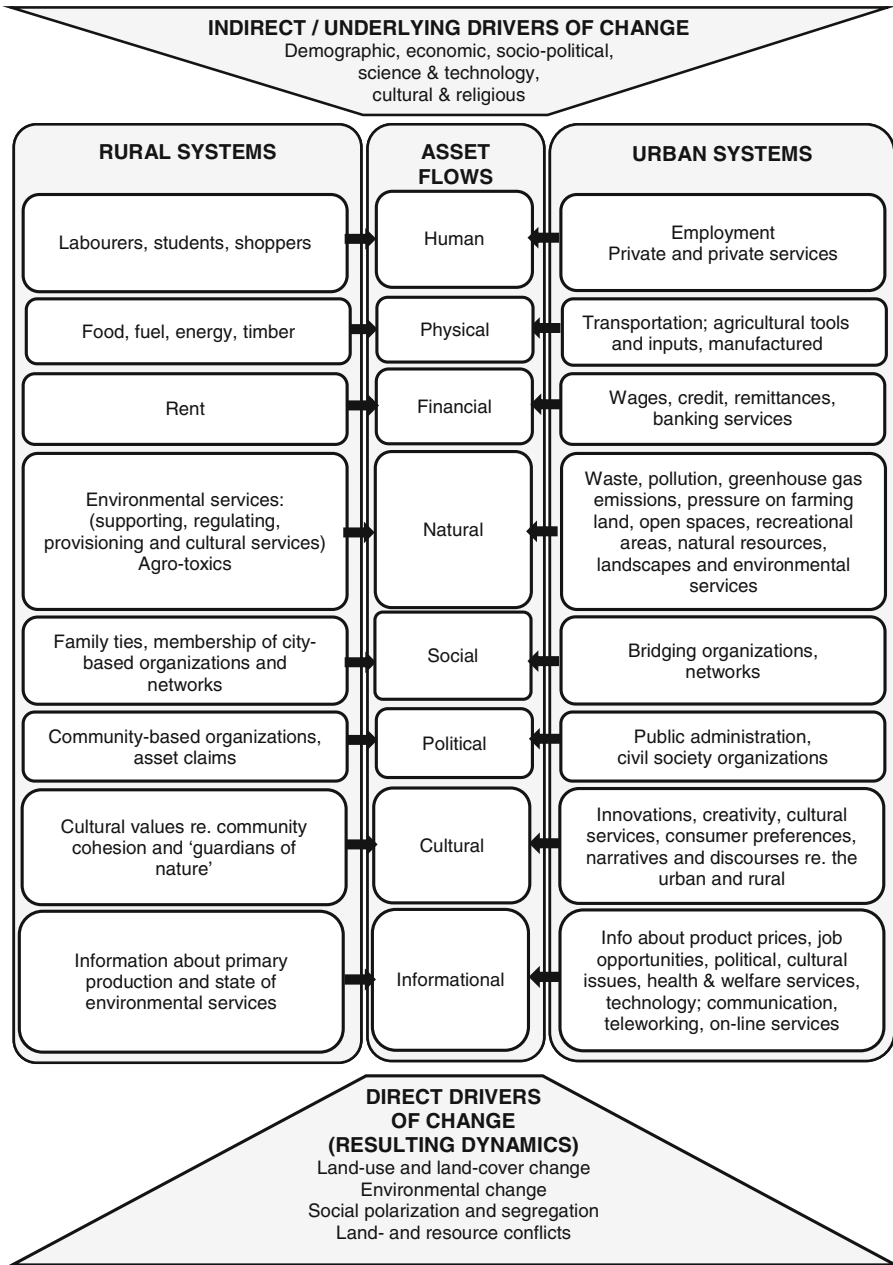
**Fig. 5.4** Peri-urban area in Thimphu, Bhutan (Commons Wikimedia 2015d)

## 5.2.2 *The Broader Zone of Influence*

The urban-rural interface comprises urban-rural linkages and their effects on the wider environment (Tacoli 1998). It has been conceptualized as two-way flows of people (labour, students, shoppers), goods (agricultural inputs and products, consumer durables), public and private services (health, education, transportation and repair services), capital (credit, remittances) and information (about job opportunities, commodity prices or political affairs) (Douglass 1998). For the material flows (nutrients, water, energy) the urban metabolism concept was coined in the 1960s (Wolman 1965) and re-introduced recently (UNEP 2013; Villarroel Walker et al. 2014; Hajer 2014) (see Sect. 5.3.2). Environmental flows include, first, environmental services such as supporting services (e.g. biodiversity), regulating services (e.g. carbon sequestration), provisioning services (e.g. fresh water, air, raw materials), and cultural services (e.g. tourism, recreation) (MEA 2005). Second, they comprise environmental burdens such as deforestation, overfishing, water depletion, pollution, and solid and liquid waste problems (Tacoli 1998; Allen 2003), framed as ‘ecological footprints’ (Rees and Wackernagel 1996; Tacoli 1998; McGranahan 2007) (Fig. 5.5).

Urban-rural linkages also include non-material flows – financial, social, political and cultural. The impact of remittances, for instance, leads to ‘remittance landscapes’ (Lopez 2015: 1) in both the South and the North (Kelly 2011; Mazzucato 2011; Lopez 2015). Cities and rural areas are also linked through bonding social capital (e.g. family networks), bridging social capital that enables horizontal links between groups (e.g. unions and associations with a hub in urban centres), and linking social capital that enables networks and alliances across scales and levels (e.g. public-private partnerships involving agricultural producers) (Pretty 2003). Cultural flows have traditionally been framed in terms of cities as centres and sources of innovation and creativity (Davelaar and Nijkamp 1989) and rural populations as preservers of community cohesion values and guardians of nature (Bunce 1998). However, with the advance of media and information technologies, the urban-rural divide in perceptions, values and innovation capacity has blurred or even vanished (de Bruijn et al. 2001; Scott et al. 2007). Recent developed country literature on cultural flows deals with the effects on peri-urban land use and settlement patterns of urban consumer preferences regarding landscape aesthetics (Howley 2011) or multifunctional farming (organic, lifestyle, recreation-oriented farming, etc.) (Zasada 2011). There is also attention for narratives concerning food security (Lerner and Eakin 2011; Forster and Escudero 2014) and the rural idyll. An example of the latter is the “holiday packaging” of the countryside as peaceful, simple and pure (Bell 2006: 1).

Globalization and developments in information and communication technology (ICT) have impacted on material and non-material flows (Castells 2010). Material flows of goods, energy and wastes now occur over long distances, stretching urban-rural linkages beyond urban boundaries (Seitzinger et al. 2012). Immaterial flows are created through teleworking, teleshopping, telebanking, tele-dating, long-



**Fig. 5.5** The urban-rural interface as a set of asset flows. Flows and direct drivers adapted from Douglass (1998) and Allen (2003), flows restructured as asset flows, taking account of the notion of the ‘space of flows’ (Castells 2010). Indirect drivers and environmental services based on MEA (2005)

distance learning and even on-line health care, resulting in a virtual space of flows that fundamentally transforms spatial and social relations. Many flows (see Fig. 5.5) are embedded in a global information network society with extended metropolitan regions (EMRs) as nodes in a globally connected network (Castells 2010). Such EMRs present themselves in various spatial forms, including urban corridors along transportation routes (e.g. Kuala Lumpur, Malaysia, or Chennai, India), city regions (e.g. London, Cape Town, Bangkok) and functionally connected polycentric mega city regions (e.g. the Randstad in the Netherlands, and the Sao Paulo/Rio de Janeiro region in Brazil) (UN Habitat 2013; Evers and de Vries 2013).

Despite the growing connectedness of EMRs to global networks, many flows still occur over short distances and therefore remain place-based (Zasada et al. 2013). Within ‘the space of places’ (or ‘cityscapes’, see Chap. 11) people move between their home and work, shopping malls, recreation areas, parks, and sport stadiums (Castells 2010: 405), and goods ordered online need to be transported to consumers (UN Habitat 2013). Rural populations use services that cities provide, such as health care and higher education (Zasada et al. 2013). Similarly, cities depend on their surroundings; in the North less for food and fuel that is often imported, but still for water and waste flows (Villarroel Walker et al. 2014); in the South also for food, fuel and timber (Box 5.1). Northern and Southern cities depend on surrounding rural areas for environmental services like water provision, carbon sequestration and biodiversity (Billen et al. 2012). This implies that mega-cities in particular will impact the spatial structure of peri-urban and rural areas, fuelled by demographic, economic, socio-political, scientific/technological and cultural drivers (MEA 2005). Cities will continue to leave an economic, ecological and social footprint on their direct surroundings extending even globally (McGranahan 2007; Simon 2008; Billen et al. 2012; Seitzinger et al. 2012). Increasing pressure on available land and water triggers competing claims and conflicts, particularly in the global South where land, water and nature grabbing displaces, marginalizes and excludes the rural poor (Zoomers 2010; Fairhead et al. 2012).

### 5.2.3 *Common Challenges and Opportunities*

Commonly perceived problems and opportunities regarding the urban-rural interface include:

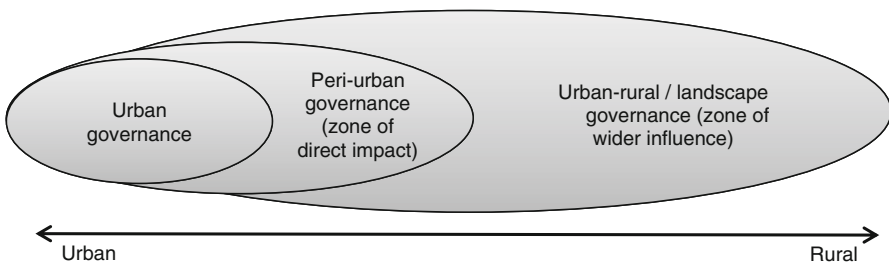
- Finding solutions for the increasing pressure on open and recreation areas, productive farming land, ecosystems, water sources, and associated landscape fragmentation; loss of environmental services, including water quantity and quality; threats to food security; increased greenhouse gas emissions, noise, air pollution and traffic congestion; and polarization and conflicts over land use and resources (Douglass 1998; Allen 2003; Seitzinger et al. 2012; Evers and de Vries 2013; Nilsson et al. 2014; Hajer 2014);

- Addressing extreme socio-economic inequalities and the processes that lead to their exacerbation. Socio-economic differentiation, erosion of rural communities, and exclusion may increase as a result of urban sprawl and urban-rural/rural-urban flows. Examples include increasing health inequalities in American cities (Gordon-Larsen et al. 2006), growing income inequality between urban and rural regions in China, India, South Africa and the Russian Federation (OECD 2011); and increasing socio-economic segregation and social isolation in Kumasi, Ghana, with the poor concentrating in core regions and mushrooming of slums and squatters at the periphery (Cobbinah and Amoako 2012). Pre-existing social and cultural institutions can sustain or deepen urban-rural inequalities, despite labour migration. For example, in the case of the Chinese household registration system, rural citizens, despite migrating to the city for work, lack the entitlement to urban service provisions whilst rural investments have been neglected (Whyte 2010; Afridi et al. 2012); and
- Stimulating integrated, sustainable and multifunctional landscapes with an intrinsic potential for positive social, economic and environmental change (Rauws and de Roo 2011; Scott et al. 2013).

The next section explains how such challenges and opportunities can be dealt with.

### 5.3 Governance Beyond the City

The dynamics of urban-rural linkages and the challenges and opportunities that they create have led to a shift in thinking about urban governance and how it stretches beyond urban borders. Building on the problems and opportunities from Sect. 5.2.3, this section reviews ideas about peri-urban governance (the zone of direct impact), and synthesises ideas regarding urban-rural governance (the wider zone of influence) (see Fig. 5.6).



**Fig. 5.6** Governing the urban-rural continuum



### 5.3.1 *Contemporary Thinking About Peri-urban Governance*

Peri-urban governance sees the peri-urban fringe as a space in its own right with specific ecological and institutional characteristics and dynamics for which neither exclusively urban or exclusively rural policies are suitable (Rauws and de Roo 2011; Scott et al. 2013). Influenced by resilience thinking (Holling 1973) and complexity science (Plummer and Armitage 2007; Bertolini 2010), peri-urban dynamics is complex and non-linear. Changes are partly autonomous (i.e. independent of government policies) and based on processes of self-organization (e.g. illegal settlements at the urban fringe in developing countries or agro-tourism in developed countries); partly path-dependent based on historical developments (e.g. transport infrastructure); and partly place-independent through contextual influences (e.g. increasing car mobility, shifts in the agrarian economy and increasing urbanization) (Rauws and de Roo 2011). Some of these drivers push for change, whereas others pull towards old or new levels of relative stability, making their outcome uncertain and beyond planners' control (Rauws and de Roo 2011). This requires peri-urban governance to be flexible and adaptive (see Sect. 2.5.3) whereby the challenge is to connect autonomous and context-driven processes with place-specific peri-urban functions to turn peri-urban fringes into innovation spaces (Rauws and de Roo 2011; Scott et al. 2013: 2).

Specific proposals for dealing with peri-urban dynamics are:

- Promoting territorial cohesion through coordination and planning regulations regarding land use/pricing, housing, infrastructure, transportation and taxes (Evers and de Vries 2013; Nilsson et al. 2014);
- Developing green compact cities by concentrating urbanization within city boundaries and along public transportation nodes (Westerink and Aalbers 2013) and creating multifunctional neighbourhoods and green spaces (Nilsson et al. 2014);
- Preservation and creation of green and blue corridors such as the Green Ring of Leipzig or the Red Rose Forest of Greater Manchester for environmentally-friendly means of transportation (walking, cycling), conserving ecosystem services, and improved human health and wellbeing (Nilsson et al. 2014); and
- Preservation of farming land and stimulation of peri-urban farming (Zasada et al. 2013, Nilsson et al. 2014).

The above visions for governance beyond the city focus on spatial planning of the peri-urban fringe. The next section looks at proposals to integrate the rural into (peri-) urban governance (OECD 2012b; Harrison and Heley 2014).

### 5.3.2 *Contemporary Thinking about Integrated Urban-Rural Governance*

The call to govern beyond the metropolis (Harrison and Heley 2014) and connect to rural regions (Seitzener et al. 2012) is based, first, on the urban metabolism concept that focuses on material flows, notably nutrient, water, energy and waste (see Fig. 5.5) (Ravetz 2000; UNEP 2013; Hajer 2014; Villarroel Walker et al. 2014). Responsible management of urban metabolism is advocated in the smart urbanism discourse (Hajer 2014, see Chap. 1), with the aim being to create a resilient, socially just and sustainable safe operating space (Rockström 2009; Swilling and Annecke 2012; UNEP 2013). Smart urbanism suggests to delink or decouple these flows from urban growth (UNEP 2013), through either resource decoupling (more resource-efficient production and greater productivity) or impact decoupling (through 'green' investments in low-carbon and resource-efficient infrastructure and energy sources and recycling resources) (UNEP 2013). This could lead to more liveable cities for urban residents and is being promoted by networks like C40 Cities, ICLEI, UN Global Compact, the Global Initiative for Resource Efficient Cities, and the IHDP Sustainable Urbanization Initiative (Hajer 2014, see Sect. 5.2 and Chap. 4).

Second, integrated urban-rural governance is proposed to enhance food security and protect ecosystem services. A holistic landscape or place-based approach aims to promote sustainable urbanization and create regional food systems that are resilient to vulnerabilities and shocks. These regional food systems comprise urban, peri-urban and rural landscapes (Forster and Escudero 2014). Examples of such planning approaches include FAO's Food and Cities Initiative (FAO 2011), Local Governments for Sustainability (ICLEI 2013); and the work of global NGOs such as EcoAgriculture Partners, the World Resources Institute, and the Resource Centers on Urban Agriculture and Food Security Foundation (RUAF) (Forster and Escudero 2014). These ideas fit into the broader debate of landscape approaches, which aim to provide integrative responses to global challenges such as food insecurity, climate change and biodiversity loss through multi-stakeholder negotiations of land-use objectives and trade-offs and adaptive learning (Sayer et al. 2013; Ros-Tonen et al. 2014).

Third, integrated urban-rural governance can aim at equity of access to services and economic opportunity of inhabitants of less developed regions, tap into the growth potential of these regions, and strengthen public finance to that end (OECD 2012b).

Thinking about how to include and operationalize the distant rural in (peri-) urban governance is still in its infancy (Harrison and Heley 2014). One attempt is the delineation of 906 rural-urban regions (RURs) covering Europe, based on functional economic relationships between urban core areas, peri-urban zones, and their rural hinterlands (Zasada et al. 2013).



## 5.4 Hindrances to Integrated Approaches and Governance Answers

Several hindrances exist to integrated urban-rural governance. The first is institutional fragmentation, legal pluralism and overlapping jurisdictions (Evers and de Vries 2013; Gupta and Bavinck 2014). The metropolitan area of Warsaw, Poland, which covers 72 independent municipalities, illustrates how planning authorities can be scattered over functional areas (Nilsson et al. 2014). In the global South peri-urban areas are less appealing to urban politicians due to the lower number of inhabitants (=votes) and lesser infrastructure and economic value compared to the core city, resulting in a deficiency of financial resources, capacity and political will (Simon 2008: 181). Other challenges include the need to deal with distant players; high transaction costs of bringing stakeholders from different scale levels together and creating an equal and transparent playing field; and the alignment of outcomes of interactive governance (see Chap. 2) with existing administrative structures and jurisdictions. The governance response to fragmentation is embedded in the formulation of the problem itself: interaction can assist in overcoming the urban-rural governance divide (Torfing et al. 2012). This applies to both horizontal interaction (between urban, peri-urban and rural actors and sectors); vertical interaction between different organizational levels within a scale (geographical, institutional or jurisdictional) (Cash et al. 2006), and diagonal or ‘zigzagging’ interaction (Torfing et al. 2012; Osofsky and Peel 2013). Overcoming horizontal fragmentation requires an integrated approach; overcoming vertical fragmentation multi-level governance (see Table 5.1).

The second hindrance is institutional rigidity or inertia (Kingston and Caballero 2009): the institutional system insufficiently accounts for urban-rural dynamics and relationships. “Institutions are sticky; they often remain in place long after mismatches between regimes and the biophysical and socioeconomic settings with which they interact become severe and widely understood” (Young 2010: 378), also because vested political and economic interests coming into a rural area from outside supersede those of the local population. This can be addressed, first, through institutional configurations (Baud et al. 2014) that transcend geographical and administrative boundaries (Evers and de Vries 2013; Scott et al. 2013; Nilsson et al. 2014; Forster and Escudero 2014). Second, promoting the adaptiveness of the governing system and its learning ability (Yeo 2005) may result in a higher capacity to deal with events and challenges at the urban-rural interface.

The third hindrance is the governance system’s partiality, or inability to realize inclusive development, which is “development that includes marginalized people, sectors and countries in social, political and economic processes for increased human wellbeing, social and environmental sustainability, and empowerment” (Gupta et al. 2015). Urban sprawl and the consequent inflow of people from middle to high income classes increases land and housing prices and exacerbates the vulnerability of, or may displace, low income classes (Squires 2002; Cash 2014). Similarly, profit-oriented development at the peri-urban fringe may displace farming

**Table 5.1** Institutional design dimensions for peri-urban and urban-rural governance

Dimension	Addresses the problem of:	Meaning	Authors
Integration	Fragmentation (horizontal)	Integrated vision of city regions or rural-urban landscapes as social-ecological systems (SES) that should be steered for resilience	Folke et al. (2005), Rauws and de Roo (2011), Scott et al. (2013), Forster and Escudero (2014)
Interaction and collaborative governance	Fragmentation (horizontal)	Decision-making based on coalitions and interactions between societal actors (households, businesses, public sector, civil society organizations) oriented towards defining and resolving societal problems and creating new opportunities	Kooiman and Bavinck (2013), Hajer (2014)
Multi-level governance	Fragmentation (vertical)	Governance involving interactions between different levels within a scale: from global to local on a geographical scale or from constitutions to operational rules on an institutional scale	Bulkeley and Betsill (2005), Cash et al. (2006), Corfee-Morlot et al. (2011), FAO (2011), Biermann et al. (2012)
Adaptiveness	Institutional rigidity	Flexibility to adapt to complex and unpredictable dynamics associated with the uncertainty caused by global environmental, financial, social and demographic trends and their impact on the urban-rural landscape; coping with risk	Torfing et al. (2012), Kooiman and Jentoft (2009), Rauws and de Roo (2011), Scott et al. (2013), Forster and Escudero (2014)
Continuous and shared learning	Institutional rigidity	Willingness to learn from and reflect on past mistakes; trial and error; peer-to-peer learning	Folke et al. (2005), Hahn et al. (2006), Olsson et al. (2006), Berkes (2009), Leys and Vancly (2011), Kooiman and Jentoft (2009), Sayer et al. (2013), Scott et al. (2013), Hajer (2014), Miranda Sara and Baud (2014), Gupta et al. (2015)
Inclusive development perspective	Inequality, marginalization	Bottom-up process of identifying needs and priorities of the poor and marginalized, multiple stakeholders and competing claims	Allen (2003), MEA (2005), McGregor (2007), OECD (2012b), Evers and de Vries (2013), Scott et al. (2013), Forster and Escudero (2014), Hajer (2014), Nilsson et al. (2014), Pouw and McGregor (2014), Gupta et al. (2015)
		Identify drivers of human/environmental degradation in rural-urban interface	
		Address persistent power inequities	

and informal economic activities (e.g. Du et al. 2013; Martellozzo et al. 2014) leading to social and political conflict, structural poverty, disempowerment and unsustainable practices.

Both smart urbanism and landscape approaches towards regional food systems (see Sect. 5.3) acknowledge the need to address income disparities, unequal access to resources and services, and the right to food (Forster and Escudero 2014; Hajer 2014):

We should not only stay in the ‘safe operating space’ within ‘planetary boundaries’; this space should also be socially just [...] Fusing socially just and safe operating spaces lies at the heart of the current debate on Sustainable Development Goals (SDGs) (Hajer 2014: 40).

The governance answer here is an inclusive development perspective that takes stock of poor/marginalized people’s priorities and resource needs (McGregor 2007; Pouw and McGregor 2014) and identifies stakeholders and their shared and conflicting interests in multiple asset flows within the rural-urban interface (Allen 2003). Historical and constitutive power differences are also taken into account, as pre-existing rural-urban inequities tend to be reproduced/deepened with biased institutions and investments in development. Examples are the urban-biased policy mix in China (Lu 2002: 420) and “the primacy of institutions over geography” in economic development (Rodrik et al. 2002). Furthermore, identifying direct and underlying drivers of human and environmental degradation in the landscape is critical for resolving them (MEA 2005). Finally, addressing power inequities between population groups in governing resources for human wellbeing and creating a level playing field for the benefit of poor and marginalized people can negate pre-existing and future conflicts over land and other resources (OECD 2012b; Gupta et al. 2015). With inclusiveness, governance can achieve higher legitimacy and effectiveness through poverty reduction, giving voice to minority interests and minimizing conflict, thus contributing to social justice and human wellbeing (Gupta et al. 2015, see Table 5.1).

## 5.5 Conclusions and the Way Forward

Globalization and urbanization increase the dynamics and complexity of the urban-rural interface, affecting the nature and extent of asset flows between urban and rural areas. Increasing demand for natural resources and competing claims affect vegetation cover, land, natural resources and environmental services, risking exclusion of vulnerable people and sectors. However, a dynamic peri-urban fringe also offers new opportunities. Contemporary literature emphasizes that the dynamics of urban-rural linkages require a shift towards integrated peri-urban and urban-rural governance, which is hindered by fragmentation, institutional inertia and exclusionary trends. Six institutional design dimensions are proposed to overcome these threats: integration, interaction, multi-level governance, adaptiveness, continuous and shared learning, and an inclusive development perspective. Pathways towards integrated urban-rural governance along these dimensions are threefold.

First, bridging organizations – research organizations, NGOs or eco-museums (Hahn et al. 2006) – can mobilize actors, finances and political support; broker information and knowledge from different sources; build trust and social capital; mediate conflicts; network and communicate across scales; facilitate linkages between communities, NGOs, government agencies, research organizations, and other parties in collaborative arrangements; and create platforms for collective learning (Folke et al. 2005; Hahn et al. 2006; Berkes 2009; Leys and Vanclay 2011). They are particularly important at landscape level, where boundaries often do not coincide with administrative jurisdictions. Leadership (including communication skills and conflict management capacity) and vision may be more important than organizational structure (Hahn et al. 2006; Olsson et al. 2006; Berkes 2009), while formal recognition and support may reduce their vulnerability (Hahn et al. 2006). The Washington-based EcoAgriculture and Partners, which combines research, advocacy, and capacity and institution building to promote a ‘whole’ (i.e. integrated) landscape approach (Scherr and McNeely 2008), is an example of such a bridging organization. It coordinates the international collaborative Landscapes for People, Food and Nature Initiative that shares knowledge, promotes dialogue, and undertakes action in support of integrated landscape management, simultaneously addressing the objectives of enhanced food production, ecosystem conservation, and sustainable livelihoods (Landscapes for People, Food and Nature 2015).

Second, multi-stakeholder processes can be bolstered by creating issue-based platforms or networks at the level (local, regional or global) where the problems are felt most intensely (Allen 2003; Forster and Escudero 2014). When local, such efforts can gradually scale up to involve actors at higher levels with a stake in, and/or impact on, the issue addressed. Such actors may include national or intergovernmental bodies, companies and other actors in international value chains, or NGOs that can mobilize support. Landscape approaches demonstrate that multi-stakeholder processes work best with actors who identify themselves with a particular landscape. After all the notion of a landscape as the ‘space of places’ within which people act and interact, to which they attach meaning, and from which they derive identity (Greider and Garkovich 1994; Castells 2010) has important implications for who is eligible, and considers him/herself eligible, as a stakeholder in negotiation processes and decision-making. However, the complex urban-rural linkages and their connection to distant places and players, requires a nested approach that connects local authorities with national and global actors, global city networks (see Chap. 4), and the nearby and distant rural areas and inhabitants that they affect (Seitzinger et al. 2012; Forster and Escudero 2014). Connectivity to distant actors can be enhanced through web-based information and communication technologies, although their effectiveness compared with face-to-face communication is yet to be proven.

Third, although governance stretches beyond government to include the private sector, civil society and citizens, there is a need to combine governance with government in addressing problems and opportunities of city regions (Evers and de Vries 2013; Nilsson et al. 2014; see Chaps. 3 and 4). Strong regulation is needed to direct land use, environmental protection, land tenure, and access to resources (particularly in dynamic transition zones at the peri-urban fringe), and to accommodate and regulate multi-stakeholder processes (Forster and Escudero 2014).

Finally, an inclusive development viewpoint ensures that such efforts focus on marginalized people, sectors, and regions across the urban-rural continuum, on human wellbeing, and on environmental sustainability.

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