

Analyzing and governing urban-rural relations

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1. Spatial thinking in types of area

Categorizing space into urban and rural areas as well as attempts to give adequate definitions has long tradition in spatial research. Up to now efforts of the scientific discourse finding one precise classification failed (Halfacree 1993) and will fail due to the high variety of analytical perspectives.

Since the 19th century processes of industrialisation and globalisation have caused intensive changes in land use and in interrelations between different types/units of space. Divisions of labour, increasing mobility and migration, new technologies and changing social preferences modified complex flows of information, goods and people.

In consequence the formerly noted dichotomy between "rural" and "urban" started dissolving and transitions amongst the two categories increased, including the creation of new spatial types like metropolitan regions or peri-urban areas.

Not only blurred boundaries cause difficulties finding an adequate definition for what is typically rural respectively urban. The traditional appearance of rural areas is changing too and can be found at best in new peripheral and economically weak regions.

As a result urban and rural areas cannot be seen longer as separated territories. Just as well categories for types of areas are insufficient to describe spatial phenomena. Drivers for land use change act beyond boundaries of spatial categories. But as long as spatial thinking is divided into categories it is impossible to discuss "space" and its dynamics adequately.

2. Creation of spaces by actors and flows

An alternative and more integrative approach to space is the concept of urban-rural linkages. According to the definition of Massey, that space is a product of interrelations constituted through interactions and always under construction (Massey 2005), urban-rural linkages must

be defined in a new way. Important aspects are the analysis of interrelations as well as the relative governance structures.

Through the reflection of interactions or rather interrelations an integrative view on urban and rural is possible. Spatial linkages, synonymously named as relations, interdependencies or interrelations, are cause-and-effect relationships between different types of area, locations or stakeholders that transcend space. They can be displayed as functions beyond a location where they occur by activities and uses with space requirements.

Considering spatial linkages particularly urban-rural ones helps us understanding key territorial development issues, strengthening benefits and mitigating negative impacts.

Although the discussion about urban-rural linkages is not new, it remained general and superficial to date. Especially in terms of theories and concepts deficits exist (Stead 2002). Up to now an overview about different linkages as well as concepts is missing.

3. Analytical concepts

One of the scarce works about urban-rural linkages is that one of Preston (1975). He proposed an analytical framework in order to study different types of flows and differentiated into flows of goods, people, services and energy, financial transfer as well as flows of information. A selection of main flows is displayed in figure 1.

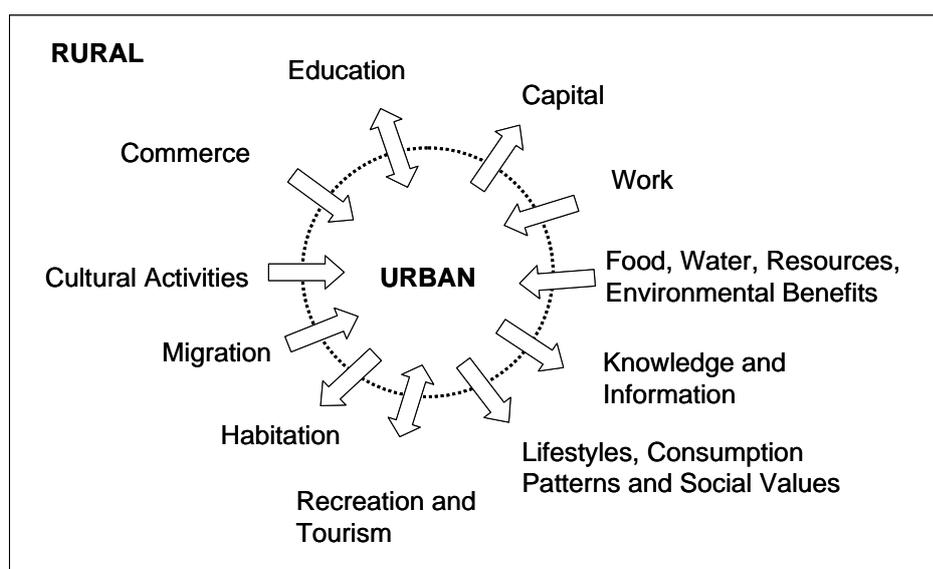


Figure 1 Main flows between urban and rural (based on Stead 2002)

Based on this framework a literature review was made searching for concepts that represent flows between urban and rural areas. Table 1 shows a selection of those concepts classified by the level of complexity. Obviously there are flows that can be easier studied than others.

On the one hand this is reflected by the complexity of the relative concepts. Easily measurable linkages like work-residence-relationships can be displayed by flows of people commuting everyday between their working place in the urban and their residence in the rural or peri-urban area. Such linkages can be simply measured by statistics about residence and employment. In contrast highly complex concepts like Regional Innovation Systems or the Ecological Footprint reflect a web of interdependencies, almost impossible to measure accurately.

On the other hand there are linkages like flows of knowledge and information which are not examined at all nor are they reflected adequately by concepts.

Table 1 Collection of concepts displaying urban-rural linkages

<i>Level of Complexity</i>	<i>Concepts</i>
<i>low</i>	Commuting (cp. Hartke 1938, Dickinson 1959) City Region (Boustedt 1975) Value-Added Chain Concepts of regional open space planning (cp. Galling 2005) Urban Sprawl Landscape Fragmentation Suburbanisation/ Reurbanisation Transport Expense Analysis Model of Agricultural Land Use (von Thünen 1826)
<i>mid</i>	Life Cycle Analysis (Klöpffer & Grahl 2009) Concept of Differentiated Land Use (Haber 1998) Ecosystem Services (Daily 1997) Mental Maps (Downs 1982) Mass and Energy Balances (Hofmeister 1989) Multifunctionality (Wüstemann et al. 2008)
<i>high</i>	Ecological Footprint (Rees 1992; Wackernagel 1994) Regional Innovation System (Cooke 2003) Urban Metabolism (Wolman 1965) Carbon Footprint (Wiedmann & Minx 2008) Virtual Water (Merret et al. 2003)

Besides these empirical and concept deficits, there are further criticisms concerning concrete action for practice. Specifically there is a lack of clear course of action as well as of governance strategies tackling complexity of interactions between urban and rural areas.

4. Polity and Policy – emphasizing the dichotomy by governance structures and processes

In Europe as well as in Germany a high variety of public action to influence regional development including spatial interrelations exist. Levels of activity, involved actors, topics, visions, targets, instruments and governance modes differ in many cases. Although comprehensive planning and management instruments exist, up to now sectoral and spatially dividing activities are dominating. The following tables (2 & 3) illustrate this fact by describing structures on European and German national level.

Table 2 European policies influencing spatial interrelations (own source)

	<i>Regional policy</i>	<i>Agricultural policy</i>	<i>Environmental Policy</i>
<i>involved actors</i>	EU bodies, esp. GD Regio, national administrations, regional / local administrations and companies	EU bodies, GD Agriculture and Rural development, national and regional administrations, companies	EU bodies, GD Environment, national governments (and implementing bodies)
<i>spatial focus</i>	urbanized areas	rural areas	combination of spatially focussed and non-spatially focussed activities
<i>interests</i>	economic spatial development	agricultural production (incl. food), and sustainable rural development	sustainable environmental protection and development
<i>main resources</i>	visions, subsidies	subsidies, networks	regulations (EIA / SEA), networks

On European level EU-policies play a considerable role in urban-rural interrelations. Polity and policies are organisationally divided in parts, driven by DG Regional Policy, DG

Environment, DG Agriculture and Rural Development. Influences are made in a direct and indirect way by supporting specific economic activities in regions with subsidies or by guidelines.

During the last few years integrative agendas contrasting sectoral and spatially limited policies and policies has been dropped on the agenda. The 2000 Agenda of Lisbon focuses on new strategic aims like international competitiveness and development of the knowledge society by realizing economic reforms and strengthening social coherence. The 2001 Strategy of Sustainability, also called Gothenburg Strategy, postulates the realisation of this vision by considering all economic, social and ecological impacts of activities. The Territorial Agenda / Leipzig-Charta in 2007 aim at the development of sustainable European cities as well as regions, to be realized for example by urban-rural partnerships.

Situation in Germany

Like in various European states in Germany spatial interrelations are influenced by a high number of public policy activities on the national level as well. Land use planning as a comprehensive form of influencing spatial development started in the first two decades of the twentieth century. Regional economic policy was set up in the 1950ties and environmental policy in the 1960ties. Since 1976 environmental planning is regulated by national law. Agricultural policy depends on European Union regulations. Forestry policy is embedded in international discussions, but mostly dependent on national and regional regulations. Sectoral policies have strong influence in a direct as well as indirect way.

Whereas in the 1970s and 1980s spatial integrative policies grew, aspatial public activities dominated during the last few years. A distinctive difference exists on the subregional level. Various forms of regional governance have been established in different forms. But up to now the mid-term and long-term impacts and outcomes of the used strategies and instruments remain limited. Sectoral and area focused policies dominate up to now. A lack of governance is to be stated concerning the influence on spatial interrelations.

Tabelle 3 German national policies influencing spatial interrelations (own source)

	<i>Spatial planning</i>	<i>Regional economic policy</i>	<i>Urban policy</i>	<i>Agricultural and rural policy</i>	<i>Forestry</i>
<i>Involved actors</i>	National, regional (Länder), subregional and local administration	National, regional (Länder)	National, regional (Länder), subregional and local administration, civil society, companies	National and regional administrations, regional (Länder) and subregional actors and networks, local companies	Mainly regional (Länder) and local administrations, land owners, companies
<i>Spatial focus</i>	comprehensive	Mainly urban areas or regions with structural deficits	urban areas	rural areas	woodland
<i>Interests</i>	Sustainable spatial development	sustainable economic development, in various cases only as a label	sustainable urban development, in various cases only as a label	agricultural production, and sustainable rural development	production and consumption of wood, in most cases combined with sustainability
<i>main resources</i>	Planning, regulations, networks	Mainly subsidies	planning, projects, subsidies, networks	regulations (EU-driven), subsidies, networks	regulations, some subsidies

5. New perspectives: Sustainable Land Management

In consequence, discussions about new ways of spatial analysis as well as spatial governance are necessary, reflecting interrelations in an adequate way. Main aspects to be concerned are land use, material cycles and energy flows. New relational policies and reduction of deficits implies generating more integrative policies with new institutional settings. Up to now governance of interrelations is lacking, only symbolic or inefficient and ineffective. The complexity of interrelations in multilevel settings is not addressed in an adequate way.

In 2008 the German Federal Ministry of Education and Research (BMBF) set up the funding measure "Sustainable Land Management". It was designed to generate knowledge for managing urban-rural interrelations in the context of sustainable land management and to provide relevant strategies for action as well as suitable technologies and system solutions by means of inter- and transdisciplinary research approaches (BMBF 2008; www.nachhaltiges-landmanagement.de).

With its integrated holistic approach - in order to understand human-environment land systems and to find responses for handling a highly complex system of dynamic land transitions, social and ecological challenges as well as ecosystem goods and services - the new funding measure "Sustainable Land Management" will allow initiating and supporting discussions about future forms and functions of governance.

6. Literature

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