




From Binarism to Polarism: On Rural Knowledge Outflows' Role in Fostering Rural-Urban Linkages

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Abstract. As a worldwide phenomenon, rural-urban divide is the fundamental reason for socioeconomic disparities between rural and urban areas within the same region. To achieve sustainable regional development, it is important to foster rural-urban linkages so as to coordinate rural and urban development. This research is aimed to investigating the reasons for rural-urban divide and suggesting how to address it. To this end, based on literature review and the American context, the research first analyzes the ideology and the political economic dynamics behind rural-urban divide. Then, it looks into how a shift from binarism towards polarism can address rural-urban divide and at the meantime foster rural-urban linkages. Finally, with reference to empirical examples from Boston, the research discusses how rural knowledge outflows in the form of urban farming can contribute to the formation of rural-urban linkages.

Keywords: Binarism · Rural-urban divide · Polarism · Rural-urban linkages
Rural knowledge outflows

1 Introduction

At present, globally there seems to be a predominant urban discourse both at the academic and institutional levels, whereas rural issues are not well coordinated and integrated into urban agendas. At the geopolitical level, the political partiality for urban development has led to a deep-rooted rural-urban divide. Rural-urban divide manifests itself spatially in the form of increasing socioeconomic disparities between the rural and the urban. Rural-urban divide suggests also a “passive interconnection” between the rural and the urban where the rural is the subordinate of the urban. This explains the pervasive chaotic and fragmented urban expansions that have sprawled from the historic centers diachronically into suburbs, semi-rural and rural areas since the postwar period in many European cities [1]. Generally speaking, in contrast to the urban primacy, attitudes of nation states and regions, regardless of their state of development, diverge with regard to the rural. The European Union (EU) and quite many other EU member states' regional policies and local initiatives have created incentives that seek to re-establish sustainable rural economies, successful communities and unique rural space [2].

These rural incentives go abreast with urban ones, both aiming at sustainable development. In the US (similar countries like Australia and Canada), by contrast, sustainable urban, not rural, development initiatives are guiding national priorities for change. Consequently, the rural in the US remains “dominated by corporate agriculture, increasing farm size and decreasing work force, and rural decline” (ibid, 2). This research is aimed to investigating the reasons for rural-urban divide and suggesting how to address it. To this end, based on literature review and the American context, the research first analyzes the ideology and the political economic dynamics behind rural-urban divide. Then, it looks into how a shift from binarism towards polarism can address rural-urban divide and at the meantime foster rural-urban linkages. Finally, with reference to empirical examples from Boston, the research discusses how rural knowledge outflows in the form of urban farming can contribute to the formation of rural-urban linkages.

2 Binarism: Rural-Urban Divide as a Problem

As mentioned above, rural America has long been neglected. This causes various socioeconomic and environmental problems in rural America, just to name a few, poverty, food insecurity, environmental pollution, substandard housing and high unemployment [3, 4]. However, the concerns and problems of rural America seldom seem to matter to urban Democrats (Ikerd 2016). As a result, worsening rural economic landscape together with political indifference have paved way for widening rural-urban economic and political divide in the US.

Two reasons account for the rural-urban divide in the US, namely, neo-liberal political economic policies and classic binarist ideology. While the former is superficial and exogenous, the latter is fundamental and endogenous; therefore, it has an overwhelming impact on rural-urban divide. First, political-economically speaking, in the US, both at federal and state levels, neo-liberal economic policies “have favored the market over government intervention” [5] while rigidly complying with the prevailing capitalist value orientation: efficiency and profit maximization. John Ikerd (2016), Professor Emeritus of University of Missouri, refers to the rural America as “economic colonies” of corporations (often multinational), which becomes a victim of economic extraction and exploitation of rural natural and human resources¹. Besides economic colonization, rural America is unable to resist excessive suburbanization that is a pervading development model in the US. Consequently, rural America suffers the inevitable social and ecological consequences of economic colonization while fails to capture value locally as the economic benefits go to global corporations. This economic subordination makes rural America vulnerable facing major socioeconomic changes such as migration and economic restructuring and enlarges rural-urban disparities. The long-term sustainability of America’s natural resource base affects and is affected by its institutions and social organization [6].

¹ See John Ikerd, The Real Cause of the Rural-Urban Divide, <http://johnikerd.com/2016/08/the-real-cause-of-the-rural-urban-divide/>, last accessed 2017/10/22.

Second, ideologically speaking, rural-urban divide in the US and other countries is a manifestation of the classic binarism that dominates theory and practice of regional development. In essence, rural-urban divide reflects a dichotomic thinking which often proves to be “the outcome of an urban-centric, industrialized-economy-g geared development model” [7]. Due to rural-urban binarism, the urban and the rural prone to be disconnected and segregated academically and institutionally [8]. This is more often than not detrimental both to rural development and urban development, therefore undermines regional development, especially on a sustainable term. Due to urban-centrism, the rural tends to be marginalized in regional development, while the urban is forced to absorb the pressure originated from the rural. Indeed, ignoring the rural can lead to a backlash to the urban, causing deepening rural-urban disparities which tend to become the breeding ground for socioeconomic problems. A typical manifestation is the increasing urban slums following continuous rural migration. Binarism seemingly suggests unpredictability in the US. This is primarily due to a spatial mismatch in the US: while America is a predominantly urban society where eight out of every ten Americans live in urban areas, the future of urban America, however, largely depends on rural-based natural resources, since most of the American land area is non-metropolitan and predominantly rural. For this reason, the urban society and the rural natural resources are mutually interrelated [6].

3 Polarism: Rural-Urban Linkages as a Remedy

The fact that the rural and the urban in the US should have been inalienable demands that there be an ideological shift from rural-urban binarism towards rural-urban polarism that can foster synergizing rural-urban linkages critical to building up rural and urban resiliency. The ideology of rural-urban polarism resonates *yin yang*, a Chinese polarist worldview by which the rural and the urban can be understood as two entities being opposite yet meanwhile complementary to each other. Rural-urban polarism is a promising remedy for addressing rural and urban problems resulting from binarist rural-urban divide. This is primarily because it buttresses rural-urban linkages that are critical to achieving sustainable regional development.

In the first place, rural-urban linkages make it explicit that rural and urban areas coexist as a space-time continuum rather than as discrete geographical territories with boundaries [9]. Within this continuum, what is embedded is relational interdependencies and relationality that have been appealed to account for economic action and outcomes; therefore, there needs to be a “relational lens” that coordinates associative, cooperative and collaborative forces [10]. This recognition of rural-urban continuum will stimulate the academia and public institutions to interconnect and aggregate the rural and the urban both in theory and in practice. In so doing, what is most likely to happen is a revolution in regional development schemes. Second, rural-urban linkages help foster a synergy between the rural and the urban. This very synergy can pave the way for 3Cs, namely cooperation, coordination and collaboration that bridge rural development and urban development on the one hand. On the other hand, it can generate co-benefits that are prone to be shared by the two poles given the interconnectedness between them. Already it starts to be recognized that, “Urban areas must

embrace their periurban and rural surroundings for their own survival and to make cities work better, and in harmony, with nature's ecological processes [11].” Last but not least, rural-urban linkages are able to mitigate negative externalities caused by rural-urban divide. It is expected that rural-urban linkages help achieve two principal goals: first curtailing economic disparities that undermine regional stability and cohesion, and second reconciling the needs of development and natural preservation as is required by rural-urban sustainability in the long run.

Indeed, rural-urban linkages bolstered by rural-urban polarism convey a crucial message that sustainable regional development is barely achievable if there is no coordinated rural and urban development. This suggests that recognizing rural-urban linkages that mutually strengthen the rural and urban sectors becomes a bad need both in theory and in practice [12–14]. Therefore, rural-urban linkages resulting from rural-urban polarism rather than rural-urban divide stemming from rural-urban binarism are not only what American cities, but all 21st century cities badly need.

4 Rural Knowledge Outflows: A Booster of Rural-Urban Linkages

Today, the future of cities and regions are more than before determined by their competencies and skills to learn and develop themselves in a continuous process to cultivate some specific, differentiated and locally rooted knowledge, and to foster linkages with other knowledge pools [15]. Indeed, local economic development (LED) requires internal and external knowledge flows based on internal and external networks and connections, so that localism due to overly strong internal networks will not decrease the ability of the entire area to acquire external knowledge for innovation and competitiveness [16]. According to van Leeuwen [17], new knowledge and innovations are brought into the local economy by forming connections across a certain system. This means that by fostering internal and external connections, new knowledge and innovations that can drive LED are most likely to emerge.

Based on the above discussions and in response to the conventional, prevailing knowledge flows from the urban to the rural, this research pays a special attention to the opposite ones from the rural to the urban, namely, rural knowledge outflows into the urban. Rural knowledge outflows into the urban is a relevant topic especially at a time when “the cities do not fulfil the promise of a better life that made people leave their rural villages [18]”, and there is a bad need for the integration of nature and culture for future sustainable urban and rural landscapes [19]. In this regard, rural knowledge outflows possess the very potentiality to help address urban problems such as poor urban livability, increasing urban risks facing climate change, and deteriorating urban ecosystem.

To illustrate how rural knowledge outflows manifest in the real world, especially how rural values and experiences are transplanted and reproduced in pure urban settings which “act as cultural bridges, potentially linking traditional ecologies, traditional environments, community support networks and informal economies with new global ideas, industrial economies and access to developing urban services” [20], empirical examples from Boston are studied. The major focus is on the spatial representations of

rural knowledge outflows in the form of urban farming that brings about emerging dynamic rural-urban spaces amidst the predominantly urban environments².

In Boston, rural-urban linkages are recovered mainly through revitalization of agricultural activities in three forms, namely, commercial urban farming, community gardens, and urban agricultural landscaping design. In this linkage recovery process, rural knowledge outflows play a major role, wherein rural agriculture and related traditional values have largely inspired and fueled urban regeneration and social innovation. Within the urban farming ecosystem, the public sector has promoted urban farming by passing in 2013 the new urban agricultural rezoning ordinance Article 89. The private sector has been ever since playing a very active role in translating Article 89 into practice, spurring thriving social entrepreneurship that is economically viable and socially responsible. As for the civil society, community members have participated in the legislative process like that of Article 89 and engaged in urban farming practices in various settings, ranging from community gardens, home gardens to urban farms. They have also helped foster the urban farming ecosystem by becoming consumers conscious of their individual impact on environment.

As community gardens such as Fenway Victory Gardens, Berkeley Community Garden, Worcester Street Community Garden and Harvard Community Garden (student-run), urban agricultural landscaping design like Dewey Demonstration Gardens, and commercial urban farms like Boston Medical Center Rooftop Farm, Higher Ground Farm atop the Boston Design Center, Fenway Farms in Fenway Park demonstrate, urban farming helps recover rural-urban linkages mainly by:

- (1) *playing a significant role in restoring urban ecosystem.* Article 89 legitimizes a great variety of agricultural practices in quite innovative forms, such as aquaculture, hydroponics and aquaponics. This complex and diverse agricultural pattern can help build up a resilient urban agricultural system. Besides, urban farming provides habitats for beneficial species such as honey bees and contributes to rainwater collection by absorbing rain runoff;
- (2) *restoring a traditional linkage between agriculture and local communities.* Article 89 encourages the establishment of farmers' markets and farm stands at public and open spaces, which helps create a sense of place and invite community members to socialize and relate to each other. In this way, Article 89 contributes to a considerable extent to the regeneration urban physical and socioeconomic fabrics, which improves the form and the quality of the built environment;
- (3) *regenerating urban spaces while generating positive environmental and aesthetic externalities.* Rooftop farming, transforming idling rooftops into thriving urban farms, is especially representative in this regard. It buttresses green urban development by helping cool down buildings which helps reduce energy consumption and carbon emissions. Besides, community gardens and urban agricultural landscaping design are creating livable, inclusive and attractive public spaces within communities.

² It is worth noting that, due to space limitation, this research focuses only on the rural traditions and value system embedded in agriculture when referring to the rural knowledge flow towards the urban.

- (4) *spurring social entrepreneurship*. Urban farming can promote social entrepreneurship with a community-based and relationship-based approach, stimulate proactive governance, balance efficiency-oriented capitalism and equity-oriented social constructivism, and trigger local value creation by resorting to local, site-specific, collective knowledge and interdisciplinary networks. All in all, by regenerating urban spaces, commercial urban farming is able to bring about both socioeconomic and environmental benefits that are critical to achieving urban sustainability. On the one hand, commercial urban farming can “meet non-production goals of revitalizing an ailing community through job creation, social engagement, education and beautification [21]”, therefore driving social entrepreneurship; and on the other hand, it promotes green urban development by being environmentally sustainable.

The strength of rural knowledge outflows in the form of urban farming is, it is largely local knowledge hence highly compatible with adjacent urban context. Rural knowledge outflows in the form of urban farming are also very cost-efficient and beneficial to urban regeneration. Their weakness lies in that their ability to grow as a new economy of scale and create community-based jobs is limited. Public legislative support and social innovation led by the private sector bring considerable opportunities for urban farming to further develop and innovate. In addition, the need to mitigate climate change also brings opportunities to rural knowledge outflows. The threats that rural knowledge outflows face is the deep-rooted “urban-centric, industrialized-economy-gear development model” [7].

5 Conclusion

As a worldwide phenomenon, rural-urban divide is the fundamental reason for socioeconomic disparities between rural and urban areas within the same region. In the US, worsening rural economic landscape together with political indifference have paved way for widening rural-urban economic and political divide. Neo-liberal political economic policies and classic binarist ideology are two major reasons for rural-urban divide in the US. To address socioeconomic and economic problems caused by rural-urban divide, there is a bad need for an ideological shift from rural-urban binarism towards rural-urban polarism that underpins the formation of rural-urban linkages. Rural-urban linkages are critical to sustainable regional development because, first, they will stimulate rural-urban interconnectedness and aggregation both at the academic and institutional levels. Second, rural-urban linkages help foster a rural-urban synergy. Last but not least, rural-urban linkages are able to mitigate the negative externalities caused by rural-urban divide by helping curtail rural-urban economic disparities and reconcile the needs of development and natural preservation as is required by rural-urban sustainability.

Rural knowledge outflows, a major contributor to recovering rural-urban linkages, possess the very potentiality to help address urban problems. In Boston, rural-urban linkages are recovered mainly through urban farming that revitalizes rural agricultural knowledge (and community values embedded in agricultural traditions) in three forms,

namely, commercial urban farming, community gardens, and urban agricultural landscaping design. Urban farming as a form of rural knowledge outflows can help recover rural-urban linkages mainly by playing a significant role in restoring urban ecosystem, restoring a traditional linkage between agriculture and local communities, regenerating urban spaces while generating positive environmental and aesthetic externalities, and spurring social entrepreneurship.

It is hoped that this research will evidence the need for a new form of rural-urban interdependence shown by the emergence of urban “rural” spaces characterized by the merging of a rural landscape form with urban economic function [22].

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