SEVEN STEPS TO INCREASING RURAL-URBAN ECONOMIC CONNECTIONS IN CENTRAL APPALACHIA

Brian Dabson

Institute of Public Policy

University of Missouri

Prepared for

The Rural-Urban Continuum in Appalachia

Expanding Market Access through Increased Connectivity

Stonewall Resort

Roanoke, West Virginia

August 26th-27th, 2013

CONTENTS

PREFACE

The pivotal question for the Central Appalachian Network (CAN) in thinking about regional economic development is how to expand access to markets for promising rural-based economic sectors. This will be the theme for the CAN Tank convening on August 26-27, 2013. As a contribution to the discussion, the University of Missouri's Institute of Public Policy was invited to provide some insights into the rural-urban continuum in and around central Appalachia, describe what it will take to make connections between rural enterprises and urban demand, and make some recommendations on how to expand market access for rural-based sectors.

The author is grateful to the members of the Central Appalachian Network, and in particular to Andrew Crosson and Thomas Watson of Rural Support Partners for their guidance in the production of this paper. Responsibility for the accuracy and relevance of the paper's contents remains entirely with the author.

The Author

Brian Dabson is Associate Dean and Research Professor at the Harry S Truman School of Public Affairs, and the Director of the Institute of Public Policy at the University of Missouri. He has held executive leadership positions at the Rural Policy Research Institute and the Corporation for Enterprise Development.

The Institute of Public Policy seeks to enhance knowledge and understanding of public policy issues relevant to policymakers and citizens through research, policy analysis, education, and training. The Institute is the policy and outreach arm of the Harry S Truman School of Public Affairs, University of Missouri.

EXECUTIVE SUMMARY

Purpose

The pivotal question for the Central Appalachian Network (CAN) in thinking about regional economic development is how to expand access to markets for promising rural-based economic sectors. This will be the theme for the CAN Tank convening on August 26-27, 2013. As a contribution to the discussion, the University of Missouri's Institute of Public Policy was invited to provide some insights into the rural-urban continuum in and around central Appalachia, describe what it will take to make connections between rural enterprises and urban demand, and make some recommendations on how to expand market access for rural-based sectors.

Method

The observations and recommendations are based upon:

- The results of two recent research studies of regional trade flows in Central Appalachia. These provide both a context and some insights into the current economic interactions between regional urban centers and their rural hinterlands.
- An extensive literature review from US and international sources of research and commentary on the rural-urban continuum.
- A review of literature on clusters and supply/value chains, highlighting concepts and practices that have application for Central Appalachian businesses.
- A brief review of approaches and experiences of some CAN member organizations that relate directly to the findings from the literature reviews.

Observations

The following observations can be made based on the review of relevant research and practice.

- There is an unfavorable trading relationship between rural economies in Central Appalachia and their urban regional centers. Poorly performing rural periphery economies have a drag effect on the overall competitiveness of the region. It is in the interests of Nashville, Louisville, Lexington, Charleston, Knoxville, and Johnson City – as well as Cincinnati, Columbus, and Roanoke – that the rural economies in their respective regions perform at a higher level.
- The hard and fast distinctions between urban and rural that are ingrained into the political, professional, and cultural discourse, and reinforced by government

statistical definitions, have limited meaning in reality. There is a continuum of settlement patterns based on population size and density and the type of economic activities and patterns of land use. Considerations of policy and development are therefore best taken within a regional framework to embrace rural-urban interdependence.

- Much of current discussion about rural development is focused on the connections or linkages between urban and rural places, either as a means of describing and explaining interactions and their positive and negative impacts, or as showing the value of interdependence – what rural provides for urban, what urban provides for rural. These interactions are highly dynamic, with changes in migration patterns, economic development, infrastructure, and technology having impacts on their nature and intensity. Some observers point to the growing importance of smaller centers – micropolitan centers in US census parlance – as connecting points between large urban areas and their rural hinterlands.

- Two approaches to analyzing and supporting economic development that have gained considerable traction are clusters and supply/value chains. Clusters refer to geographic concentrations of inter-connected companies and supporting institutions, whereas supply/value chains refer to flows through a developmental process regardless of the location of the participating companies. Both have relevance for rural-urban interactions and for examining the connections between companies within and across regions, although supply/value chains are more applicable to predominantly rural regions such as central Appalachia.

- Some analysts draw a sharp distinction between supply chains and value chains, with the former seen as simply the downstream flow of activities from raw materials through processing to distribution to the customer. Value chains are either seen as (a) upstream flows of information, money and feedback from the customer to the suppliers, (b) as the process of adding value along the production process, or (c) as the promotion of specific social and environmental values at each stage of the process. With the growth of supply chain management, and particularly *sustainable* supply chain management, the supply vs. value distinction has become largely moot. Indeed, definitions of sustainable supply chain management align directly with CAN's own definition of value chains.

- There is much to be learned from management philosophies associated with supply chain management, as well as from understanding where sustainability interventions can be most effective. The importance of intermediary institutions to manage supply chains in terms of transactions, information flows, and policy is underscored particularly for small and medium sized businesses lacking the capacity and resources of large corporations.

- CAN members' philosophy, approaches, and experiences are strongly supported by the literature, particularly in relation to (a) sustainable supply chain management in food, wood products, and artisanal products, (b) the concept of "short food supply chains", and (c) the role of intermediaries.
- Not all of CAN members' value chain activities tie back directly to rural-urban interactions – some are essentially aspatial, such as MACED's energy efficiency programs which create benefits to urban and rural businesses and residents alike, and add to the overall competitiveness of the region.

Recommendations: Seven Steps

The discussion at CAN Tank will lead to some very specific action steps to improve market access for rural-based sectors in Central Appalachia. From the above observations, seven steps should be considered to build upon current approaches and activities to increase rural-urban economic connections, and thus expanded market access for Central Appalachian enterprises:

1. **Expand intermediation.** Replicate current intermediation approaches from one part of central Appalachia to others, such as the *Regional Flavor* concept in Ohio, recognizing the different social, cultural, culinary, and resource conditions from state to state. CAN, its members, and its partners should pursue intentional and appropriate replication or brand expansion strategies.
2. **Capture regional markets.** Explore regional markets, focusing on the nine main urban markets (and their suburbs) and CAN's target sectors, building retail and supply chain connections, distribution systems, and umbrella branding. CAN members and partners should engage with regional business schools to conduct market development research.
3. **Connect to urban procurers.** Develop connections with procurement offices in urban-based businesses and work with rural-based businesses to engage with appropriate supply chains. CAN members and partners should collaborate with urban-based economic development advisory, technical assistance, and financing agencies to broker and support these interventions.
4. **Broaden regional branding efforts.** Convene business-to-business gatherings to explore how CAN brands, current and proposed, play in regional markets, and where regional branding efforts need to be stepped up. CAN members and partners should consider supporting fledgling initiatives through technical assistance and small grant programs.
5. **Focus on exports and import substitution.** Convene sectoral business-to-business gatherings related to food, energy, health care, and selected manufacturing sectors

located in central Appalachia. CAN members and partners should explore import substitution or export opportunities to which rural-based companies can respond.

6. **Capitalize on provenance and quality.** Explore the concept of “short supply chains” for products and services in a range of sectors where provenance and quality can provide a competitive advantage. CAN members and partners should reach out to public and private economic development organizations and financing intermediaries to identify potential candidates for umbrella marketing.

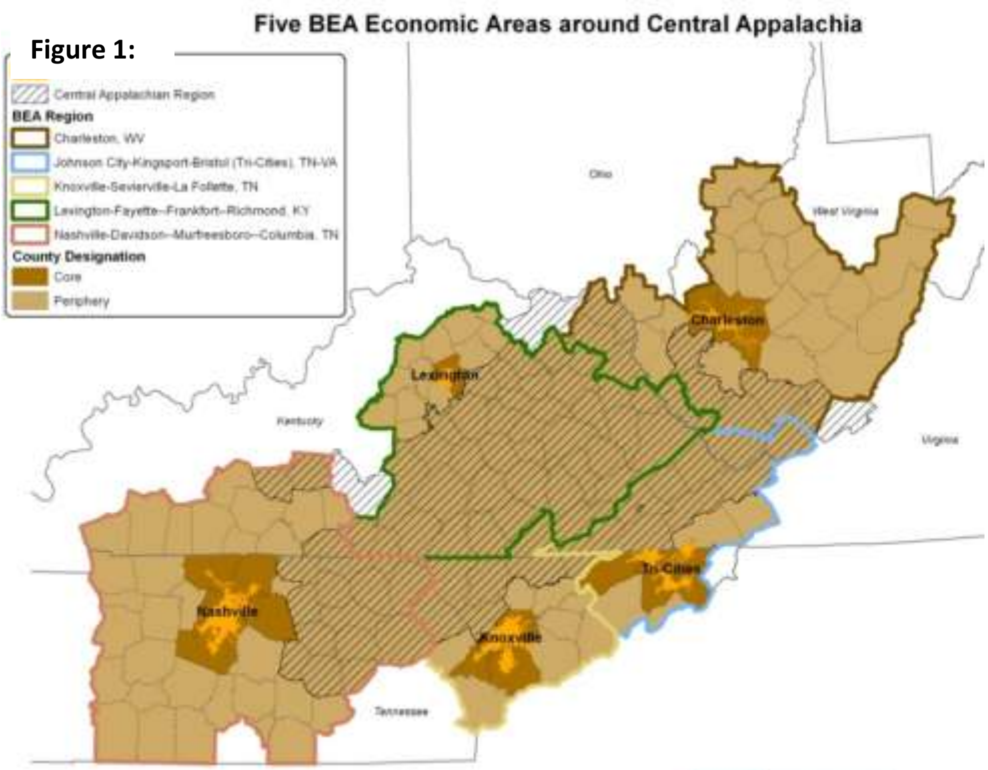
7. **Track impact and tell the story.** Identify and apply specific metrics to track the development and impacts of sustainable supply chains (value chains) so as to drive efforts to forge connections across the rural-urban continuum. CAN members and partners should work with supply chain participants to create and apply meaningful measures.

1. THE REGIONAL ECONOMY

Good starting points for thinking about the rural-urban continuum are two related regional economic assessments of Central Appalachia conducted by the University of Missouri and Oregon State University (Dabson, Johnson, Miller & Robinson, 2009; Weber & Rahe, 2010;). These were intended as background for the *Wealth Creation and Rural Livelihoods* initiative supported by the Ford Foundation, of which CAN and many of its members were an important part.

The Central Appalachian region was defined for the purposes of the analysis as 87 counties within the designated area of the Appalachian Regional Commission (ARC), straddling Kentucky, West Virginia, Virginia, and Tennessee.[1] As shown in Figure 1, this region is part of five regional markets or Economic Areas defined by the Bureau of Economic Analysis based on trade and commuting patterns associated with metropolitan statistical areas (urban cores).

Figure 1:



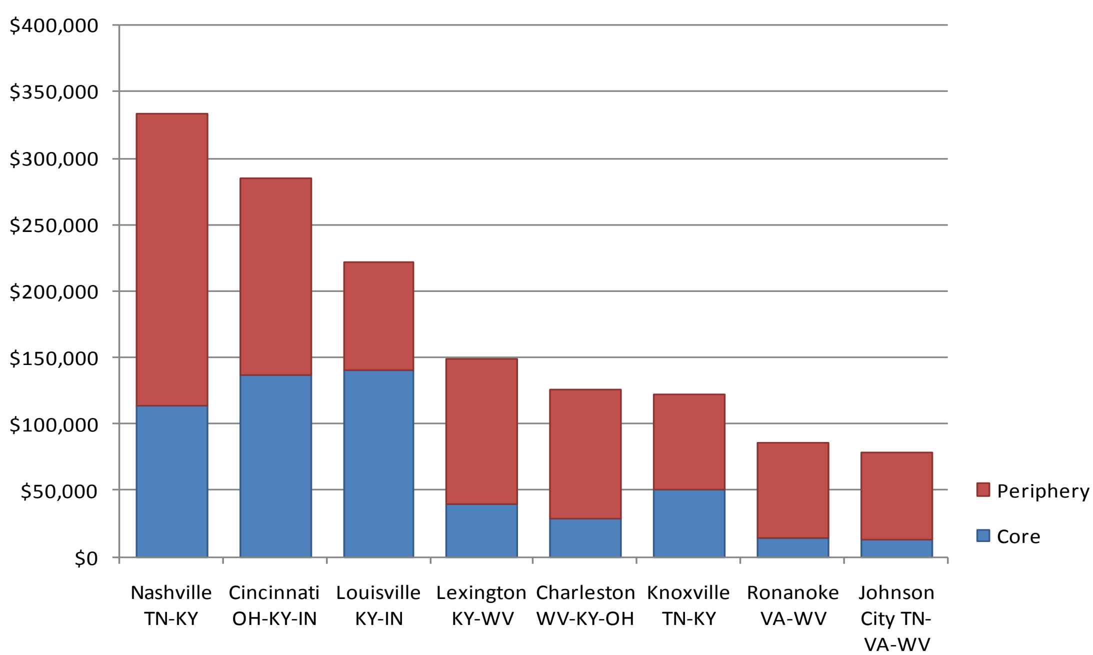
---

[1] This definition of Central Appalachia differs from the current ARC definition of sub-regions, which since 2009 have been known as North Central (parts of Ohio and West Virginia), Central (parts of Kentucky, West Virginia, Virginia, and Tennessee), and South Central (parts of Tennessee, North Carolina, and Virginia).

The urban core of each Central Appalachian Economic Area is located outside the defined region – Nashville, Lexington, Charleston, Knoxville, and Johnson City/Tri-Cities, although Charleston is located within ARC's north-central sub-region. Together, these five Economic Areas comprise 181 counties – what was described as the Greater Central Appalachia (GCA) – of which 16 were classified as core counties, and 165 peripheral counties. In rough terms, this classification corresponds to the conventional urban-rural split, although the periphery includes small cities as well as more sparsely settled populations.

Central Appalachia's population of 2.1 million represents 30 percent of the total GCA population of 7.3 million. Nashville is the largest economic area with 2.6 million, the smallest being Johnson City/Tri-Cities with 741,000. The relative size of the economies of these economic areas is shown in Figure 2.

Figure 2: Size of Regional Economies in Central Appalachia
Total Value of Production ($million)



The total goods and services produced in GCA amounted to about $543 billion, with the largest categories being health and social services ($44 billion), and real estate, construction, and transportation equipment at $30-35 billion each. In addition, services (finance and insurance, business services, legal, accounting) accounted for $100 billion and durable goods (chemical products, primary metals, electric machinery) nearly $77 billion. The two largest export sectors were transportation equipment (71 percent of products exported) and chemical products (90 percent of products exported).

It should be noted that coal contributes $7.3 billion of production (1 percent of total GCA) of which 92 percent is exported, making coal just the 11th largest export from GCA. Charleston EA produces over half of the total coal, which represents it third largest export. Other important commodities are stone, glass and masonry products of which Lexington EA is the top exporter and food manufacturing of which Nashville EA produces 53 percent of GCA's total and accounts for 55 percent of all exports.

The preliminary conclusions of the 2009 study included:

- Despite generating economies greater than their related cores, with the exception of Louisville and Cincinnati (see Fig. 2), income created by rural peripheries does not stick but flows to the urban core or beyond the region; the flows out of urban cores to rural peripheries are much less than from rural to urban.

- Investments in the urban core are unlikely to spill over into the rural peripheries – the benefits tend to remain in the core.

This study was expanded in 2010 using an inter-regional input-output framework to estimate the gross flows of goods and services between the urban core and the rural periphery for each of the Economic Areas. As the authors noted, wealth creation in a given place is a function of the balances on its current account. These balances comprise net trade balances, net federal funding flows, and net asset income flows in and out of the region. Current account surpluses open up the possibility for wealth creation because they imply that more financial resources are entering the region than leaving in a given time period. Two accounts are important – that of each core or periphery with the economy beyond its boundaries, and the account of each core with its own periphery.

- **Net trade balances** refer to the relationship between the export and import of traded goods and services to and from a given region. All five Economic Areas had a *trade deficit* with the outside economy (ranging from 3.1 percent of production in Knoxville EA to 16.5 percent of production in Lexington EA). Positive trade balances for the Nashville and Knoxville cores were insufficient to offset the large negative trade balances for the peripheries. These ranged from deficits of 8.1 percent in Knoxville's periphery to 22.0 percent in Lexington's.

- It should be noted that in each Economic Area, the core had a trade surplus with its periphery ranging from 2.8 percent of EA production in Nashville to 0.7 percent in Charleston and Johnson City.

- **Net federal funds flows** refer to transfer payments (retirement and disability payments, unemployment insurance, and income maintenance) which went disproportionately to peripheral economies, and Federal non-transfer payments less federal taxes, including direct payments (farm commodity supports), grants (Medicaid), procurement, and salaries and wages (military personnel , civilian employees), for which there is no clear distributional pattern.

If a region's ability to create wealth is dependent upon generating a trade surplus with the outside economy and attracting investors, the economic competitiveness of the urban core appears to be key. However, if the rural periphery is experiencing substantial trade deficits, this will have a substantial negative impact on the whole region.

- **Net asset income flows**, comprising dividends, interest, and rent payments which go disproportionately on a per capita basis to core economies.

Putting these together, Knoxville EA and Charleston EA have positive account balances of 3.5 percent and 1.6 percent respectively, whereas Lexington EA (-7.5 percent), Nashville EA (-2.4 percent), and Johnson City EA (-2.0 percent) are running negative balances.

Looking just at the peripheries, only Knoxville is positive at 1.3 percent, Charleston is at breakeven, while Johnson City's (-4.9 percent), Lexington's (-11.3 percent), and Nashville's (-3.2 percent) peripheries have significant negative balances.

Two general observations can be made from these results (Dabson, 2010):

- If a region's ability to create wealth is dependent upon generating a trade surplus with the outside economy and attracting investors, the economic competitiveness of the urban core appears to be key. However, if the rural periphery is experiencing substantial trade deficits, this will have a substantial negative impact on the whole region.

- For some regions, the net influx of Federal transfer payments, although an indicator of low social welfare, can offset a weak rural periphery trade position, as in the cases of Knoxville and Charleston Economic Areas. However, the prospects for wealth creation and retention in the rural periphery of Nashville, Lexington, and Johnson City look challenging, given that even with transfer payments, they are running net negative overall current account balances.

A series of strategies for addressing the challenges for the rural economies were identified (Dabson, 2010):

- Add greater value to locally-produced goods and services in order to even out trade flows with the outside economy and with the core.
- Substitute imports from the outside economy and the core with products and services that can be generated locally for the same or lower costs and for the same or higher quality.
- Identify new productive assets in the region, including those related to natural and cultural resources, and to encourage entrepreneurial activity to convert those assets into economic opportunity. This will produce a double benefit of adding to the capital account and yielding an income stream to the current account.
- Diversify and localize the ownership and control of the production of goods and services. Providing that this leads to investment in higher value, higher return activities, this will in turn increase wealth in the periphery.
- Attract individuals with higher net worth to locate in the periphery who might be willing to invest in local productive activity for the benefit of the region, and to otherwise mobilize local capital for local benefit.

2. THE RURAL-URBAN CONTINUUM

> There is a need to forget the rural-urban divide and see all settlements as being within a continuum…

These regional analyses underscore the importance of the relationships between urban cores and rural peripheries and of understanding these relationships within a regional framework. A review of the academic and technical literature[2] shows that this view of rural-urban linkages has been the topic of research and practice for many years particularly outside the United States. The literature suggests three broad observations:

- A simple rural-urban distinction is meaningless
- It's all about linkages
- Rural-urban interactions are highly dynamic

A Simple Rural-Urban Distinction is Meaningless

Many researchers and analysts have challenged the hard and fast distinction between urban and rural areas for descriptive, policy, and programmatic purposes. Cecilia Tacoli of the International Institute for Environment and Development (IIED) reviewed the international literature on rural-urban interactions (Tacoli, 1998). She observes that although a distinction between 'rural' and 'urban' is probably inescapable for descriptive purposes, the reality is much more complex. Tacoli's colleague at IIED, Satterthwaite (2006) asserts, "There is a need to forget the rural-urban divide and see all settlements as being within a continuum with regard to both their population size and the extent of their non-agricultural economic base" (p.35). He notes that,

> Dividing a nation's population into 'rural' and 'urban' and assuming that these have particular characteristics in terms of settlements they live in and the sector in which they earn a living misses the extent to which (poor and non-poor) rural households rely on urban income sources (through remittances from family members, commuting or producing for urban markets) while many urban households in low-income nations rely on rural resources and reciprocal relationships with rural households (p.34).

A former director of the Monitoring and Research Division of the United Nations Human Settlements Programme (UN-HABITAT) noted that,

> The old orthodoxy of a discrete and dichotomous approach to urban development as distinct from rural development no longer accords with reality, considering the complementary functions and flows of people, capital, goods, and services, employment, information, and technology between the two

[2] An expanded version of the literature review was submitted to CAN members in April 2013

> areas. Rural and urban areas are economically, socially, and environmentally interdependent (Okpala, 2003).

Maximo Torero of the International Food Policy Research Institute underscores the point.

> The characterization of rural-urban development as a dualistic relationship devoid of interdependencies and synergies between the two areas is a relic of the past. Rural and urban livelihoods rely on both “rural-based” and “urban-based” resources. Moreover, new spatial and sectoral patterns have emerged along the rural-urban continuum as a result of migration, road accessibility, information technologies, and production flows in the modern value chain. (Torero, 2010).

A recent review of a century of research on rural development and regional issues in the United States noted that the distinction between urban and rural had become increasingly blurred through the twentieth century with the rise of agricultural productivity and reduced transportation costs associated both with getting goods to market and workers commuting to urban jobs. Post-World War II sprawl fueled by the expansion of road networks and suburbanization led to most counties by the 1980s having a mix of urban and rural areas (Irwin, Isserman, Kilkenny, & Partridge, 2010).

> The complexity of interactions between communities and companies along the rural-urban continuum is becoming increasingly apparent. This complexity is revealed in migration, commuting, and telecommunications patterns. At the same time, while rural areas look different to urban ones, rural and urban consumption patterns have been converging (Schaeffer, Kahsai, & Jackson, 2012).

Nevertheless, distinctions continue to be made in the United States as a result of statistical inertia that requires what Isserman (2005) described as a “systematic bifurcation” of core from non-core and urban from rural. The U.S. Census Bureau defines,

> … urban very carefully and precisely and designate[s] as rural that which is not urban. This separation of territory into town *or* country, urban *or* rural, leads us to define rural simply as homogenous with respect to not being urban. In contrast, integration of town *and* country, urban *and* rural, leads us to define metropolitan areas consisting of urban and rural areas that are functionally related to one another. Under the system of the Office of Management and Budget (OMB), we define metropolitan very carefully and precisely…but then use the word rural indiscriminately as a widely adopted synonym for places, both urban and rural that are not within metropolitan areas. In short rural is used in two different and often contradictory ways, always defined by what it is not, not urban, not metropolitan (Isserman, 2005, pp. 465-466).

The Rural Policy Research Institute's Fluharty and Miller viewed renewed interest in regions as "units of conceptualization, empirical analysis, and policy intervention" as a welcome "shift from the sectoral focus that dominated theory and practice for decades." (Fluharty & Miller, 2010, p.14).

> Ultimately, a region is really just a convenient organization of space, and within this space, the component people, homes, farms, natural resources, industries, public spaces, and government. The terms "urban" and "rural" describe the nature of this space, not types of regions. Space, and thus regions, is best seen as a system of rural-urban continua (Fluharty & Miller, 2010, p.14).

It's All About Linkages

Tacoli (2006, 1998) sees rural-urban linkages as a useful lens for understanding the complexities of people's livelihoods and their strategies, and as "engines of economic, social, and cultural transformation" (2006, p.3). Different countries define what is urban and rural in many different ways depending on the impacts that cities have on surrounding rural areas through their ecological "footprints," and on the nature of economic and social exchanges. These, Tacoli argues, are factors at the heart of understanding the importance of rural-urban interactions in a variety of contexts.

> Rural-urban linkages should be seen as contributions that rural and metropolitan economies and regions make to each other's and the nation's prosperity.

In a report published by the U.K. Department for International Development, Deborah Bryceson and her colleagues provided a useful working definition of rural-urban linkages:

> …the relationships between people, goods, money and information across geographical space and are usually distinguished as consumption linkages (demand for final products), production linkages ('backward' or 'forward' supply of inputs among businesses), and financial linkages (rents extracted by urban landlords, remittances by migrants, rural savings channeled through urban institutions)…(they) imply a symbiotic relationship between people and activities taking place in rural or urban areas. (Bryceson et al, 2003, P.38)

Dabson (2007) and Dabson et al (2012) framed these interactions in a U.S. context as contributions that rural and metropolitan economies and regions make to each other's and the nation's prosperity. The production of food and the extraction of energy, whether non-renewable or renewable, are the most obvious economic contributions that rural regions make. But there are many others. Some 30 million people live in rural communities where more than a quarter of workers commute into nearby metropolitan cores, and an increasing number of companies locate back-office functions in rural towns to access lower-cost workers or office space.

Rural communities are responsible for the stewardship of ecosystem services essential to human survival and well-being, such as clean air and water, flood and drought mitigation, pollution mitigation, pest control, seed dispersal, biodiversity, and climate stabilization. Mountains, wide-open spaces, pristine rivers, wildlife, and quiet special places, together with a rich cultural heritage, provide urban dwellers with a variety of experiences from the reflective to the extreme. Metropolitan congestion is given some relief by smaller towns and cities that offer affordability, space, and safety. And on the flip side, rural areas play a role in accommodating and managing metropolitan-generated wastes and “undesirable” activities such as power generation, sewage treatment, landfills, prisons, and military bases.

Metropolitan areas provide the concentrated markets for rural goods and services; they are the source of jobs and a magnet of economic opportunity for young people offering varied experiences, higher levels of skills, and higher incomes. They are also the location of a wide variety of specialized services, such as health care, high-end retail, entertainment and cultural activities, and legal and financial services.

Tandoh-Offin (2010) in a review of the literature of rural and urban interdependence concludes that by taking advantage of interdependence,

> …regions could leverage growth and engage in successful cooperation to engender regional and global economic power for American communities. Communities will be able to reap maximum benefits from the emerging or existing interdependence through a viable public education campaign that helps to erode any form of ignorance that weaken communities and regions (p. 344).

A more recent review by Cornell University development sociologists (Lichter & Brown, 2011) of the new “rural-urban interface” and the growing interpenetration of American urban and rural life points to the “enormous scale of rural-urban interdependence and boundary crossing, shifting and blurring – along many dimensions of community life – over the past decades” (p.565) and the two-way nature of these influences.

> …the growing interpenetration of American urban and rural life points to the enormous scale of rural-urban interdependence and boundary crossing, shifting and blurring…

A thoughtful reflection on the past, present, and future of rural-urban interdependence in Oregon (Hibbard, Seltzer, Weber, & Emshoff, 2011) notes that much of the current intellectual excitement about economic growth tends to focus on the vitality of urban centers, and in particular on the conditions that facilitate economic innovation by allowing people and ideas to interact. Much of the literature observes that the remoteness of rural areas prevents them from easily participating in the exchanges and dynamics of the global economy. However, those rural areas within relative close proximity to urban centers can and do benefit from the spillovers associated with commuting and urban and suburban expansion. The authors note:

> …the city-centric new economic geography and the extensive urban-spillover literature tend not to focus on either the extent to which rural places have sources of economic vitality that do not depend on proximity to a city, or the impact of state, national and global forces on rural places. Nor do they often consider the fact that growth or decline in this autonomous rural economy has spillover effects, positive and negative, on the urban core that are often relatively larger than the impacts of urban trade on the rural economy. (Hibbard, Seltzer, Weber, & Emshoff, 2011, p. 161)

Rural-Urban Interactions are Highly Dynamic

Although rarely reflected in the policy dialogue about rural America, it has not been since the 1940s that it was possible to say that the rural economy was primarily a farm economy. Now only about two percent of rural people live on farms and the share of those who work on the farm is even lower (Schaeffer, Kahsai, and Jackson, 2012). Today, rural economies are characterized by their diversity, not only in natural resource industries but also manufacturing and services (Irwin, Isserman, Kilkenny, & Partridge, 2010). A study by Feser and Isserman (2009) emphasized this economic diversity by showing that rural counties participated in 28 out of 45 national value chains across a wide range of industrial sectors.

> Today, rural economies are characterized by their diversity, not only in natural resource industries but also manufacturing and services…

Demographic changes in recent years have continued to follow the trends established since the 1950s, with rapid expansion of the suburbs and exurbs (17.5 percent 2000-2010), limited growth in urban areas (1.4 percent), and modest growth in rural and small towns (5.6 percent). This latter figure conceals major regional differences, with substantial population declines on the Great Plains, stagnation across the eastern half of the country, and rapid increases in the West and Southeast. Two key factors are at play. The first is the documented attraction of high amenity areas to migrants from the cities. These areas with warmer climates and high quality natural environments (often complemented by man-made recreational facilities) have seen transformational changes in their economies. At the same time, immigration, once concentrated in the cities, now is having widespread impacts across the landscape (Irwin, Isserman, Kilkenny, & Partridge, 2010).

In developing countries, the rate and scale of change in rural-urban interaction is of a higher order of magnitude. Joachim von Braun of the International Food Policy Research Institute (2007) describes the rapid rural transformation across the developing world driven by technological progress, infrastructure improvements, and market liberalization. Large scale migration from rural areas into the cities and the resultant expansion of these cities into peripheral areas is increasing the rate of urbanization. This migration may be the consequence of push factors such as droughts, land scarcity, or low wages, or pull factors such as prospects of higher and more secure incomes. Family ties and seasonal migration can maintain strong connections between urban and rural family members, as can the flow of remittances back to home communities.

Although traditionally the debate on rural-urban interactions has been dominated by interest in the ways in which very large cities influence the development of national space, small and intermediate centers are often seen as playing a crucial role in rural-urban interactions given the usually strong link and complementary relationships with their rural hinterland (Baker & Claeson, 1990; Tacoli, 1998, p. 152). Tacoli (2006) argues that focusing on rural-urban linkages uplifts the potential of small urban centers as the intermediary between large urban and rural regions. Satterthwaite and Tacoli (2006) have highlighted the contribution that small and intermediate centers make to rural and regional development. They talk about a progression of roles from being centers of demand and markets for agricultural produce from their surrounding rural region, to centers for the production and distribution of goods and services to their rural region, and then to centers for growth and consolidation of non-farm activities and employment.

According to Satterthwaite and Tacoli (2006), such a progression is dependent upon the meeting of certain pre-conditions:

- Initially, farmers have to be able to respond to demand from urban-based customers and traders, making best use of natural and other available assets.
- Then, as income levels and purchasing power increase to constitute broad-based demand, the centers will be able to gain strength as hubs of production and distribution, although smaller and less-successful centers may be by-passed as the rich seek quality and variety, and the poor look for lower prices.
- Ultimately the centers will have to be able to offer diverse means for making a livelihood, enabling the rich to accumulate wealth and the poor to survive, which will mean entrepreneurship, access to markets, capital, education, and technical know-how.

However, Satterthwaite and Tacoli (2006) note that the capacity for these centers to trigger growth and development is

> …much influenced by regional characteristics, [such as] the natural resource base, population density and infrastructure, land-ownership patterns, and

> socio-economic and cultural transformations at the local, national and international levels (p.9).

Douglass (2006) describes great variations in rural-urban linkages even within the hinterland of the same principal urban centers, with a natural clustering of villages and towns that can take advantage of the diversity and complementarities among various centers and between each center and its immediate hinterland within a given region. There is no need to rely on a single center to lead regional growth as relations among centers can be more horizontal, complementary, and reciprocal. He argues for a new policy paradigm that is,

> …based on clusters of settlements of various sizes, rather than on dyadic urban center-rural area relationship. This certainly reflects the reality of how people make a living… and the complex, web-like structure of economic and social relations between different locations." (Tacoli, 2006, p.9)

Research has shown greater interest in rural-urban linkages (Evans, 1990; Gaile, 1992; UNDP/UNCHS, 1995) because of increasing use of market-based strategies that emphasize export production which relies on efficient economic linkages to external markets. Here, small towns are seen as playing a key role in linking their rural hinterlands with domestic and international markets as well as providing rural population with non-farm employment opportunities and thus broadening the local economy's base (Tacoli, 1998, p. 153).

3. CLUSTERS AND CHAINS

Regional Clusters

Given that there are strong arguments for thinking about rural economies in terms of their regional context and their interdependence with urban core economies, there is a clear need for a way of describing and developing business and economic relationships that can take advantage of and reinforce rural-urban interdependence.

The concept of clusters is one approach that has received considerable attention in the United States over the past 20 years. Clusters are defined as:

> …geographically close groups of interconnected companies and associated institutions in a particular field, linked by common technologies and skills…Clusters capture important linkages and spillovers of technology, skills, information, etc., that cut across firms and industries. Viewing a group of companies and institutions as a cluster highlights opportunities for coordination and mutual improvement. (Porter, 1996, pp. 199-205)

A close association between clusters and metropolitan centers and regions presents significant challenges for those engaged in rural development policy and practice. If metropolitan-based clusters represent the new paradigm for national, state, and metropolitan economies (Muro and Katz, 2010, p.25), what is the future for rural economies? One way has been to conduct conventional cluster analyses for rural regions in an effort to identify where competitive advantage might be found (Porter et al., 2004; Monitor Group et al., 2006); an alternative has been to develop specific methodologies for discovering rural clusters (Rosenfeld, 2009).

Dabson (2011) identified three ways in which rural firms might relate to regional clusters:

- Rural businesses located within or close to metropolitan centers may be able to plug directly into clusters and value chains as suppliers and subcontractors.
- Those located further away will need to build upon the assets of their communities and regions, creating entrepreneurial opportunities that use telecommunications to link to customers. Although lacking the institutional thickness associated with metropolitan centers, community and virtual networks will perform cluster-type functions.
- For sectors that require space rather than proximity in which to operate, they will link into regional, national, and often global supply chains, and such will be part of non-proximate clusters. These include natural resource industries and large land users such as power plants, chemical facilities and defense establishments (p.17).

Clusters share many attributes with the concept of value chains, another approach that is attracting enthusiastic attention domestically and internationally. They both recognize that individual firms often face sector-level constraints that they cannot address alone, and that inter-firm cooperation is critical to increasing overall competitiveness (Chemonics, 2008).

…rural economies may depend on – as well as contribute to – the competitive success of clusters anchored elsewhere. Indeed, the most important cluster for a given rural community's economic future might be based in the rural locality itself, in a nearby urban area, or 1,000 miles away.

However, while the cluster approach focuses on *geographic concentrations* of inter-connected companies and their interactions, the value chain approach focuses on the flow through a developmental process *regardless of location of the participants*. Sometimes, clusters can encompass a whole value chain, sometimes different segments of a value chain, or in some circumstances involve firms that specialize in particular segments of multiple value chains (Chemonics, 2008; Humphrey and Schmitz, 2002; Roelandt and den Hertog, 1999).

There is one important study that helps to clarify thinking about clusters and value chains in a rural context and creates the bridge to the discussion on rural-urban linkages. Feser and Isserman (2009) analyzed the contribution that rural companies make to national value chains. They concluded that industry clusters are on a spatial continuum from those that are national in scope to those that are highly localized.

Feser and Isserman continue:

> …rural economies may depend on – as well as contribute to – the competitive success of clusters anchored elsewhere." Indeed, "the most important cluster for a given rural community's economic future might be based in the rural locality itself, in a nearby urban area, or 1,000 miles away. A search for strictly locally based clusters, or even those nearby that spill into rural communities, may generate a misleading picture of the underlying economic base and prospective economic potential of a given place (p.92).

Supply and Value Chains

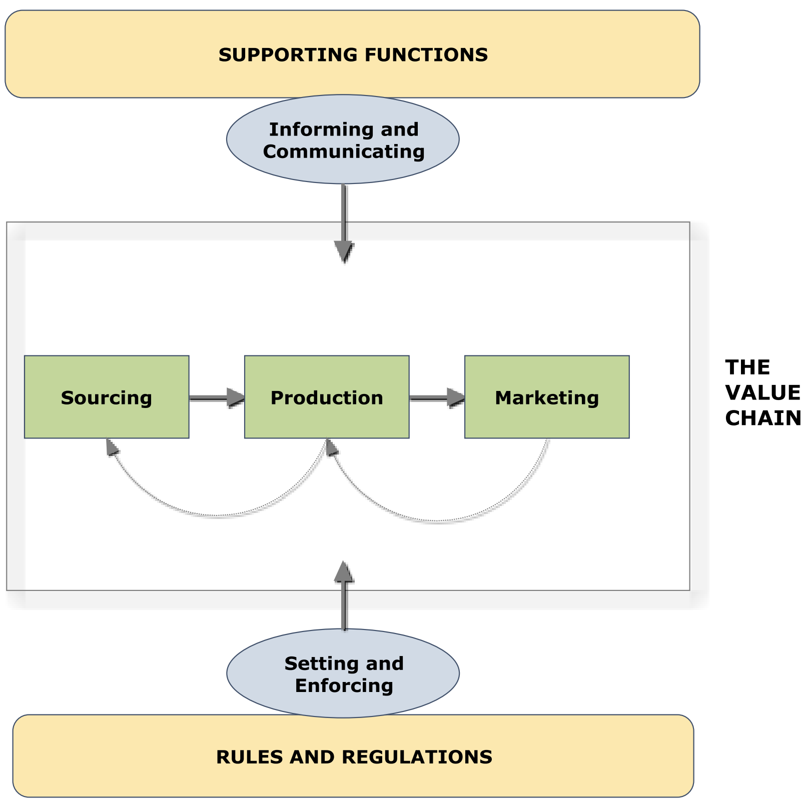
In the business and international development literature, there is a wide variation in the use of the terms "supply chain" and "value chain." Often, a supply chain describes the downstream flow of goods and services from the source to the customer, with a focus on integrating supplier and producer processes, improving efficiency and reducing waste. A value chain, on the other hand, refers to the upstream flow of orders and cash from the customer, focusing on creating value for the customer (Feller, Shunk, & Callarman, 2006).

An elaboration of the definition of a value chain refers to the fact that value is added to preliminary products through combination with other resources – such as tools, labor, knowledge and skills – and other raw materials or preliminary products. As the product passes through the many stages of the chain, the value of the product increases (Herr and Muzira, 2009).

> …competition in global markets no longer takes place between individual businesses, but between entire value chains.

Figure 3 provides a simple illustration of the components of a value chain. At the core is the sequence of activities from sourcing the raw and intermediate materials, manufacturing and assembling the products, and then marketing and distributing the finished goods to the customer.

Figure 3: The Basic Components of the Value Chain (after Herr and Muzira, 2009, p.7)



This sequence, which may involve multiple companies and organizations, is shaped and conditioned by two sets of contextual functions. One set comprises the support functions that inform and communicate with the chain participants, including mechanisms for coordination, information flows, research and development, financing, physical infrastructure, and skills and capacity. The second set consists of the rules, standards, and regulations that govern the operations of the chain and its participants.

However, it seems that the latest iterations of thinking on supply chains now fully incorporate notions of value. Every product that reaches an end user is the result of the cumulative effort of many people and organizations – known as the supply chain. When the organizations within the supply chain focus only on their own operations without paying attention to others in the chain, the result is a disjointed and ineffective supply chain. Poor or inconsistent quality, unreliable production and delivery timelines, and higher costs can be the obvious consequences.

A relatively recent and increasingly important idea is that of supply chain management. This implies a conscious effort by those in the supply chain to look for the most effective and efficient ways to work together to maximize customer value and achieve a sustained competitive advantage (Handfield, 2011). This seems to be the point at which "supply chain" and "value chain" become interchangeable terms, as many commentators and researchers have noted that competition in global markets no longer takes place between individual businesses, but between entire value chains (Horvath, 2001).

According to Mentzer et al (2001), without active management, a supply chain is simply a distribution channel, but the concept of supply chain management transforms it into both a management philosophy and a set of management processes (Mentzer et al, 2001) broadly synonymous with the notion of value chains.

As a management philosophy, supply chain management is characterized by:

- A **systems approach** to viewing the supply chain as a whole, and to managing the total flow of goods inventory from the supplier to the ultimate customer.
- **A strategic orientation** towards cooperative efforts to synchronize and converge intrafirm and interfirm operational and strategic capabilities into a unified whole; and
- A **customer focus** to create unique and individualized sources of customer value, leading to customer satisfaction (Mentzer et al, 2001, p. 7)

The implications of this philosophy are:

- **Integrated behavior** – efforts of all members (or partners) of the supply chain to respond effectively to the needs of the customer.

- **Sharing of information** – exchanging information for planning and monitoring processes, including inventory levels, forecasts, sale promotion strategies, and marketing strategies, in order to reduce uncertainty among the members.

- **Sharing risks and rewards** – providing a long-term focus for members.

Sustainable supply chain management is defined as the management of supply chain operations, resources, information, and funds in order to maximize the supply chain profitability while at the same time minimizing the environmental impacts and maximizing the social well-being.

- **Cooperation** – encouraging complementary and coordinated activities to produce superior outcomes, going beyond individual transactions, involving multiple levels of management throughout the supply chain

- **Shared goals** – aligning cultures and management approaches to achieve policy integration across the chain.

- **Process integration** – ensuring that all components of the supply chain work together to reduce costs and increase efficiency and effectiveness.

- **Long-term partnerships** – integrating behaviors, policies, and processes implies being "in it for the long haul." (Mentzer et al, 2001, pp. 8-10)

Sustainable Supply Chains

An increasingly important feature of supply chain management has been the drive towards **sustainable supply chains**, the result of pressures from government regulators, community activists, and non-governmental organizations as well as from global competition. Sustainable supply chain management is defined as:

> …the management of supply chain operations, resources, information, and funds in order to maximize the supply chain profitability while at the same time minimizing the environmental impacts and maximizing the social well-being. By social well-being…we mean how the supply chain treats its employees, customers, and the community at large (Hassini et al, (2012) pp. 70-71).

This appears to be broadly similar to the Central Appalachian Network's own definition of value chains – "*supply chains infused with triple bottom line values of promoting financial, social, and environmental goals*" (CAN, n.d.).

A review of the literature (Hassini et al, 2012) indicates that there are many points along the supply chain where there can be sustainability interventions:

- **Sourcing** – where the focal company in the supply chain will require its upstream suppliers to adopt and adapt technology and practices that result in more efficiently and environmentally friendly material sources, to engage in labor practices that are considered ethical, and result in low greenhouse gas emissions. In some cases, this shift in procurement policies may result in transformational changes in choices of materials, suppliers, processes, and pricing.

- **Delivery** – considerations of greenhouse gas emissions, localization strategies, and fuel costs combine to inform decisions on plant locations, modes of transportation, and supply chain partners.

- **Value proposition** – as many sustainable practices result in higher prices to the consumer, attention has to be paid to quantifying the benefits and articulating the value proposition to the consumer. This is critical to extend markets from higher income, well-informed buyers to the mainstream.

- **Product use** – designing and engineering products that enable customers to be active participants in the sustainable supply chain, such as those that offer higher energy efficiency and easy options for reuse, recycling, and return when they are obsolete or worn-out.

The extent to which these become central to supply chain operations is determined by a range of factors ranging from market forces, pressure from stakeholders and financial institutions, government policies and regulations, advances in science and technology, as well as product and process improvements generated by supply chain partners.

One of the challenges associated with supply chain management, sustainable or otherwise, is the requirement for individuals and organizations to work collaboratively and share knowledge. This can be problematic within corporations and organizations and even more so between those in supply chains, but as indicated earlier, it is critical to ultimate competitiveness in the marketplace. However, effective ways for upstream and downstream partners to be part of product development, for instance, are not well-understood. Recent research (Lawson et al, 2009) has examined the effectiveness of "interorganizational socialization mechanisms" – the ways in which knowledge and ideas are shared across and between businesses. The results point to the importance of informal social ties – creating opportunities for supply chain partners to meet informally – and to the observation that formal mechanisms such as cross-functional teams and matrix reporting structures are effective insofar as they create conditions for informal relationships.

Translating these insights from the domain of large corporations operating in the global marketplace to small businesses working in rural regions requires some important adjustments: the use of intermediation and a deeper understanding and embracing of context.

Supply Chain Intermediaries

The first adjustment is to understand the importance of intermediation in supply chains given that few if any of the participants are likely to be of a scale to be able to fulfill the range of supply chain management functions. Intermediaries fall into two main categories: transactional and informational (Wu, 2004).

- **Transactional Intermediaries** have the purpose of improving the efficiency of supply chain transactions. This can be achieved through reducing uncertainty by setting and stabilizing prices, reducing the costs associated with matching suppliers and buyers, providing timeliness by holding inventory (wholesaling) or reserving capacity, and by aggregating supply or demand to achieve economies of scale.

- **Informational Intermediaries** attempt to reduce the costs associated with incomplete or asymmetric information within the supply chain. They act as a broker or arbitrator between participants so as to avoid misinformed decision-making, provide a trusted third-party institution to reduce the costs of negotiation, and to collect and disseminate essential data and analysis among participants.

In both cases, the intermediary's value to the supply chain may diminish over time, if the participants conclude they can work more efficiently without third party intervention or if another form of intermediation is required.

Another type of intermediation need may arise from the particular demands imposed by being part of a sustainable supply chain – this could be called policy intermediation.

- **Policy intermediaries** have the function of ensuring that the environmental and social impacts of business operations continue to be an integral part of supply chain management alongside profit maximization. They also have a role in monitoring and addressing the implications of governmental policies and regulations that may advance or hinder the proper functioning of sustainable supply chains.

Short Supply Chains

The second adjustment relates to the contextual implications associated with rural development and more specifically to considerations of the rural-urban continuum. Research on alternative food networks in Europe is informative on this issue. Renting, Marsden, & Banks (2003) examined the emergence of alternative food supply chains and their role in new patterns of rural development. They adopt the term "short food supply chains" (SFSCs) to describe:

- The short-circuiting of the long anonymous supply chains associated with the industrial mode of food production;
- The shortening and redefining of producer-consumer relations by giving clear signals on the provenance and quality of food and by providing consumer detailed information on the characteristics of the supply chain;
- The shortening of relations between food production and locality, re-embedding farming in environmentally sustainable modes of production (Renting, Marsden & Banks, 2003, p. 398).

The researchers attempt to move beyond the idea of product flows to understanding the relationships between producers and consumers in supply chains and how they create value and meaning. Two dimensions of SFSCs are considered important: mechanisms to extend supply chains over time and space, and ways in which product quality is defined.

SFSCs can be divided into three categories:

- **Face-to-face interactions**, where consumers purchase directly from the producer or processor, and where authenticity and trust stem from personal relationships. Often called direct sales, these include farm shops, farmers markets, roadside sales, pick-your-own, and home deliveries.
- **Proximate relations**, usually based on regional or place-based associations and identities. These include farm shop groups, regional hallmarks, consumer cooperatives, community supported agriculture, tourism themes, fairs, specialist retailers, local restaurant and institutional purchasing.
- **Extended relations**, where products are sold to consumers outside the region of production and who have no personal experience of that area. Markets may be national or even global, but they are considered "short" as they attempt to make a direct connection, using branding and information, between the consumer and a specific region and its culture, or particular practices, such as Fair Trade. Important elements of extended relations are certification labels, production codes, and reputation that provide assurances of values, provenance, and quality.

Two aspects of product quality assurance are described by Renting, Marsden, & Banks (2003):

- **Association with place or process** – the specific characteristics of a place, such as natural conditions or cultural traditions, or of the processes used, such as artisanal, traditional, or farm-based are often associated with quality, authenticity, and distinctive taste or appearance.

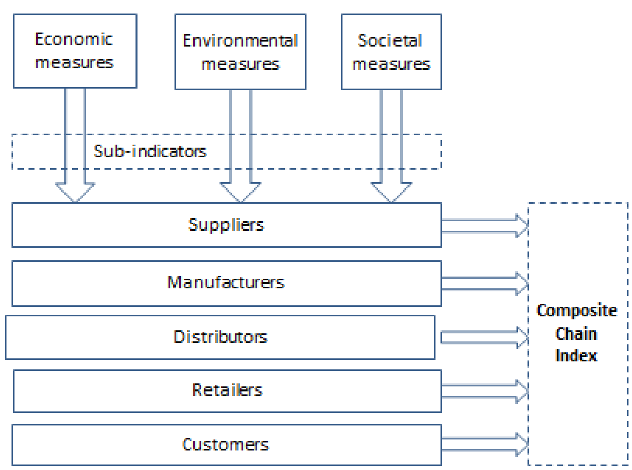
- **Association with ecological values** – products that are distinctive because they are the result of environmentally sound practices. They are promoted as 'organic', 'natural,' 'traditional', 'healthy', and 'safe'. Other attributes might include 'cage free,' 'grass fed', and 'GMO-free'.

Clearly, not all products can be associated with specific regional characteristics in the way that food, wood products, or craft goods are, but "marketing by association" may be worth exploring. Thus other sectors that are important to the central Appalachian economy – health, transportation equipment, energy, and chemical products – may have compatible components that could support regional identity and branding efforts through appropriate intermediation.

Supply Chain Metrics

A major barrier to the widespread adoption of sustainable supply chain management and short supply chain approaches is the dearth of appropriate and usable indicators to measure progress and impact. Hassini et al (2012) found that the development of supply chain metrics, particularly those with strong sustainability features, is still very much in

Figure 4: Framework for Sustainable Supply Chain Metrics (adapted from Hassini et al (2012) p. 78)



its infancy. Figure 4 illustrates a metrics framework that combines both supply chain orientation and triple bottom line principles.

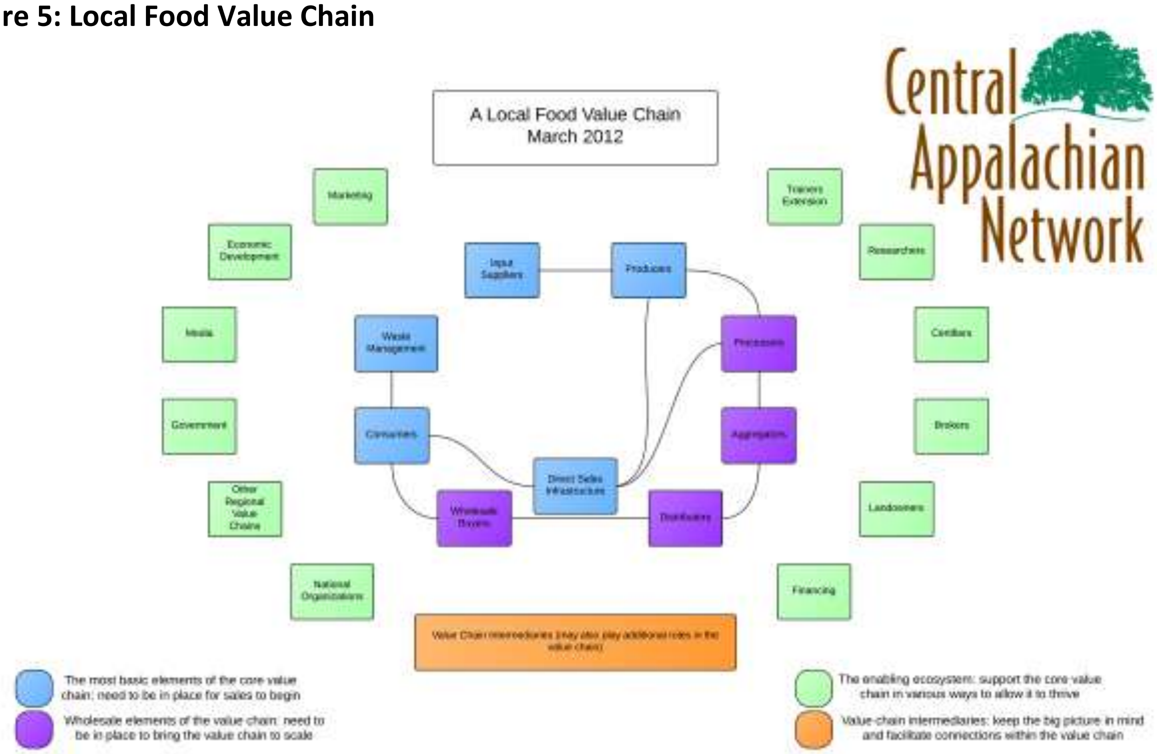
Adapting Hassini et al's findings, there are some useful lessons for the implementation of a metrics system:

- There is often a trade-off between technically sophisticated indicators and choosing indicators that can be reasonably implemented and accepted by the participants.
- Indicators are not set in stone, but evolve over time, with experience and growing levels of comfort among participants.
- Indicators, although at a high level will be broadly similar across supply chains and companies, in detail will be specific to the circumstances and the needs of the supply chain and its participants.
- Early indicators should be straightforward and reflect the priorities of the supply chain and its participants. Questions to be addressed might include: What is most important to know or understand about the supply chain so it can grow and adapt? What measures can be created that will ultimately be universally understood – from customer to small rural participant to top dog in the chain?

4. VALUE CHAIN DEVELOPMENT IN CENTRAL APPALACHIA

The Central Appalachian Network (CAN) is already familiar with the concept of value chains and has been active in intermediation to develop and strengthen them in key sectors in the regional economy. Its focus has been on local food value chains that include producers, processors, aggregators, distributors, farmers markets, wholesale buyers, consumers, and a wide variety of important supporters. Figure 5 provides a graphic description of such a local food value chain.

Figure 5: Local Food Value Chain



A recent branding study commissioned by CAN (Reul, 2012) focusing on local foods, provides some important insights on the relationships between local foods value chains and broader regional considerations of rural-urban connections. The study made a distinction between local scale and regional scale branding. Local scale branding implies strict geographical limits for product distribution with a high value placed on the "local" aspect of the food product – *"food is valuable because it is local."* The definition of local is somewhat flexible allowing for specific linkages to nearby urban centers but recognizes that reaching out to urban markets further afield has limited value. In this case the geographical extent of the value chain is limited and conducive to intervention and support by an intermediary.

Regional scale branding implies a broader scope and larger geography for product marketing and distribution. It requires an ability to reach consumers in a broader market who would associate the brand with particular qualities characteristic of the region. Competition from other brands intensifies in the larger markets so there is a premium on product differentiation and its uniqueness and quality – *"food is valuable because it is uniquely good."* It also implies an expanded role of the intermediary in accessing distant markets, working through wholesalers and distributors, and ensuring quality control along an extensive value chain.

The study recommended that an appropriate role for CAN is as an incubator for emerging food brands within the region, with a particular function as a purveyor of information – a Central Appalachian "brand house with driving sub-brands." This role might include devising regional branding and distribution strategies, developing regulations, and building networks, perhaps combined with some elements of a certification function.

CAN members have considerable experience and expertise in regional branding and in seeking to connect rural producers to urban consumers. These have long been core themes for the **Appalachian Center for Economic Networks (ACEnet)** and are captured well in its report, *Entrepreneurship with a Regional Flavor* (Holley, n.d.). The main points were:

- The Appalachian Ohio economy was seeing a number of businesses making a shift from serving local to regional markets. These regional businesses tended to have a passionate local customer base, but also drew from larger nearby urban centers of Columbus and Cleveland. These customers often felt part of the business, offering suggestions, lending money at less than market rates, and acting as informal marketers. These businesses were distinctive and authentic—they used local ingredients; they offered exciting, innovative products and services; and their owners and employees were known for their engaging personalities. They networked with other area businesses, which were suppliers or worked with them on joint purchasing or marketing. They often used innovative technology to streamline business processes and to connect more effectively with customers. They helped create a more supportive environment for themselves and other regional businesses.

- Urban residents quickly realized that *Buy Local* meant not just purchasing food grown in their city, but purchasing food products from the rural regions around the city as well. When a region includes one or more urban areas and the surrounding rural areas, an individual's regional purchases can become a substantial percentage of their spending. And dollars spent in a region tend to stay in the region, circulating again and again and creating local jobs and local wealth. Regional economies usually transport goods less than 200 or 300 miles, unlike typical food or clothing items which often travel several thousand miles.

- Several organizations—ACEnet, Rural Action, the Foundation for Appalachian Ohio, the Ohio Arts Council, the Ohio University Voinovich Center, and People for Adams County Tomorrow (PACT)—formed the Appalachian Ohio Regional Investment Coalition (AORIC) to explore this shift from local entrepreneurship to a dynamic regional economy. They designed a strategy called ***Regional Flavor*** to link food entrepreneurs with artisans and entrepreneurs in tourism-related businesses through dozens of collaborative projects to develop a distinctive and attractive sense of the region. They saw *Regional Flavor* emerging from the area's natural and heritage assets: the beautiful parks and recreational amenities, the many musical venues, the rich history related to the Underground Railroad and the coal fields, and the work of skilled artisans using local woods.

- AORIC recognized that *Regional Flavor* does not mean one consistent, packaged theme imposed on the entire region, as often happens with regional brands generated by outside consultants. *Regional Flavor*, instead, emerges from the crafting of dozens of initiatives linked by cross-cutting themes. Linking artisans, food businesses, and recreation to create a new style of experiential tourism was seen as way to prime the regional economy pump, but not sufficient to turn around the regional economy.

- Achieve transformative impact would require the development of regional markets and market pathways, the creation of regional brands, the implementation of services to enable local businesses to become regional, and the ongoing support of projects that enhance *Regional Flavor*.

The main transferable elements of the *Regional Flavor* strategy are:

- **Regional markets** – creating demand in urban areas for regional products and making them easy to access. This requires new retail outlets (online, in local communities, and in urban centers), partnerships with existing stores, and effective regional distribution systems.

- **Regional branding** – bringing together the products of thousands of small food and artisan businesses into a set of products recognized as regional. Regional Flavor brands are umbrella brands for a wide assortment of products, which all have the attributes of being unique, of high quality, and made in Appalachian Ohio.

- **Product repositioning** – helping businesses become regional by, for instance, positioning artisan products not as gifts or knickknacks but as ingredients in a Regional Home where the food, dishware, furniture and art are all created in the region and, through the sense of the region that they reflect, add to the beauty and enjoyment of one's home.

- **Forging connections** – providing step-up services to local businesses from online and gallery marketing to product innovation and quality improvements to warehousing and shipping.

- **Scaling-up** – supporting business to upgrade production processes to enhance their productivity and ability to respond to increasing demand.

- **Creating buzz** – mobilizing the media, local and regional leaders, and area consumers to generate enthusiasm both for the region and its products so that the economic transformation can be sustained.

The **Center for Economic Options (CEO)** helps to create opportunities for people to remain in rural areas through enterprise activities that rely on good stewardship – low input/organic food production, energy efficiency, conservation, and waste management. CEO has found that by both developing the entrepreneurial potential of rural people and encouraging market demand in urban settings, value chains can be created with multi-layered benefits for everyone involved. Two examples were described in recent webinar (Curry, 2013).

- Appalachian Knitwear Network – which eventually became **Appalachian by Design** – was a statewide network of home-based, commercial knitters, most of whom were women living in rural areas deep in the mountains. From a small group it grew to nearly 60 skilled machine-based knitters. The project was driven by a partnership with the Esprit Corporation to produce an E-Collection line of expensive, ecologically friendly sweaters which the company sold in its stores in international urban centers.

  To build sustainability, a diverse base of mainly urban markets was identified for its own line of knitted products. CEO's work showed that local business owners were especially interested in building their business acumen and becoming committed to their enterprise IF they knew they would be producing for a lucrative market AND…if they had the support of an intermediary – in this case, CEO – to help with aggregating and distributing products, training, brokering, connections, and the technical assistance they needed to be sustainable and succeed. CEO also found that it was important to help urban customers appreciate and understand the importance and value of products and services. Through marketing and branding customers were informed that the products were coming from rural entrepreneurs in Appalachia and that they had special attributes because of this.

- **Showcase West Virginia** is an urban-based retail marketing incubator established to connect rural artisans and craftspeople with the state's most metropolitan customer market – Charleston, West Virginia. The incubator became a lucrative urban retail market that helped to aggregate and organize the products of rural entrepreneurs in a variety of effective ways to connect with the urban customers. It was described as an enterprise "hub" for a craft/small scale manufacturing value chain. In its seven years of operation, it connected some 460 rural businesses to the Charleston market which included retail sales, corporate buyers and wholesalers. Showcase also helped open doors for rural entrepreneurs in existing markets such as downtown local retail shops which, for the first time, began to carry – and continue to carry – the products that were sold by Showcase West Virginia. This urban market link helped develop strong customer linkages in the Charleston metropolitan area – as well as across the U.S. - for rural businesses from all parts of the state.

CEO is currently seeking to develop linkages around Appalachian botanicals and medicinals, as rural areas are the producer of many native botanicals. Urban markets with their LOHAS (Lifestyle of Health and Sustainability) consumers are the ones who are driving demand. As part of this, CEO will highlight the ecological value – and sensitivity - of the rural region and use this as a platform to help educate urban customers about what is at stake when it comes to environmental protection and stewardship of their valuable rural resources.

An example of CAN members working collaboratively in the area of value chain development and rural-urban linkages is the Green and Regionally Oriented (GRO) Wood Products Program. This was started in 2009 by **Rural Action**, **Appalachian Sustainable Development**, and **Mountain Association for Community Economic Development**. The aim is to connect wood businesses in the region with urban markets, matching demand for local and/or green certified wood and wood products with buyers and suppliers. This intervention in the value chain is soon to be greatly enhanced with the launch of a private intermediary to broker connections and sales, while GRO continues to offer education programs, monitor policy, and manage relationships across the value chain.

5. Seven Steps to Increasing Rural-Urban Economic Connections

General Observations

The review of literature and practice related to the regional economy, the rural-urban continuum, supply and value chains, and current thinking and practice in central Appalachia suggest a series of general observations.

There is an unfavorable trading relationship between rural economies in Central Appalachia and their urban regional centers. Poorly performing rural periphery economies have a drag effect on the overall competitiveness of the region. It is in the interests of Nashville, Louisville, Lexington, Charleston, Knoxville, and Johnson City – as well as Cincinnati, Columbus, and Roanoke – that the rural economies in their respective regions perform at a higher level.

The hard and fast distinctions between urban and rural that are ingrained into the political, professional, and cultural discourse, and reinforced by government statistical definitions, have limited meaning in reality. There is a continuum of settlement patterns based on population size and density and the type of economic activities and patterns of land use. Considerations of policy and development are therefore best taken within a regional framework to embrace rural-urban interdependence.

Much of current discussion about rural development is focused on the connections or linkages between urban and rural places, either as a means of describing and explaining interactions and their positive and negative impacts, or as showing the value of interdependence – what rural provides for urban, what urban provides for rural. These interactions are highly dynamic, with changes in migration patterns, economic development, infrastructure, and technology having impacts on their nature and intensity. Some observers point to the growing importance of smaller centers – micropolitan centers in US census parlance – as connecting points between large urban areas and their rural hinterlands.

Two approaches to analyzing and supporting economic development that have gained considerable traction are clusters and supply/value chains. Clusters refer to geographic concentrations of inter-connected companies and supporting institutions, whereas supply/value chains refer to flows through a developmental process regardless of the location of the participating companies. Both have relevance for rural-urban interactions and for examining the connections between companies within and across regions, although supply/value chains are more applicable to predominantly rural regions such as central Appalachia.

Some analysts draw a sharp distinction between supply chains and value chains, with the former seen as simply the downstream flow of activities from raw materials through processing to distribution to the customer. Value chains are either seen as (a) upstream flows of information, money and feedback from the customer to the suppliers, (b) as the process of adding value along the production process, or (c) as the promotion of specific social and environmental values at each stage of the process. With the growth of supply chain management, and particularly *sustainable* supply chain management, the supply vs. value distinction has become largely moot. Indeed, definitions of sustainable supply chain management align directly with CAN's own definition of value chains.

There is much to be learned from management philosophies associated with supply chain management, as well as from understanding where sustainability interventions can be most effective. The importance of intermediary institutions to manage supply chains in terms of transactions, information flows, and policy is underscored particularly for small and medium sized businesses lacking the capacity and resources of large corporations.

CAN members' philosophy, approaches, and experiences are strongly supported by the literature, particularly in relation to (a) sustainable supply chain management in food, wood products, and artisanal products, (b) the concept of "short food supply chains", and (c) the role of intermediaries. As might be expected, not all of CAN members' value chain activities tie back directly to rural-urban interactions – some are essentially aspatial, such as MACED's energy efficiency programs which create benefits to urban and rural businesses and residents alike, and add to the overall competitiveness of the region.

Recommendations: Seven Steps

The discussion at CAN Tank will lead to some very specific action steps to improve market access for rural-based sectors in Central Appalachia. From the above observations, seven steps should be considered to build upon current approaches and activities to increase rural-urban economic connections, and thus expanded market access for Central Appalachian enterprises:

1. **Expand intermediation.** Replicate current intermediation approaches from one part of central Appalachia to others, such as the *Regional Flavor* concept in Ohio, recognizing the different social, cultural, culinary, and resource conditions from state to state. CAN, its members, and its partners should pursue intentional and appropriate replication or brand expansion strategies.

2. **Capture regional markets.** Explore regional markets, focusing on the nine main urban markets (and their suburbs) and CAN's target sectors, building retail and supply chain connections, distribution systems, and umbrella branding. CAN members and partners should engage with regional business schools to conduct market development research.

3. **Connect to urban procurers.** Develop connections with procurement offices in urban-based businesses and work with rural-based businesses to engage with appropriate supply chains. CAN members and partners should collaborate with urban-based economic development advisory, technical assistance, and financing agencies to broker and support these interventions.

4. **Broaden regional branding efforts.** Convene business-to-business gatherings to explore how CAN brands, current and proposed, play in regional markets, and where regional branding efforts need to be stepped up. CAN members and partners should consider supporting fledgling initiatives through technical assistance and small grant programs.

5. **Focus on exports and import substitution.** Convene sectoral business-to-business gatherings related to food, energy, health care, and selected manufacturing sectors located in central Appalachia. CAN members and partners should explore import substitution or export opportunities to which rural-based companies can respond.

6. **Capitalize on provenance and quality.** Explore the concept of "short supply chains" for products and services in a range of sectors where provenance and quality can provide a competitive advantage. CAN members and partners should reach out to public and private economic development organizations and financing intermediaries to identify potential candidates for umbrella marketing.

7. **Track impact and tell the story.** Identify and apply specific metrics to track the development and impacts of sustainable supply chains (value chains) so as to drive efforts to forge connections across the rural-urban continuum. CAN members and partners should work with supply chain participants to create and apply meaningful measures.

BIBLIOGRAPHY

Baker, J., & Claeson, C.-F. (1990). Introduction. In J. Baker, *Small Town Africa: Studies in Rural-Urban Interaction* (pp. 7-34). Uppsala: Scandinavian Institute of African Studies.

Bryceson, D., Maunder, D. A., Mbara, T. C., Kimbobo, R., Davis, A. S., & Howe, J. D. (2003). *Sustainable livelihoods, mobility and access needs.* London: UK Department for International Development.

Central Appalachian Network (CAN) (n.d.). *Local Food Value Chains*. Retrieved July 2013, from Central Appalachian Network: www.cannetwork.org

Chemonics International. (2008). *Value Chains and the Cluster Approach: Transforming Relationships to Increase Competitiveness and Focus on End Markets.* Washington DC: USAID.

Curry, P. (2013, April 18). CAN's Perspective: CEO. *Valuing the Countryside: The Townies' Guide to the Rural Enterprise.* Wealth Creation and Rural Livelihoods Community of Practice Webinar.

Dabson, B. (2007). *Rural-Urban Interdependence: Why Metropolitan and Rural America Need Each Other.* Retrieved from Brookings Institution Metropolitan Policy Program: www.brookings.edu

Dabson, B. (2010). *Wealth Creation and Rural-Urban Linkages in Central Appalachia: Briefing Paper.* Wealth Creation in Rural Communities.

Dabson, B. (2011). Rural Regional Innovation: A Response to Metropolitan-Framed Place-Based Thinking in the United States. *Australasian Journal of Regional Studies, 17*(1), 7-21.

Dabson, B., Jensen, J. M., Okagaki, A., Blair, A. P., & Carroll, M. M. (2012). *Case Studies of Wealth Creation and Rural-Urban Connections.* Columbia, MO: Rural Futures Lab.

Dabson, B., Johnson, T. G., Miller, K. K., & Robinson, D. P. (2009). *Rural-Urban Interdependence in Central Appalachia: Discussion Paper.* Wealth Creation in Rural Communities.

Douglass, M. (2006). A Regional Network Strategy for Reciprocal Rural-Urban Linkages: An Agenda for Policy Research with Reference to Indonesia. In C. Tacoli, *The Earthscan Reader in Rural-Urban Linkages* (pp. 124-154). London: Earthscan.

Evans, H. E. (1990). *Rural-urban linkages and structural transformation.* Infrastructure and Urban Development Department. Washington DC: The World Bank.

Feller, A., Shunk, D., & Callarman, T. (2006, March). *Value Chains Versus Supply Chains.* Retrieved July 2013, from BPTrends: www.bptrends.com

Feser, E., & Isserman, A. (2009). The Rural Role in National Value Chains. *Regional Studies, 43*(1), 89-109.

Fluharty, C. W., & Miller, K. K. (2010). Regional Innovation Policy: Approaches Which Ensure A Commitment to the Rural-Urban Continuum. *Economic Development in Underserved Communities: Where Research and Practice Meet.* Kansas City, MO: Federal Reserve Bank of Kansas City.

Gaile, G. L. (1992). Improving rural-urban linkages through small town market-based development. *Third World Planning Review, 14*(2), 131-148.

Handfield, R. (2011, January). *What is Supply Chain Management?* Retrieved July 2013, from Supply Chain Resource Cooperative: http://scm.ncsu.edu-articles

Hassini, E., Surti, C., & Searcy, C. (2012). A literature review and a case study of sustainable supply chains with a focus on metrics. *International Journal of Production Economics, 140*, 69-82.

Herr, M. L., & Muzira, T. J. (2009). *Value Chain Development for Decent Work: A guide for development practitioners, government and private sector initiatives.* Geneva: International Labor Organization.

Hibbard, M., Seltzer, E., Weber, B., & Emshoff, B. (2011). *Toward One Oregon: Rural-Urban Interdependence and the Evolution of a State.* Corvallis, OR: Oregon State University Press.

Holley, J. (n.d.). *Entrepreneurship with a Regional Flavor.* Appalachian Center for Economic Networks.

Horvath, L. (2001). Collaboration: The key to value creation in supply chain management. *Supply Chain Management, 6*(5), 205-207.

Humphrey, J., & Schmitz, H. (2002). How Does Insertion in Global Value Chains Affect Upgrading in Industrial Clusters? *Regional Studies, 36*(9), 1017-1027.

Irwin, E. G., Isserman, A. M., Kilkenny, M., & Partridge, M. D. (2010). A Century of Research on Rural Development and Regional Issues. *American Journal of Agricultural Economics, 92*(2), 522-553.

Isserman, A. M. (2005). In the National Interest: Defining Rural and Urban Correctly in Research and Public Policy. *International Regional Science Review, 28*, pp. 465-499.

Lawson, B., Petersen, K. J., Cousins, P. D., & Handfield, R. B. (2009). Knowledge Sharing in Interorganizational Product Development Teams: The Effect of Formal and Informal Socialization Mechanisms. *Journal of Product Innovation Management, 26*, 156-172.

Lichter, D. T., & Brown, D. L. (2011). Rural America in an Urban Society: Changing Spatial and Social Boundaries. *American Review of Sociology, 37*, 565-592.

Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., et al. (2001). Defining Supply Chain Management. *Journal of Business Logistics, 22*(2), 1-25.

Monitor Group, Berkshire Economic Development Corporation, US Department of Commerce. (2006). *Rural Clusters of Innovation: Berkshires Strategy Project.* Cambridge, MA: Monitor Group.

Muro, M., & Katz, B. (2010). *The New "Cluster Moment': How Regional Innovation Clusters Can Foster The Next Economy.* Washington DC: Brookings Institution Metropolitan Policy Program.

Okpala, D. C. (2003). Promoting the Positive Rural-Urban Linkages Approach to Sustainable Development and Employment Creation. *International Federation of Surveyors Second Regional Conference on Urban-Rural Interrelationship for Sustainable Development.* Marrakech, Morocco.

Porter, M. E. (1996). *On Competitiveness.* Boston: Harvard Business School Press.

Porter, M. E., Ketels, C. H., Miller, K., & Bryden, R. T. (2004). *Competitiveness in U.S. Rural Regions: Learning and Research Agenda.* Boston, MA: Harvard Business School.

Renting, H., Marsden, T. K., & Banks, J. (2003). Understanding alternative food networks: exploring the role of short food supply chains in rural development. *Environment and Planning, 35*, 393-411.

Reul, L. (2012). *Branding Study for Appalachian Local Food Economies.* Central Appalachian Network.

Roelandt, T. J., & den Hertog, P. (1999). Cluster Analysis and Cluster-Based Policy Making in OECD Countries. In OECD, *Boosting Innovation: The Cluster Approach* (pp. 9-23). Paris: OECD.

Rosenfeld, S. (2009). *Generating Local Wealth, Opportunity, and Sustainability through Rural Clusters.* Carrboro, NC: Regional Technology Strategies, Inc.

Satterthwaite, D. (2006). Small Urban Centres and Large Villages: The Habitat For Much of the World's Low-Income Population. In C. Tacoli, *The Earthscan Reader in Rural-Urban Linkages* (pp. 15-38). London: Earthscan.

Satterthwaite, D., & Tacoli, C. (2006). The Role of Small and Intermediate Urban Centers in Regional and Rural Development: Assumptions and Evidence. In C. Tacoli, *The Earthscan Reader in Rural-Urban Linkages* (pp. 155-183). London: Earthscan.

Schaeffer, P. V., Kahsai, M. S., & Jackson, R. W. (2012). Beyond the Rural-Urban Dichotomy: Essay in Honor of Professor A. M. Isserman. *International Regional Science Review, 36*(1), 81-96.

Tacoli, C. (1998). Rural-urban interactions: a guide to the literature. *Environment and Urbanization, 10*(1), 147-166.

Tacoli, C. (2006). Editor's Introduction. In C. Tacoli, *The Earthscan Reader in Rural-Urban Linkages* (pp. 3-14). London: Earthscan.

Tandoh-Offin, P. (2010). The evolving rural and urban interdependence: Opportunities and challenges for community economic development. *Journal of Geography and Regional Planning, 3*(12), 339-345.

Torero, M. (2010). *Urban-Rural Linkages and Nonfarm Rural Development.* CGIAR Collective Action for Eastern and Southern Africa Research Project GRP36.

UNDP/UNCHS (Habitat). (1995). Rural-urban linkages: policy guidelines for rural development. *23rd Meeting of the ACC Sub-committee on Rural Development.* Paris.

von Braun, J. (2007). Rural-Urban Linkages for Growth, Employment, and Poverty Reduction. *Ethiopian Economic Association, Fifth International Conference on the Ethiopian Economy.* Addis Ababa.

Weber, B., & Rahe, M. (2010). *Wealth Creation and Rural-Urban Linkages: An Exploratory Study of Economic Flows in Two Natural Resource-Rich Regions.* Wealth Creation in Rural Communities.

Wu, S. D. (2004). Supply Chain Intermediation: A Bargaining Theoretic Framework. In D. Simchi-Levi, S. D. Wu, & Z. M. Shen, *Handbook of Quantitative Supply Chain Analysis: Modeling in the E-Business Era* (pp. 67-115). Kluwer Academic Publishers.

Institute of Public Policy, Harry S Truman School of Public Affairs,
University of Missouri
Mail: 137 Middlebush Hall / Columbia, MO 65211
Phone (573) 882-1739 Fax (573) 884-3839
Website: ipp.missouri.edu