

Urban-Rural Connections: A Review of the Literature

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The relationship between urban and rural areas is changing in countries all over the world. While some of the issues, like changing agricultural systems, are universal, other aspects of the process are specific to certain countries or regions. This paper is divided into two main sections. The first introduces literature about urban-rural connections in the United States and Canada with several examples from Western Europe. Urban and rural land uses in these countries are no longer mutually exclusive, but rather exist on a continuum of community types that are increasingly interconnected. Migration and settlement patterns are changing as new forms of urban, suburban and exurban development alter patterns of community development. The population is increasingly decentralized as suburbanization is being replaced by exurban development, characterized by low-density growth where households with fewer people are living on larger pieces of land further from urban centers. Development patterns influence national and world views, the kind of governments elected the way natural and financial resources are used and the development of transportation systems. (Herbers, 1986)

Much of this development and the resulting land use and lifestyle clashes occur in peri-urban areas once dominated by agriculture. As non-farm growth in rural and peri-urban areas competes with agriculture for land, tensions arise between farmers and non-farmers. Environmentalists and farmland preservationists fight against suburban and exurban expansion, and at times against each other. "The concept and the territory these terms connote comprise dynamic and complex land use issues that involve more than

rural to urban land conversion and conflicts between developers, environmentalists and farmland preservationists.” (Audirac, 1999)

Public policies and urban and regional plans can help to support economic growth while protecting natural and agricultural land uses. Unfortunately, many policies continue to focus exclusively on rural or urban areas and fail to address the connections between the two. While some studies of the urban-rural interface have been conducted, further research is needed to inform public policies and planning processes.

The second section focuses on developing countries where the idea that there is a clear divide between urban and rural areas distorts the realities of urban, rural, and the increasingly important peri-urban areas where both urban and rural characteristics can be found. Rural areas depend on urban areas for secondary schools, post and telephone, credit, agricultural expansion services, farm equipment, hospitals and government services. Greater access to information technology, better roads, improved education and changing economic realities are increasing the movement of people, goods and services, waste and pollution and blurring the boundaries between urban and rural areas. As incomes from agriculture decrease, rural households are forced to develop new and more complex livelihood strategies that include both agricultural and non-agricultural incomes, including remittances from seasonal and permanent migrants. At the same time, low income households in urban areas may rely on agricultural goods from rural relatives to supplement their income. Current changes in the global economic, social and political context, including structural adjustment programs and economic reform, have resulted in deepening social polarization and increasing poverty in both urban and rural areas. (Tacoli, 1998)

Rural-urban linkages are important for poverty alleviation and sustainable rural development and urbanization. Strong linkages can improve the living conditions and employment opportunities of both rural and urban populations. Domestic trade and the adequacy and efficiency of infrastructure are the backbone of mutually beneficial rural-urban relationships and of the success of the relationship between urban and rural areas. (Tacoli, 1998; Tacoli, 1998; Tacoli, 2003; Rosenthal, 2000)

The increasingly complex connections between urban and rural areas are beginning to be recognized but “still have a relatively limited impact on development policy and practices.” (Tacoli, 1998) The regional development planning used to create a “better balance between urban and rural and reduce migration pressure on urban areas” has disproportionately benefitted large farms and wealthy land owners. Instead of stimulating the regional economies, the goods and services required by the new economic activities stimulated by these policies come from businesses located outside the regional boundaries and new income is not reinvested in the community. (Tacoli, 1998) Even many policies that attempt to draw on urban-rural linkages are often unsuccessful because they fail to reflect the true circumstances of the people they are created to help.

II. The United States and Canada

A. Patterns of Demographic Change

In their study of demographic and socioeconomic characteristics of migration streams between metropolitan and non-metropolitan areas at four different times between 1975 and 1993, Fulton et al found three significant shifts in the direction of migration. The first occurred during the 1970's when historical patterns of non-metropolitan loss of

human resources were reversed. During this time urban areas shrank while rural areas gained and increased retention of the young and better-educated. During the 1980s that trend reversed itself and there was a net migration loss from rural areas as better educated and white collar workers moved to urban areas. During the 1990s there was a non-metropolitan net migration gain, with the greatest increases among those higher status groups which experienced the greatest decline in the 1980's. (Fulton et al, 1997)

Widespread growth in non-metropolitan areas of the United States during the early 1990s indicates that the renewed population growth in non-metro areas first noticed in the 1970s has not ended. (Johnson and Beale, 1994)

B. New Settlement Patterns

Nationwide, the cumulative effect of thousands of individual land use decisions is changing the countryside by consuming at least 1.4 million acres of rural land each year. The results include loss of agricultural production, water pollution, increases in local runoff and flooding and loss of habitat and biodiversity. Interaction among different factors greatly complicates sustainable land management. (Olsen & Lyson, 1999)

Two land development trends, expansion of urban areas and large-lot development (greater than one acre) in rural areas are reshaping urban and rural areas. Although it claimed more than 1 million acres per year between 1960 and 1990, urban expansion is not seen as a significant threat to agriculture, with the exception of some high-value or specialty crops. Large-lot development poses more of a threat because it consumes much more land per housing unit than the typical suburb. (Heimlich and Anderson, 2001)

The expansion of urban areas, which is often referred to as sprawl, has been researched extensively.

While some view sprawl as the inevitable outcome of metropolitan population growth (Sinclair, 1967; Brueckner and Fansler, 1983; Lowery, 1980), others blame sprawl on poor planning or haphazard growth. (Pieser, 1984); Koenig, 1989). Sprawl can be similar to other types of development including polycentric (Gordon and Wong, 1985; Haines, 1986; Gordon et al, 1989) and leapfrog development. (Harvey and Clark, 1965; Ewing, 1991; Ohls and Pines, 1975; Brewslaw, 1990) While there is no official definition of sprawl, it can be distinguished from alternative development patterns by the poor accessibility of related land uses to one another. (Ewing, 1993) Accessibility measures can be found in the literature (Hansen, 1959; Ingram, 1971; Vickerman, 1974; Burns and Golob, 1976; Dalvi and Martin, 1976; Weibull, 1976; Morris et al, 1979; Dirie, 1979, Wachs and Keining, 1979; Koeing, 1980,; Leake and Huzayyin, 1980; Richardson and Young, 1982; Hansen and Schwab, 1987). Lack of functional open space is also connected to sprawl. (Clawson, 1962; Schneider, 1970)

Several causes of sprawl have been identified, including market forces such as technological change, low travel costs and high travel speeds. (Boyce, 1963; Guiliano, 1989; Clawson, 1962; Bahl, 1968; Lessinger, 1962; Ottensmann, 1997; Garrison et al, 1959; Boal and Johnson, 1968; Achimore, 1993; Kulash, 1990' Lee, 1979) Subsidies also drive sprawl, including those for owner-occupied housing (Fischel, 1982); infrastructure (Brinkley et al, 1975); and transportation. (Renner, 1988; Cameron, 1991; Voorhees, 1991; Hansen, 1992a and 1992b; Mackenzie, 1994)

Sprawl impacts travel demand and traffic congestion. (Gilbert and Dajani, 1974; U.S. Department of Transportation, 1976; Nells et al, 1977; Giuliano, 1989; Holtzclaw, 1991; Cervero, 1991a; Downs, 1992, Steiner, 1994) Higher density development generated fewer vehicle miles traveled per capita than lower densities (Levinson and Wynn, 1963; Bellomo et al, 1970; Guest and Cluett, 1976; Pushkrev and Zupan, 1977; Smith 1986; Newman and Kenworthy, 1989; Spiller and Rutherford, 1990; Prevedouros, 1991 Dunphy and Fisher, 1994), but contribute to traffic congestion (Prevedouros, 1991; Ewing, 1994)

The cost of neighborhood infrastructure increases as density decreases. (Priest et al, 1977; Frank, 1989) On a community level, the degree of clustering and proximity to existing development affects the cost of new infrastructure. (Howard County Planning Commission, 1967; Stone, 1973; Real Estate Research Corporation, 1974; Barton-Aschman Associates, 1975; Downing and Gustely, 1977; Peiser, 1984; Archer, 1974) Sprawl has also been shown to negatively impact farmland. (Berry and Plaut, 1978; Fischel, 1982; Nelson, 1990; Sinclair, 1967; Peterson and Yampolsky, 1975)

More recently, suburban sprawl has been overshadowed by exurban development. As edge cities develop on the periphery of metropolitan areas, the population moves further and further from the core. A number of studies of expanding urban areas in the United States and Canada look at the importance of sub centers, commuting patterns and landscape preference to better understand development patterns. An analysis of the density trends in every metropolitan area in the U.S. between 1982 and 1997 finds that most metro areas are adding urbanized land at a much faster rate than they are adding population; the west is home to some of the densest metro areas; metro areas tend to

consume less land for urbanization – relative to population growth – when they are growing rapidly in population; metro areas rely heavily on public water and sewer systems and metropolitan areas tend to consume more land for urbanization relative to population growth if they already have high density metro areas and if they have fragmented local governments. (Fulton et al, 2001)

Using data from the Los Angeles metropolitan area in 1970, 1980 and 1990, Gordon and Richardson used trip generation rates, decline in number of sub centers, activity centers, spatial structure, proportions of regional employment, and implications of activity dispersion to measure the significance of employment distribution among sub-centers. (Gordon and Richardson, 1996) Technological change, including telecommuting is one influence on new development patterns. (Nilles, 1991) Morrill “evaluates the hypothesis that the growth experiences of core parts of the metro areas tend to predict the growth of satellite, exurban and even more distant non-metro areas.” (Morill, 1992) Lewis terms the new urban form the Galactic City, which has four elements: an internal transportation system, considerable degree of internal commercial clustering, industrial districts that look “more like country clubs than Satanic Mills,” and residential areas. (Lewis, 1995) The effect of edge cities diminishes the further from the core they are located. (Ding and Bingham, 2000)

Adams and Van Drasek use Public Use Micro data Samples (PUMS) and Public Use Micro data Areas (PUMAs) to examine population and housing change, changes in industrial activity and occupational changes, and characteristics of commuters and the journey to work for those working away from home in 26 regional centers and their commute sheds in Greater Minnesota. They found that “when population change in

sample regional centers in the 1990's is compared with change in the nearby counties that comprise the centers' commuting fields, four situations appear: those where centers and their commuting fields both had population increases; centers with declining populations, but increases in the commuting fields; centers with growing populations, but with declines in their commuting fields; and situations where both the center and the commute field lost population." (Adams and Van Drasek, 2006)

Many of the settlement pattern changes affecting areas across the U.S. and Canada can be seen in Minnesota, where settlement patterns and the economy have changed dramatically over the last thirty years. "Urbanization of the countryside' is under way in functional terms, and the settlement system is catching up with the economic and social transformation that has been proceeding since World War II. Like the greater Twin Cities area, which spreads over more than 24 counties in Minnesota and Wisconsin, Minnesota's regional centers have been doing the same, whether or not their populations are increasing. Towns, villages and hamlets within highway commuting ranges of regional job centers are becoming bedroom suburbs, and incomes brought home from those jobs brings new vitality to Main Street. Meanwhile, in unincorporated townships surrounding the regional centers and around the state's lakes, new houses are going up for retirees, weekenders, and commuters--especially along major and minor highways and country roads that provide access to nearby malls. The report describes these trends playing out around 24 regional centers in rural Minnesota." (Adams, et al, 2003)

An increasing preference for natural rural amenities contributed to rural population growth during the 1980s and 1990s. (Nord & Cromartie, 1997; Nelson, 1992)

Preferences for natural developed settings made edge cities the third wave of urban development in the 20th century. (Sullivan, 1994) Frederick Fliegel and Andrew Sofranko expand on the theme of non-metropolitan population increase by studying the connection between the attraction of rural living and race. (Fliegel and Sofranko, 1984) An examination of U.S. Census data shows that urban-rural deconcentration in the 1970s was largely a white phenomenon. (Lichter et al, 1985) The factors that account for population growth at the rural-urban fringe during the 1970s are not only those associated with suburbanization, but also those associated with nonmetropolitan growth. The effects were varied based on municipality type and race. (Airola and Parker, 1983)

Herbers links the increased movement beyond the suburbs to rural land in metropolitan areas to the classic American ideals. Traditionally, economic bonds held people to farms and small towns and later to the cities and suburbs. Now the bonds have been broken and people are free to move in search of “independence, wealth and adventure.” (Herbers, 1986) Nelson and Sanchez, argue that counter-urbanization in the U.S. does not represent a dramatic break from previous patterns. (Nelson & Sanchez, 1999) Several studies look at the satisfaction levels of those who moved to exurban areas. Pooley reviews ten small towns and interviews residents to learn why, during the 1990s, two million more people moved from metro centers to rural areas than migrated the other way. (Pooley, 1997) Data collected from the 1974 Detroit Metro study evaluates the “happy suburbanite hypothesis.” (Adams, 1992)

Many of the people who move to rural or exurban areas are looking for a way of life and a sense of community they associate with rural areas. There is a difference, though, between admiring a community and being able to integrate into that community,

particularly when the migration is perceived as a possible threat to existing culture and livelihoods. A 1999 study found a “deep and widening chasm” between urban and rural Oregon that is “not so much rooted in fact as image and legend.” Commonly held but incorrect views include issues surrounding job growth, poverty, crime, dependency and self reliance, the sources of Oregon’s wealth, urban rural redistribution and biased state economic policies. (Impressa, 1999)

Participation in community and social networks can strengthen the connection between new and old community members. Farmer/non-farmer relationships can be important for both parties. When farmers develop social capital with non-farmers, social constraints created by non-farmers can be mitigated. (Sharp and Smith, 2002) Building good relationships between farmers and their non-farm neighbors helps to protect agriculture and connect urban and rural residents. (Wall 1997; Lapping and Pfeffer, 1997; Tolbert, 2002) Civic agriculture is a counter-trend against decades-old paths of industrialization and globalization and encourages the trend of localizing some agriculture and food production. (Lyson, 2004) In boom towns, the alteration of relationships includes areas of interaction and communal relations. (Krannich and Greider, 1990) Israel and Wilkinson conducted a case study of change in Seabrook, NH, a community experiencing growth and change. (Israel & Wilkinson, 1987) In addition to the more traditional social and economic processes changing peri-urban areas (like agriculture; land use; and population) rural health, crime, exclusion, co-modification and alternative lifestyles are topics to be addressed by planners and policy makers and local communities. (Woods, 2005)

Frudenburg examines ways to assess the cost impacts of rural resource development. (Frudenburg, 1986) Gramling and Frudenburg offer a conceptual framework that deals with impacts both across time and across potentially affected systems of the human environment as a way to improve the promise of social impact assessment. (Gramling and Frudenburg, 1992)

Are there ways for development to be used to strengthen rural areas without changing their character? Decline in agricultural land is one reason why some rural areas suffer economically. Migration patterns, technological developments and altered human-land relationships are changing rural communities. Case studies of eight communities in the West show that change is an ongoing process. (Nelson, 2001) To learn more about rural regions that lag behind the rest of the country in income, employment, access to services and measures of education and health, Bradshaw studied the historical background, current economic and social conditions, local attempts at economic development, out-migration and effects of government policies on nine regions. (Bradshaw, 1993) He then partnered with Muller to understand the dynamics of rural land conversion to urban uses. They use geographical information technology (GIS) to conduct the California Central Valley Alternative Futures Model to forecast land use in the California Central Valley in 2040. (Bradshaw and Muller, 1998)

One concern about much of the literature on rural America is that it is written by urban-based scholars and thus perpetuates out-of-date notions and stereotypes and fails to adequately distinguish between rural areas dominated by agriculture and those that are not. (Crossen, 1995) The 26 interdisciplinary papers presented by Castle examine the role of non-metropolitan people and places in the economy and discuss issues including

poverty, industry, the environment, education, family, social problems, ethnicity, race, religion, gender, government, public policy, and regional diversity. (Castle, 1995) There is a distinction between the urban/rural fringe and “deep” rural areas. The fringe risks “the threat of homogenous, monotonous housing and commercial development, which can engulf entire communities and transform landscapes and local economies virtually overnight.” Deep rural areas “lag behind the nation as a whole in income, educational attainment, quality of housing, employment opportunities and the provision of healthcare and social services.” Both these areas need more planning. (Daniels & Lapping, 1996) Planning be used to manage growth on the Metropolitan Fringe? (Daniels, 1999; Fishman, 2000)

Different concepts of economic value in relation to open space, describes methods for qualifying these values and presents examples of each from published literature. (Fausold and Lilliehold, 1999) “The problem of rural-urban land conversion as a special case of the more general one of how the equilibrium location of firms . . . changes with changes in the conditions of demand and supply for the commodities they produce.” (Muth, 1961)

The migration of urban to rural is in part a reflection of the positive perception of rural areas. In 1990, Willits et al studied the “meaning of rurality from the person-on-the-street perspective using data from a statewide telephone and mail survey of 1,241 Pennsylvania residents.” (Willits et al, 1990) In 1993, Willits used a statewide survey to determine that the media presents rural as wholesome and desirable. (Willits, 1993) Two years later, Willits and Luloff conducted a mail survey of a sample of people living in Pennsylvania cities and found that “urban people view rural places in positive terms and

feel that rural areas and rural lifestyles should be pursued.” (Willits and Luloff, 1995)

Similar connections between urban-rural migrants in new tourism developments has been found in Spain. (Paniagua, 2002)

C. Changing Agricultural Sector

Urban, suburban and exurban expansion are altering the agricultural industry presenting new challenges and new possibilities for agriculture. The growth of urban areas threatens agricultural production. (Lockeretz, 1986) As development spreads, it competes with agriculture for land. Conflicts often arise when residential developments are located near farmland. Pesticide use and the all-night work that occurs during parts of the crop cycle are some of the issues around which conflict arises. Issues relating to farming in peri-urban areas include the increased demand for land for urban development, new employment opportunities for urban areas and increased market opportunities for local producers. (Illbery, 1985) “The irony of the situation is obvious: While farming creates and maintains the atmosphere and bucolic landscape so many wish to be part of, it is the business of agriculture, which mandates certain practices and functions that many find offensive.” (Otte, 1974; Vesterby, et al, 1994; Heimlich, 1989) New York State pioneered the movement to protect agricultural land when it passed Right to Farm laws in 1972. (Lapping, et al, 1983)

As fewer and fewer Americans make their living from agriculture, concern over the future of farming is increasing. Farmland preservationists are working to save agricultural land and the way of life while others question the future of farming in the United States. For many Americans, farming is more than a profession; it is part of our

national and cultural heritage. Different aspects of the issue in the U.S. and Canada include: urban growth and competition for agricultural land; dynamics of land conversion, planning to protect farmland, agricultural land resources for the future, land resources for food and agricultural land conversion. (Furseth and Pierce, 1982; Coughlin et al, 1977)

Lockeretz conducted a study of quantitative and structural changes in agricultural sector in 190 counties between 1969 and 1982 in the northeastern region of the U.S. to determine the extent to which urbanization causes a decline in agricultural activity. (Lockeretz, 1987) Heimlich and Barnard also look at agriculture in the NE US using data on industrial farms, including operating characteristics of each farm type, their importance to metropolitan agriculture and implications for preserving farming and farmland. (Heimlich and Barnard, 1992) Heaton expands on the connection between urbanization and agriculture by examining metropolitan influence on US farmland use and capital intensity. Agricultural organization varies by proximity to metropolitan areas and level of local urbanization. (Heaton, 1980)

David Berry and Thomas Plaut examine the effects of urban growth on farmland in the mid-Atlantic region including the conversion of farmland into urban uses, the idling of farmland in anticipation of future conversion to urban uses and the slow switchover from dairy land to agriculture activities which require less investment in immobile capital. (Berry and Plaut, 1978) Soil protection is one way to overcome the threat to farmland. Public policies and actions taken by individual farmers are discussed. (Sampson, 1981)

Brian Ilberry uses case studies to examine the complexity of farming in the “dynamic zone where physical, economic, social and political factors all interact, making it difficult to establish generalities. Farmers working in this zone have to make complex decisions about land use, whether to continue to farm, to sell their land or to plan to sell but farm in the meantime which might mean altering the type of farming they do in the interim. Advantages of farming in this zone include increased employment opportunities and increased market opportunities.” (Ilberry, 1985) Lockeretz interviewed 52 dairy and fruit/vegetable farmers in the suburbs of Worcester, Massachusetts to determine how farmers view their future in agriculture under new metropolitan development pressures. Three measures were used: actions taken in the past five years, actions planned for the next five years and expectations for the future status of their land. (Lockeretz et al, 1987)

As the intensity of farmland preservation increases and there is a need for increased understanding of federal and state programs, agricultural zoning, Transfer of Development Rights, land trusts, transferring/estate planning that can help land owners and communities devise and implement effective strategies for protecting farmland. Appendix with model zoning ordinance, nuisance disclaimers, conservation easements, etc. (Daniels and Bowers, 1997) Libby examines the performance of state programs for farmland protection. (Libby, 1999)

Oregon’s land use system has effectively preserved prime farmland in the face of urbanization by implementing exclusive farming zoning, UGBs, exurban districts, farm tax deferral and right-to-farm regulations. (Nelson, 1992) Daniels and Nelson point out that while Oregon’s farmland preservation program has had some success, commercial agriculture is threatened by hobby farming. In response the Oregon legislature tightened

standards that govern future residential development in agricultural zones to curb hobby farming. Local governments have also recognized the problem of hobby farming and appear to have improved their administration of state mandated farmland preservation program. (Daniels and Nelson, 1986; Brooks, 1985; Daniels, 1986) Urban containment programs can influence the regional land market. A model applying the theory to a case study found three results: “First, the urban containment program employed by Salem, Oregon, separates the regional land market into urban and rural components. Second, by making greenbelts out of privately held farmland, the program prevents speculation of farmland in the regional land market. Third, greenbelts add an amenity value to urban land near them. The article suggests several policy implications that arise from the theory and case study.” (Nelson, 1986)

Not everyone believes the preservation of agricultural land should take priority. Fischel argues that “young American families are being asked to forego their homes in the suburbs so that American farmers can feed Russian cows.” (Fischel, 1982) Blank argues American agricultural production is destined to end but there is no need for alarm. It’s a natural process and “decisions of individuals combine to make the end of American agricultural production predictable and rational. Fascinating in global scope and relevant to everyone because the simple economic decision making processes involved will be repeated in other industries.” (Blank, 1998)

For others its not that American agriculture should end but that it should move. Urbanization and agriculture have historically been viewed as mutually exclusive land uses. As urban areas grow, they expand outward, overtaking agricultural land. At the same time, decreases in agricultural jobs feed urbanization. As urban areas grow, more

people are looking at urban agriculture as a way to reestablish relationships between people and nature. Agriculture is also increasingly an urban land use as urbanites look for ways to be more connected to their food and farmers find new spaces in which to apply their craft. Urban, suburban and exurban expansion create competition for land use but it also brings people closer to the agricultural industry which produces their food. The disadvantages of competition for land can be turned into advantages. (Lockeretz, 1987) Farmers in the NE urban fringe have been able to adapt to the changing land market by diversifying their product base and capturing specialty markets. Three areas of public support that would help the farmers have been identified as demand for regulation of farm products and services, protection of farmland and financial support for public acquisition of farmland development rights. (Pfeffer and Lapping, 1995) Not all sectors of farming are equally adjustable when faced with suburbanization. In New Jersey, farmers who specialize in vegetable production were found to benefit from suburban expansion while farmers who work mostly with livestock were the most adversely affected. (Lopez et al, 1988) Potential for agriculture to forge new connections between urban and rural people. (Lapping and Pfeffer, 1997) Farmers can capitalize on their proximity to consumers. (Lockeretz, 1986)

Mary Ahern and David Banker use data from the 1987 Farm Costs and Returns Survey (USDA) to demonstrate the financial advantages of urban agriculture and draw attention to the differences in how government subsidies effect farming in non-metro area that are more likely to produce high-value crops like fruits and vegetables. (Ahern and Banker, 1988) Ralph Heimlich argues that newer metropolitan areas tend to have more dispersed settlement patterns which better accommodate urban agriculture. Urban

agriculture, he argues, not only fits the urban form of new metropolitan areas but speaks to emerging environmental concerns and fits lifestyle preferences. He encourages planners to promote new types of farms that are better suited to urban land. (Heimlich, 1998) Abiola Adeyemi compiled an abbreviated list of references and a resource guide. (Adeyemi, 1997)

In their study of farmland acres in metropolitan areas between 1974 and 1982, Ralph Heimlich and Douglas Brooks found that farms in metropolitan areas are generally smaller, more land intensive in their production, more diverse and more focused on high-value production. (Heimlich and Brooks, 1989) Strategies of farmers adapting to changes in the agricultural sector between 1990 and 1997 can be seen in case studies from Geauga County, Georgia. (James and James, 1997) A similar cases study, from Ontario examines the positive adaptation strategies of farmers in agricultural areas, including you pick, retail outlets, land extensive cash cropping and direct sales that can sustain agricultural in peri-urban areas. (Johnson & Bryant, 1987) A broader look at agriculture near Canadian cities includes discussion of the resource base, market system, the farm entrepreneur and farm; the government: intervener in the enabling environment. (Bryant and Johnson, 1992)

D. The role of Planning and Policy

Doherty looks at six areas of change and offers policy suggestions for ways to control growth and the role of local, state and federal government. (Doherty, 1984) Problems associated with sprawl include cost, energy consumption, effects on land and other natural resources, traffic problems and social consequences. Exurban development

affects commuting patterns. The impact of these patterns has policy implications. (Davis, et al, 1994) “It seems improbable that future sprawl can be controlled to a significant degree without adopting radically more stringent land use controls. A more careful targeting of resources to villages and small cities” is recommended. (Lamb, 1993)

“Planning, however, has been a relatively inert force at the edge: seeking to contain (perhaps through greenbelts) but not seeking to improve or to manage. Planning could do more to ‘manage’ the fringe, creating new social, economic, and environmental opportunities. We draw on a review of policies and programmes affecting the fringe, and argue that spatial planning—able to integrate land uses, and different activities and interests—may create such opportunities.” (Gallent et al, 2005)

A study of urban rural connections including the flow of goods and people, flows of knowledge and information and ideas and cultural practices in West Midlands, a metropolitan county in England, provides policy and action plans to guide more sustainable regional development. Seven interdependency themes are highlighted: food and drink; tourism and recreation; housing; flooding; waste management; market towns; urban-rural fringe. (ECOTECH, 2003)

By working together as regions, groups of separate municipalities can act to address many problems including the concentration of poverty in central cities, declining older suburbs and vulnerable developing suburbs, and costly urban sprawl and exurban development. Orfield uses demographic research and state-of-the-art mapping, together with resourceful and pragmatic politics, to demonstrate how political alliance between the central cities, declining inner suburbs, and developing suburbs with low tax bases can strengthen an entire region. (Orfield, 1997)

Exurbanization is not a continuation of suburban sprawl but instead an example of non-metropolitan growth. As such, “the assumptions of urban, suburban and rural development policies are no longer applicable and need to be reexamined. (Nelson and Dueher, 1990) A study of planning structures including urban growth boundaries (UGBs), urban service limits, state or regional oversight of local planning in 182 MSAs with 1990 pops 100,000 – 500,000 between 1972 and 1992 reveals a positive association between the presence of growth management and economic performance. (Nelson and Peterman, 2000)

Suburban sprawl and exurbanization are often negatively characterized as wasteful, expensive and causes of pollution. The debate is not one-sided, however. Some see edge cities as a reaction to market forces that fulfills the need for corporate workers and corporations to gain large contiguous spaces for workers. (Garreau, 1991) This argument counters the anti-sprawl movement believes that urban sprawl fosters inequality, unemployment and economic blight. Instead, they argue that the “lack of human capital, not workplace inaccessibility, is the main cause of poverty; smart growth increases property values and makes it difficult for the poor to live near areas that are growing economically; the argument that urban sprawl gives rise to excessively costly infrastructure, excessive transportation costs and environmental damage is wrong; the belief that urban sprawl leads to social pathologies is wrong.” (Gordon and Richardson, 2000)

Lessons for rural communities can be drawn from the experiences of the Confederated Tribes of Oregon. “Planning has played a key role in tribes’ ability to exercise their legal sovereignty, rights and the associated acclaims for control of land and

resources, for the preservation of culture and for the right as well as the means to exercise self government.” (Hibbard, 2006) The experiences of Portland Oregon highlight the importance of leadership from the central city, the necessity of incorporating all pieces into a single strategy, and the significance of transportation plans and programs in bringing together environment activists and urbanists. (Abbott, 2000)

The Ecosystem Approach (EA) is one method of regional development that can be applied to metro areas and their outlying areas. EA is a strategy for integrated management of land, water, and living resources that promotes conservation and sustainable use that can be used in an equitable way. Water resources are one area where cities are testing this approach in an attempt to protect the watershed that produces drinking water. The city of New York has plans to buy land upstate to protect the watersheds that are used for producing the city’s drinking water. This is part of a watershed protection strategy that will cost 1.4 billion USD but is estimated to save the city from having to spend 3 to 8 billion for new filtration systems. (Tveitdal, 2004)

Agriculture is not the only land use advocates are working to preserve. Natural resource land is also threatened by exurban development. “Proper rural-urban management is necessary for the maintenance of environmental resources such as drinking water during rural-urban interface. Problems due to rural-urban conflicts are usually caused by multi-dimensional factors that arise from changes in the agricultural system. Community management practices should be based on the alleviation of problems that affects farmers, homeowners and environmental resources.” (Abdalla & Kelsey, 1996) “A model developed to estimate the comparative advantage of the resource sector. The results show that natural resources have the potential to provide a

significant comparative advantage relative to other economic sectors by virtue of generating resource rent, which is a surplus above normal returns to other factors.”

(Gunton, 2003)

Che looks at the effects of economic restructuring and environmental challenges to the USDA Forest Service resource-based rural development policies. (Che, 2003) “The increasing availability of IMPLAN (a microcomputer-based software and county-level data base for construction of regional input-output models has made analyses of regional economic linkages a less difficult task. The emergence of a core-periphery spatial economic paradigm and development of software that facilitates estimates of core-periphery trade have led to the construction of core-periphery multiregional input-output models that permit greater understanding of economic linkages between rural and urban areas.” (Harris, et al, 1996)

Isserman argues that during the twenty-first century rural America will have a distinct competitive advantage. Rural America is growing faster than urban America, including high growth in senior citizens and immigrants thus alleviating conditions in distressed urban areas. Rural areas are competitive in a broad range of industries including high wage, urban-oriented growth industries. The official statistical system that divides the nation into metro and rural areas misdirects policy discussion by hiding rural growth and obscuring the intertwined nature of urban and rural activities. (Isserman, 2001) Researchers and policy makers depend on two federal systems when defining urban and rural: the U.S. Census Bureau and the Office of Management and Budget. Andrew Isserman presents two alternatives that can strengthen the foundations of research and policy uses. (Isserman, 2005) Kathleen Miller expands on the criticism of

the Office of Land Management's core-based statistical areas. Miller argues it is important to understand the overlap between urban and rural, metropolitan and nonmetropolitan areas. Caution should be taken when using these classifications in the design of programs and policies. (Miller, 2006)

There are benefits to be gained by taking an integrated urban–rural approach to regional development and by focusing on interdependencies and commonalities rather than on differences. “Policy documents at the European, national and regional levels are increasingly stressing interdependencies and the move towards regionalization adds to the shift in emphasis towards functional regions rather than to town and country.” (Caffyn and Dahlstrom, 2005)

“Saskatchewan's Strategy for Rural Revitalization” (Saskatchewan Finance, 2001: 29-31) the government promises \$9.6 million in rural capital projects from the Canada-Saskatchewan Infrastructure Program, enhanced internet services to rural communities and schools, “targeted measures” to attract immigrants to rural Saskatchewan, an increase in small business loans, funding for Regional Economic Development Authorities, and boasts of the fact that Saskatchewan provides more taxpayer support for agriculture, per capita, than any other province and more than three times the support of the federal government, not counting the various provincial tax breaks for the sector. Saskatchewan has also established a Rural Revitalization Office to coordinate efforts across line departments.

This paper seeks to assess such policies from the perspectives of efficiency and equity. The analysis is at a high level of generality; hopefully this will allow for greater

clarity as to what are the key conceptual issues from an economist's point of view.

(Rushton, 2001)

Federal and state policies don't meet the needs of rural America of which there are four types: urban periphery, sparsely populated, high amenity and high poverty.

Policy should move toward increasing human capital, conservation of natural environment and local culture, increasing regional competition incentives and investments in infrastructure that support the expansion of new competitive advantages.

(Stauber, 2001)

Land Grant Institutes have the opportunity, capacity and obligation to help understand the response to the changing nature of rural America but they need better marketing. There are two sides to urban/rural and we must develop credentials and collaborators in the urban side of the interface. The policy environment for farming and urbanizing society is likely to become more contentious and success in reinventing the land grants depends on how structure and good intentions are reflected in the academic culture. (Libby)

Rural policy is a vital cornerstone of national economic policy but new strategies are needed to help rural areas achieve their full economic and social potential. "The economic well being of rural areas is no longer synonymous with the well being of agriculture. Rural America needs to develop new industries with sustainable competitive advantages. Congress needs to gradually shift federal rural policies from subsidizing crops to working with states to support rural economic development of all types. Four key principles: shift from subsidies to place based rural development strategies; target areas with growth potential; change the playing field so more firms choose rural areas

and enlist states as full partners.” (Atkinson, 2004) In depth micro look at land use and development in a traditionally rural but now rapidly growing county in NE Ohio, explores policy framework relevant to that development. (Burgess and Bier, 1997) “In order to understand the economic relationships that are critical to rural western economic development, economists need to move beyond the standard equilibrium economic development models and explore some emerging models of spatial development and institutional change in which the concept of ‘increasing returns’ plays a key role.” (Weber, 1998) Esseks, et al use case studies of three diverse locations on the urban fringe in the Chicago Metropolitan area to examine the fiscal costs and public safety risks of low density residential development on farmland. (Essecks, et al, 1998)

III. International

A. Changing Agricultural Sector

As in the United States and Canada, expanding urban areas in developing countries present farmers with both challenges and opportunities. Large urban populations create expanded markets for agricultural goods, and as urban areas spread the market moves closer to the farmers. This also creates competition for resources, in particular fertile land and water. Low-income farmers with little access or credit have the hardest time adjusting and are often forced to diversify their livelihoods to abandon farming altogether. In Hanoi’s peri-urban areas, urbanization and recent economic reforms are impacting the livelihoods of farmers. Agricultural production is intensifying while the proportion of land devoted to agriculture is declining. In one peri-urban district on Hanoi’s southern outskirts the problems that farmers face include the loss of

agricultural land use rights, increased seasonal flooding and water contamination by city wastes. As in many other cities, the relationship between urban planners, consumers, rural communities and horticultural producers is uneasy and generally not constructive. (Van Den Berg, et al. 2003) Four main elements have been identified in urban agriculture; the resource base, the market, the farmer and the role of government. Case studies from the developed and developing world “demonstrate how conflicts and problems can be resolved to the benefit of the farmers and the city dweller, by applying systems theory.” (Bryan and Johnson, 1992)

A twenty year study of the food and agricultural sector in two Vietnamese villages illustrates the need to acknowledge the complexities of urban/rural connections in policy actions. The study shows that strong links including the importance of rural demand on urban businesses and the significance of non-agricultural income in the form of remittances from seasonal and permanent migrants in rural households, with larger cities helped the villages successfully face significant economic and social change and transform their economies. (Garrett, 2005)

Although economic and social connections exist between urban and rural economies, the relationship between urban and rural areas in many developing countries is still characterized by an economic dualism. Urban bias continues to influence government policies which need to be rewritten to correct market failures in order to achieve higher efficiency and increase equity. In China, while agricultural growth has contributed to poverty reduction in both rural and urban areas, the effects are more significant in rural areas. Urban growth, however, contributed to urban poverty reduction but did not significantly affect rural poverty reduction. In India, rural growth helps to

reduces rural poverty without having a significant effect on urban poverty while urban growth contributes to urban poverty reduction but does not significantly affect rural poverty. Fan et al argue that “further correcting urban bias would lead to higher growth in agriculture and therefore larger poverty reduction in both rural and urban area, as a result of better rural-urban linkages.” (Fan, et al. 2005)

In Bangladesh, discussions of ways to improve livelihoods often fail to fully contextualize urban/rural links but instead come from an “isolated sectoral perspective.” If the conversation can be expanded to explore rural-urban interactions then Bangladesh can “take advantage of the synergies to reduce both urban and rural poverty.” (Garrett and Chowdhury, 2004)

B. Livelihood Strategies

People in developing countries employ a variety of livelihood techniques, including migration, which shape social and familial relations. Many people in developing countries move seasonally, working in rural areas during one part of the year and urban areas during another. Extended families sometimes maintain multiple households, one in an urban area and one in a rural area. The income from each supports the entire family. Evidence of these strategies has been found all over the world.

The economic and cultural importance of the ties migrants maintain to their communities of origin is perhaps why they do not fade away but rather remain strong over time. This connection has significant consequences, for rural-urban migration (including return rate migration), for rural economics and for the political process.

“Depending on their migration strategies, urban residents connect with a range of actors

at the rural end: more or less closely related kin, kinship groups, non-kin groups, villages, larger political entities. These connections play out differently for men and women.”

(Gugler, 2002) Multi-spatial livelihoods have been identified in Nakuru town, Kenya.

(Owuor, 2006)

Many migrants to Old Naledi, a low-cost, self-help settlement in Botswana’s capital, Gaborone, combine rural-based and urban-based livelihood strategies. One third of the households in Old Naledi own cattle and half have land in their village of origin. This does not decline in relation to length of stay in the city. These rural assets are valued both in monetary and social terms and serve as a valuable safety net for households with low incomes and uncertain livelihood prospects within the city.” (Kruger, 1998)

Mozambique and Angola have suffered major social strife that severely affected rural livelihoods. The process of urbanization is complicated by the lack of national and local infrastructure. When combined with limited market opportunities and competition from cheap agricultural imports, the lack of infrastructure undermines attempts to revitalize the rural economy through commercial agriculture. The need for livelihood diversification is driving population growth in urban centers as rural residents look for work in the informal sector to supplement income from agriculture. (Jenkins, 2003)

In Indonesia the widespread occurrence of temporary forms of population mobility as a phenomenon of social, economic or demographic significance, takes many forms. Accelerating levels of temporary population mobility have both short and long term implications for achieving a more equitable distribution of wealth within Indonesia.

(Hugo, 1982)

Six case studies from Mali, Nigeria and Tanzania examine changing rural-urban linkages, the reliance of rural and urban households on both rural- and urban-based resources, and on exchanges between urban and rural areas. Urban expansion is changing farming systems, which affects access to markets, the role of traders, the role of urban centers in the economic and social development of their surrounding regions, and patterns of income diversification and mobility. (Bah, et al. 2003)

In rural Dakar, remittances from family members who have migrated to urban areas are an important revenue source, especially during the “hungry months” before the new harvest. Migrants’ visits are not linked to regular seasonal agriculture, but rather to occasional participation in family ceremonies, suggesting a shift toward a permanent urban residence rather than temporary migration, as traditional kin structures are replaced by urban social networks. (Fall, 1998)

Some households see their rural homestead as their “real home” while others have all but severed their rural ties. Maintaining both an urban and a rural household can provide a safety net in times of economic hardship or political violence. “To address the needs of these households, housing and rural development subsidy policies should take variations in household size into account and allow greater choice in the allocation of subsidies between urban and rural homes.” (Smit, 1998)

A longitudinal study of 488 Filipino families found that internal migration is an important livelihood strategy in the Philippines, particularly immigration to peri-urban areas. Migration to small and mid-sized cities can increase local opportunities for income diversification, while decreasing pressure on larger national centers. Migrants who are able to find better jobs in urban and peri-urban areas can improve the welfare of their

rural families through remittances. While rural areas, peri-urban areas and urban areas attract migrants for different reasons, social networks are important to migrants in all areas. Women migrants often fare better than male migrants, who tend to be less educated. (Quisumbing and McNiven, 2005)

Two studies examine livelihood strategies employed by women. In the first, female street vendors in a poor neighborhood of Port-au-Prince, Haiti were interviewed to learn more about the reasons they undertake this work and its importance for family survival. Two notions often considered self-evident for women in such contexts, namely family assistance and community solidarity, are evaluated as well as the impact of gender relations on the vendors' access to work and on the possibilities of obtaining better livelihoods. (Blanc, et al. 1998)

The second study draws on interviews with 96 women to “describe the livelihoods and survival strategies of low-income households in two peri-urban locations in Ibadan. The women sell goods from makeshift stalls or live in poor-quality houses. The paper reports on these women's perceptions of poverty, their incomes (44 per cent earned less than US\$ 1 a day) and their survival strategies (for all, working longer hours; for most, having their children engage in income-earning activities; and, for some, working in more than one business).” (Jaiyebo, 2003)

Globalization and impoverishment combine with territorial expansion in Caracas, Venezuela, resulting in territorial segregation. Wealthier groups live in gated communities in the central city while the impoverished middle- and low-income groups are pushed to the periphery, where they compete for space and where different values and social identities are a potential source of conflict. (Lacadana and Cariloa, 2003).

C. Development Strategies (NGOs, CDCs, Markets)

Many development strategies have been applied to the urban periphery in developing countries. Some specifically target urban or rural areas while others have a wider, more holistic regional view. Their efforts don't always benefit the intended target. Donor agencies are developing and expanding programs on poverty reduction in urban areas in Africa, Latin American and much of Asia. (Anzorena, et al. 1998) Market institutions can affect the links between urban and rural areas. Policies designed to stimulate market development often focus exclusively on either urban or rural markets and neglect to build on the synergy between the two. The role of markets in linking rural areas with cities and market towns and the potential for economic development and poverty reduction is evidenced by emerging local and global patterns. These include the modern food value-chain led by supermarkets and food processors, rapid urbanization, changes in dietary composition and enhanced information and communication technologies. There are five major factors that increase transfer costs and hinder market integration: information asymmetry (can be reduced through supermarkets and food processors), transaction costs (producers' cooperatives), transport and communication costs (partnerships between businesses and NGOs), policy-induced barriers and social non-economic factors (public policies, social exclusion). (Chowdhury, et al, 2005)

In the late 1970s, the Columbo municipal council initiated the community development councils (CDCs). Until the mid 1980s the CDCs were exclusively urban based. The creation of a new layer of local government allowed the CDCs to extend to peri-urban areas. (Dayarante and Samarawickrama, 2003) Industrial development in has made peri-urban areas in China's Pearl River Delta the main destination for in-migration

and foreign investment. This has not, however, led to a reduction of regional economic equality. (Lin, 2001)

A similar study examines two villages in Vietnam's Red River Delta, an area with high population density and limited land availability. The area is experiencing a major transformation as its economic base moves away from subsistence farming towards intensive, high-value food production for export and local urban markets, and nonfarm employment. Each village is taking a different pathway to local economic development. One village relies primarily on agricultural intensification and diversification, although in combination with nonfarm activities. These nonfarm activities are either supplementary (such as handicraft production and seasonal migration) or related to farming, such as provision of agricultural services, transport and trade of agricultural produce. To a large extent, it is this nonfarm income that allows investment in agriculture at the household level. Residents of the second village, although nominally still owning rice farms, have effectively moved out of agriculture and engage almost exclusively in handicraft production. (Than et al, 2005)

D. The Role of Planning and Public Policy

Public policies are often aimed exclusively at either urban or rural areas. For public policies to be effective in improving the economic, social and structural realities of urban and rural areas, they must address the entire region, and work to strengthen the ties between urban and rural areas.

A longitudinal study of rural Ethiopian households between 1989 and 2004 highlights the need for development of policies that represent the importance of market

towns to rural livelihoods. Towns and small and medium sized cities provide numerous services to rural areas, including large markets for agricultural and nonagricultural goods, improved access to the inputs needed for production of these goods and a wider variety of commodities, additional opportunities for employment, the ability to diversify income sources and reduce income variability and improved access to health care, education and the legal system. Proximity and access in the form of transportation and communications to a market center effects the extent of economic activity. Improved access to market towns and cities has a positive effect on welfare. (Dercon and Hoddinott, 2005)

In recent years Cairo has seen a rapid growth of informal settlements. Many of these settlements are located on agricultural land, which is already scarce, while large areas of desert nearby remain undeveloped. El-Batran and Arandel review changes in the Egyptian government's housing and land policies over the last 40 years, including attempts to upgrade informal settlements and to combine upgrading with the development of settlements for middle-income households. (El-Batran and Arandel, 1998)

More than 400,000 people in thirteen communities in Cambodia, Colombia, India, South Africa and Zimbabwe) have benefited from one UK£ 200,000 fund that supports the acquisition of secure land and the construction of housing. How was it possible for a fund of this size to benefit so many low-income households? Lessons that can be learned from the fund include using different strategies to obtain land in different places, to address the needs of the urban poor more effectively. (Mitlin, 2003)

For some NGOs, success in one area can spell trouble in another. This was the experience of a group in Jakarta. The group grew larger, attained better funding and stronger links to the local government which made it a success as judged by many

government officials and donors. To accomplish this, however, the group had become a “large, complex, top-down, technically-oriented bureaucracy guided by government and large international donors. It grew farther away from its early focus on grassroots communications and networking changed to an emphasis on formal office meetings and official ceremonial events.” (Jellinek, 2003)

In 1999, the state government initiated farmers markets in most of the cities and towns in Tamil Nadu, South India. “Case studies from three districts illustrate the markets’ impact on the most vulnerable stakeholder groups: on the production side, small and marginal farmers, especially women, and vegetable head-load vendors; and on the consumption side, the residents of low-income neighborhoods.” (Rengasamy, 2003)

While some impacts of the Economic Structural Adjustment Policy have been felt more acutely in urban areas of Zimbabwe, rural populations have also been affected in multiple ways. A look at the experiences of recent migrants to Harare shows that “due to the strength of rural-urban interactions and the economic interdependence between city and countryside, the impact of structural adjustment is not clearly geographically defined.” (Potts and Mutambirwa, 1998)

To address the urban rural imbalance and achieve faster development in under-developed areas of developed countries, governments at the national and local level must recognize the growing importance of the urban-rural linkage and craft policies that make adequate investments in infrastructure, particularly transportation, to improve rural productivity while allowing access to markets, jobs and public service by both men and women. UN-HABITAT is working to promote the urban-rural linkage development

approach and has adopted several resolutions and hosted a roundtable discussion.

(Okpala, 2003)

Although they traditionally only target rural areas, development projects based on no-timber forest products (NTFPs) in the northern Bolivian Amazon have also benefited peri-urban populations in the region. A survey of 120 households at the periphery of Riberalta reveals “that peri-urban livelihoods depend significantly on both the extraction of Brazil nut and palm heart and their urban-based processing.” (Stonian, 2005)

In communities adjacent to petrochemical and chemical industries in Durban, South Africa, research carried out during January-March 1997 worked to begin the process of developing community-based indicators for monitoring and evaluating industrial performance. A range of participatory methods involved community groups with a wider set of Local Agenda 21 activities within the city. (Nurich and Johnson, 1998)

The urban-rural dichotomy that is deeply ingrained in planning systems is inadequate for dealing with processes of environmental and developmental change in peri-urban areas. Development professionals and institutions are increasingly recognizing the complexity of peri-urban areas and developing new strategies to address the complexities through environmental planning and management. (Allen, 2003)

In recent years there has been growing interest in developing agriculture land in peri-urban areas both for crops and livestock. Not only is this seen as a good way to feed increasingly large cities but it is also seen as a way to capitalize on the availability of urban wastes for recycling and to improve the management of such wastes. Birley and Lock examine the health problems facing the enterprises and inhabitants of peri-urban

areas, including the ways research and assessment procedures are required to ensure that natural resource production in peri-urban areas also safeguard human health. (Birley and Lock, 1998)

In the Shri Shankara Nagar Mahalir Manram in Pammal, India a woman led civil society organization is working to be linked to realistic interventions at the global level concerning development opportunities, and to a better integration of rural and urban development programs. (Dahiya, 2003)

In developing Asian countries NGOs are using environmental education to foster socio-political and economic change. One of the most successful is Pusat Pendidikan Lingkungan Hidup (PPLH) in Seloliman, East Java in Indonesia. The center, which is almost entirely economically self sufficient, acted as a regional EE center and disseminated educational materials, knowledge, skills and experiences to the local educators, which otherwise would be the responsibility of the government. Additionally, the center has contributed to development around the center, provided alternative educational programs not only for formal schools to supplement their curriculum but also for NGOs, businesses and local government officers. (Normura, et al, 2004)

The linkages between urban and rural are most intense in peri-urban areas where the constant flux of people and production create complex social structures and fragmented institutions. People living in peri-urban areas are more likely to make their livings from the land and are thus more dependant on access to natural resources. While life in peri-urban areas can present greater challenges, especially to women, it can also present greater opportunities, especially for those who are able to draw simultaneously on the comparative advantage of urban and rural areas. Public policies at the local,

regional/national and international levels are needed to strike a balance between local, environmental, urban and regional planning through improved living conditions in rural areas and improved infrastructure in and between rural and urban areas. (Allen, and Davila, 2005) Participatory planning is used to enhance livelihoods and manage the natural resource base in villages in the peri-urban areas of the Hubli–Dharwad region of India. (Halkatti, et al. 2003)

In Kenya, where many rural citizens lack connection with government, some democracy NGOs are working to bridge the urban rural civil service gap. The four NGOs examined by Orvis have had some success using civic education and paralegal programs to establish a rural presence. Their success, however, has been built on support from ethnic, clan, partisan and other “non-civil” networks. (Orvis, 2003)

Collaborative participation of citizens increases the success of governance. Globalization and participation alter the role of government. “More people perceive current governments as a source of services rather than just as a regulator. The need is to reach to the section of the society which has remained tangential to the government sphere due to cost and accessibility reasons. Diffusion of e-governance is much needed to reach out to these peripheral sections in the developing countries. The model proposed in this article improves upon the ‘time-to-public’ and ‘time-in public’ of e-governance services. The article provides a roadmap to bridge the rural-urban digital divide based on an analysis of successful e-governance projects. It seeks to formulate a framework for delivering value-proposition to rural populace and equipping them for the better use of e-governance.” (Mehta and Nerurkar, 2006)

Although disadvantaged youth in El Alto, Bolivia are highly organized and active in social and cultural groups, they fail to involve themselves in the local political system. Constraints that contribute to this lack of involvement include the corruption of local officials, the low level of political education and awareness, and the various regulations that make prosperity a prerequisite for real participation. (Merkel, 2003)

The intensity political nature of land use conversion can be seen in the Manila metropolitan region, where land formerly used to grow rice is being converted to industrial, residential and recreational uses. The conversion is political in two ways: first, policy choices are made relating to the use of land that reflect a particular set of developmental priorities; and second, the facilitation of conversion involves the use of political power relations to circumvent certain regulations. This occurs at the national level of policy formulation; at the local level of policy implementation and regulation; and at the personal level of everyday power relations in rural areas. (Kelly, 1998)

Rural-urban migration is effected by household organization and gender. “Governments and agencies could do more for gender equality by acknowledging the potentially transformative role of interventions aimed not only at, but inside, households and by adopting more flexible positions towards household diversity.” (Chant, 1998)

E. Hazards/Waste Management

UNDP sponsored a workshop to explore the links between disasters and urban development in Africa. Urban governance does not pay enough attention to urban disasters, which are often underestimated both in terms of number and scale. Although two fifths of its people live in urban centers, Africa is still perceived as “rural” by disaster

and development specialists. There is a need for an understanding of risk that encompasses events ranging from disasters to everyday hazards and which understands the linkages between them. Such an understanding should be integrated into poverty reduction strategies. (Bull-Kamanga, et al. 2003)

Decentralizing wastewater management systems offers increased opportunities for wastewater re-use and resource recovery while offering increased opportunities for local stakeholder participation in planning and decision-making, and the paper emphasizes the importance of building the capacity of local organizations in all aspects of decentralized wastewater management. “The paper concludes that a concerted capacity-building effort is required to overcome the constraints that hinder the implementation and sustainability of decentralized wastewater systems, and proposes a framework for achieving this goal” (Parkinson and Tayler, 2003).

Farmers in Bamako and Ouagadougou use urban waste as a source of organic matter which helps them to restore degraded soils and turn unproductive land into valuable agricultural land. When it comes to safe disposal of dangerous elements in the soil, the uncertain land tenure system means farmers have little incentives for safe disposal methods. Plans exist to promote large scale composting but that will increase the cost to farmers who will likely continue to make their own arrangements for acquiring waste materials. “The key challenges for policy are to build on economic and institutional reality and to regard urban waste not as dangerous nuisance but as a source of nutrients for agriculture.” (Eaton and Hilhorst, 2003)

III. Conclusions

It's becoming increasingly clear that traditional definitions of urban and rural fail to capture the complexity of the land uses and connection between them. Changing settlement, commuting and migration patterns contribute to an interface where "populations and activities described either as 'rural' or 'urban' are more closely linked both across space and across sectors than is usually thought and that distinctions are often arbitrary." (Tacoli, 1998) Economic and social conditions in peri-urban areas can be improved through targeted intervention aimed at the linkages and interactions within regions. For that to happen, however, it is important for planners and policy makers to develop strategies based on the realities of people's lives.