

Prospects for Rural Regional Development in the De-Agrarianizing Rural Bangladesh

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Abstract

Poverty, lack of opportunities, and general socio-economic malaise have become characteristic features of the rural areas in the contemporary low-income world. Amid such a reality, a rarely asked policy question becomes important: *Where do rural areas --- their economies and societies --- fit in the road map to a poverty-free world?* Contemporary development policy in the mainstream has become somewhat oblivious to this question. Rather the main thrust of recent development policy has been around (a) sectoral development projects such as the ones in agriculture, fisheries and other sectors, (b) macroeconomic policy reform, and (c) large infrastructure projects, often in megacities. Underlying these development interventions is an acceptance of a rural-urban dichotomy in economy and geographic space. This dissertation through an extensive literature survey starts with the position that important synergies are missed in the countryside by separate planning of towns and rural areas. Rather rural regions, comprising both rural areas and towns as an integral part in them, need to be the planning unit.

However, policy models for rural regional development, especially in an agrarian setting, are rare. Even as many rural regions continue to de-agrarianize, and at the same time suffer stasis, new models are hard to come by. This dissertation through an extensive review of literature on development policy experience of the past half a century identifies three equally important cornerstones of rural regional development: (a) rural regional productivity increase, (b) capturing as much of the multiplier effect of the economic activities within the rural region as possible, and (c) removal of the historical agrarian and other institutions that encourage leakage from the rural economy, and restrict access of the poor and the disadvantaged to economic opportunities. To what extent these can be achieved is determined by the recent changes in the global economic forces, nature of agrarian transition in a given region, rural regional political economy, and the nature of the state. Rural areas are de-agrarianizing, and getting connected to the larger economic processes beyond their borders. Often these changes are not increasing the life chances of the households in rural regions.

This dissertation, through the study of a rural region in the southeast of Bangladesh, identifies some concrete processes and institutions that stand in the way households' ability to attain prosperity. Some of the major processes identified are elite capture of state apparatus, emigration

and consumptive use of the consequent remittance, delinking of the towns from the economic activities of the rural hinterland, rapid de-agrarianization of the rural economy, and the lack of pro-poor infrastructure. The study helps to identify an outline and some tools of rural regional planning.

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List of Abbreviations

BBS	Bangladesh Bureau of Statistics
CDSP	Char Development and Settlement Project
DANIDA	Danish International Development Agency
DFID	Department for International Development (UK Government's international development agency)
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GNAEP	Greater Noakhali Aquaculture Extension Project
IRD	Integrated Rural Development
Km.	Kilometer
LGED	Local Government Engineering Department
NFA	Non-Farm Activities
NGO	Non-Governmental Organization
MP	Member of Parliament
RRD	Rural Regional Development

RUPP	Rural Urban Partnership Programme (A Govt. of Nepal and UNDP program in Nepal)
SLA	Sustainable Livelihoods Approach
SLF	Sustainable Livelihoods Framework
Tk.	Taka (The currency of Bangladesh)
TNC	Transnational Corporations
TVEs	Township and Village Enterprises (in China)
UNDP	The United Nations Development Programme
UNIDO	United Nations Industrial Development Organization
WB	The World Bank

Glossary

Bazaar: A market place

BRAC: An international NGO that originated in Bangladesh.

Char: Accreted land in large rivers and estuaries

Charlands: Areas that are accreted

Dadon: Output-tying loan (When a peasant or fisherman borrows with the condition that the produces or catches must be sold to the lender at a lower-than-market price, the loan is called *dadon*)

Hat (day): The days of the week on which more merchants and buyers congregate at a certain bazaar. Nearby bazaars have different days of the week as their *hat* days.

Hilsa: A fish in the herring family. Scientific name: *Tenualosa Ilisa*.

Hogla: A kind of tall grass with narrow leaves. Hogla can grow up to 10 feet tall.

Khal: Bangla word for canal.

Khas: Bangla word for government-owned.

Mostak: A plant that grows by water bodies. The thin bark of its narrow stem can be peeled and used to weave mats that feel cool to the touch.

Union: The lowest level of government in Bangladesh. It is considered a rural local government. Given the area of the country minus urban areas and forests, and the number of unions, their average size comes out to be 12 square miles.

Upazila: Bangla word for sub-district. There are 490 sub-districts in the country as of 2016.

Ward: Lowest electoral (geographic) units in urban areas.

Chapter One: Introduction

1.1 The Malaise in the Countryside, and the Plausibility of Rural Regional Development

The world in this second decade of the twenty first century is, in terms of the production of goods and services, a richer place as a whole than in any time in history. Some of the economic indicators, aggregated at the level of the world, such as hard core poverty rate and per capita income, read better than any time since measurement of poverty on a world scale began in the late 1980s (Chen & Ravallion, 2012). This aggregate global picture of progress, however, masks the unevenness of such poverty alleviation and productivity growth across both countries and regions within any given country. For example, a simple arithmetic on the World Bank's online PovCalNet data shows that China lifted 780 million people out of poverty during 1981-2012, which account for 71% of global poverty reduction during that period. If China is taken out of the calculation, the rate of global poverty alleviation does not look as impressive. Within countries too, certain geographic areas, often one or two major metropolitan areas enjoyed much success while the rest of the country, especially the rural heartlands saw much smaller economic growth and poverty alleviation.

One persistent pattern over this period was that *rural* poverty remained entrenched in the developing world (IFAD, 2010). There are large areas of countryside, even whole of provinces, in the low-income countries where poverty did not decrease. The spatial trend and pattern of poverty at sub-national level in low-income countries is one of persistence of poverty in areas away from large cities and coastal areas.

For an overwhelming majority of rural households, often the only source of a decent livelihood is in a faraway city, province, or even country. While migration and remittance ensures some degree of income, the rural regions in low-income countries are in a state of malaise. The economies there do not have much production. Consumption financed by remittance props up a precarious economy while those households that are unable to send out a member have few local opportunities to escape abject poverty. Many of the rural poor are migrating to urban areas,

numerically increasing both urban population and urban poverty (Ravallion, Chen, & Sangraula, 2007). The much visible urban poverty is mostly a result of the malaise in the countryside.

Such malaise in the rural areas around much of the world, especially in the low-income countries raises the rarely asked policy question: *Where do rural areas --- their economies and societies --- fit in the road map to a poverty-free world?* One commentator identified rural regions as having “few immediate prospects” (Florida, 2005, p48). In the contemporary mainstream development policy, there is no explicit concern for rural regions. The emphasis is on getting what it considers the larger structural issues and policies right, and not worrying about lagging geographic areas because in the long term, as the belief goes, there will be an equilibrium. Thus, in the mainstream, at least in the short term, rural regions are dispensable units in the mega-scheme of things.

This dissertation however begins with the premise, explained further in Section 1.3, that while poverty is experienced at the level of households, and the nation state is often the site of policy-making, poverty alleviation and national prosperity are not attainable without development of rural regions. This normative position inspires an exploration into a policy framework for what we call ‘rural regional development’ (RRD) in the low-income world. In the simplest of sense, we use RRD as a policy goal to create an opportunity structure for the households in a rural region to earn an adequate livelihood, primarily, though not exclusively, in the local economy.

The choice of the terms ‘rural *region*’ as opposed to ‘rural *areas*’, and ‘rural *regional* development’ as opposed to ‘rural development’ is deliberate, and is intended to embody the central argument offered in this dissertation. It contradicts a few central tenets (often not explicit) of mainstream development policy such as the two-sector (agriculture and industry) model (Lewis, 1954; Fei & Ranis, 1964) of development policy and practice.

The mainstream development policy, which is built on a dichotomous abstraction of the economy, saw ‘rural’ as a discrete and stand-alone category that together with another category ‘urban’ comprised the national economy. Consequently, in the mainstream development policy, the literature employs words such as ‘rural sector’ or ‘rural areas’. In further contradiction of reality, policies derived from dichotomous models often conflated agricultural production increase with rural development. Such dichotomous models do not match the ground reality now,

if they ever did. There are significant flows of capital, labor, goods and information between the sectors. People's livelihoods are derived from multiple sectors and geographic locations, both rural and urban. The rural regions with high poverty rate often have towns that too are struggling as there is no demand to sustain their central functions such as banks, health services, manufacturing and processing. The use of the term 'region' brings the interdependencies to focus, and creates room for capturing synergy in these vast swaths of landscape in the low-income world. We argue that as a unit of planning, such territorial units offer higher chances of alleviating poverty, as it allows for synergy to be captured, and interconnectedness of sectors to be addressed.

The insertion of 'region' in 'rural region', therefore does not represent a mere semantic quibble, rather it recognizes the promise of new approaches. The caveat here is that how a rural region is demarcated is not an exact science. However, with introduction being the purpose of these early paragraphs, discussion on this caveat can be postponed until later.

The current landscape of prevailing ideas, institutions, governance structures (both global and national), and economy are not conducive to rural regional development. The prevailing development policies in the mainstream are centered on neoliberal paradigm. Such policies are inherently blind to their manifestations on space, except for an uncritical belief in equilibrium over long term. A recent World Bank World Development Report (2009) advocated geographic concentration of economic activities, effectively endorsing the 'cities as engines of growth' view of development. In the practice of development, the efforts are often in the form of projects that are in certain sectors (such as fisheries/livestock development, health, and road infrastructure). Another category of projects comprise the ones aimed at training rural people for skills that are useful in an urban area, essentially preparing them for emigration to cities. In governance, often there is no local government unit at the level of rural micro-regions (Dillinger, 2007). As a result, rural regional development is not a local government function. Regionalism, in the sense of co-operation among neighboring small local governments, is unheard of in the low-income world¹. Thus, rural regional development is not an idea that has a fertile ground waiting to give it

¹ This author was laughed at by a local politician when the idea of regionalism for a local infrastructure issue was mentioned to him during the field research for this dissertation.

robust roots. In addition, the existing literature both recent and from the high days of regional planning in the 1960s and '70s, we discuss later, does not offer a direction to devise a policy framework for rural regional development.

The assertion that (rural) regional level planning is useful, therefore, risks being not much more than a truism unless there is a policy framework that establishes the plausibility of planning at the geographic level of rural regions. The question that needs to be answered is: What kind of knowledge or framework to base rural regional development policy on? There is a semblance of answer, with much caveat, to this question in the context of the industrial world. At the center of the answer is what is known as the endogenous development theory (Martin & Sunley, 1998), and industrial clusters² (Porter, 2000; Martin & Sunley, 2003). This strand of thought sees sub-national regions as the hubs of economic activities especially in the face of globalization (Scott, 1998) and the locus of economic development policies and programs (Lovering, 1999, p. 380). The literature is almost exclusively centered on post-industrial societies. In the industrialized countries, there is another strand of literature that explores regionalism, used in the sense of coalition and institution building across local government units in the rural areas (e.g. Hamin & Marcucci, 2008; Hall & Stern, 2009; Tsukamoto, 2011). Countries still in a state of agrarian transition, or with social and political institutions of early capitalistic society (such as share-cropping, debt bondage) will likely not benefit directly from such literature.

For low-income countries at different stages of agrarian transition, the idea of rural regional development, we argue, is an uncharted territory that the existing literature, with some exceptions such as Douglass (1998) and Friedmann & Douglass (1975), does not quite address. The recent publications that used the rhetoric of rural territorial development, such as Scheijtman & Berdegúe (2008), appear to not take advantage of the entire breadth of literature on origins of poverty and past experiences in development practice. Hence, there is a need and potential for a fresh start.

This dissertation is an attempt at putting down the first markers for rural regional development in the contemporary low-income world. In doing so it sets out two tasks:

² Discussed further in Section 3.4.

- (a) Identifying the indicators/markers of rural regional development that are also poverty decreasing and poverty deterring.
- (b) Speculating the shape of ‘planning’ (or policy framework) for rural regional development that is informed by the contemporary political, economic, and social forces at different scales ranging from global to smallest communities.

Methodology-wise, approaching these tasks requires a review of literature, and building on past experiences using analytical logic. In that sense, the answer to the question cannot escape being conjectural in nature. Like many policy proposals (such as the two-sector theory of Lewis (1954), modified by Ranis & Fei (1961), the Big Push theory (Rosenstein-Rodan, 1943), or the sustainable livelihoods framework (Chambers & Conway, 1992; Carney, 1998), identifying a policy framework for rural regional development will likely not be a deductive process³.

This dissertation reviews existing literature to develop an understanding of the dynamics surrounding poverty and rural regions in the low-income world. The overarching research question calls for an approach that involves distilling the existing literature in multiple areas in a coherent framework that gives a plausible explanation of why the markers of RRD are not achieved, and help speculate the shape of planning that might help achieve them. Given the field is nascent, the review and the broader framework needs to be extensive, perhaps at the expense of parsimony.

Some of the major topical areas reviewed are:

1. Notions of poverty, and causes of poverty
2. Evolution of poverty alleviation thoughts and practices
3. Rural institutions and power structure
4. Global commodity chains, trade, and global neoliberalism
5. The new economic geography
6. Regional planning, and
7. The contemporary reality in rural areas, including rural-urban linkages

³ Indeed, Rostow (1960) in his famous second chapter “The Five Stages of Economic Growth” cited the plot line of Thomas Mann’s novel *Buddenbrooks* to illustrate (and in support of) his point. To cite a more famous example, the claim of the unfettered “invisible hand” doing everybody good never came with a deductive proof.

A review of these topics allows for exploring the desired nature of rural regional development within the multitude of issues ranging from, say, global commodity chain to semi-feudal institutions such as debt-bondage. Such review of the issues also allows for identification of key cornerstones of rural regional development, together with the conditions and courses of policy action that might be able to achieve them. A Bangladeshi rural region is used as a case to explore how the policy framework plays out in a de-agrarianizing rural region, and the concrete shape of planning that might help achieve RRD.

1.2 How did the Rural Regions Get Here? A Brief History of Development Policy and Rural Regions

Human settlements at all scales and at all times changed and evolved with political, economic, and technological developments. The extent of change varied. Some are as drastic as eviction from land of hundreds of thousands of people, such as the “enclosures” in England⁴, or some as apparently distant as discovery of petroleum in the Arab Peninsula that set off labor migration from the rural regions in the Indian sub-continent. In this section, we offer a brief review of the major events and policies that contributed to the current state of rural regions around the low-income world.

European colonization and the spread of capitalism perhaps effected the biggest change in the trajectory of the economic, social, and political life in the rural regions around the world. At the height of colonialism in the late 19th century, practically all of the world except the land to the west of the Andes and a few pockets such as Nepal, Bhutan, Tonga and Thailand was under European nation states as colonies. The colonial policies and their often-brutal enforcement reshaped the societies and economies of the colonies. Local governments, such as *panchayets* in the Indian subcontinent, were replaced by colonial bureaucracy run from emerging large cities. Colonial interests introduced monetization into the countryside. Commercial crops were introduced, often forcibly. Indigenous manufacturing often was actively discouraged, or downright decimated. Economies were reshaped to serve European industrialization and

⁴ A series of laws in England between 16th and the 18th century allowed for land to be removed from communal use that was sanctioned by ancient traditions. The transfer of rights from community to private parties resulted in a class of people with no means of production except labor.

evolution of capitalism (e.g. Mintz, 1985). The overarching moral imperative of making non-European societies modern (later infamously reflected in Kipling's 1899 poem *White Man's Burden*) provided the moral justification.

The post-colonial world saw a confluence of interested actors who wanted development of the economies of the newly independent nations, with the threat of communism looming.

Development, with a capital D, in the sense of conscious effort to develop (with evolving understanding of what "development" comprises) and/or alleviate poverty by governments of the low-income countries and their foreign collaborators is often said to have originated soon after decolonization began to take place at the end of the WWII (Escobar, 1995; Cowen & Shenton, 1996). Until the early 1970s, the alleviation of poverty was not an explicit goal of the governments and international organizations of global influence such as the World Bank. Development policy of that time, aided by the then nascent field of development economics, pursued growth of the national economies but did not explicitly use the words poverty alleviation in its rhetoric. Explicit in its rhetoric or not, the poverty alleviation efforts of current times are inextricably linked to the ideas and policies since the 1940s and their consequences when practiced.

A summary of the major themes of development and their implication for rural regions is summarized in Table 1.

Table 1 Development Ideas and the Envisaged Role of Rural Regions

	Colonial Periods	1950s	1960s	1970s	1980s	1990s	2000s onward
Economic activity/purpose	Provider of raw material for European Industrialization Forcible monetization of economy	Agriculture to be “squeezed” to finance (heavy) industrialization Provide ‘cash’ crops as raw materials for industries	Green Revolution (increase agricultural output with state-subsidized ag. inputs)	Continue to increase ag. productivity	To be defined by market. No explicit policy.	Rural development began to be re-emphasized in the mainstream	In the mainstream, reservoir of migrants
Politics and governance	Local governance structure replaced by colonial bureaucracy	Rural areas co-opted into nation-building projects Populist nationalism	Continues from 1950s, plus military rule (autocracy)	Central governments continue to be the major player in the economy	Decentralization Withdrawal of agricultural subsidy	Continued decentralization	Decentralized governance generally accepted. But the geographic level and functions uncertain
Major theories	White Man’s Burden	Two-sector economic models Community development Growth Poles	Two sector economic models, Growth poles Community development dropped by mainstream	Rural Development in the <i>modus operandi</i> of IRD (winning out against ‘basic needs’ in practice)	Neoliberal structural adjustment Reliance on NGOs Local economic development	Micro-credit Economic clusters in the advanced capitalist countries	Space-neutral policy (Neo-) Endogenous development Sustainable livelihoods framework
Events	Industrial Revolution in Europe (demand for raw materials)	Decolonization	Breakthrough in High Yielding Varieties in rice, wheat, potato	Labor migration to the Middle East	International financial crisis Privatization	East Asia as destination of migration	Cell phone, IT revolution Global migration intensified

Following de-colonization after the WWII, under the emerging hegemony of the U.S., international development emerged. While socialism and totalitarian regimes took hold in some parts of the world, Development (with a capital D) was essentially a project couched in capitalism. Since before the WWII, the mainstream non-Marxist development strategy was premised on the extension of the internal market to raise consumer demand for industrial products. The well-known Arthur Lewis' dual economy model (Lewis, 1954) set the tone of development policy that was to follow for the next several decades. The development strategies in this broad tradition were *national* development models with little treatment of rural development. They are mostly economic models that had national economic growth as the central problematic (e.g. Rostow, 1960, Rosenstein-Rodan, 1943). To be concise with the danger of oversimplification, the grand *objective* was growth, the *policy model* was a conceptualization of the national economy as consisting of a dynamic industrial sector, and a stagnant traditional sector (Lewis, 1954), and the major *policy tool* was industrialization. The industrialization was generally of heavy kind because the prevailing economic doctrine, shaped by economists Harrod and Domar, emphasized creation of capital goods as means of production in the economy that would have a high "cumulative influence of investment" (Dobb, 1955, p150 in Byres, 1979; Storper, 1991, p. 87 footnote). In many countries, particularly Latin American ones, much of the industrialization was meant to substitute imports under the tariff protection of the sovereign state. To raise the capital for industrialization, countries adopted various policies to extract surplus from agriculture. Such policies included export embargo or tax on agricultural products, such as rice export tax in Thailand (Robinson, 1978; Douglass, 1995), establishment of monopoly over marketing of crops (Bates, 1981) by establishing parastatals that controlled marketing of cash crops, setting prices rather than let the market set the prices, and over-valued national currency so even when export of agricultural produces is not prohibited, it fetched much less money from the world market (Schiff & Valdés, 1992).

Such economic policy of national growth contributed to urban growth in at least two different ways: (a) they made agriculture and rural areas less able to support an increasing population, and thereby created incentive for migration out of rural areas, (b) big cities, as the location of the new industries, were able to employ large numbers as industrial workers, and attracted even more who migrated in anticipation (Harris & Todaro, 1970). On top of these twin processes, certain

government policies and practices made cities in the ‘developing’ world attractive destinations for rural immigrants. Such policies include, among many others, higher investments in urban infrastructure, provision of social services, and subsidized food for the urban population. During these times urbanization proceeded at a rate higher than what the industrialized countries experienced during the Industrial Revolution. At the same time, such re-orientation of the economy and society of rural regions around the post-colonial world removed the vitality of them, and made their existence ancillary to the large cities. Rural regions in the process became reservoirs of migrants to cities and abroad whose remittances sustained the subsistence of the rest of the household that stayed behind in rural homes.

These efforts also marked an abandonment of the 1950s’ brief engagement with trying to develop communities directly. Known as “community development”, this model was never given a rigid definition by its proponents. However, the central idea was to instigate the community to come together to plan for their development. The financing of organizing community through a bureaucracy, and construction of infrastructure such as wells and pumps was done by programs taken by the U.S. government, Ford Foundation, and the UN. By 1959, there were at least 60 countries that had community development programs, of which at least 30 had them at national level (i.e. via national level ministry or program office) (Holdcroft, 1982). The increased patronage of the idea by both the U.S. and the U.K. led to academic programs that trained people in methods of community analysis, community organization, social action, and creation of local institutions. Community planning as a development model was abandoned by the early 1960s⁵ following criticisms that included the capture by the village elites. However, one plausible criticism that does not seem to have been labeled at community development at the time was that it was concentrated on too small a geographic scale. This particular flaw of community development has lessons for rural regional development.

Following community development, much of the fund began to shift to what is known as Green Revolution. The policies of Green Revolution included significant government involvement in

⁵ While funding evaporated, tools of community analysis continued to grow with integrated rural development approach. Academic programs in rural development continued to focus on communities well into the eighties. For example, at Asian Institute of Technology such focus on community was not replaced until 1984 when “rural and regional planning” was established as a field of study.

agriculture through subsidies in irrigation, fertilizer and seed, and research and extension services. In many parts of the world, the Green Revolution increased rural productivity, and saved significant numbers of people from starvation. But it also resulted in significant disruption in people's livelihoods even where productivity grew. Two major sources of such disruptions were: (i) The fact that Green Revolution policies favored the large farmers while the small holders benefitted little. In the worst cases, the increased need upfront of money to buy inputs such as fertilizer, irrigation, insecticide and labor helped force small-holders off agriculture altogether (Pearse, 1980; Shiva, 1991), and (ii) great cost to the environment in some places (Shiva, 1991).

Together with attempts at agricultural development, another strategy found its way in to practice in the 1960s as a hoped-for cure to several undesirable situations that was prevalent in many developing countries: The growth pole strategy. Though it is often used in singular, perhaps it is better to see it as a 'family of strategies', as Parr (1999, p. 1195) used in one place⁶. At the core of these strategies was 'the focusing of investment at a limited number of locations (usually as part of a deliberate effort to modify regional spatial structure), in an attempt to encourage economic activity and thereby raise levels of welfare within a region' (Parr, 1999, p. 1195). Variations of growth pole idea were used to address several situations. Most common objective was to invest and industrialize one urban area, with the hope that prosperity will spread into surrounding rural areas. Another objective was to create a counter-magnet to stem the growth of a fast-growing large city. Whatever objective growth pole strategy was used for, they were almost universally considered a failure, including in the case of solving poverty in the vastness of rurality by creating or promoting growth poles in them.

The 1970s saw the explicit arrival of poverty alleviation as a goal of mainstream development efforts. Alleviation of poverty, still overwhelmingly rural in the countries with low level of urbanization, became synonymous with rural development (World Bank, 1975). The *modus operandi* came to be known as the undefined or loosely defined (Cohen, 1980) term: "the integrated rural development (IRD)". Within the IRD project areas, they relied on technological

⁶ But reverted to using the singular form for the rest of the paper.

solution in a handful of sectors such as irrigation, roads, and in certain countries such as Bangladesh, provision of cooperative-based micro-credit. The limited success of the IRD model is well-documented (e.g. Conyers, Mosley, & Warren, 1988). Much of it resulted from the fact that there was no attention paid to creating the institutional capacity at the local level, and the fund and technology was all external and hastily put into use in the villages (World Bank, 1987) with no awareness of local political economy. Furthermore, despite the rhetoric of “integrated”, IRD model looked at rural areas as a detached entity from the non-farm sector and urban economy of the local towns. Overall, outside Africa, the IRD projects began to be either discarded or not renewed long before the World Bank (1987) review recommended its retirement.

One feature common across all the above policies was the implicit dependence on heavy government involvement in the carrying out of the policies via control and subsidy. The rise of neo-liberal ideas, central to which is the idea that the government should have as little involvement in the economy as possible, in the late 1970s spelled the end of funding for such policies, except in parts of Africa. Throughout the 1980s, international aid and funding for development work around the world shrank. In its place, the 1980s saw the rise of emphasis placed on macroeconomic structural adjustment policies, non-governmental organizations in service delivery, and promotion of ideas such as decentralization. One direct impact of neo-liberal retrenchment of government was that government assistance to farming decreased. With the neglect of agriculture, the malaise set further in the rural regions.

The lack of success of neo-liberal macroeconomic policies in poverty alleviation opened the door for what could be called more direct interventions for poverty alleviation. By the mid-1990s, need for development in rural space was back in prominence (e.g. Czaki, 2003). However, the realities on the ground had changed significantly. During the years when rural development was out of mainstream agenda, a rich body of literature accumulated that described the interactions and interdependences between urban and rural areas, and the increasing dependence of households on work in multiple locations and sectors. Known as rural-urban linkages (Tacoli, 1998), this body of literature in many ways made invalid the underlying assumption of rural-urban dichotomy in the models of economy and society of the developing world. Such new insights on the ground reality necessitated a new direction in development policy. However,

except for rare academic papers (such as Douglass, 1998) and a small number of meagerly funded projects around the world that attempted to integrate urban centers and surrounding rural areas as a site of intervention such as RUPP in Nepal (Momen, 2009), PARUL in Indonesia (Evans, 2002), and micro-regions program in Mexico (De Janvry & Sadoulet, 2004), this newly-understood reality did not inspire a search for a way to bring urban and rural development in a single synergistic framework.

Rather, inspired by the sustainable livelihoods framework (Carney, 1998) (discussed in more detail in Section 2.2), contemporary development practice's most widely used response appears to be expanding rural household's options of livelihood. A large part of such range of options is seeking livelihood in the cities or abroad. Training in trades useful in cities and helping with job search in the city became the goals of many donor-funded projects. A large number of development NGOs undertook such work around the low-income world, with the DFID as one of the big funders until recently. This new tool was added to already existing tools of micro-credit, and various sectoral programs. All in all, contemporary development policy has the look of a motley collection of tools that continue to include economic thoughts from the 1950s, as well as more recent inventions such micro-credit and decentralization. The directionless-ness is indicated by the fact that the name of any project, irrespective of any link between project intervention and poverty alleviation, can and often end with the words "for poverty alleviation"! Examples include, "school building for poverty alleviation", "village market development for poverty alleviation" and similar sectoral projects with the title "poverty alleviation".

In summary, rural areas have been shaped by the interests of colonialism, and later nation building. Often it has meant gradual decay of the economy and society in the rural areas and their chances at attaining prosperity. Current development policy has chosen two loci to intervene with the stated goal of poverty alleviation: (a) the national level, and (b) sectoral projects (with or without sector-wide coordination). The rural space is not the loci of development in the low-income world⁷. The hope, though not made explicit, is that rural

⁷ Europe, via European Union, emphasized sub-national territory-based planning and development as early as the 1990s, the most famous and ambitious of the programs being the LEADER program.

prosperity will be an indirect product of the increased activities in sectors. In the process of such policies, rural regions continue to remain in stasis.

1.3 The March against Poverty Runs through Rural Regions

There can be two major positions as to the country-side and its role in development policy:

- (a) Ignore them and concentrate resources in one or a few localities to create economies of agglomeration. The growth generated by density will trickle down, which together with transfer payments (if necessary) will benefit the rural regions.
- (b) Find policy package and appropriate strategy to bring prosperity to rural regions.

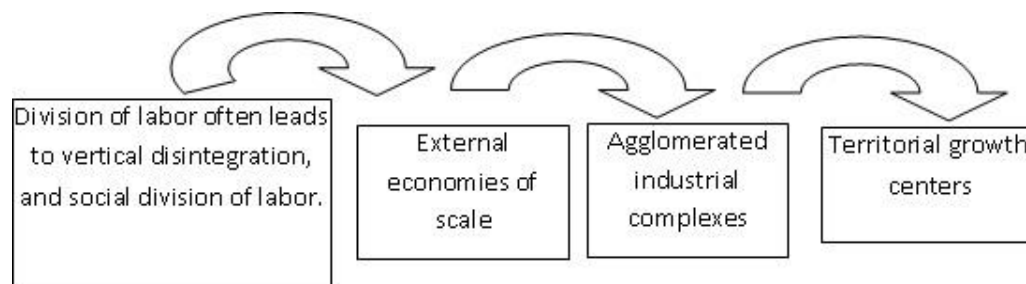
The first position, which is implicitly adopted by the mainstream policy, is untenable on many grounds. Perhaps the most prominent recent document to argue this position is the World Development Report (WDR) 2009 (Gill, 2009), which claims that *growth* can be, and needs to be spatially unequal, but *development* does not need to be. In other words, there can be swaths of human settlements with little economic productivity, because most productive activities need to concentrate. This claim is based on concepts such as “internal economies of scale”, “localization economies”, and “urbanization economies” that are invoked to claim the inevitability, and therefore need for facilitation of concentration of economic activities. However, how growth from this concentration of economic activities can help development across space is not elaborated in the WDR 2009 beyond calls for “integrating lagging and leading areas” (p. 238), as opposed to separate spatial targeting of lagging areas. The prescribed mechanism of integration consists of “institutions”, “infrastructure”, and “incentives”. Read for detailed strategy, the prescription has very little enthusiasm for development of the lagging areas. Rather, it encourages facilitating migration so people take advantage of opportunities in cities where economic activities have concentrated, as the claim goes, efficiently.

This mode of thought does not elaborate what kind of economic activities and firms it presumes will appear in the economy of the low-income countries. Many of the manufacturing activities of the early industrializers needed concentration. Well-known examples include Manchester, Dundee, and the Ruhr region of the late 19th and early 20th century. The policy proposal of facilitating concentration in the WDR is built on the experiences of early industrializers and the “east Asian Tigers”, and thereby implicitly assumes similar types of industries appearing in the

low-income countries (Bryceson, Gough, Rigg, & Agergaard, 2009). However, the type of industrialization in the low-income countries will likely be very different than the type observed in the early industrializers (namely, heavy manufacturing and processing in steel, textile, and chemical engineering). Studies that conclude polarization (i.e. continuous disproportionately high growth of cities) is necessary (e.g. Storper, 1991) often ignore that some forms of manufacturing and processing do not necessarily require extreme forms of polarization. Claims such as “Industrial location analysis is [...] the logical starting point for theorizing polarization...” (Storper, 1991: p8) does not take into account the role of the governments in the creation of large megapolises in the low-income countries.

Polarization in such industry-focused model is claimed to have resulted through the following process (Figure 01):

Figure 1 Purported process of polarization in industrial urbanization



However, that logic has eroded away if it ever was the dominant logic of spatial order in the developing countries. Given the diversity of commodity chains, there cannot be a general theory relating manufacturing/processing and growth potential of rural regions. It will certainly be, to use the cliché, context dependent. There are empirical situations where the problem of transaction cost did not stand in the way of manufacturing activities appearing in areas with no such history. For example, Bangladeshi village women scattered over multiple villages, producing ceremonial headgears at their homesteads that get collected by a broker and is shipped to Persian Gulf countries after a final round of processing in a small “factory” clearly have not been deterred by the problem of transaction cost. The Japanese just-in-time (JIT) management of production work has raised reasons that polarization in the manner of San Paolo (as in Storper,

1991) needs not be the case⁸. On the other hand, polarization amid decline of manufacturing and processing is well-known. Thus, manufacturing and processing is diverse enough to set us free from a binding assumption that polarization is inherent in growth through manufacturing and processing.

The current mainstream alternative to space-conscious planning is the reliance on policies derived from the paradigm that's often referred to as "global neoliberalism". One mainstay of such policy package is the reliance on attracting or hoping for footloose capital to the country in the form of foreign direct investment (FDI). However, even a cursory look at the flow of FDI points to the fact that the investments go to very few countries around the world. For example, in the early days of FDI outside the developed world, East Asia and Latin America on an average received close to 80% of the world's FDI from 1975 to 1995 (as computed by Dunning, 2001, p166 from WB, 1997 data). Even within the more attractive countries, the FDI goes to very few cities and special economic zones (Chakravorty, 2000). Amid such reality, it does not make sense to pin all hopes on growth in (i.e. concentration or increased density) the big cities to carry the national economy forward. In many countries (in fact most low-income countries except China and India) with such bleak prospect of the industry or service sector in the cities, rural areas will need to contribute to growth of the economies by fostering vibrant economies in rural areas. Migration can be an option for some people in the countryside, but cannot be the only option for an overwhelming majority.

Moreover, as confirmed by a recent study of 83 country data from 2000 to 2012, leaving a large number of people in disadvantaged rural regions will lead to less poverty alleviation from overall growth in the economy (Barbier, 2015). A similar study (Modrego & Berdegue, 2015), albeit with a different methodology, of Latin American sub-national territorial units concluded that (a) household income converged slowly since the liberalization began, and (b) "there is

⁸ It has to be noted however that geographic distribution of population in Japan is highly polarized, and continue to polarize with the growth of Tokyo region, while the rest of Japan except Aichi prefecture depopulate. It can be argued that such polarization occurred despite JIT, not because of it.

no consistent effect of agglomeration on poverty reduction across countries” (p. 25). In other words, even if the aggregate national economy grows, having large number of people in disadvantaged rural areas will eat away at the poverty-reducing impact of such growth.

Perhaps the most notable example of rural development benefitting from the growth of industrial and service sectors in urban areas is the Saemaul Undong (new community) movement in the Republic of Korea in the 1970s. A unique confluence of factors in the Republic of Korea in the 1950s such as the world geopolitics involving the peninsula, foreign aid as high as 15% of the GDP for over a decade, a dictatorship helping coordinate the activities of the private sector corporations toward national growth, and significant land reform contributed to Korea’s urban based industrial growth. The phenomenal growth allowed for transfer payments, in both cash and kind (e.g. cement and iron rod for each village) to rural communities throughout the 1970s (Douglass, 1983 and 2014). It is unlikely the circumstances of Korea’s economic growth can be replicated in the case of the “late industrializers”.

It should be noted that at the geographic level of urban areas and urban neighborhoods, there is a consistent and long-running literature critiquing what has come to be known as “*place-based*” policies. Such line of critique claims that place-based incentives (1) reach the non-poor in the targeted place more than the poor there, and (2) are ill-conceived bribes to force the poor to stay in poor areas (Crane & Manville, 2008). Such critiques advocate “*people-based*” policies and would gladly see an urban district lose population. However, at the larger scale of rural regions that are often home to hundreds of thousands, a parallel argument is hard to make. It would be hard to make an argument in favor of abandoning an entire rural region that has been settled for generations.

Many of the arguments against the potential of rural areas do not apply to many countries in the world. For example, many rural areas are not low-density, as is often presumed. Some of the rural areas in the low-income world have the population density of the urban areas in the developed world (Qadeer, 2000). Such density allows for a large enough labor pool and potentially a consumer pool, if purchasing power can be raised. Moreover, when the population density is high, per capita cost of social services and infrastructure decreases substantially.

Given the above, it is hard to justify why development policy should not explicitly and directly pursue development of rural regions, as opposed to seeking development via sectors such as agriculture, or pursue development via growth of urban economy. Space cannot be seen as a passive recipient of macro-level policies. Specially in the institutional setting of low-income countries, relying on macro-economic signals and un-coordinated sectoral interventions will continue to be less effective, if not counter-productive. It is fair to conclude that the fight against poverty is unlikely to be successful if the strategies remain (1) apathetic to the implication of policies on space, (2) or continue to encourage spatial concentration of economic activities in a few mega-urban regions. Planning and development of rural regions as the locales of human communities is important by itself, as well for the national economy.

1.4 Finding a Name for What We Want: A Note on Nomenclature

A common experience in planning is that names quickly acquire meaning far beyond what a dictionary definition would suggest. For example, ‘integrated rural development’ is not just a goal or principle, it actually is a fairly rigid *modus operandi* standardized by the World Bank in the 1970s. Other terms get co-opted to be used in ways that takes out the initial thrust of the term. Examples of such co-opted terms include “social capital” and “participation”.

Many of the terms suitable to describe the central normative goal of this dissertation are already taken. For example, a model of development of a region *initiated by the citizen associations in that region* cannot be called regional development because the term carries an additional connotation of government-led effort. Likewise, terms such as “local development” have their own specific meanings. A review of the nomenclature and clarification of meanings therefore is in order.

Several adjectives have been used in front of ‘planning and/or development’. They include ‘local’, ‘regional rural’, ‘rural regional’, ‘micro-regional’, ‘territorial’, and ‘spatial’. None of them signal the establishment of a new academic discipline, at least not in a well-known way. ‘Local economic development’ perhaps comes closest without having been widely known as an academic discipline. For example, Bingham & Mier (1993) call three decades of literature as aiding practice “while flirting with the establishment of a new academic discipline” (pp. 268-269). The World Bank’s local economic development (LED) website characterizes “the purpose

of local economic development” as “build[ing] up the economic capacity of a local area to improve its economic future and the quality of life for all. It is a process by which public, business, and non-governmental sector partners work collectively to create better conditions for economic growth and employment generation” (in Dillinger, 2007). However, the idea of LED cannot be fully understood without being aware to the fact that it was part of the neoliberal package to replace the government-led regional planning and development (Polese, 1999). In other words, “local economic development” has a connotational meaning that makes it unsuitable for the normative goal here, i.e. development of rural regions.

The other adjectives often used are discussed below.

1. “Regional rural development” is used by the German international development agency (formerly) GTZ in their English language documents. The word ‘regional’ in front of ‘rural development’ signals their rhetorical position that rural development has to be done regionally.
2. The use of ‘*rural regional development*’ signifies that (1) there is an added benefit in viewing rural *areas* as rural *regions*, (2) rural territories include small and medium towns that should ideally tie into the social, and economic fabric of the region, and (3) rural regions stand in contrast to metropolitan regions, and in that sense heartland rural regions is often used. As mentioned in section 1.1, this is the sense in which we use the term in this dissertation.
3. In Europe, “*territorial development*” has taken the meaning of development of the backward regions (as opposed to growth in the major centers of economy and production). In rural development, the use of the term ‘territorial development’ can be seen as a desire to break from the agriculture and sectoral project based rural development.
4. Two of the most articulate assertions of this desire are de Janvry & Sadoulet (2007), and Schejtman & Berdegú (2004). Both sets of authors have similar central characteristics for the new approach: (a) multi-sectoral approach to employment, (b) planning rural areas as territorial units with a view to local growth, (c) incorporating an urban component.
5. Current practices of territorial development in the central and Latin America appear to be grappling with the right political arrangements. It mostly relies on the nation-state as the instigator and carrier of rural development, while contrary voices (e.g. see Bebbington, Abramovay, & Chiriboga, 2008) arguing for installing communities as the main actor in territorial development can be heard too.
6. “*Micro-regional development*” is less commonly used. A micro-region has been conceived as “distinct territorial unit with clearly marked boundaries below the regional level, but above the village level” (Schmidt-Kallert, 2005, p. 10). In Latin America the most natural micro-region is the municipality, which is a local administrative and political unit, similar to a district in other countries (Arrizón, Andersson, & Ledogar, 2011). It is meant to emphasize

the fact that it is not the large territories such as provinces that are the unit of planning. Rather a much smaller area, perhaps one with one or several small towns and the adjacent contiguous area is seen as the unit of planning.

7. “*Endogenous development*” has established traditions in both economics and development policy. In economics, mostly as an extension of Romer’s (1985) work, endogenous growth theory claimed that growth is determined and sustained by local processes and locally-bound capitals (such as human capital). The policy implication, especially in local development, was that growth required investments in education, and institutions. In recent times, the European spatial development programs have been called “neo-endogenous” (Ray, 1999), with the prefix “neo” added to make the distinction that recent approach allows for linkages to the outside.

None of the above terms have become their own academic disciplines. However, they are beginning to acquire connotational meanings. For example, territorial planning is beginning to take shape as a particular model thanks to the *Centro Latinoamericano para el Desarrollo Rural* (Latin American Center for Rural Development, commonly referred to as RIMISP) in Chile. Micro-regional planning is also becoming a *modus operandi* with recent funding of such projects in Mexico. In contrast, “rural regional planning” is a term that has not taken on any additional connotation to its meaning. We will use this term in this dissertation.

1.5 The Irrelevance of 1960s Style Regional Planning, and the Potential for Re-inventing Regional Planning

1.5.1 The Irrelevance

While a regional and territorial approach is at the heart of this dissertation, regional planning, as developed as a field of study and practice in the 1960s, has little to offer in terms of theories and models. The field of regional planning received widespread legitimacy in the early 1960s for two reasons: (a) the negative side-effects of the policies up to that point (described in section 1.2) that failed to take account of impacts across space, and (b) the emergence of regional science (see Isard, 1956 and 1960) as rigorous body of knowledge (Simon, 1990). Over time, regional planning became an umbrella field for a number of objectives that include (based on Conyers, 1985):

1. Eliminate Inter-regional inequality
2. Tapping into the potential of backward regions mainly by way of industrialization
3. Achieving balanced (conforming to the rank-size rule) urban development

4. Secondary towns for rural/agricultural development
5. Regional plans as disaggregation of national plans

However, the first three objectives became the central problematique of regional planning in practice, and the field developed only one tool for all situations. This panacea of a tool, concentrated investment in urban areas to create “growth poles” that would presumably spread growth into lagging regions emerged as the only tool in regional planning’s toolbox (Parr, 1999). By late 1970s, the growth pole strategy got severely discredited.

Regional planning and regional science’s diminished influence owed partly to the critique of growth poles strategy. However, the rise of neo-liberalism in economic policy in the late 1970s removed the ideological background and funding for it. Many of the tools to implement objectives of regional planning such as taxation, subsidy, and active government spending in infrastructure were not compatible with neoliberal ideologies. With these tools removed wherever neoliberalism took hold, and the general distrust of growth pole as a strategy, regional planning itself faded away⁹.

Neither growth pole strategy nor regional science is relevant to the rural regional development of the low-income countries. Regional science, as a science that began to spawn academic disciplines in the late 1950s, pre-supposed the existence of some laws and rules that govern the regions and their sub-systems. The models that attempted to explain these laws were void of political economy analysis. For example, the central place theory was developed based on a description of Germany, predominantly a flat land that became a nation state long after France. Therefore, what is now Germany developed cities of equivalent sizes at regular intervals (i.e. central places at uniform distances). The German case can be directly contrasted with the French state where earlier state formation allowed Paris to accumulate from the rest of the country and emerge as a primate city. Such political economy analysis was absent from the regional science investigations.

⁹ Korea was a prominent exception, where the state continued to pursue balanced development and had the wherewithal to pursue such inter-regional planning (Kim, 1998).

Other models too were descriptive and had little analytical power. For example, why cities in a country should have certain size relative to their position in the urban hierarchy, as stated in rank-size model, is never explained. Rather it became a normative goal based on unfounded assumptions. Regional science eventually suffered from such lack of analytical power, which mostly rose out of inability to factor in the political economy inherent in places. Later definitions of regional science reflect this recognition on the part of the leaders of the regional science community¹⁰. By incorporating political economy, regional science in recent years has expanded from a core of quantitative exercise in search of laws (1960s) and become nearly all encompassing, considerably diluted and vague. However, this is not a criticism. It reflects the recognition that studying and development of regions require consideration of many issues, theories, and tools. For the purposes of this dissertation, this history and evolution of Regional Science as an academic discipline is therefore instructive.

1.5.2 The Need and Potential for Re-inventing Regional Planning

The term “regional planning” almost has a stigma associated with it. For some the stigma is from the failure of the tools in the 1960s and 1970s. For others with neoliberal inclinations, it was the objective of what they view as meddling with the efficiency (i.e. inter-regional equality or developing a region using market-distorting measures) of the market. In the meantime, for reasons mentioned in Section 1.3, regions, especially rural heartland regions continue to be important.

Poverty alleviation policy of recent times is still striving to formulate “national” strategies disregarding the fact that the processes of descent into or ascent out of poverty is so different in different areas of the same country that a case has been made that “national” strategies are rather irrelevant (Krishna & Shariff, 2011) and should be targeted at the district and sub-district levels (Benson, Chamberlin, & Rhinehart, 2005, p. 549). Having discovered different reasons behind descent into and ascent out of poverty in different states and regions within states in India, Krishna and Shariff (2011) call for poverty alleviation policy at the state, and perhaps (their sample size at sub-state regional level was small, and hence the lack of conviction) at the sub-

¹⁰ The discontinuation of the first ever Regional Science program (established in 1959) at the University of Pennsylvania in 1993 is symbolic of such shift.

state regional level. Such call for planning of ‘regions’, albeit often unspecified and undefined, is not rare. For example, the World Development Report 2008 calls for a “large-scale regional approach or assisting the exit of populations” (p. 49) where “geographic poverty trap” exists. However, there is no further foray into operationalizing ‘regional approach’.

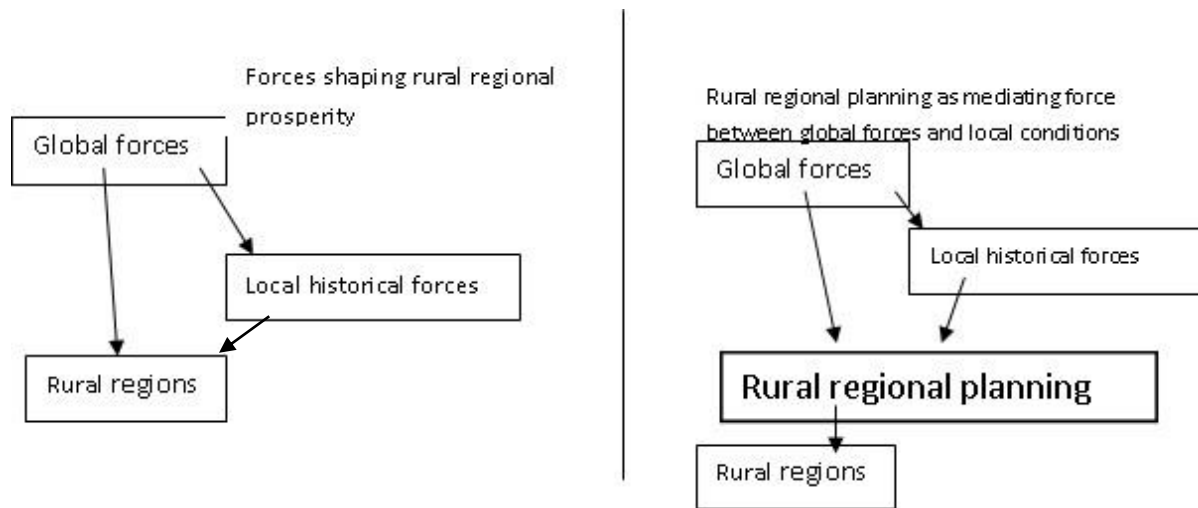
There is a growing recognition that strategies need to be at much smaller geographic units than the nation or provinces, even though determination of the size of the geographic scale can require substantial scrutiny. For example, one of the lessons that transpired from the community development projects in the 1950s is that the geographic scale of villages is too small for policies to be effective. This gives a reason to explore geographic scale in between the nation (or even province) and small villages. Intuitively, it gives *prima facie* legitimacy to the idea that a scale comprising a contiguous area that is large enough to form a local economy can be a unit of analysis and planning. For our purposes, we call this ‘region’.

Such recognition calls out for some theory or framework for regional development appropriate for the low-income countries. The new frameworks will likely have no resemblance to the theories and models of the 1960s’ regional planning. But for the lack of a better term we call this rural regional planning.

1.6 Rural Regional Planning: Outline of an Agenda for Research

As a point of departure, schematically, rural regional planning in the contemporary world can be seen as an intervention to negotiate with global as well as local forces with the objective of prosperity of rural regions in a way that creates opportunity for all. Many of these forces in the contemporary world, such as (a) location specificity of global finance (i.e. FDI going mostly to China and/or large cities), (b) economic and political doctrines that shape mainstream policy (i.e. neoliberalism), are not conducive to development of rural regions. However, the inspiration here is that within the overarching structure, room for maneuvering exists.

Figure 2 Rural regional planning as a mediating force between local and global processes



When viewed this way, the question becomes what would constitute rural regional prosperity, and what will be the shape of a strategy or strategies for rural regional development. The first task of this dissertation therefore is to put together an outline or a policy framework for rural regional development. This same formulation of rural regional development can also provide hints for how an individual rural region needs to be seen and analyzed. There are two major areas to analyze and link: (A) the overarching structure of global and national forces, and (b) the space economy and political economy of rural regions. The first involves an examination of the specific ways global economic, political, and cultural forces influence the economic, social, and political life in a rural region. The second recognizes the obvious but potentially ignored fact that the rural regions are not a black box. Rather they have a political economy with heterogeneity of interests among communities in the rural regions. A policy framework for rural regional development will draw from such analysis.

Chapter Two: Poverty and Development Policy

2.1 Defining Poverty for Policy Relevance

We used the word poverty in the first chapter without defining it. The precariousness of life of some people in society has been perceived and described in multiple ways. The English language has words such as pauper, destitute, indigent, and poor. In development policy, the words “poor” and “poverty” have come to be used, to the complete exclusion of the other words. As the literature stands now, poverty is defined in one of the following ways: (a) as lack of income, (b) as vulnerability and exclusion from society, and (c) some kind of multi-dimensional concept involving income and other indicators of well-being and capability (as used by Sen, 1985).

Since the early 1990s income-based method used by the World Bank to quantify poverty has become widely-known, and has a hegemonic presence in discussions on poverty in policy circles as well as in popular press. Part of the charm of this formulation of poverty is its simplicity. This method (a) sets a poverty line (a monetary amount that is required to have access to a level of consumption/welfare and then (b) counts the people with income under this line. An international line has been constructed using poverty lines of certain number of poor countries (15 at the latest round) and adjusted with purchasing power parity data. The most recent version of this international poverty line stands at \$1.90 per day that gives a 2012 global hard core poverty rate of 12.7%, but as high as 42.7% in Sub-Saharan Africa.

Two major observations have been made about this measure. The first is that the poverty line of \$1.90 is too low. It is not enough to meet any need beyond the very basic nutritional needs in even the poorest of countries. By setting a line this low, it does not capture the hardship of many people in the society, and essentially under-reports people’s precarity and hardship. The second is that such measurement of poverty was not designed to offer insights into the forces that produce poverty. ‘Poverty profiling’, a practice encouraged by the World Bank in the 1990s, especially in the 1993 Poverty Reduction Handbook does not provide much insights either. The method of “poverty profile” implicitly stems from the idea that the causes of poverty can be

understood from the characteristics of the poor. While an exercise in poverty profiling reveals useful information such as “which group (e.g. females, fishermen) is the largest among the poor”, policy needs more information than what poverty profiling can reveal.

An argument can be made that income-based neat measurement of poverty and study of characteristics of poverty is an inevitable consequence and corollary of the neoliberal ideology that viewed economic growth as the answer to poverty. In other words, the method to alleviate a problem produced its own definition of the problem. We do not elaborate this idea here, but it is important to emphasize that students of poverty policy need to look beyond such measures and investigate the social relations that produce poverty.

Recent developments in improving measurement of poverty have led to multi-dimensional measurement (e.g. see Kakwani & Silber, 2007; Wietzke, 2015; UNDP, 2010), as opposed to income-based computation alone. Much of this approach is a result of methodological improvements to capture the concept of capability by factoring it in the operational indicators of poverty. Early choices of indicators in attempts at measuring capability have been dictated by available data. Some examples of indicators thus far used include education, and living conditions (Krishnakumar & Ballon, 2008). The improved techniques of computing indicators take advantage of more sophisticated quantitative techniques such as principal component analysis, factor analysis, and structural equation modeling.

The United Nations Development Program (UNDP) has been publishing multi-dimensional poverty index (MPI) for countries for which data is available since 2010. The measure is an attempt at going beyond income as the only metric, and including measures of deprivation such as nutrition, health, and schooling. It measures more directly the level of deprivation for a household. By directly incorporating indicators of quality of life (such as nutrition, and schooling) the multi-dimensional poverty index offers a more direct way of measuring poverty than the solely income-based method of the World Bank. Comparison of the two at aggregated levels such as regions or countries can help shape discussions. For example, when two regions with similar income have different nutrition outcomes, it invites a discussion on the social and political processes through which income gets translated into nutrition.

It is often stated that how poverty is defined sets the tone for how poverty alleviation policy is formulated. For example, if poverty is defined as lack of income then, it is stated, a policy of raising income via economic growth will follow from that definition. However, it is conceivable that a well-considered analysis can define poverty as lack of income and still identify that lack or uncertainty of income result from manifestations of power relations in the society. If analysis is not truncated, it can discover the deeper causes. Thus, a quantitative definition of poverty in terms of income does not preclude the discovery that lack of income is a result of causal factors (e.g. lack of access to assets, livelihoods, exploitation) that can flow from social relations. If rigorous analysis is conducted, perhaps the definition (i.e. the starting point) cannot misguide policy as long the analysis is not curtailed short.

However, in the mainstream development policy and practice, the income based definition of poverty has encouraged an economic growth oriented solution to poverty. Mainstream development policy and practice historically shied away from addressing the exploitative relationships and rural power structure (discussed in the next section). Since the dual economy inspired model of the 1950s, the mainstream development practice apparently remained oblivious to the body of evidence (e.g. Bertocci, 1970) that pointed out that exploitative relationships and institutions restrict life chances of the poor. The rare mentions of such exploitation in sporadic mainstream documents, do not amount to anything more than lip service. For example, *Voices of the Poor: Can Anyone Hear Us* (Narayan, 2000), a report prepared after consulting the poor around the world advocated people's increased participation in the formulation of development policy. However, much of development policy in the mainstream remains top-down, and at the level of projects, participation is often done perfunctorily.

This dissertation recognizes that poverty is, to give it a pithy and catchy expression, not in the economy but in the political economy. Hence, a framework to analyze rural regional poverty needs to have vulnerability produced by social relations and institutions at its core. Taking this position would also mean that alleviation of poverty ought not translate to reducing people under \$1.90 a day income line. Rather, it should be recognized that much higher income can still keep households in precarity and hardship.

2.1 Poverty as a Manifestation of Social Relations

While not as neat as the measurement of poverty via a poverty line, a few insights are available in the literature that essentially point to social relations as causes of poverty. One of the early thoughts in the post-colonial era is from Paulo Freire. While his life's work was education, his analysis touched upon the general predicament of a segment of population. His basic premise is that the oppressed adopt the values of the oppressor, and inherently become unable to change their condition. Many of the later studies on patron-client relationship discovered that the same institutions (such as debt bondage) that offered some security also stifled any opportunity for the poor to get better (e.g. Wood, 2003; Bhaduri, 1973). Freire's answer was a new approach to education that can self-empower the oppressed. While those impatient for a finely-detailed template for policy and action will not see much in it, Freire's analysis was one of the earliest to raise the proposition that poverty is not merely a lack of income.

Another analysis that investigates how poverty occurs is the idea of entitlement. Traditional societies granted entitlement (however meager) to members of the community in many forms that include access to common property resources, ownership of property, right to work, and even charity. As societies gradually adopt the institutions characteristic of a capitalist society, many such entitlements erode. When the state is incapable of granting alternative entitlements, the only source of entitlement in a capitalist society is money. Another idea that can be lumped together with the previous two is that of capability, which Sen (1985) described as ability to function in society. The idea of capability does not allow for easy operationalization. However, it points out that poverty is an attribute of the relationship with society.

For the convenience of discussion, vulnerability can be thought of as at two scales: (a) within the region, i.e. in the regional political economy as expressed in customs and institutions, and (b) the region relative to other areas, i.e. relationship of the region either as a whole to other geopolitical units, or different interest groups and communities within regions with the outside forces. The most visible among the sources of vulnerabilities of households in the first category are agrarian institutions. There is a rich empirical literature on this theme from around the world. The most prominent agrarian institutions include debt-bondage, exploitative terms in share-cropping,

usurious lending, and rules and customs governing access to common property such as water bodies and pastures.

The extra-regional forces (such as global and national) can potentially make entire rural regions vulnerable. However, all residents in a particular region do not have the same interests, and are not impacted the same way. Thus, outside forces can produce vulnerabilities in several ways that include (a) undermining the entire region, and (b) undermining certain groups within a region. Such varied impacts of outside forces require room for nuanced analysis. For example, entire economic regions can be neglected in national policy, or the major economic activities in a region can be sacrificed by the national government, jeopardizing the prosperity of the rural region¹¹. On the other hand, certain groups within a rural region can be systematically disadvantaged through policy. For example, small holder agriculturalists were often disadvantaged by (*de facto*) government policy (Lipton, 1977).

A central tenet/pillar of rural regional development needs to be reduction of vulnerability of both the region as a whole, and the communities within them. Understanding vulnerability of households, communities and regions, therefore, needs to be addressed in any framework to analyze rural regions.

2.2 Chronic Poverty and Poverty Traps

The malaise in the countryside is not adequately captured by the quantification of poverty using a poverty line. The hard-core poverty (i.e. the rate using the lower income line) is decreasing faster than absolute (the rate using the upper income line) poverty. It means that households are not rising far above hard core poverty line. It is generally accepted that even the income (or expenditure) that denotes the upper poverty line does not guarantee anything beyond a precarious life. If a higher poverty line that accounts for the needs beyond food is used, poverty rate will not appear to be as low, and recent successes in poverty alleviation (Ravallion and Chen, 2012) as

¹¹ For example, NAFTA is considered to have brought a net positive to the US national economy. However, it also played some role in certain regions losing the cornerstones of their economies as manufacturing plants left. Another such example would be Republic of Korea's removal of import tariff on rice as part of trade agreements that played a role in the further decay of Korean countryside.

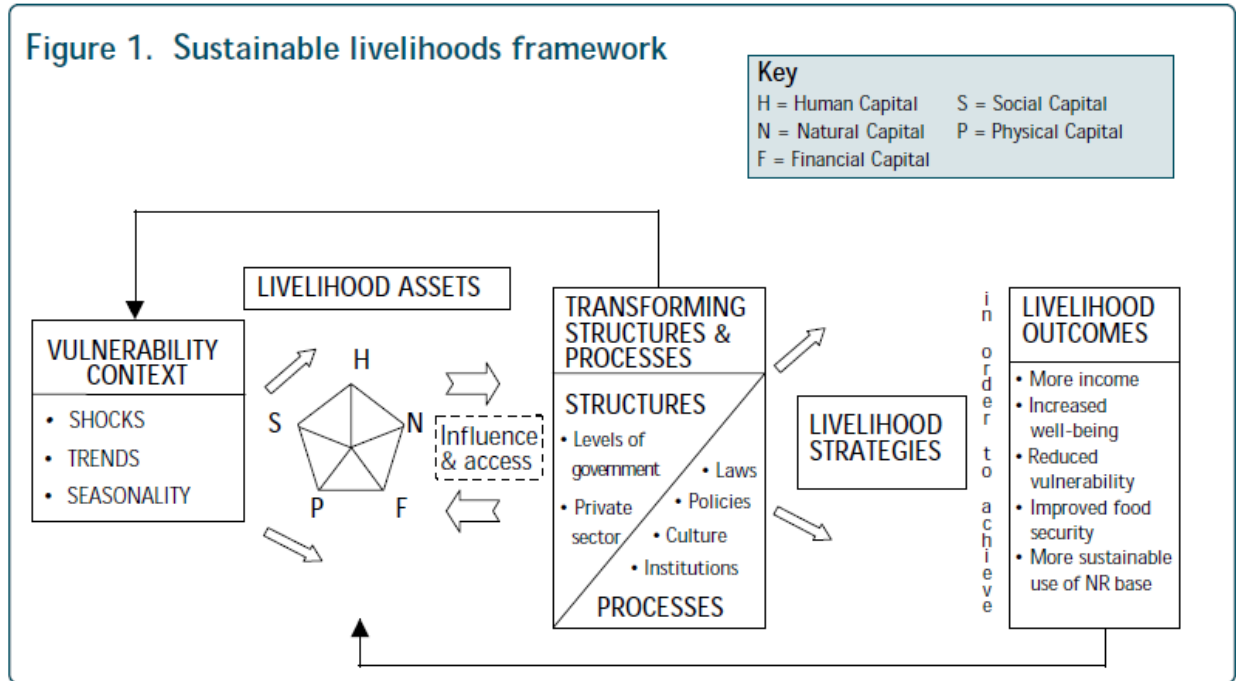
dramatic. Generations of people who are living a precarious life do not show up as poor in official statistics. Such poverty¹² is often chronic (Green & Hulme, 2005).

One useful way to see poverty and vulnerability is through the concept of traps. We use the word “trap” in the sense of reinforcing mechanism that prevents the poor from being able to rise out of poverty. Studies from around the low-income world show that a large portion of the people who are poor are also chronically poor (e.g. see Fig 01 of Barrett & Swallow, 2006 reproduced in Appendix 2). Analysis of poverty data where “poverty” is operationalized via a cut-off point on income scale can show that households rise out of and fall below poverty lines (as in Krishna & Shariff, 2011). However, the rise is often not far above the hard core (i.e. lower) poverty line. In other words, even after rising out of poverty a significant number of households stay close to the poverty line. Such miniscule rise, where there is a rise, signifies that a trap-effect is true for many people. After all, the word “poor” is a somewhat permanent tag. In interviews with poor people, we hear “we are poor”, not “we are *currently* poor”.

The trap however is different at different scales. At the level of households, how livelihoods are constructed offers a good lens to explore if there are any hindrances that tantamount to a poverty trap at the level of households. The Sustainable Livelihoods (SL) model offers a good lens to explore how livelihoods are constructed. Carney (1998) borrowing from Chambers and Conway (1992) provides a short definition of livelihoods that became well-known: “A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living.” A livelihood is sustainable “when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.”

¹² The word “poverty” has been colonized so much by the World Bank’s \$1.25 (and later \$1.90) version that the English word poverty has taken on a specific meaning of having an income below \$1.25. In this sentence, we would like to use the word with a wider meaning.

Figure 3 Sustainable Livelihoods Framework (Reproduced from DFID, 1999)



Used as a descriptive, synoptic tool, SLA’s central idea is that households construct their livelihoods from multiple sources based on their capabilities, assets/capitals (e.g. physical, financial, human, natural, and social) and vulnerabilities. Lack of some of the capitals can hinder households to secure livelihoods. Years of ethnographic and quantitative studies provide insights into how the life of poor takes shape. The rural regions are varied in terms of ecology, resources and specific nature of economic activities. However, the Sustainable Livelihoods Framework (SLF) offers some generalizable facts about the livelihoods. Often the poor do not have physical assets such as land. In the absence of land, the able-bodied poor rely on selling their labor, or on non-agricultural pursuits such as petty trading that offer a meagre livelihood. When the schools and education systems are poor or non-existing, children in the rural regions are not equipped with the knowledge and skills to have access to higher earnings. Often the only source of better income is beyond the region they live in. The poor often lack the social connections that help secure an opportunity for a job or business. It is no wonder that in the case study region, the wisdom is captured in an aphorism: “A poor beggar has to marry into poor beggars”, signifying that the poor’s social relations are largely confined to other poor people.

How can the vast numbers of poor households in the rural regions secure better livelihoods? As per the SLF, it is by enhancing one or more of the “capitals” and by reducing the vulnerabilities. Some tools to enhance “capitals” have existed long before SLF was conceived as a comprehensive and synoptic framework in the 1990s. Examples include micro-credit, expansion of education, agricultural input subsidies and extension services. The literature on each of these points to the fact that they alone, when applied to household level cannot help households out of poverty traps. For example, micro-credit while being crucial to many households is also constricted by the stagnant local economies of rural regions. Likewise, expenditure in education by itself did not help poverty reduction much (Pritchett, 2001).

One condition when enhancement of “capitals” can fail to alleviate a household’s poverty is the presence of geographic trap. In addition to being intuitively acceptable, geographic trap is supported by analysis from quantitative data. For example, Jalan & Ravallion (2002) suggest that identical households can have different rates of consumption growth because of geographic externalities; or geographic variables can impact living standards (Ravallion & Wodon, 1999). Is it advisable to have a poverty alleviation policy that targets the poor households in such poor regions based on the characteristics of the poor (i.e. in the manner of poverty profiling)? For example, if the fishermen comprise a large portion of the poor in a certain region, will it be reasonable to devise a poverty alleviation program to help the fishermen, perhaps by increasing their working capital and/or fishing equipment? Available evidence suggests that such a program will hit a ceiling defined by the “geographic externalities” or overall poverty of the rural region.

What creates a geographic poverty trap for rural regions? Some oft-cited reasons in the mainstream analysis are distance to markets (remoteness), lack of connectivity (i.e. roads), and low productivity of soil. However, rural regions can also suffer from high leakage from the rural regions, or policies of the government (such as suppression of price) can disadvantage a rural region. For example, in many highly-productive rural regions, the profit accrues to a small number of owners who take the profit out of the rural regional economy. Many resource rich areas (for example diamond mining areas, or forest areas with significant logging, or agricultural areas where land is owned by absentee owners) have very high rate of poverty because of leakage.

The traps at different scales (households and rural regions, or beyond) has prompted Barrett & Swallow (2006) to propose the hypothesis of fractal poverty traps. The basic statement of the hypothesis is: Multiple low level equilibriums exist at different scales (e.g household, community, rural region, and nation). Because of feedback effect across scales, any attempt to bring one up to high level gets stifled by the others (Barrett and Swallow, 2006). In other words, this hypothesis is an erudite restatement of a widely-agreed fact that households can decide to live in a low-risk life of indigence, because the poor community they live in offers no opportunity to rise out of that. Offering credit to these poor households will not help them much because the low-level equilibrium of the surrounding community (rural region) will suppress the household level dynamics and make it stable at a low-level equilibrium.

Inspired by the fractal poverty traps hypothesis, we can list the traps at different geographic levels:

1. Household: low assets, low level of education and health, low level of social power (e.g. as a result of membership in certain castes or tribes) which finds expression in among others, diminished entitlements.
2. Rural regions: lack of physical infrastructure, lack of roads, lack of productive activities, high leakage, government policies in distributive allocation, and provision of service.
3. Nation: neo-colonialism, international division of labor.

The presence of traps at different scales means that poverty alleviation at the household level can only be sub-optimal. Simultaneous intervention at different levels of geographic scale provides the best chance for synergy. Poverty alleviation efforts stand a chance to succeed if such cross-scale synergy is achieved.

2.3 Some Well-Known Diagnosis of Poverty: Moribund Agriculture, Urban Bias, and Isolation from Market

We discuss the contemporary state of development policy in the next section to help understand how rural regional development can take shape within the existing arrangements of bureaucracy, politics, society, and economy. However, as a backdrop to that discussion, we offer a brief review of some major thoughts about development of the low-income countries in the previous decades. As identified in Section 1.2, many of these ideas have had bearing on the current state of rural regions across the world. They also offer lessons for rural regional development policy.

One of the earliest diagnosis of the agrarian economies was that the economies of the developing world were dualistic, comprising a traditional agricultural sector and an industrial sector (Lewis, 1956). The diagnosis also crucially identified that there was disguised unemployment in the agricultural sector and therefore, labor could be transferred from agricultural sector to industrial sector without any harm to the former. The title of the paper that proposed the idea had “unlimited supply of labour [for industry]” in the title. This was not a poverty alleviation strategy *per se* as much as it was strategy for national development. Ranis & Fei (1961) offered, staying on the same theme of duality, a model that brought together the development of both agricultural and industrial sectors. They also predicted a three-stage path to self-sustained growth, based on gradual transfer of labor from agricultural sector to the industrial sector.

While not explicit about poverty, this group of models gives clue to how poverty is implicitly viewed. Poverty in this view is a result of moribund agriculture. The most well-known insight about the characteristics of the poor within this “moribund agriculture” theme, is the idea of forced poverty sharing that leads to a process called involution: “the overdriving of an established form in such a way that it became rigid through an inward over-elaboration of detail” (Geertz, 1963, p. 82). In other words, blocked from advancing, the culture had settled into stagnation.

In this dichotomous view, poverty alleviation becomes a function of national economic growth. Together with the growth oriented approach, the late 1970s also saw the emergence of basic needs approach (International Labour Office, 1977; Streeten, 1979). Basic needs approach was offered as an alternative to the growth focused policies of the previous decade. It argued that the central purpose of development is to meet the basic needs of all members of the society. Thus, basic needs became the precursor to the now-familiar Human Development Index, and even provided the basis for measuring income poverty. According to the basic needs approach, the poor are the ones whose basic needs are not met. Operationalizing and measuring basic needs was always going to be subjective and context-dependent. However, that inconvenience aside, the major policy strategy coming from this approach was the argument in favor of government’s involvement in the provision of essential social services such as education and health services,

and safety nets. This new position led to a separate realm of policy called “social policy” (for a recent revival of “social policy”, see Dani & de Haan, 2008 and de Haan, 2005).

Another set of ideas of poverty and underdevelopment was proposed in the twenty years following the 1950s that insisted that poverty and underdevelopment was essentially produced by the relationship between underdeveloped countries and their counterparts. The two major theses in this strand are “development of underdevelopment” (Frank, 1966) and “dependent capitalism” (Baran, 1957). The former thesis claimed that the underdevelopment in the colonial countries is a direct result of how colonies were brought into the realm of mercantilism and later, capitalism in the European countries. Within countries too, metropolitan areas re-oriented the country-side to produce underdevelopment. The latter (Baran) explains underdevelopment as a result of dependent mode of capitalism. It would follow that poverty in this strand of explanations is a result of relationships between the developed and the low-income countries. These theories while intuitively appealing in light of historical experiences, automatically leads to a policy prescription of shutting out of the world capitalist system dominated by the powerful developed countries. Without judging the empirical merit of these two theses, it is fair to say that current day and age, for better or worse, has come far from the time these were proposed. If at all useful, these ideas are probably for another time in history.

The 1970s saw the urban bias hypothesis, propounded by Lipton (1977). It has been stated variously at various times. One formulation is that rural poor stay poor because there is an urban bias in *de facto* government policy. The bias is evidenced in urban areas receiving more investment than their fair share. At another place, he explains “fair share” as an amount that would be justifiable via consideration of efficiency and equity, without explaining how to measure efficiency and equity. This urban bias is brought out by an “unholy alliance” between the rural elite and the urban based government. Discussion on urban bias has been a continued theme in development policy. As late as 2010 there was a special issue of the journal *Progress in Development Studies* on this topic. This issue followed two special issues (1984 and 1993) of the same journal.

The discussion and disagreements on urban bias have centered on both (a) the evidence (data and modeling), and (b) the interpretation of data. Much of the early debate centered on agriculture

policy. It was demonstrated that agricultural pricing policy suppressed agricultural prices, and the agricultural input subsidies went to large landowners. However, even after elimination of “price twists” through structural adjustment in the 1980s, why did the rural areas continue to see higher poverty? Eastwood & Lipton (2000) had some answers that are pertinent to understanding the prospect for rural regional development. Their answer (summarized by Jones & Corbridge, 2010) points out:

(a) the ability of better-educated and better-placed urban people ‘to exploit new economic opportunities in the wake of price liberalization’; (b) faster urban fertility transitions and the continued ‘town-ward movement of young people, educated people, and in Asia and Africa, males’; (c) the ‘prospect of real income gains from liberalization’ in previously very restricted or protected urban formal activities; and (d) the existence of ‘low-income, immobile and often regionally and ethnically specific groups, which – as in China – have proved weak in reaping rural “spread effects” from national growth’ (even after ‘the successes of poverty reduction in 1970–87’). (From Eastwood and Lipton, 2000: 1–2).

What Eastwood and Lipton (2000) might also add is the inertia caused by the government policies of the 1950s and ‘60s, and the nature of bureaucracy and the subtle ways bureaucracy works. For example, the processes with which large metropolitan areas grow demonstrate significant policy bias. Often the economic logic of clustering of manufacturing activity is shaped by government policies and nature of bureaucracy. The processes that bring about urban primacy are often subtle, and come into effect by reinforcing each other. For example, in the case of Bangladesh, the commercial banks in Bangladesh could sanction their big loans only from the headquarters in Dhaka. Letters of credit often requires approval from the headquarters. This fact, among others, contributes to the confluence of forces that encourage ready-made garments factory owners to set up their operations in Dhaka¹³. There are other factors that contributed to the confluence of mutually reinforcing forces that perpetuated and accentuated the primacy. Examples include investments in education in the big city, urban food rationing, and

¹³ Interview of the then First Vice-President of the Chittagong Chamber of Commerce, Mr Nurul Haque (published in Daily Ittefaq, Jan 24, 2004)

centralization of bureaucratic decision-making in Dhaka. Such stories abound from the low-income world that shows a collection of policy decisions, often sectoral, create perpetuation of growth of one or two cities at the expense of towns in rural heartlands.

Another major way urban bias occurs in allocation of resources. As Lipton (1984) identifies, urban bias in certain types of allocation (such as number of doctors, schools per unit population) is evident. However, for some other items of expense, it is harder to measure. Quantifying urban bias in terms of some index or quotient is inherently fraught with subjective judgment in every step of the computation. To further complicate the computation the relevant data is often not available or misleading. For example, a project for rural area will often be headquartered in a city, where a large portion of the project budget is spent. While quantification proved to be hard, Lipton has argued that there is an urban bias of outcome (i.e. most poor and disadvantaged people live in the rural areas, and rural areas are stagnant).

For our purposes, we do not need to decide, especially in a binary “yes or no”, on if urban bias exists. There are too many countries, policies, investment decisions, and measures of outcome to aggregate to pass such a judgment. Urban bias literature brings to the front some mechanisms that are of interest to rural regional development. Perhaps its biggest contribution is a list of processes to understand and guard against. We incorporate these into the framework to analyze rural regional planning, and in the case study.

Table 2 Different ways of looking at poverty

Theory	Cause of Poverty	Attributes of ‘the poor’	Way out of poverty
Oppression (Freire)	Subordination	Systemically trapped	Self-empowerment
Dualistic dev (Lewis 1954, Fei-Ranis, 1961)	Moribund agriculture	Low productivity poverty sharing (Geertz,1963)	Industrialization/ growth poles
Below poverty level equilibrium trap (Nelson, 1956)	Whole economies cannot escape low production cycle, because of low level of growth is offset by population growth,	Trapped (no mention of characteristics of poor)	“Big push”, Critical Minimum Effort

	that growth appeared to encourage		
Development of underdevelopment and Dependent capitalism (Frank, 1967) and Baran, 1957)	North-South integration	Exploited/uneven capitalist dev.	Delink from the 'core'
Urban bias (Lipton, 1977)	Resources are invested in urban areas (in other words, state's policies contributes to creation of poverty)	Helpless victims of state policy	Invest in rural areas
Neoliberal paradigm	Generally not interested in poverty. However, implicit answer in the paradigm is "not being able participate in the market"	Without enough income to be able to purchase a list of bare necessities Proto-entrepreneurs	Bring productive activities within the realm of unfettered market
Political economy view (Dis)empowerment	Lack of social power (oppressed by a landed class and the agrarian institutions such as share-cropping)	Households unable to gain power	Self-empowerment, insurgencies, political reform

The neo-liberal worldview (discussed in Section 1.2) is not primarily a model to explain poverty. However, the central tenets of neo-liberalism have been extended to come to a belief that poverty stems from markets not functioning properly; and the poor are those who cannot participate in market. The staunch belief in market has led to the belief if market does not work, it is the governance that is the problem.

In direct contrast to neoliberal view is the political economy view. We discussed the core of political economy view of poverty in Section 2.2 without naming it. As we mention in the next

section, this view of poverty is rarely mentioned in mainstream documents. One important exception was the World Development Report (WDR) 2000/1 that identified three cornerstones of poverty reduction: (a) opportunity, (b) empowerment and (c) security (WB, 2001, pp. 38-40). Of these three, only “opportunity” benefits from growth. Robert Chambers, who had a significant sway over mainstream policies famously identified “person bias”¹⁴ as one of the biases in development practice (Chambers, 1983). However, in practice the political economy variables are rarely addressed.

2.4 Contemporary Development Policy and Practice

Poverty alleviation and/or development are the stated goal of significant cash outflow and the *raison de etre* of giant organizations such as the World Bank, the Asian Development Bank and the national agencies for international development such as the USAID. It is interesting to notice the choice of words of such organizations in stating their objectives. USAID’s goal is to fight “*extreme poverty*”. The World Bank’s stated objective is “a poverty-free world”. The ADB’s goal is to “alleviate poverty and help create a world in which everyone can share in the benefits of sustained and inclusive growth”¹⁵. In addition to the large international organizations and the national agencies, there are a large number of international and national NGOs (such as the Grameen Bank and the BRAC in Bangladesh, Sewa in India) that have large operations toward similar objectives. In addition, private foundations such as the Bill and Melinda Gates Foundation actively fund and promote projects and programs to improve the living conditions of the poor. The amount of monetary outlay is very large (\$60 billion dollars from OECD countries alone)¹⁶.

One question that an uninitiated person might ask is: What kind of knowledge or theories is informing the strategy or lack thereof and “ad hoc-ness” of the development of all these diverse

¹⁴ It is used to refer to the penchant of the development practitioners to design and implement development work in close association with the powerful in the project area. For example, during visits development workers would accept the hospitality of the rich rural elite, and give the elite their ears.

¹⁵ <http://www.adb.org/about/main>; Accessed on January 28, 2016.

¹⁶ While this might appear to be a large amount, it actually comprises only a small part of the annual budgets for recipient countries. Many of the poster-child countries for aid-dependency such as Ethiopia, actually have less than a sixth of the annual budget financed by foreign aid.

actors? The mission statements and policy papers and other publications such as the World Banks' annual development reports offer an insight into the paradigms and theories. However, such publications often do what can be derogatorily called lip service to multiple goals, and strategies. Another place that appears to be instructive in search of the underlying theories is the actual funded projects and programs. However, there also the stated goal of a project can contradict the modalities of the project. For example, a project that works in so-called marginal areas with high poverty to offer skill training is likely not a place-based development program. Rather it is a project to prepare residents to emigrate to places (likely to cities) where the skill is rewarded. Such a project does not seek the prosperity of the community *in situ*, rather provides an "escape valve" in the sense that rural regions are places to escape from. There can be other ways in which the stated goals and methods of programs and projects can be unhelpful in understanding the underlying theories. For example, the World Bank published well publicized studies such as "Can anyone hear us?" (Narayan, 2000) that highlighted disenfranchisement and social exclusion of the poor. Such themes were emphasized in a World Development Report 2000/01 (World Bank, 2000) too. However, the WB's actual funding rarely reflects the recommendations of such a well-publicized study.

Despite such hodge-podge of goals, objectives, methods, funds, and sectors, some of the major ideas in the mainstream are clear. While clichéd, much of the contemporary policy can be categorized as neoliberal with some social policy (i.e. direct spending on health and education, and on vulnerable groups, often meager) thrown in.

Many activities can be seen to be tied rhetorically to poverty alleviation. One can build schools where children from poor households cannot go, and call the project "Education for Poverty Alleviation". A river can be excavated for the landed elite to use for increasing fish stock and harvesting, and yet it can be titled 'fisheries for poverty alleviation'. Understanding the theory (or lack thereof) behind such pronouncements and actions is perhaps the central part of the inquiry into the confused melee that is Development (in capital D) in the 21st century.

With the risk of failing to capture the nuance in the universe of development thought, development policy can probably be thought of in terms of following levels:

1. At the *supra-national* level, there is discussion about aid and how aid is used. Much of this debate risk being one around a motion that is set as a binary proposition: Foreign aid is/has been good. A frivolous re-phrasing of the question might read: Is money a good thing, or is knife a good tool? The details in the discussion about foreign aid offer some hints about development strategy. In the 1950s, the principal argument in favor of foreign aid was to address the lack of capital that the developing countries needed to jump start their economy (Easterly, 2002). Staunchest of its supporters defend it as crucial to preventing calamities, such as famine or epidemics, or just reduction of suffering (Barder, 2011). For example, one example of good use of foreign aid that a ‘pro-foreign aid’ economist chose to cite was the success in preventing famine in Ethiopia after the drought of 2008¹⁷. Recent proposals for re-inventing foreign aid (Easterly, 2008) addresses how aid could be better used. However, the broad directions emerging from the discussion is broad brush, and considerably short of the point of having operationalized concepts.
2. There was a similar ‘binary’ debate about whether globalization is good (Harrison, 2007) . That debate too generates broad and general observations about international trade, and neo-liberal policies around the developing world.
3. The other level of policy-making is at the *national level* as seen in documents such as five year plans or national policies, or country strategy papers. In the first decade of the new century these documents (Poverty Reduction Strategy Papers), prompted by the World Bank, emphasized national growth, and sectoral policies.
4. The 1990s saw a proliferation of small projects that by-passed the state bureaucracy. ‘A small cattle development project here and a child immunization program there’ represented the development approach of the major bilateral donors. The idea behind such avoidance of state bureaucracy was the distrust of the state. The late 1990s saw a move away from such policy by some of the major donors such as the Netherlands,

¹⁷ In a debate with William Easterly in 2014 at the Center for Global Development. Available at <http://www.cgdev.org/media/william-easterly-vs-owen-barder-event-video>

Denmark, and the UK. “The 1997 (DFID) White Paper was critical of ... proliferation of small projects and of chaotic marketplace of aid flows which had resulted in a “Balkanisation of the Third World”, making it virtually impossible for countries to generate comprehensive pro-poor national plans and discouraging of reforms to improve government effectiveness (DFID, 2000, p. 94¹⁸). The White Paper announced (inter alia) a move ‘away from supporting specific projects to providing resources more strategically in support of sector-wide programmes or the economy as a whole’ (DFID 2000: 38) in (Mosse, 2005).

Thus, sector-wide approach (SWA) was born. The Dutch international aid agency defined “sector” as “a coherent set of activities at macro, meso and micro level in defined institutional and budgetary frameworks for which the government has formulated policy”. The NZAid defined it as “encompass[ing] a wide range of thematically linked activities, involving government, non-government and private participation”. The sector-wide approach resulted in pooling of resources from multiple donors and working with the concerned ministries. Such approach guided money into sectors such as health, education, fisheries. At least 10 donor nations were committed to SWAs (NZAid, 2006) in recent years.

As the purveyors of sector-wide approach would agree, it is an approach, not a strategy. Hence, how it plays out in a given geographic and territorial setting is not pre-defined in the approach. Like SWA, there are other national level approaches and policies. Household focused “development work” such as micro-credit, nutrition and health services constitute another prominent activity in development work. Several international donors adopted the SLF in designing their development work (described in the previous section). It is difficult to derive from the sustainable livelihoods framework specific policies and programs in a given situation. The primary reason is the fact that the framework is all-encompassing, and hence has innumerable interventions that are conceivable and can be accommodated within the framework. For example, income in a smallholder agricultural community can be raised by making

¹⁸ Paragraph 317

interventions at multiple points in the SLF diagram. Thus, as a policy tool, the framework is only suggestive with its way of viewing well-being.

In practice however, the policy implication of sustainable livelihoods is that migration came to be accepted and even emphasized (e.g. see Ellis, 2003) as a major means of poverty alleviation, almost at the expense of rural regional development. Programs and projects informed by this framework emphasized taking advantages of markets for labor, and goods and services at multiple locations, both rural and urban, and local and trans-local including beyond national borders.

While sustainable livelihoods framework has found a narrow expression in projects that include encouraging migration, it allows for a more nuanced and expanded pool of options and entry points. For example, the framework identifies vulnerabilities and local processes as a conditioning force for choice of livelihoods. Drawing from the logic of the framework it is possible to identify community development as the tool to sustain livelihood. However, livelihoods framework inspired projects rarely advocate (and back that up with funding) using local development as a locus of intervention. This is surprising because the vulnerabilities and opportunities are produced in the rural regions. In an unintended way, SLA took development practice back to “a cattle development project here, and skills training there”.

Together with discussion at the two opposite points of the geographic scale (households and nation), there are also discussions on and funding of themes such as infrastructure (e.g. road building), and governance reform (decentralization, capacity building of local governments). However, place-based policies are rare. There have been a number of place-based projects in the Latin American countries (Olfert et al., 2014) in recent years. However, even with decentralization policies, place-based policies are far from being an accepted approach in the developing world.

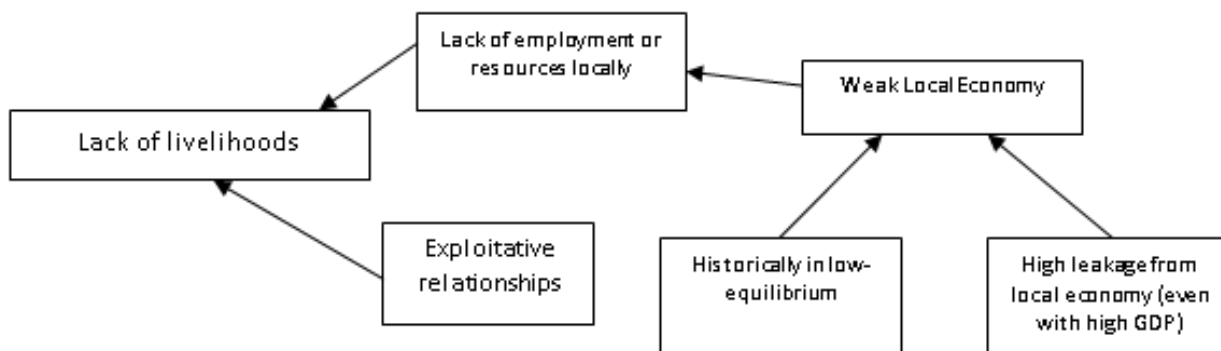
Considering the discussion on poverty as a manifestation of social relations, it is surprising that the field of international development is apparently oblivious to the idea. Combing through the project documents, policy papers, and statements of vision, and even blogs of the major players such the World Bank, it is hard to find any mention of social relations (or institutions such as debt bondage, skewed asset ownership, and discrimination) as sources of poverty. For example, a

review of eight donors (e.g. The World Bank, the Asian Development Bank) in Bangladesh revealed that these agencies had never contemplated such structural interventions in their aid programs for Bangladesh (Islam, 2011). In fact, mainstream development projects can even facilitate existing power relations and politics by suppressing the emergence of an alternative, as famously demonstrated by (Ferguson, 1990) through the study of an irrigation project in Lesotho. Outside the mainstream, there is a small stream of rights based approach. However, they remain minor and meagerly supported.

2.5 Conclusion

With an eye on RRD, it becomes clear that the definition of poverty via a low poverty line is grossly inadequate for policy. The WB’s measure of poverty estimate is almost certainly a lower estimate of poverty. Because of the hegemonic presence of WB’s data, it appears that the English word “poverty” has acquired the connotation of being below \$1.90 income per day. However, from the perspective of RRD knowing the number and proportion of poor, defined using such a low line, is of little relevance, except may be for use in setting a baseline or yardstick in project evaluation. What is important is that precariousness and vulnerability in securing a livelihood is recognized. The figure below summarizes this chapter to produce an analytical framework to explain how lack of livelihoods is produced. It is self-explanatory, so an explanation of each of the boxes is withheld here.

Figure 4 How Lack of Livelihoods is Produced



The figure would also reveal that targeting of the poor often is thwarted by surrounding society and economy. It is common for studies to find that approaches that say “let’s take care of the most distressed first and work up from there” do not work (e.g. Hajdu, Ansell, Robson, & van

Blerk, 2013). A more wide-ranging approach with a view to generating and/or capturing synergy holds better promise.

Synergy makes both intuitive sense, and has *prima facie* evidence. Targeting of the poor specially in the form of a project can miss important synergies. For example, micro-credit gives better result in the areas where the other sectors are also developed. Among the six administrative divisions in Bangladesh, micro-credit showed better performance in the divisions which are and historically were more developed (Dhaka, Chittagong, and Sylhet) than the other divisions (namely, Rajshahi, Barisal, and Khulna).

Thus, while the experience of poverty is personal, an analysis of origins and perpetuation of poverty immediately points to the larger forces. Targeting the poor alone, while useful specially in the aftermath of structural adjustment programs in the 1980s, has shown to be inefficient. Planning for rural regional development as way to poverty alleviation and beyond (i.e. attaining prosperity) cannot happen from targeting the poor. RRD stands a much better chance if synergy across sectors and across geographic scales can be effected.

Chapter Three: Issues in Developing Rural Regions and a Framework for Analysis

3.1 Regions and Rural Regions

Region is perhaps the most vexing concept both in the social sciences and in planning. In the dictionary a region is defined as: A broad geographic area distinguished by similar features. Such similar features can be biophysical or social. For certain purposes, a region can be based on functional relationships such as regional water catchment areas. In planning, regions are seen as territorial units between the level of nations and the territories of “municipal and communal government jurisdiction [in England]” (Glasson & Marshall, 2007, p. 8). Defined this way, it is a contiguous area comprising both towns and rural areas.

Other ways of defining regions in planning are:

1. Functional relationships resulting from biophysical system, often watershed, such as the Tennessee Valley. Resource management or conservation needs can necessitate a demarcation of region based on conservation and management criteria. Settlements around forests, river basin, or low-lands often give rise to such needs.
2. Functional relationship based on a local economy: Intuitively the local economy consists of a contiguous area with one or more towns and surrounding area.
3. An administrative unit as the unit for planning: With decentralization, particularly devolution, the jurisdiction of a local government can become a planning region.

In urban planning, consideration of planning for regions came long after urban design. When it did, drawing the boundaries of a region proved not a straight-forward exercise. One of the stalwarts of the field in the U.S. even remarked with palpable sarcasm that “A region is an area safely larger than the last one to whose problems we found no solution” (Jacobs, 1961, p. 410). In certain situations, delineation of the boundary becomes crucial. For example, in a certain type of economic analysis called base analysis (Richardson, 1985) where the economy is divided into two sectors, (a) activities bringing money from outside and (b) activities serving the region,

where a boundary is drawn becomes important in the computation of the ratio of these two sectors. Another situation where drawing a boundary can be important is when the choice of geographic scale has political implications or politics determines the scale at which analysis is conducted, as evidenced by a growing strand of literature known as politics of scale.

For rural regional development, a rural region can come to be defined in any of the above three ways. However, for some very practical usefulness an administrative unit such as a district or a collection of sub-districts has an advantage as the unit of planning for rural regions. Examples of such advantages include availability of data reported at the geographic level of the rural regions and its sub-divisions, and some pre-existing bureaucracy at the level of the geographic unit. As explained in the next chapter, for the purposes of this dissertation, a collection of contiguous administrative units is chosen as the case to study.

Once there is a way to delimit a region, there is a need to pay heed to the literature on regional planning in Europe that warns that regions are not territories of homogenous communities with a common set of aspirations (Paasi, 1991). Literature from agrarian societies corroborates the recent claims in European regional planning literature that such relationships are often of conflicts, and goals and aspirations among the communities rarely align. For example, as urban bias literature points out, the interests of the rural elite are in direct conflict with the small farmers and aligned with the urban-based government, even though rural elites and small farmers reside in the same cluster of villages. A regional political economy view therefore becomes important. Regional policy that is blind to the equality and equity aspects (such as unequal benefits of road building, or subsidy benefitting mostly elites) will likely not bring widespread prosperity.

3.2 Rural Regions and Contemporary Global forces

Rural regions have always been subjected to the forces beyond their borders. As mentioned in section 1.2, colonialism, and post-colonial development policy reshaped rural regions in significant ways. Their legacies continue. However, in contemporary world, no other force shapes the rural regions more deeply than globalization.

The literature on globalization is vast, and full of disagreements including ones over the definition, and the nature of impact on lives and cultures around the world. For our purposes, in the subsections of this section, we identify a few aspects of globalization that can potentially impact the ways rural regional development strategy is shaped.

3.2.1 Neoliberalism on a Global Scale

The history of neoliberalism, from its origin as a philosophical standpoint to it being an economic policy paradigm on a global scale, is well-documented (see Harvey, 2005 and Peet, 1999, pp. 17-64). However, a short revisit of the history is in order for our purposes.

Several developments converged in less than two decades, from late 1960s to late 1980s, to establish neoliberalism as the overwhelmingly dominant mode of thinking of our time. The fast track of events comprised both domestic affairs in the advanced capitalist countries and the experiences of national development efforts in the developing countries. The influential domestic events were stagnation of economies in the 1970s, and the rise of monetarist school in the U.S. and England. On the international front, an agreement emerged that closed economies were less likely to flourish (Balassa, 1981). Beginning in the late seventies, economic policy veered toward less intervention from the government. On the global economic scale too, the paradigm that global economy needed to be based on open trade gained considerable support.

In international development, these developments combined to produce what has been called the Washington Consensus (Williamson, 1990) of the major players in international development. It emphasizes growth via free market and the necessary institutional reforms to facilitate that, and the openness of national economies to the world outside. To be specific, global neoliberalism engendered and found expression in following domestic policy objectives:

1. Reduce barriers to trade,
2. Restrict government involvement in the economic sphere,
3. Reduce size and scope of government economic activity (mainly privatization of state-owned enterprises)

In the sphere of international economic relations, global neoliberalism demanded:

1. Cross boundary circulation of capital

2. Freer trade in goods and services,
3. Removal of restriction to invest.

The efforts to reorient developing economies to meet these objectives officially came to be known as Structural Adjustment Programs (SAP). Thus, SAP became synonymous with global neoliberalism, and more loosely, globalization.

3.2.2 The Finance Capital, FDI, and Global Commodity (value) Chain

The most distinguishing feature of the most recent round of globalization is the extent to which the global finance capital circulates across the world. While FDI gets more press, foreign portfolio investment in the form of bonds and shares attract significant global capital. As is now famous, some of the external money prior to the Asian Crisis of the late 1990s went to land speculation. Such money exclusively goes to stock exchanges that are located in big cities only.

Even Foreign Direct Investment (FDI), which results in manufacturing and processing, go to a small number of countries and within countries, a small number of economic zones and big cities (Chakravorty, 2000). Only a small number of locations around the world are part of the production process. For example, 80% all of the garments industries in Bangladesh are in the two largest metropolitan areas.

As discussed in section 1.3, FDI as it currently shapes manufacturing and processing, holds little hope for arrival of investment in the rural regions, except in some specific parts of countries such as China. Rather, by encouraging expansion of big cities, FDI is encouraging emigration out of rural regions.

Much of the world's production of final goods is manufactured in commodity chains that straddle continents. To choose one of many examples, ready-made garments are designed in one place, and sewn in another place with materials produced in multiple other places. Most of the value (i.e. profits) in the commodity chain accrue to the brand owners who are in the developed world (Kaplinsky, 2000). Except for rare exceptions such as contract farming, most such global value-chains avoid rural regions. When integrated to global commodity chain, rural regions often get assigned the most risky and lowest paying segments of the value chain. For example, volatile

prices of agricultural products such as cotton, and coffee have had devastating impacts on rural regions.

Together with the gradual permeation of global neoliberalism into the policy hierarchy and even popular perception, a significant change occurred in the global production, and to a lesser extent consumption system. Beginning in the late 1970s, a large part of the world's manufacturing relocated to labor, and outside the traditional industrialized world. In 1980, the share of developed world in the global manufacturing value-added was 86%, which by 2000 came down to 76% (UNIDO, 2004, p 135). Folker, Fröbel, Heinrichs, & Kreye (1980) claimed that three factors made such relocation possible:

1. Availability of cheap labor in the developing world,
2. Development of management techniques and technology for flexible and geographically sparse production, and
3. Reduction in cost of transportation and communication.

They however did not include the neo-liberal export oriented industrialization (EOI) policy package (with tax break and export processing zones) that was adopted by the states in the developing countries as a factor.

A combination of these factors gave birth to what Froebel et al (1980) claimed to be “single world market for labor power, ...for production sites.” They also claimed that this rise of manufacturing in the Third World contrasts sharply with its hitherto role as producer of raw materials, and coined the term *New International Division of Labor* (NIDL).

This prediction of one market however did not come to pass. As mentioned in Section 1.3, what has happened is the selective relocation of manufacturing activities by trans-national corporations (TNCs). For example, as mentioned in section 1.3, East Asia and Latin America on an average received close to 80% of the world's FDI from 1975 to 1995 (as computed by Dunning, 2001, p. 166 from WB, 1997 data). Thus, only a handful of countries received the investments. Clearly, if such selective relocation is significant enough to be called a *new* division of labor is open to discussion. Furthermore, “cheap labor” is not as strong a determinant of relocation as it is made out to be (Kiely, 1998), Singapore being a glaring example. Also, de-

industrialization in developed countries does not automatically mean industrialization in the developing countries.

The most important observation relevant to our issue at hand is that FDI tend to concentrate in a small number of cities and regions. These areas are often the export processing zones or special economic zones within the vicinity of a large metropolis or port city. Export processing zones became the chief tool to attract FDIs that further builds on cheap labor. Even in China where the first wave of foreign direct investment was channeled to township and village enterprises (TVEs) (Zhu, 2000), export processing zones took over in the later years of manufacturing growth. One estimate indicates that by 1984, 79 EPZs were functioning in 35 countries; by 1989, the number of zones reached 200, employing more than 1.5 million workers, with another 100 EPZs being built , (Hart, 1995 in Mittelman, 1995). From 1970 to 1997, the net flow of FDI into developing countries increased from under \$5 billion to \$150 billion (UNCTAD, 1999). This inflow of money ended up in and around the large mega-urban regions of East and Southeast Asia (with Korea being a notable exception where banks were nationalized and used as a source of capital) (Douglass, 2005). The soaring growth of the mega-urban regions during the same period is a testimony to the new space economy that FDI helped create.

3.2.3 Global Migration, Remittance, and Social, Economic, and Political Life in Rural Regions

The result of the above process is global migration from rural regions. The impact of remittance on rural regions is unclear. Studies point to remittance being used more for consumption in the rural regions than being re-invested in them. The hypothesis of fractal poverty traps discussed in Section 2.3 is relevant here in that higher availability of resources in household through remittance cannot elevate the household by much because the (low level) equilibrium of the rural region suppresses the household to a low equilibrium.

It appears that the discovery of and insight into migration has not discredited any model of development. Rather adherents of different models have taken up migration and fitted it into the model of development they trust. For example, the World Bank in a study of remittance to Latin America and the Caribbean (Fajnzylber & Lopez, 2008) concluded that it is good policies and institutions that are missing in taking advantage of remittances, which is hardly a new theme for

the philosophy underlying the World Bank. The adherents of sustainable livelihoods will look at livelihoods and would like to develop migration as a livelihood option by making migration smooth and rewarding (e.g. De Haan & Rogaly, 2002; Ellis & Harris, 2004).

While migration can be seen as an expedient measure and remittance as crucial to livelihood security, some adverse impacts of migration is fairly well-known. It generally takes the youth out of the rural regions and often upset the sex ratio, lowering the ratio when men migrate more (as in Bangladesh until the advent of ready-made garment sector where the workforce is overwhelmingly female), and raising it when females migrate (as in the Philippines). Among many impacts of such loss of youth is that the community vitality often suffers. The rural regional economy becomes a site of consumption. Households who cannot send out a migrant cannot find much opportunity within the rural regional economy. Perhaps the most famous paragraph describing the precariousness and dysfunctionality produced by migration is the not so atypical case of a Mexican village named Napizaro by Jane Jacobs, that John Friedmann quoted in his UN-HABITAT award speech: “Napizaro is described [by Jacobs] as a sad settlement where leave-takings are sorrowful and absences long, and where women live dreary, lonely lives.” According to Jacobs, if remittances were to stop, the village would go right back to the grim life that existed before immigration to California happened only a few generations ago (Jacobs, 1985).

While not as grim as Napizaro, rural regions from where large migrations happen often have trouble maintaining the basic household functions such as raising a child or the vitality of community. Economic globalization has only exacerbated that trend.

3.2.4 Larger Forces and Room for Maneuvering

E.A.J. Johnson (1970) in his influential book demonstrated that human settlements across time and continents were organized according to the prevailing logic of that time. For example, the urban system in England got organized through the system of cathedrals and parishes, or the U.S. urban system in the Mid-West was organized for the convenience of administration. Market as a force of spatial organization, Johnson demonstrates, is a fairly recent phenomenon. Indeed, the latest round of globalization as the primary force behind the spatial reorganization on a world scale did not take root at the time of Johnson’s book.

Given the rise of global neoliberalism, it is imperative to ask what is the logic underlying the space economy of the contemporary developing countries?

The preceding discussion somewhat had all the elements of the answer. Global neoliberalism is the overwhelming and overarching force that is re-orienting the space economy of countries and regions. How do global neoliberalism and other expressions of globalization interact with rural regions? The changes in the world economy and state policies over the last quarter of a century have created a distinctive logic. The main forces in this new regime are:

Table 3 Global Forces and their Spatial Specificity

Forces	Mechanism and Spatial specificity
Flexible (post-Fordist) production	Manufacturing spread over multiple countries, often in small production units (global commodity/value chains)
Post-Washington consensus	Washington consensus plus governance is the new orthodoxy in the mainstream.
Footloose Financial capital	Stock exchanges in “world cities”. Often the money is into speculative land markets, not manufacturing.
Industrial capital	Industrial estates, mostly in mega-urban regions.
Removal of import and export barriers	Prospect of local industrialization diminished for many sectors in many regions and countries.
Increasing spatial reach of agro-food systems, often global	Rise of contract farming, considered by many to be the only way to save peasant farms.
Legacy/inertia of spatial polarization	The growth pole strategies and rural stagnation set in motion massive urbanization rates in many developing countries.
The role of government	The prevailing ideology restricts the role of government in the economy and social life. The WTO agreements tend to reduce government role in the economy. However, governments pursue a policy of subsidizing

	<p>the largest city(ies), often because of “world city” ambitions.</p> <p>The global forces have resulted in innovations such as public private partnerships as a tool of providing what used to be services from states.</p>
Rise of capitalist institutions	Common property rights shrinking. “Moral economy” cannot be invoked to secure livelihoods.
Progressive social policies (“neoliberalism with a human face”)	Food distribution for the poor, food for work, continue to be the efforts to avert absolute poverty.

As a general rule, contemporary urban and regional planning as a field of practice is in an intellectual environment where the overarching big picture is always bleak. For example, belief in omnipotence of big picture will predict that cities under the forces of globalization will cater more to capital than to communities and place-making. However, successful planning theory and practice allows community centered planning even when faced with the logic of global capitalism in land value and use.

Rural regional planning faces the same larger overarching forces. It is easy to dispel rural regional planning as something anachronistic and contrary to the logic of contemporary global capitalism. Mainstream worldview as expressed in the WDR 2009 (WB 2008), and other recent publications of the WB essentially insists so. However, the option of subjecting rural regions as dispensable in a mega-scheme, as outlined in Section 1.3, is not entirely convincing either.

The task at hand is to chart out the plausibility of the spaces of hope.

3.3 Contemporary Rural realities and Rural-Urban Linkages

In finding a space of hope or room for maneuvering for planning for rural regional development, some of the hints come from the overarching forces as discussed in the previous section. Another set of hints emerge from the nature of society, economy, and politics in the rural regions. In this section, we explore the contemporary rural realities, with an eye on rural regional development.

3.3.1 More than Crop-Fields and Villages

Rural areas were never “crop fields dotted with homesteads” as abstract rural-urban dichotomous models reduced them into. As we consider new policy paradigms for development of rural regions, it is important to notice that rural areas moved even farther from the “crop-fields and villages” character in the recent decades. The share of agriculture in the local production in rural areas steadily decreased over the years (Rigg, 2006). Rural areas now often are host to diverse economies comprising non-crop agriculture, trade, artisanal manufacturing and processing, and even tourism. Over the last two decades, households have become more multi-locational, and multi-sectoral in their livelihoods. Household members increasingly tend to live in different places to participate in different labor markets. Often household members work in both farm and non-farm activities to spread risk. For example, a review of 33 household surveys from 18 African countries found that on average, 45% of rural household income was from non-farm rural activities, even in “subsistence” farming communities (Reardon, 1997). In South Asia, the figures are no less dramatic. Following data from previous decades show the importance of non-farm activities in the economy and livelihoods in the rural areas. In India, 34% of rural income was from NFA in 1994 (Lanjouw & Lanjouw, 1999). In Bangladesh, 52% of people were found to have NFA as their primary occupation in 2000-2001 (Hossain, 2004). In the recent years, the share of NFA can be assumed to have only increased.

Official statistics often miss these activities in two well-known ways: (a) in agrarian societies households see themselves as agriculturalists even when only a small portion of the household income is derived from agriculture. They respond to survey questions accordingly; (b) Often many of the non-farm activities are classified as “other”.

While rural areas always had significant processing and manufacturing activities, the rate of diversification increased more in the 1980s and 1990s than previous decades (Start & Johnson, 2004), perhaps continuing at a higher speed now. The data on “proportion of a rural regional economy that is non-agricultural” however does not tell if it is a sign of precariousness or prosperity. The range of activities that comprise the “non-agricultural” is extremely diverse, and is probably indicative of the stage of economic development of the rural regions. Dependence on non-agricultural sources can increase as a last resort when agriculture cannot support a steady

source of income. In that sense, increased reliance on non-agricultural sources indicates barely coping, as opposed to thriving. For example, in many underdeveloped countries, the poor have resorted to occupations such as peddling, working as transportation worker, and seasonal migration to cities that are merely a coping strategy in the absence of steady sources of employment (e.g. Davies', 1996 description of Malian Sahel). However, in certain situations expansion of non-agricultural activities such as tourism, rural manufacturing and services can result from expansion of choices and increased purchasing power in the rural economy. Empirical case studies suggest that both types of rural regions are appearing around the world. However, looking at poverty figures it is safe to assume that there are more rural regions of the first category than of the second.

During the decrease in agriculture's role in rural economy, the nature of agriculture changed too. Increased share of commercial farming and diversification away from traditional crop agriculture has changed cropping patterns. Often commercialization is happening in small farms as well as through plantations. Agricultural inputs require significant investment. And hence, even small family farmers are no longer peasants in the original sense of the word, i.e. small land-owning family producing for self-sustenance without buying labor from market. The emergence of global food chains introduced and increased contract farming in the developing world countryside toward the end of last century. This mode of production appeared in great numbers (e.g. tomato farmers in India producing for global ketchup brands) and found its existence often as next-door neighbor to family farms (Barrett et al., 2012; Cahyadi & Waibel, 2015).

Along with such changes in the economy in rural areas, an increasing trend is the growth in migration to international destinations. With the inability of agriculture to provide a reasonable level of income, extensive landlessness, and a stagnant economy contributed to ever increasing number of people to seek employment in metropolitan areas or abroad. Consequently, a steady stream of remittance flow into rural economy. However, remittances generally have failed to spur productive rural regional economies.

3.3.2 Rural Land, Land Use, and Environment

The nature and extent of change in land use is not the same across different countries and rural regions. Some rural regions, particularly the ones in Southeast Asia experienced drastic changes,

where foreign direct investment was substantial, and big cities expanded outward to rural areas forming mega-urban regions (McGee & Robinson, 1995). Rural regions in South Asia and Africa, however, generally experienced much less change in the economy and in the physical landscape.

Environmental degradation, in other forms, however, has taken place in both Africa and South Asia. In the case of Africa, much of the continent experienced soil erosion (Blaikie, 1985). In Asia, the environmental degradation resulted from the abuse of inputs such as fertilizer and insecticides. The loss of agricultural land to uses such as housing, infrastructure, and industrialization has accelerated in past two decades. In the absence of any zoning control, settlement patterns in the dense rural regions such as the island of Java, the country of Bangladesh, and the province of Kerala are putting strain on the economy, health and environment. Rural environment is rarely pristine in the developing world. Rather rural industrialization, polluting practices in agriculture, poultry and aquaculture, and in some parts of the world unique practices such as brick-making in large kilns have been putting significant strain on the ecological health of rural areas. With changes in climate, and rise of sea level, some rural regions are under further strain. In recent years, environmental strain has created pockets of poverty. For example, experts are warning about impending pockets of poverty in the coastal areas of Bangladesh as tides get higher and increased salinity makes soil unsuitable for cultivation¹⁹. In the case of Bangladesh, out of 2.75 million acres of land in the coastal areas, approximately 600 thousand acres are uncultivable now.

The environmental threats add further urgency to planning at the level of rural regions. Especially in the case of climate hazard mitigation, one plausible hypothesis that can be offered is that because of the location specific impacts of climate variability and change, rural region is the appropriate scale as opposed to much smaller community level adaptation²⁰.

¹⁹ As pointed out by BRAC and BCS Economic Association to the Planning Commission in a seminar (reported in Amader Orthoneeti, Aug 04, 2011)

²⁰ In any case, climate change adaptation has not been informed by the role of social relationships in producing vulnerability (Taylor, 2014)

3.3.3 Rural-Urban Linkages²¹

The recognition of the new rural partially rose because of a rich volume of literature that accumulated since the late 1980s, and has come to be known as rural-urban linkages (Tacoli, 1998;and 2006). Early research used various terms such “interaction”, “exchange”, “relations” with “rural-urban’ to describe the new discoveries of the time. By late 1990s, however, they all were subsumed under the term “rural-urban linkages” (giving birth to another acronym, RUL). Like many other terms in the development studies, RUL have been put to indiscrete use. Countless policy documents, academic papers, and conferences have borne RUL in the title while the contents at best partially deserved a title with words “rural”, “urban”, and “linkages”.

Tacoli (1998), in a summary of the literature, identifies two categories of linkages being reported in the literature:

1. Linkages across space (flows of people, goods, money, information, wastes)
2. Linkages between sectors (agricultural and non-agricultural synergies - backward and forward linkages, etc.)

There has been an increasing recognition of the linkages across space. This strand of thought has been furthered by the influential sustainable livelihoods literature (Carney, 1998). It has been demonstrated that *households*, particularly the poor households in rural areas, straddle both urban and rural economies in search of their livelihoods. Households are both multi-sectoral (in terms of occupation) and multi-spatial (meaning members of or entire household change places at different times of the year or in the course of life in search of livelihood). The flow of *goods* and *capital* has also been recognized to merit an explicit place in policies. Traditionally such flows have been conceptualized as flow between a town and *its* hinterland. But it is important to note that such interaction is not between one single town and *its* hinterland. It is not a dendritic hierarchical pattern, rather a complex network of flows. It is common to find villages or small towns producing goods (e.g. pottery, certain special woven items or utensils, or specialty condiment) that they sell to multiple other villages and towns, not to one single town. It is also

²¹ Much of this section has been taken from Momen (2006).

important to note that the national statistical offices in developing countries are ill-equipped to report such flows, hindering policies to be informed by such linkages (Douglass, 1998).

There was also a wave of studies exploring the linkages and interdependences between agriculture and other sectors (e.g. Haggblade, Hazell, & Brown, 1989);. Another group of studies had a focus on interactions between towns and hinterland in different economic and geographical contexts. Many of these studies were conducted to contribute to the debate on the pattern of spatial accumulation in capitalist systems and role of urbanization in development (e.g. Harriss & Harriss, 1984). With the renewed interest in rural-urban linkages, they became relevant again.

Thus, the term rural urban linkages, has come to acquire a multiplicity of meanings. Though not mutually exclusive, the following three processes comprise the broad meaning that has been ascribed to the term “rural urban linkages”.

1. Household dependence on both towns and rural areas for securing livelihoods (livelihood perspective),
2. Value-addition chain (how rural agricultural produces and other goods are processed, transported, and marketed at wide range of geographic locations, both rural and urban).
3. The linkages between agricultural activities and manufacturing, financial services, administrative services etc.

Such usage has been formalized in the definition of rural urban linkages by the Governing Council of the UN Human Settlements Program: “[C]omplementary functions and flows of people, capital, goods, employment, information and technology between rural and urban areas” (UNCHS, 2004: 22).

The volume of empirical literature about rural-urban linkages is large. In policy, two impacts are evident. First, it eliminated the false “rural produce price vs. urban wage” debate in development policy (Vali and Jamal, 1993). Second, curiously it encouraged calls for “strengthening rural-urban linkages” that would often mean facilitation of flow (a component of which is road-building) between towns and rural areas. Such prescription is oblivious of the possibility of easier draining of human and other resources out of rural areas to the towns and cities, a process termed “backwash” effect by Myrdal (1957). Policy prescriptions of “positive” rural urban linkages are also available in the literature (e.g. von Braun, 2007). What constitutes positive is

rather vaguely discussed. However, simultaneous rural and urban development in a regional setting was not advocated until recently when the rural territorial development programs in South America began to be proposed in this new millennium (e.g. Scheijtman & Berdegué, 2008).

3.3.4 Conclusion: Contemporary Rural Reality and Prospect for Rural Regional Development

What transpires from the literature on rural de-agrarianization and rural-urban linkages is that rural regions are more and more getting sucked in to the matrix of global urbanization. The determining forces are often outside the geographic boundary of rural regions. The other important aspect to notice is that while rural areas are transforming in the ways described here, they are not improving the life chances of the poor to any significant extent as exemplified by the stubborn rural poverty and precariousness of life.

Many of the bodies of literature that once provided guiding lights are also increasingly becoming irrelevant. The rich literature on agrarian transition that attracted brilliant minds for the entire twentieth century is less relevant now. Marxist development theory is centered on agrarian transition, the indicator of which is production of free labor. In this vein, changes described in this section prompted Bernstein (2006) to claim that the agrarian question of capital is not relevant anymore. One simplified statement to draw from his analysis is that capitalism has entered agriculture, and peasants, in the sense of producing for self-subsistence without use of hired labor, do not exist in any significant number anywhere. Now that even the smallest of farmers must buy inputs from the market, agriculture cannot stay independent of market.

Rural-urban linkages, especially migration have prompted several policy responses. As mentioned earlier, Sustainable Livelihoods inspired projects often try to facilitate migration. A full volume of Development Policy Review (year 2011, Vol 33(4)) was dedicated to the idea of “translocal” development, whose central idea is that “local resources” need not be the only source of poverty alleviation (Zoomers, Westen, & Terlouw, 2011). While we agree that there are resources around the world such a job in, say, the Middle East, we re-iterate that local synergies are important, and strategies need to focus on local while taking full advantage of extra-local sources (as opposed to solely relying on emigration out of the rural regions).

3.4 Thoughts and Models of Local Territory-Based Development: A Few Examples

As stated in Chapter One (Section 1.6), we viewed rural regional planning as an intervention to negotiate with global as well as local forces with the objective of prosperity of rural regions. As identified here, rural regional development in this sense, especially with an emphasis on poverty alleviation in the context of globally influenced de-agrarianizing political economy, has not been attempted in the mainstream. However, there have been attempts in the past to cater to one or more aspects of RRD. Armed with the review of the contemporary forces at work (Section 3.2.4), and the past experiences of development (in Chapter 2), we can glean insights from the experience offered by such models from the past.

3.4.1 Integrated Rural Development (IRD)

In the mid-1970s, IRD appeared and quickly became the most widely heralded approach to rural regional development in the developing world. However, it is a stretch to characterize integrated rural development as a model to integrate both rural and urban components in one framework, given that in practice IRD projects almost exclusively worked in rural areas, and was confined to agriculture sector. However, as a model that temporally preceded the other frameworks listed here, it provides a backdrop to contrast against, and hence its inclusion on this list.

IRD historically came soon after rural development became an objective of World Bank lending. In the early 1970s the Bank felt a need to tackle rural poverty. As the then Director of the Agriculture and Rural Development Department (Yudelman, 1976), and the WB's sector policy paper 1975 noted, lending to capital intensive modern industrial sector since the 1950s did not reduce rural poverty. Large scale investment in "off-farm" infrastructure (such as irrigation) and subsidy toward Green Revolution inputs such as seeds, fertilizer, and insecticide also noted to have failed to offer substantial help to the rural poor. This period was also the time when the efficiency of the small farms began to be accepted. Therefore, the central strategy of rural development became

“...the encouragement of technological change at the farm level. [Rural Development] program now included the financing of research, extension services, training facilities, marketing, credit, rural transportation, and small-scale irrigation. The emphasis was thus shifted from lending for "off-farm" infrastructure (such as irrigation projects) to rural

credit as a mean by which farmers could obtain capital to finance "on-farm" investment" (Yudelman, 1976, p. 309).

Consequently, the cornerstone of rural development became subsidized credit. In addition to agricultural growth in the small holder sector, the WB, influenced by the "basic needs"²² argument (ILO, 1977), identified that rural development also needed other components in rural development projects such as potable water supplies, shelter, rural electricity, health and educational services, and roads. As Yudelman (1976) observes "[a] mix of components in rural development projects is usually justified on the grounds that a mix of investments in any given project produces a synergistic effect" (p. 313).

With such beginning, rural development efforts of the WB and many other agencies began to be carried out as integrated rural development programs or projects (IRDPs). The exact components of an IRD project varied from project to project. At its fullest, the IRD approach attempted to strengthen rural economy by means of capital formulation in cooperatives, coalition building among cooperatives for group credit and dissemination of knowledge, and supplemented these efforts with improvements in irrigation and other infrastructure (hence the word "integrated"). For example, the IRDP in Bangladesh was extended with WB-support in 1974 to include an intensive area-based program. Rural works, small-scale irrigation, rural credit, strengthened cooperatives, increased agricultural inputs, improvement of extension services and livestock and fisheries development were incorporated into a national project titled "RD Project I". The project was coordinated and monitored by IRDP from the capital city, Dhaka. However, where at its barest, e.g. India, IRD has been claimed to be nothing more than subsidized credit scheme for the rural poor (Dreze, 1990).

The IRD projects that had multi-sectoral components were seen as Area Development Programs. The use of the word "area" signifies a territorial unit. In practice these areas were always a village or clusters of villages. As one review notes: "rural areas were seen as closed systems" (Guimaraes, 1991, p. 21). There was no urban component, or no awareness of the multi-locational and multi-sectoral livelihoods. Reviews of IRD projects continued to point out

²² In short, this approach seeks, through the governments direct intervention, the direct provision of basic needs of humans such as nutrition, education, and health services, as opposed to helping the poor earn more.

inadequate impact of IRDPs (e.g. Ruttan, 1984). Project evaluations by the proponents of IRD *modus operandi* generally painted the failure as a problem of implementation (Guimaraes, 1991, p. 18). In an extensive evaluation of 184 WB-sponsored IRD projects, a study revealed several flaws in the approach such as

1. Difficult integration with existing (government) institutions
2. Great complexity of multi-sector projects
3. Adverse macroeconomic frame conditions
4. Lack of conceptual basis for implementation
5. Inflexible, rigid top-down planning methods
6. Lack of compatible technical solutions for the regions concerned
7. Inadequate knowledge of communities and failure to involve them (World Bank, 1987).

As noticeable here, the evaluation does not question the theory of IRD. Nor does it identify the lack of an urban component. To be fair to such an evaluation, the literature on rural-urban interactions and linkages began to appear only in the very late 1980s.

The word “integrated” in IRD, therefore did in no way attempt to be like the objective that city planning in the high-income countries at the time was seeking: comprehensiveness. With the benefit of hindsight, and specially the literature on farm-nonfarm linkages, multi-sectoral livelihoods, and livelihoods opportunities in an age of increasing economic integration, two major lessons stand out: (1) not using urban components to benefit the rural poverty diminished the chances of success in poverty alleviation (see review of UFRD below), and (2) structural problems (such as skewed asset ownership and consequent power differential) can stand in the way of poverty alleviation (Khan, 1979). The idea of multi sectoral planning at local level espoused by IRD approach is generally accepted, and helped the survival of the logo (as evidenced by the presence of Centre for Integrated Rural Development in Asia and the Pacific, CIRDAP) headquartered in Dhaka, Bangladesh.

3.4.2 Saemaul Undong (New Community) Movement in South Korea²³

The core of Saemaul Undong was community mobilization and an appeal to civic pride in rural communities, together with the policy package of Green Revolution, i.e. subsidized input for rice cultivation brought to villages by the central government. The government also bought rice at a higher price to sell at a lower price in the cities that were growing as a result of industrialization. The program also had a component of in kind (cement, steel) donations to communities that could mobilize and ask for such construction materials.

The community mobilization and aggressive appeal to civic pride helped garner voluntary labor. However, without a powerful central government to help with cash and in kind and to purchase the rice, it is difficult to imagine Saemaul Undong getting any traction.

While Saemaul Undong increased agricultural production with the help of the rich central government and large bureaucracy, it never operated beyond the scale of villages. The program also did not have an urban development component. Even though rural wages grew close to urban wage, rural outmigration to large cities (as opposed to smaller towns) began soon afterward as the huge subsidy could not be sustained.

As we look at the Saemaul Undong with an interest in putting together a strategy for development of contemporary rural regions three unique features that Douglass (2014, p. 165) illustrates loom large:

“One was radical land reform as a foundation for both rural and urban-industrial growth. Another was the ability to use urban industrial growth to subsidize rural development rather than the other way around, which was the common experience in other countries in Asia, Africa and Latin America. The third was the capacity of government to mobilize rural households that was based on a sense of common purpose imbedded in the general acceptance of a strong developmental state in rural Korea.”

These conditions do not exist in most developing countries. The land ownership is often skewed, and thereby any improvements in productivity tend to (disproportionately) benefit the landed

²³ This section is derived from Douglass (2014) and Douglass (1983).

elite, who have diversified into other spheres of economy. A rich central government in the context of growing urban industrialization is also not the reality in all but a few countries.

3.4.3 Urban Functions in Rural Development (UFRD)

Drawn directly from E.A.J. Johnson's (1970) application of central place theory to the organization of space in developing countries, the model of urban functions in rural development (UFRD) was proposed by Rondinelli and Ruddle (1978) as a strategy for integrated rural regional development (Rondinelli & Evans, 1983). The central idea of UFRD comprised two components: (1) rural development needed urban services, and (2) unlike growth center/pole strategy where investment concentrates in one or two primate cities, this approach advocates filling in gaps in the urban hierarchy by starting from the bottom through investments in small towns and market centers, and thereby, as the claim goes, offers more spatially equitable growth. With Christaller's Central Place Theory providing the framework, it was observed that rural regions often lacked small towns of sufficient size and urban functions. Recognizing the important role played by market centers, small towns and villages in the rural economy, they looked for ways to strengthen the urban hierarchy and to link urban centers with their surrounding areas in such a way as to provide better access for the rural population to markets, farm supplies, social services and other necessary urban based facilities. The underlying assumption was that the presence of the functions in the close proximity of rural areas will "increase production and exchange between rural and urban areas" (Ruddle and Rondinelli, 1978: 30).

Based on the belief in rural development roles to be played by towns and cities in rural regions, UFRD identified seven functions that were to be performed by towns in rural development such as

- (1) consumer convenience centers for purchasing non-durable and durable goods
- (2) centers for higher order public and private services
- (3) linkage to (inter-)national markets for selling rural products
- (4) production supply and support centers
- (5) agro- and resource-processing centers

(6) non-agricultural employment for rural labor

(7) centers of information and knowledge (From Douglass, 1998).

The UFRD model became influential as it came in a 1975 paper commissioned by the US Agency for International Development, who was willing to fund programs based on this model. The commissioned paper was published in 1978 (Rondinelli & Ruddle, 1978), more than 2 years after programs were implemented in the Bicol River Basin in the Philippines, Bolivia, (the then) Upper Volta (now Burkina Faso), Cameroon, Guatemala, and Indonesia.

The projects had difficulty in implementation. Much of the difficulty stemmed from the fact that planning and implementation was done centrally. The bigger issue of interest here is that the theory behind the framework can be questioned. Perhaps the most important critique is what Douglass (1998) called one-sided view of the role of “cities in rural development” without examining the reverse relationship.

In the most famous experiment of this principle in the Bicol river basin in the Philippines in the late 1970s, provision of services such as consumer convenience centers, linkage to (inter-)national markets for selling rural produce, production supply and support centers did not result in the development of rural areas. The reason was that in the absence of a thriving economy and purchasing power in the rural areas, there was little demand for such services. An evaluation study a decade after the commencement of that program found that the towns themselves were stagnating (Koppel, 1987). Apart from failure to see the role of rural economy in the health of the urban centers, the UFRD failed to take cognizance of another well-known fact that even when services and facilities are physically proximate, social (power) structure might prevent a large section of the population’s access to them (Begg, 1992). Another lesson to transpire from Bicol river basin is that accessibility can be, to state the obvious, a two-way street. For example, the road-building program significantly reduced transportation time and costs between Bicol region and the Manila metropolitan area, and in the process allowed unprocessed rice to be transported out of the region. The end result was that rice mills in the market centers and towns lost demand for their services, resulting in 25% reduction in milling capacity in the program area between 1981 and 1984 (Koppel, 1987).

In conclusion, the UFRD approach ignored important theories on either end of the rural-urban continuum. On the urban end, like Christaller's Central Place Theory, UFRD sees urban centers as nothing more than locations of service (or central functions) for the hinterland. However, urban areas are also locations of production and consumption. By ignoring this fact, the model misses important ways to achieve vitality of towns and market centers. At the rural end, UFRD sees rural poverty and low productivity as a function of lack of accessibility to services. With the benefit of hindsight, these misguided underlying theories appear to have prevented UFRD from creating mutually reinforcing relationships between the towns and their hinterlands.

3.4.4 Agropolitan Development

While UFRD was getting underway with inadequate review of its underlying theories, another fundamentally different model of rural regional development was being offered, first as a conference paper (Friedmann & Douglass, 1975) and later published as a journal article and book chapter (1978). According to the authors, the Agropolitan model is a spatial model to accommodate many of the lessons emerging from the failure of the growth pole strategy, and industrialization of the 1960s and '70s. Two of those lessons were: (1) The economic policy of industrialization and its accompanying spatial policy of growth center resulted in inequality and poverty, and (2) the primary objective "development" could not be economic growth, but "social development with focus on specific human needs". As the term suggests, the town was to be not just a market center but more importantly a "polis", or political decision-making center, made possible by devolution of power to local levels. By emphasizing devolution as one of the cornerstones, agropolitan model was ahead of its time. Some form of decentralization, mostly "deconcentration", to use (Cheema & Rondinelli, 1983) categorization, and devolution would later appear in the 1980s and 1990s in some countries, most notably Indonesia.

Considering these lessons and in the absence of any policy of accelerated rural growth that could be evaluated (the WB's IRD and South Korea's Saemaul Undong were only a few years old in the mid-1970s), the authors ventured into a world of plausibility by outlining how a new spatial policy could be operationalized:

1. Instead of encouraging emigration from rural areas, invest in them so agropolis or "city in the fields" can emerge.

2. Instead of using village, use larger spatial unit such as district.
3. Diversify opportunities for productive work and, more specifically, by joining agricultural to non-agricultural activities within the same territorial community.
4. Use labor effectively by directing it towards a greatly intensified development of the natural resource base of each agropolitan district, including improvements in agricultural production, major conservation and water control projects, rural public roads, expanded rural services, and agriculturally oriented industries.

Such agropolitan districts are then envisaged to be linked to be regional networks by building up and improving physical channels of communication among agropolitan districts and to larger towns. Such linking provides the basis to sustain higher order goods and services. In terms of governance, the model proposed what later came to be known as a devolved form of decentralization. The authors even ventured into the method of financing such districts that included reinvesting large parts of local savings in the district, some form of communal labor extracted from the residents (voluntary or evoking social contract), transferring of fund from industry to agriculture, and reversing the adverse terms of trade between peasants and city populations.

Contrasted with the alternative of industry-centric growth pole strategy, agropolitan districts had some intuitive appeal. However, as the authors hinted, several major changes had to happen before agropolitan district model could be attempted. Many of these changes never took place. For example, local governments were weak. Most of the countries at the time were extremely centralized and many were autocracies. The colonial legacy meant that former colonies did not have a system of local governance because pre-colonial local governments were eliminated by colonial bureaucracy. Another major issue highlighted by the Agropolitan model was the need for land reform. Except for Japan, Korea, Taiwan, Vietnam, and West Bengal, examples of land reform are non-existent. Perhaps more important than any list of factors that were necessary for the implementation of the agropolitan district strategy was the historical juncture that was the late 1970s. The advent of neoliberalism meant retreat of governments, and the onset of aid fatigue of the 1980s meant that development was not on the agenda of the international community.

As one of the authors claimed later (Friedmann, 1985), agropolitan development needed political commitment to succeed. Perhaps one lesson from the fate of agropolitan development is that “political commitment or will” is not a free good. Furthermore, creation of locally based planning is predicated on local political capital and capacity, an assumption that is rarely fulfilled.

However, it is fair to assume that both limitations are less constricting now than they were in the late 1970s. Literacy rate is higher now, and so is political awareness in the rural areas. Many low-income countries decentralized in recent decades, thereby created sub-national governance structures. Together with such changes, there is another important ideological change that has occurred: The acceptance and in most circumstances, the promotion of the idea of local development. With rise of neoliberalism, development is seen as a responsibility of not the central state, but of the localities (Polese, 1999). Given this new policy environment, the “political will” that Friedmann observed to have been missing might just show up, giving a new lease of life to the idea of agropolitan district.

As an interesting aside: The term agropolitan has returned to use in the title of projects in Indonesia and Malaysia in recent years. However, as a proof of words getting co-opted, the programs that are being called “agropolitan” are nothing more than agri-business development programs based in small towns (e.g. Rosdiana, Inayati, & Murwendah, 2014). In the reconstructed use of the word “agropolitan”, the “polis” part (meaning that *agropolis* was seen as a political unit in the manner of bodies of citizen in ancient Greece) has been lost. It has rather come to mean “agriculture-led rural economic growth”. In this sense of the word, it is no wonder that *agropolis* has a counterpart in “minapolis” (fisheries-led development).

3.4.5 Poverty Alleviation through Rural Urban Linkages

Poverty Alleviation through Rural Urban Linkages (Renamed in 2002 as Partnerships for Local Economic Development, in Indonesian, *Kemitraan bagi Pengembangan Ekonomi Lokal or KPEL*).

PARUL was launched as a project in Indonesia in 1999 with Bappenas (central planning agency) as the executing agency, with funding support provided by UNDP and technical assistance from

UN HABITAT. The concept of PARUL is succinctly described by Evans (2002), who served as the Chief Technical Adviser in the program.

PARUL aims to integrate lagging regions into the mainstream economy, by connecting producers to markets within the region and beyond, focusing on clusters of economic activities associated with key local export commodities. Central to this approach is an institutional component based on public-private partnerships between [local] government and the business community [both producers and medium to large tradesman], whose function is to generate initiatives, and mobilise resources to strengthen rural-urban linkages for production and trade. (Citing Evans, 2001.)

Thus, PARUL deliberately attempted not to be comprehensive across all economic activities, but focused on one sector (one produce or commodity to be precise) that had the potential to earn money from outside the region. Examples of such chosen produces of high export potential include, cashews in South Sulawesi, coconut in North Sulawesi, and off-shore fisheries in Papua. In that, it is similar to Perroux's original non-spatial growth pole theory (Perroux, 1955) where one sector in the economy generates growth in other sectors (as steel and mining did in England in the 19th century).

Through establishing public-private partnership between small-scale producers, larger businesses and local government, PARUL attempted to facilitate the marketing of produces outside region. Such approach, at least in theory, should ensure that small producers, many of whom are poor, are able to enjoy the benefits from the export. The entry point in PARUL's strategy is therefore, choosing one agricultural produce in each region and facilitating its production and marketing while ensuring that the incomes benefit the poor. In this regard, it is similar to the "one district one product" policy advocated in Japan. The one district one product policy and PARUL stand to offer lessons about one value-chain based development effort.

It is unclear, however, how incentives in one agricultural produce create forward and backward linkages within the local economy. Creation of marketing linkages might not guarantee that most of the value-added is retained in the local economy. More practical problems, as documented by Evans (2002), include the fluctuating exchange rate of dollar and produce prices; and the unwillingness of trans-region or international importers to commit for a long time. Despite such problems, PARUL seem to address the fact that export is necessary and value-added should be

retained in the locality among smallholders. There appears to be a dearth of evaluation studies of the project's interventions, but a study on clusters of small and medium enterprises (including non-KPEL clusters) in Indonesia found that little social networking among SMEs were achieved and there were little cooperation and economies of agglomeration achieved even when they are geographically concentrated (GOI & JICA, 2004).

3.4.6 Rural Urban Partnership Program (RUPP) in Nepal

The RUPP was undertaken in 1997 by UNDP and the Government of Nepal. The Program was undertaken with the explicit goal of local development via strengthened rural-urban linkages. In doing so the Program selected 12 municipalities, and implicitly took them as the centers of their local economies. For each municipality, several rural market centers within its market zone were selected for RUPP support. For each municipality and its rural markets, a Partnership Development Committee was established. This committee comprised leaders from both the municipality (the elected mayor, and the leaders of the NGOs and business communities) and the elected Chairpersons of the villages where the rural markets are located. With this committee as the overseer, the RUPP office based at the 12 municipalities pursued a string of interventions aimed at “urban-based local development”.

These interventions included:

1. institutional development towards better governance;
2. enterprise development and creation of economic opportunities;
3. improvement or provision of small-scale infrastructure; and
4. training and capacity building.

The core of the “institutional development” was mobilization of community at the level of (sub-neighborhood) alley ways (*tole* in Nepalese). Such community mobilization was successful, especially in the municipality and its rural centers studied in (Momen, 2009). The enthusiasm generated by the establishment of small associations of neighbors paved for the other interventions such as group owned small enterprises aimed at increasing rural-urban linkages with the financial and technical help of RUPP. The Program also spent small amounts for improving micro-structure such as paving a trading place, improving a mountain trail, or a small

service road. RUPP operated on a small budget, and hence did not invest in any large infrastructure. RUPP did not attempt to help with productive activities such as agriculture except for financing some small enterprises in artisanal manufacturing and processing. Perhaps RUPP's biggest success was in the area of putting together institutions such as Partnership development Committee and offering effective training and capacity building.

As described in further detail in Momen (2009), a few lessons stand out:

1. Most enterprises contributed significantly to the poverty alleviation of the entrepreneurs, but indirect linkages in terms of job creation and profits were considerably limited. The amount of support available to group enterprises was generally small (typically US\$270–335), which ensured that only the poor had an incentive to apply for a RUPP loan. But this also meant that the enterprises were not big enough to have any meaningful effect through linkages with the hinterland.
2. Even though there is potential for economies of scale at an institutional level for trading and marketing activities (e.g. disseminating market information, cooperative-based marketing), RUPP enterprises were far too few and small to be capable of using any such collective action.
3. As municipalities are the primary vehicles for the implementation of RUPP, villages outside the municipality's jurisdiction were beyond their operational reach. This left RUPP with small-scale manufacturing, processing and trading enterprises as the vehicles of the generation and retention of multiplier effects.

Along with the experience with RUPP enterprises, the governance of development work in the Nepalese context also stands out. As per the statutes in Nepal (Local Self-Government Act (LSGA) of 1999 and the Rules of 2000), the District Development Committees are required to play a leading role in the development of the districts. However, in the district studied in Momen (2009), as in most other districts in Nepal, the DDC has yet to exert its power and influence for reasons that include the inertia of centralized planning, the lack of able manpower and a lack of resources. In its absence, a municipality based program that is not geographically comprehensive of the district plays an expedient role.

3.4.8 Regionalism and Local Governments

Regionalism, in the sense of neighboring local governments cooperating for common good, is rare both in the developing world and the advanced capitalist countries. There is a general pessimism about getting smaller local governments to cooperate. For example Hall & Stern

(2009) reports ‘reluctant regionalists’ (i.e. local governments unmotivated to cooperate) in Canada. In the developing world, it is even rarer. For example, in Indonesia, (Firman, 2009) reports, the new local governments created by splintering a large local government did not have the incentive to cooperate. In Indonesia’s case, there were even hostility between splinters and the mother local governments.

Such experiences raise the question of nature of government for rural regional development. While there are countries such as Indonesia where large scale devolution (and subsequent re-centralization) was implemented, there are countries where whatever decentralization was carried out is nothing more than de-concentration (i.e. establishment of local offices of national ministries). In countries such as Ghana, districts are the units of devolution (Owusu, 2004). In others, districts are units of administrative de-concentration and funding. In countries such as Bangladesh, there is no local government or central government’s administrative unit at the district level. Rather it is at sub-district level. With such diverse administrative arrangements existing around the world, rural regional planning has two options: (a) couch itself in the existing arrangements of governance, or (b) make governance and administrative reform as part of the planning exercise.

3.4.9 Strengthening rural-urban linkages

Though not offered as a model, “strengthening rural urban linkages” is often a recommendation found in reports on rural-urban linkages. Tacoli et al (2005), von Braun (2007) are among many examples that call for increased linkages in recent times. This is perhaps the most perplexing of all the prescriptions. This prescription is oblivious to the historical experience that increased flow is not a good or bad thing for poverty alleviation *per se*. When “strengthening” is recommended, it is often left un-analyzed. The implicit belief is often that increasing of flow of goods and services between an urban center and rural area would somehow benefit rural areas. Such assertion is oblivious to the process of backwash that Myrdal in his famous work so convincingly argued (Myrdal, 1957). Many evaluation of road projects warn of this danger of resources and capable people leaving rural regions with improvement in accessibility, including the review of Bicol River Basin Development Project done in section 3.4.3.

While not inherently so, strategies of strengthening linkages also leave room for dyadic form of settlements, because it translates into connection between villages or village market centers with rural towns. Such dyadic pattern precludes direct trade or establishment of forward and backward linkages between one cluster of villages with another.

In rural regional development, some tools such as facilitating trans-village trade, or even facilitation of migration can be relevant and useful. However, uncritical promotion of rural urban linkages (often taken to mean building roads) is not an approach that promises to help the poor and the most vulnerable.

3.4.10 Regional Network Strategy of Reciprocal Rural-Urban Linkages

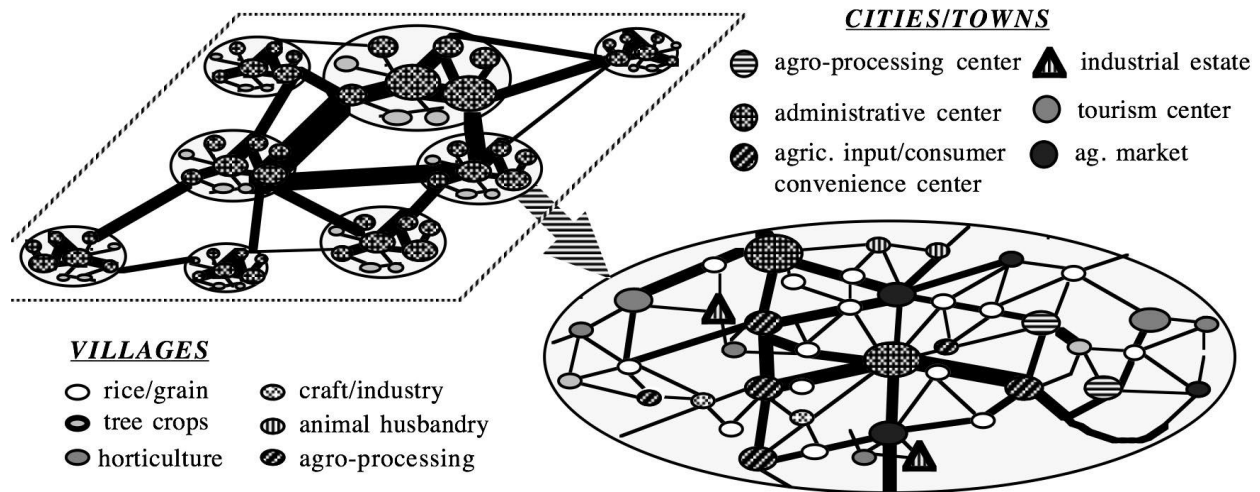
While dust was still settling in after the rapidly increasing empirical body of literature on rural urban interactions and flows that came to be known as rural-urban linkages, Douglass (1998) proposed a framework for rural regional development that sought to emphasize the importance of *reciprocity* of rural and urban linkages in rural development. As a backdrop to doing so, he examined the different ways urban areas have been assumed to be capable of spreading development: (a) as growth pole with industrial base to spread growth into surrounding rural regions, (b) as the node to make urban functions available to the rural hinterland (in the manner of UFRD above) without recognizing that a poor rural area cannot sustain these very services such as banking. As it turned out, programs such as the Bicol river basin development project that were inspired by the “urban-sided” view of rural-urban linkages did not help lift the rural.

In laying out the framework he starts by demonstrating a contrast between a virtuous cycle when rural and urban relationships are well articulated and a truncated cycle of regional development and rural urban linkages where limited rural growth (from mono-cropping, lack of diversity in the economy, leakage from the local economy) leads to stagnation in towns.

Douglass’ major contribution is that he sees rural regions as potentially a network of a diverse set of activities that do not need to be centered in a large urban center (in the manner of a growth pole). For example, based on the Indonesian cases that he studied, he found small communities of villages with long traditions and comparative advantage of different productive activities (pottery here, animal husbandry and milk there). A collection of them in a region, when

supported via government programs to not allow urban expropriation, is an alternative to a growth-pole style agglomeration. Such regional networks, in his framework are the locus for specific strategy.

Figure 5 Douglass' (1998) schematic presentation of rural-urban network



In several ways, the “regional clusters” offers a plausible framework. However, a framework still needs to a strategy to be translated into action. In addition, the process of globalization and rural de-peasantization has proceeded further since the 1990s. A rural development strategy in this second decade of the new century needs to respond to these changes.

3.4.11 Territorial Development Programs in Latin America

The Latin American Center for Rural Development (commonly known as RIMISP), established in 1986, has been instrumental in developing a general principle of rural development that in English can be translated as rural territorial development (RTD). The core of the principle has two cornerstones: (a) economic transformation, and (b) institutional transformation (Schejtman & Berdegué, 2004). Like most ideas, the proponents of territorial development model offered it in response to something that was perceived to have failed. Thus, to understand RTD we need to describe both (a) its core concepts, and (b) the model with which it is supposed to stand in contradistinction. The model RTD is supposed to replace, among others following features (from Schejtman & Berdegué, 2008):

1. Centered on agriculture alone,

2. Targeting of poor without taking advantage of non-poor agents,
3. Ignore the potential effects of strengthening rural-urban linkages,
4. Often ignores the heterogeneity of rural areas and suffer from “one size fits all” syndrome
5. Use project resources to compensate market failure that reappear after the project.

In response to above shortcomings, RTD is envisaged as having a component of productive transformation (meaning pro-poor production and distribution) of the rural territorial unit. As a condition for sustaining the productive transformation, the proponents also see “institutional transformation” as an indispensable component. The first element of institutional transformation is some form of devolution. These two transformations are described by

Productive transformation is a process of change in the prevailing production patterns in order to articulate the area’s economy with more dynamic markets in a competitive and sustainable way which means the introduction of innovations in products, processes and management. Institutional development as the process of configuring an institutional architecture has the objective of promoting the concerted action of local agents, both among themselves and with relevant external agents; and of changing the formal and informal rules that perpetuate the exclusion of the poor from the processes and benefits of productive transformation (Schejtman, 2009).

This general formulation of territorially based rural development meets several of the concerns that derive from analysis of poverty as emanating from social relations and institutions.

However, devil as they say, is in the details. From the perspective of planning for rural regions, the interest is in the details of how productive and institutional transformations are achieved.

3.4.12 Creation of Cluster

At its simplest, a cluster is defined as a spatial concentration of (mostly small and medium) firms of the same sector (Schmitz & Nadvi, 1999). In policy-making, cluster as a strategy is seen as a way to offer small enterprises in a sector to attain collective efficiency through positive externalities gained from being sited in close proximity. Some of the sources of such collective efficiency are opportunity to share information, specialized services required for production, and technical and administrative services aimed at the sector firms. This strand of literature evolved from a long-standing literature on industrial districts dating back to Alfred Marshal, who observed that industries in certain sectors over time can concentrate and form a “compound”

relationship. For him, such compound relationships happen through, among others, “growth of subsidiary trades”, “local market for special skill”, and “the use of highly specialized machinery” (Belussi & Caldari, 2009).

In the 1980s, several studies of geographic concentration of small scale firms in the same sector elevated clusters as a policy goal. The classic cases for clusters are all European, with a large number of Italian ones. Their characteristics such as common institutions to support marketing of all firms in the area, inter-firm cooperation, knowledge spill-over, and collective buying of inputs immediately became policy goals. One crucial aspect of clusters that gets less mention is the fact that the classic cases cited (e.g. the Third Italy in Piore and Sabel, 1984) are all spontaneously evolved, i.e. not created with any conscious policy. Creation of clusters through conscious policy, especially in the developing world is rather rare (Ceglie & Dini, 1999).

There are descriptions of clusters such as Sinos Valley shoe cluster in Brazil or garments in Tirippur and Ludhiana, India (cited in IDS Bulletin, Issue 21, 2004). In agrarian societies, many artisanal manufacturing and processing such as fish-drying, and rattan furniture making show the characteristics of being in a cluster, i.e. concentrating geographically while having common institutions and processes to create positive externalities for each firm. However, the question “can clusters be created with conscious policy” remain? One way to create clusters in the low-income countries has been the adoption of value-chain approach, where firms along a value chain are supported and connected with the hope that synergy would appear in the chain. The level of success of value-chain projects is nothing encouraging, even though some enterprises benefitted from the support from development NGOs²⁴.

3.5 A Sample of in situ Development Experiences

There have been certain success stories of *in situ* development and local cluster formation from around the developing world. A sample of the more celebrated ones are discussed here:

1. San Francisco Valley in Brazil agricultural cluster (cited in World Development Report 2008): A public institution provided irrigated land to smallholders, who were large

²⁴ Per personal communication with the project officer of a recently concluded value chain project by CARE-Bangladesh

enough in number to produce enough mango and grapes that could demand local processing of the fruits. The same institution also facilitated growers' association. The increased productivity and establishment of fruit-based value chains in the region (as opposed to export fruit to extra-regional destinations) helped increase the economic health of the region as a whole.

2. Marikina (Philippines) shoe cluster (from Scott, 2007): The Marikina shoe cluster near the northeast of Manila grew to be an industrial cluster through the geographic concentration of a large number of small firms that were vertically integrated to perform several stages of shoe production. However, with import liberalization in the 1980s, the shoe cluster gradually lost business to much cheaper Chinese imports.
3. Upper Valley of Rio Negro region in Argentina experienced broad based regional economic growth that did not leak out of the regional economy. The region had a fairly equitable land ownership. The building of a rail road, and promotion of the regional local government to the status of a province enabled growth that could be shared within the region, as opposed to being extracted out of the region by small number of extra-regional owners. The growth of the fruit agriculture created both backward and forward linkages within the rural regional economy (Vapnarsky & Manzanal, 1986).
4. Chiloe island (Chile) salmon industry that grew to be the second largest in the world but left out locals from benefits (Hayward, 2011).
5. Rafaela, Argentina (Center for Entrepreneurial Development) (Ferraro & Costamagna, 2000) in (Sanchez & Bisang, 2011) is not a rural region, rather a town that has risen to be one of the most renowned cases of local economic development. It is known for the success of the urban local government, with the help of a grant from the Inter-American Bank, in leading planning for the urban economy that featured public-private partnership-led growth as a major policy goal. While the success of such urban local governments is occasionally reported, the success of rural regional government in attaining growth is much rarer.
6. Upper Limari Valley in Chile experienced significant growth in the regional economy primarily through the growth of grape as an agricultural product (Gwynne & Ortiz, 1997). The growth happened as a result of the fact that grapes in this region could be harvested during the off-season in the North America. The growth was facilitated by government provided irrigation. However, it is instructive that with growth in the regional economy, many smaller farmers were forced to sell off their land as big operators attained more efficiency and could buy off the smaller producers. The region is still prosperous with prosperity leaving out significant portions of the population. Currently, climate change is threatening the regions suitability for grape production.

What is common to these experiences is that when forward and backward linkages within the local economy are present, they create a localized widespread growth. However, as the case of Marikina shoe industry points out, in a globalized economy an entire collection of industry can be jeopardized by cheaper production elsewhere (in this case China). Also, sometimes a

successful cluster of economic activities can find root while leaving behind a large number of residents, such as the Chiloe Island (Chile) salmon industry's growth did. Such growth is not rural regional development, as we defined here.

3.6 Outline of a Rural Regional Development Strategy

3.6.1 Rural Regional Development: Defining by contrasting

Schematically, we situated rural regional development between the overarching global forces and the local context (Section 1.6), and set out to explore the markers of rural regional development and the political and bureaucratic details of how planning for rural regional development might take shape. By requiring a synoptic view of the rural region, rural regional planning would require some form of government at the driver's seat. It is hard to imagine rural regional development happening without some conscious coordination at the least, if not downright planning from the government. The two other actors in the stylized triad of actors (namely, market and civil society) will likely not have the leading role. As discussed here, market under the contemporary forces of capitalism does not seem to instigate rural regional development in high-poverty areas. Civil society groups, while potentially crucial for regional development are generally too weak and under resourced in the low-income countries to take the leading role in regional development.

Available literature bearing the title of regional development or territorial development does not go far in helping identify the markers of rural regional development. For example, the content of a recent report by the Inter-American Development Bank is instructive here. It bears the ambitious title "Evaluating the Impact of Regional Development Programs: Impact Evaluation Guidelines" (Winters & Rubio, 2010). The report seeks to contribute to the field of program evaluation, a field that seeks measurable indicators wherever possible. The report however, could not go beyond identifying general principles for regional development in two areas of intervention: (a) institutional and (b) productive transformation. By institutional transformation it meant changes in governance structure (e.g. devolution), and "productive transformation" is used as an umbrella term to denote enhancement of the economy. Once seen this way, regional development becomes "productive investment combined with institutional transformation" (p 8). Across authors, the language to describe territorial development is remarkably similar. For

example, as discussed in Section 3.4.12, Schejtman & Berdegúe (2004 and 2008) define rural territorial development as comprising the same two broad goals. In Winters and Rubio (2010), the objectives toward the goal of regional development (such as “*The regional development program [needs to] identif[y] productive activities for investment from different sectors including both agricultural and nonagricultural activities.*”) are fairly general and do not include much detail. The lack of specificity of evaluative indicators in the report implicitly concedes the fact that there are multiple ways in which rural regional development can be conceived and take place.

While the literature on regional/territorial development do not allow much detail, broader literature discussed in Chapters Two and Three here leads further toward a framework for rural regional development. Before we assemble a framework and a strategy, it is perhaps useful at the beginning to determine what rural regional development is not. We propose that a program over a large area does not make it regional *per se*. Thus, a project to build schools or a livestock project across one or more districts does not make it ‘regional’ unless there are components aimed at capturing synergistic effect toward regional development. In short, *it is not regional unless it captures spatial synergy*.

Another essential element in the definition of rural regional development is, we propose, what Olfert et al. (2014) consider the definition of “place-based” policies: “geographically immobile public expenditures or investments in particular places or regions...” (p. 8). What is “geographically immobile” is not straightforward, and in certain situations cannot be given an operational definition. For example, a training program for some skill in a rural region can be seen as a way to enhance local human capital. However, if it is intended to prepare rural people for a job in a city the training program is not geographically immobile, and is not a rural regional development intervention.

With these key characteristics of rural regional development in mind, we propose a policy model for rural regional development. As has been evident in the literature on territorial development, neo-endogenous development, and regional development, it has not been easy to find out a strategy beyond some vaguely worded milestones toward rural regional development. As we identified, such milestones include: (a) Focus on territory not some sectors, (b) take advantage of

local resources, not least of which is social capital, (c) ensure local participation, and (d) design appropriate institutions at the local level.

3.6.2 The Three Cornerstones of RRD

Such general statements are agreeable and offer a starting point. However, to move further toward a strategy of rural regional development, we propose three key conditions of an approach to rural regional development. Figure 6 and Table 3 below summarize the key cornerstones or conditions of what would constitute rural regional development. An approach or a set of cornerstones, however, is not a strategy. Nevertheless, we propose these as the guiding lights for rural regional development strategy.

1. Increase productivity in the rural regional economy
2. Maximize capture of multiplier effect of local economic activities
3. Eliminate or bypass the institutions and customs (such as debt bondage, exploitative terms in sharecropping) that prevent redistributive justice.

We describe each of them below.

1. Increase productivity in the rural regional economy

Rural regional economies are stagnant in much of the developing world. While growth does not automatically equate with poverty alleviation, there is a need for raising the economic productivity in the rural regions. As we argued, low-income countries often do not have an urban based sector (manufacturing or service) that can allow for massive transfer payments to rural regions (c.f. recent success stories such as South Korea, especially Saemaul Undong; Japan, and Malaysia). The rural regions themselves need to contribute to growth. Furthermore, often densely populated, the rural regions in the low-income countries have large enough population, even though there is not enough aggregate demand in the rural regions because of the current low purchasing power of the poor. Transfer payments, when not contributing to local economic growth, cannot sustain local productivity.

In the process of pursuing growth in the rural regions, an option that is often ignored is the possibility of intra-regional trade. The current mantra in development policy and practice is export of one or more rural products. For example, development NGOs and/or government

projects will often help with export of a rural product to big cities and/or developed countries (as in PARUL in Indonesia discussed in Section 3.4). In the absence of other options, such export can be an effective way of increasing the income of a substantial number of households, if such operation can ensure a fair deal for the poor. However, such income in one product chain needs to have a local economy-wide effect.

The hypothesis of fractal poverty trap (section 2.3) is important here. As stated in the hypothesis, bringing one scale (e.g. household) to a higher equilibrium is hard if the higher scale (the rural region) that the household is a part of is at a low-level equilibrium. The classic debate of “Big push” of Rosenstein-Rodan (1943) vs. “unbalanced growth” of Hirschman (1958) is relevant in the case of rural regions. The “Big Push” in the case of a rural region might include simultaneous and coordinated investments in health, education, skills training, finance and physical infrastructure. “Unbalanced growth” would mean concentrating investment in one or a few intervention areas and expect that through linkages growth will spread to other sectors. Our reviews (section 3.5) suggest that there might be instances of both happening in the past. However, a crucial element is retention of multiplier, which we list as the second key dimension of rural regional development.

What would “Big Push”, in the sense of creation of increased economic activity based on increasing returns resulting from coordinated interventions, look like in the rural regions in the low-income countries? Potential list of economic activities includes both taking advantage of existing economy and introduction of new ones. Literature on rural industrialization, once a thriving field, has dried up in recent years. Some of the strategies we can surmise are:

- (a) promoting indigenous pre-existing economic activities, including manufacturing, that because of some bottlenecks are not prospering,
- (b) taking advantage of global value-chains if it represents a just deal for the rural regions and firms or households undertaking them. As we pointed in our review of contemporary rural reality, often the producers based in rural areas get into exploitative relationships with city-based or international corporations. However, recent developments have seen fair-trade certification, albeit benefitting a small number of rural regions,
- (c) where applicable, help increase productivity in agriculture, pisciculture, and livestock.

One common mode of development activity is to help farmers and peasants with increasing productivity of the crops they already cultivate, or incentivizing the ones that are important for national economy. However, cropping pattern does not have to stick to historical patterns of an area. Certain agricultural practices, such as floriculture have appeared in rural regions where historically there was no such practice. Judging from the experience of Bangladesh floriculture is not just a peri-urban phenomenon. Much of the country's flower production takes place in rural regions far away from Dhaka City, the country's largest center of consumption. Such examples of successes, often promoted as best practice, in growth in local economy so far appear to be serendipitous. As is the case with best practice literature it is hard to decipher a pattern and theorize.

2. Maximize capture of multiplier effect of local economic activities

As a statistic, local GDP masks the extent of retention of multiplier because it does not account for the leakage from the rural region. A rural region with high productivity can still not see much prosperity if the land there is owned by absentee owners. Likewise, a natural resource rich area can have high poverty if the income resources accrue to people or entities outside the region. For rural regional growth to happen, retention of most of the multiplier effect within the rural regional economy has to happen. Such retention can happen only through a set of tightly knit forward and backward linkages of local economic activities and enterprises. When linkages exist, multiplier effect is retained in the rural region. When a cluster forms (Section 3.4.12), multiplier effect gets localized.

However, cluster is not the only way to retaining linkages. Ensuring just wage or share of value-added for rural households and firms can itself ensure a larger portion of the value-added retained in the rural regional economy.

3. Eliminate or bypass the institutions and customs (such as debt bondage, exploitative terms in sharecropping) that impoverish the poor

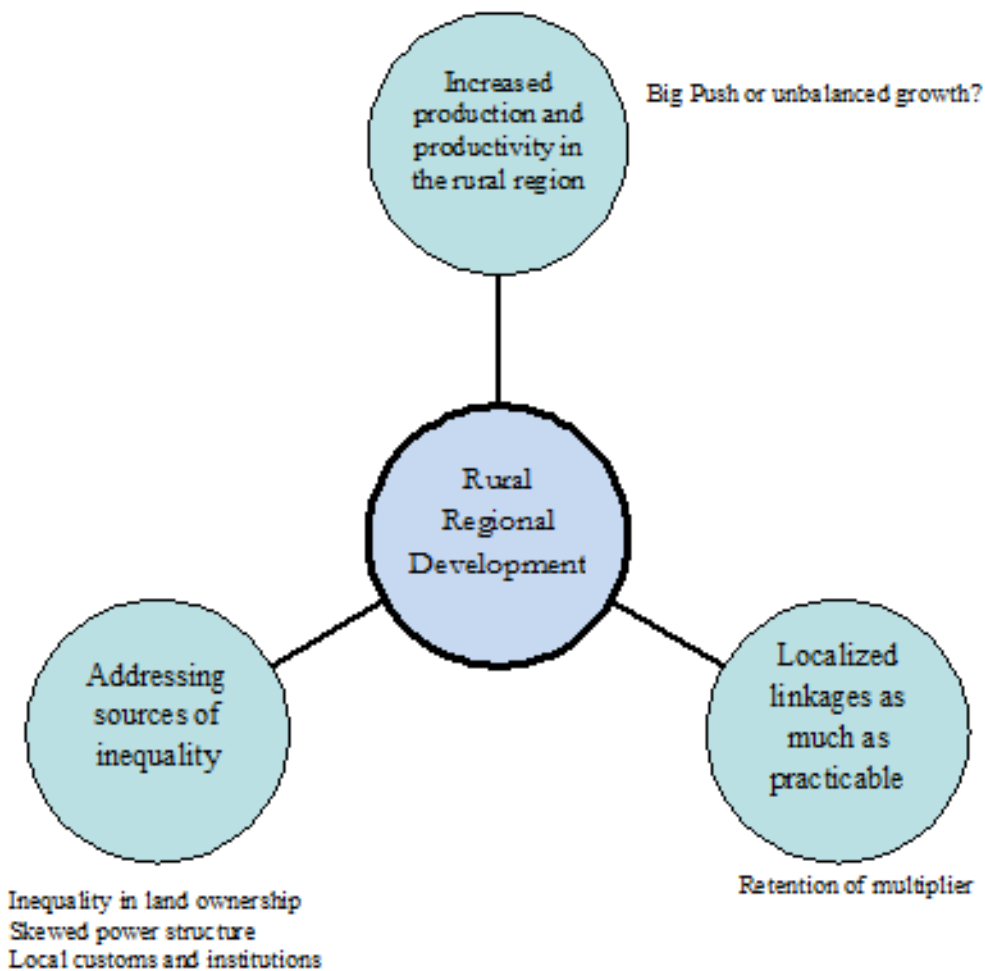
In terms of poverty alleviation, the most important cornerstone of rural regional development is perhaps removal of exploitative relationships. Such exploitative relationships can result from two sources. There can be inequality because of presence of local power elites within the rural region, or, there can be outside elites or corporations with control over the resources and

production process in the local economy. Does existing literature offer any insight into how exploitative relationships can be redressed? Experience has shown that infrastructural provisions alone almost never redress these relationships. As observed after studying the same area and households in western Nepal 20 years apart: “[S]tructural forces which generate exploitation, oppression, and disenfranchisement” cannot be removed by infrastructural provisions (such as roads) alone.

This key dimension of poverty alleviation and consequently, rural regional development is rarely addressed in contemporary development practice (Section 2.4). Is there a way to bypass this constraint and still achieve poverty alleviation? Perhaps one way to by-pass the pre-existing inequality in access to assets is to help create new economic activities that can create new assets, the distribution of which can be impacted by policy towards a more equitable pattern.

The right-based approach by itself is unable to translate into significant economic gains for the disadvantaged. The case of South America is instructive here. South America saw several major social movements, some ethnically-based, in the last two decades. A review of five social movements of different interest groups (family farmers, indigenous people, stake-holders in a dam project, rainforest conservationists) leads to the conclusion that social movements do significantly less for economic inclusiveness than political inclusiveness (Bebbington, Dharmawan, Fahmi, & Guggenheim, 2006). In other words, social movements lead to increased access to political processes and even reform in the political and bureaucratic institutions. However, changes in the economy in ways that benefit the poor are harder to achieve. Political inclusiveness is a necessary, but not sufficient condition.

Figure 6 Three cornerstones of rural regional development



What kind of planning will achieve these three cornerstones? There is enough experience in the literature to suggest that all three must be pursued simultaneously. To cater to one, we cannot hinder the advancement of the other. For example, raising rural productivity through plantation mode of agriculture can show aggregate productivity increase for a rural region. However, the leakage is typically high in plantation mode of production, and the second cornerstone of “retention of linkages” is rarely achieved. In a world oblivious of spatial dimension of development, and skeptical of RRD, is it possible to demonstrate instances of all three happening in any part of the world? Some of the examples of in situ regional development discussed earlier

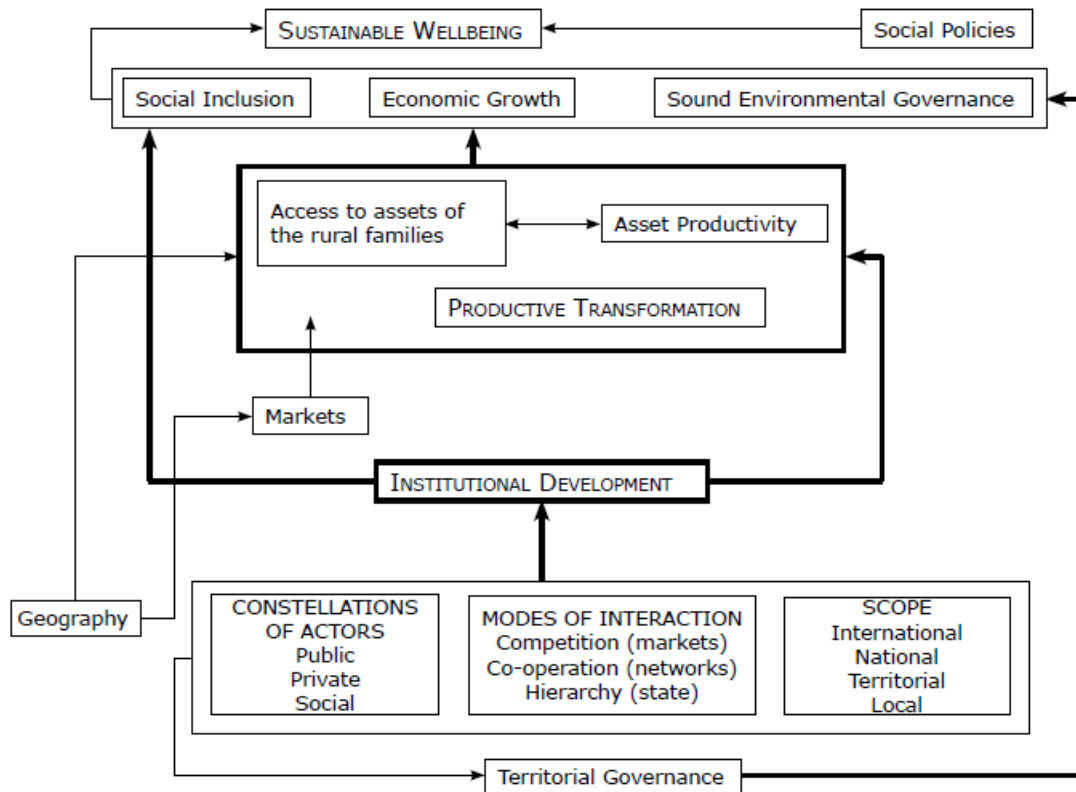
in Section 3.5 offer some insights. However, thoughts and insights must be put together into a strategy for RRD.

3.6.3 Toward a Strategy for Rural Regional Development

One of the reasons why rural regional planning (as opposed to sectoral planning or planning at community scale) is important is that it allows creating complementary set of actions toward a synergistic effect within a rural region. This spatial synergy is rural region specific, and cannot be described *a priori* or independent of context. For example, constructing a small boat landing station in a village of poor fishermen can complement the act of offering them loan in eliminating the institution of debt-bondage. Without the boat landing station, the fishermen cannot break free of the power elites in existing boat landing stations some distance away even if they get some operating capital. Because of such region-specific nature of synergy, a general strategy must stay fairly abstract and at the level of concepts.

The conceptual models of regional/territorial development proposed so far in the literature implicitly use rural regions as the unit of analysis. With regions as the unit of analysis, variables in the framework are attributes of the region. A conceptual framework by RIMISP, reproduced below in Figure 7, illustrates this point. In this conceptual framework for rural territorial development, examples of variables include (a) actors (the categories of which are public, private and society), and (b) geography as an umbrella term for both distance and bio-physical characteristics. Such conceptualization is useful and necessary. However, we propose that it needs to be complemented by frameworks using other units, such as households, and communities in the rural region. We hypothesize that a complementary framework that is built from households as the unit of analysis is also needed. However, just the way in physics, where quantum theory and relativity have not been brought together into one theory, household level frameworks (the most well-known of which is the Sustainable Livelihoods Framework) have not been combined with region-scale frameworks. The result as seen in the contemporary development practice is that household-based interventions such as micro-credit and skills training position themselves within the structural, institutional, and infrastructural setting of the community and take it as given. While “regional” projects, which have been few and less funded, become some regional sectoral project.

Figure 7 A framework for rural territorial development by Scjeitman and Berdegue, 2008



Source: Rimisp on the basis of Rodrik (2003) and Pütz (2006).

We might approach a strategy for rural regional development by venturing an answer to the question: What needs to be done to bring about the three cornerstones of rural regional development? To venture an answer to this question, one point to start is the household. As identified in the reviews of Sustainable Livelihoods Framework and geographic trap, household level assets and vulnerabilities condition the livelihood outcome for the households. However, households are not homogeneous in occupation, or asset ownership. Regional planning needs to cater to this diversity of interests and values.

Intervening in regional level variables such as decentralization, or road building has been found to miss the fact that households of different social power and asset profiles benefit differently. Community building at smaller units such as villages can cater to such needs. However, community building is rarely practiced in the mainstream. Only the rarely funded “rights-based” projects in radical movements design their interventions at the level of communities. Rural

regional development stands to benefit from explicit consideration of the communities within the regions while pursuing the region scale interventions. Understandably the capacity of the communities to participate in the political processes varies. Often there is apathy, resignation, and fatalism that keep communities from participating. What builds capacity, and unleashes the power of the community is inadequately understood. There are success stories such as the Saemaul Undong described here. Despite useful studies (such as Bebbington et al., 2006), where capacities of different communities are compared with an eye on theorization, there is little theory. May be the phenomenon is diverse enough to prevent a generalized description (which theory essentially is). However, in a given region, the capacity of communities to participate in the planning of the rural region remains relevant in its development.

We conducted our literature review up to this point with an eye on what worked and what did not. It would appear that there is no fixed ingredient in the recipe for rural regional development. Case studies of road projects, which is a popular intervention, suggest that road construction is neither a guarantee of poverty alleviation, nor a harbinger of disaster for the poor (Hettige, 2006; Bryceson, Bradbury, & Bradbury, 2008). Other policy tools such as decentralization or devolution has so far rarely led to rural regional development. However, that should not be taken to mean that decentralization is not a necessary tool.

With no set ingredient to rural regional development, it is tempting to subject the strategy of rural regional development to a salad analogy, meaning that no ingredient is a must, and infinite combinations of possible planning interventions are possible. However, probably a nutritious meal metaphor is more appropriate in the sense that certain nutritional values are required (carbohydrate, protein, vitamins, hydration, fat, fiber), whatever source they come from. For example, redistribution of land via land reform is politically untenable given the current political climate around the world. However, some form of tenancy arrangements help with creation of household assets as well as creates the environment for retention of multiplier that plantation mode of production cannot. While political devolution has not happened, some organization is needed that takes a synoptic view of the rural regions in planning interventions for the development of the rural region. Some form of assistance with household asset creation is important. However, financial assets (specifically micro-credit) need not hog all the attention when tools are considered.

We identify some of the conditions to simultaneously achieve the three cornerstones identified here.

Table 4 Key Dimensions Rural Regional Development Strategy

Key dimensions of the strategy	Impediments	Possible ways to achieve the key dimension	Roles of Governments at different levels	Possible indicators of success
<p>Increase productive activities in the rural regions that help increase income of residents of the rural region</p>	<p>Global investments stay away from all but a few regions in the world.</p> <p>Remittances finance consumption, but rarely lead to investment in enterprises of any kind, agricultural or non-agricultural.</p> <p>Rural areas often lack infrastructure sometimes resulting from historical government policy (urban bias).</p> <p>The logic of polarization.</p> <p>“Backwash” effect</p>	<p>Two stylized alternatives: (1) Big push, or (2) “thrust sector/pressure point”?</p> <p>Economic activities (both manufacturing and services) that take advantage of local resources (that include (1) local natural resources, (2) local traditional skills, (3) civic association, both local and or of migrants’ such as home town associations)</p> <p>Being part of global value-chains</p>	<p>For the advanced capitalist countries, there is a policy package called cluster advocated for regional competitiveness (within the framework of neoliberal economic policy). There is scant literature on how clusters can operate in less industrialized nations.</p> <p>Removal of impediments to creation and sustenance of firms. Sporadic success stories show multiple ways by which enterprises were created.</p>	<p>New enterprises</p> <p>Higher per capita income</p>
<p>Retention of multipliers</p>	<p>Short forward linkages of most crops.</p>	<p>When forward and backward linkages of</p>	<p>Facilitation of producer associations.</p>	<p>Proportion of economic</p>

<p>Linkages within the rural region</p>	<p>Significant local production accruing to absentee landlords</p> <p>Value-added is not high.</p> <p>Diversification of product has not happened.</p> <p>Even when value-added happens in the rural regions, the reward (i.e. price or wage) is too low (e.g. in contract farming), and most risky part of the value chain takes place in rural regions.</p>	<p>the farms and firms are significantly with other entities within the rural regions.</p> <p>Producer associations (for both production and marketing)</p> <p>Rural manufacturing and processing</p>	<p>Incentives for activities in forward linkages to be sited locally.</p> <p>Facilitation/creation of local demand.</p>	<p>activity in intra-region trade</p> <p>Extent of forward and backward linkages within the region</p> <p>Extent of value-added in the region</p>
<p>Addressing local power structure/Redistributive justice</p>	<p>Historical sources of exploitation (e.g. skewed land ownership, caste system)</p> <p>The rise of the local political elites (often the same as historical landed elites) with the help of the post-colonial states</p>	<p>Alternatives to traditional sources of rural power (such as land) to be created.</p> <p>Cooperatives.</p> <p>Governance reforms and rights based community mobilization</p>	<p>Often devolved government at the level of rural regions is emphasized (e.g. the recent territorial development in Central and South America). Devolution can mean less access to central government resources. Furthermore, in many countries there is often no government between municipality and national sovereign government. Building a political culture of planning and accountability at rural regional level can take years. Should rural regional development efforts be postponed until then? Or the idea of RRD can bring about a political change in the locality? This is an empirical question.</p>	<p>Level of participation of the disadvantaged people in both political sphere and economic activities</p>

It is hard to provide specific details of a strategy for rural regional development in a general framework. The economic, bio-physical, social and political contexts are too diverse for that. Therefore, it is appropriate that a case of rural region is studied in its context to elucidate some of the processes deduced from literature. Given the issues examined so far, and the outlines of the strategy of rural regional development identified in this section, we outline a framework to analyze a rural region: what to explore and how to investigate the relationships between issues and factors in the rural region.

3.7 Rural Regional Development: A Framework for Policy and Analysis

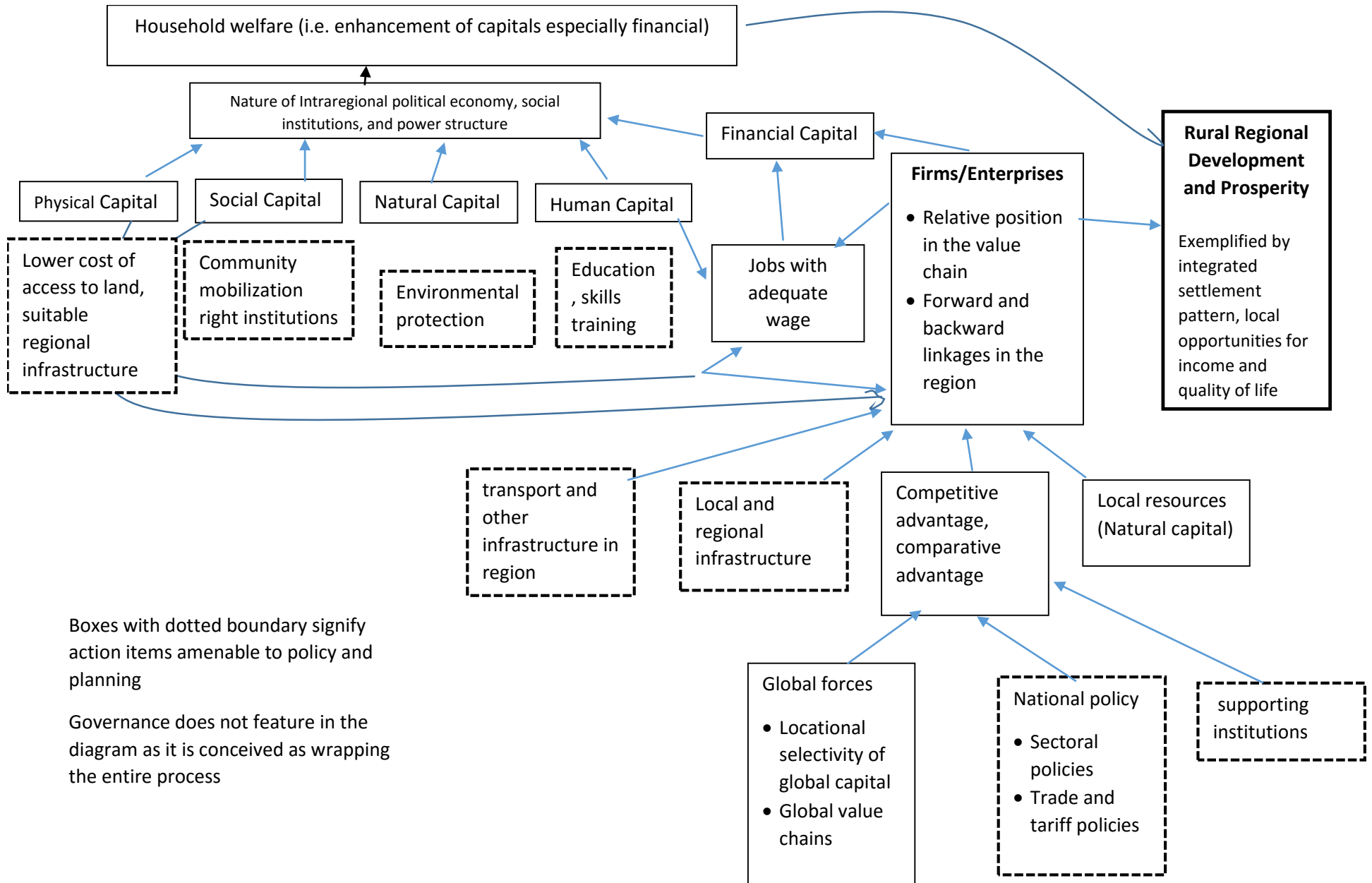
With the insights from the preceding information, it is possible to put together a framework to explain RRD. Such a framework will also help analyze a rural region. For an analysis, a case study method is appropriate because the phenomenon of interest (i.e. rural regional development) is context dependent (Yin, 1989). Households are the units of welfare, intra-household political economy notwithstanding. With households at the center, an analysis of rural regions then becomes a study of (a) how a rural region, and the communities within them become a filter to or reservoir of outside forces, and (b) how rural regions condition the level of welfare of the households.

Borrowing from the Sustainable Livelihoods Framework, it is useful to start at households' ability to sustain a livelihood. Such ability, as outlined in the sustainable livelihoods framework is conditioned by household assets and vulnerabilities. As discussed in section 2.1, vulnerabilities can be seen as results of intra-community social relations such as the ones growing out of unequal land ownership in agrarian societies. It can also result from the vulnerability of the rural region as a whole in the face of global and national forces (Section 3.1). Rural regions are not homogeneous entities with common interests among all residents. The intersection of intra-regional political economy and extra-regional forces such as national (*de facto*) policies and global economy define the nature of vulnerability and opportunities of the households in the rural regions.

Understandably, each rural region is unique. How the general framework in the figure on the following page plays out can vary from one rural region to another. The framework will offer a direction as to what data to collect. As Figure 8 below shows, the development of a rural region

needs to be seen as a complex process. It needs a collection of mini-frameworks to be brought under one large framework. In doing so, it will lose parsimony. However, rural regions at this moment in history, if ever, do not lend themselves to single variable explanations

Figure 8 A framework to analyze rural regional development



Overall, rural regional development needs to be seen as a global-local process. On the global side, the specifics of how the global forces manifest in a rural region of interest is important. As identified here, processes to be analyzed are global commodity chain, national policies, and participation in national and global markets (including labor market). On the local side, we need a framework to analyze local political economy. With our interests in historically agrarian rural regions, the exploration of political economy involves study of agrarian institutions under advancing capitalism. From planning and policy perspective, a substantial part of the analysis needs to go to the ability of the communities for change. The case study was guided by all these considerations.

Chapter Four: A Case Study of a Rural Region

Based on a review of literature, we identified the cornerstones of rural regional development, and a framework for RRD. One of the objectives of the study was to gain insights about the framework, and the nature of rural regional planning in a concrete case. To do that we chose a study of a rural region to explore how the ground realities of a rural region in Bangladesh match the framework we assembled in Section 3.6. In that sense, this study is a case study aimed at “theory testing” (Yin, 1989). However, because of the expansive focus of this dissertation, the study of the case is less rigorous. As pointed out in the previous chapter, instances of successful rural regional development in high poverty agrarian areas is rather rare. Some of the supposed region-wide success stories (such as Rio Negro valley, Limari valley in Chile, or the city of Rafaela in Argentina in section 3.5) are often that of increase of regional GDP with far less success in poverty alleviation. In other cases, growth in the production in rural regions are not on a steady foundation (e.g. the Marikina shoe cluster in the Philippines lost to competition from China). Therefore, learning from success is rather hard as finding successful RRD in the recent past is hard. We chose a rural region to study that experienced some poverty alleviation in recent years, and has connections to the global economy (in this case mostly to the global labor market), and has been de-agrarianizing.

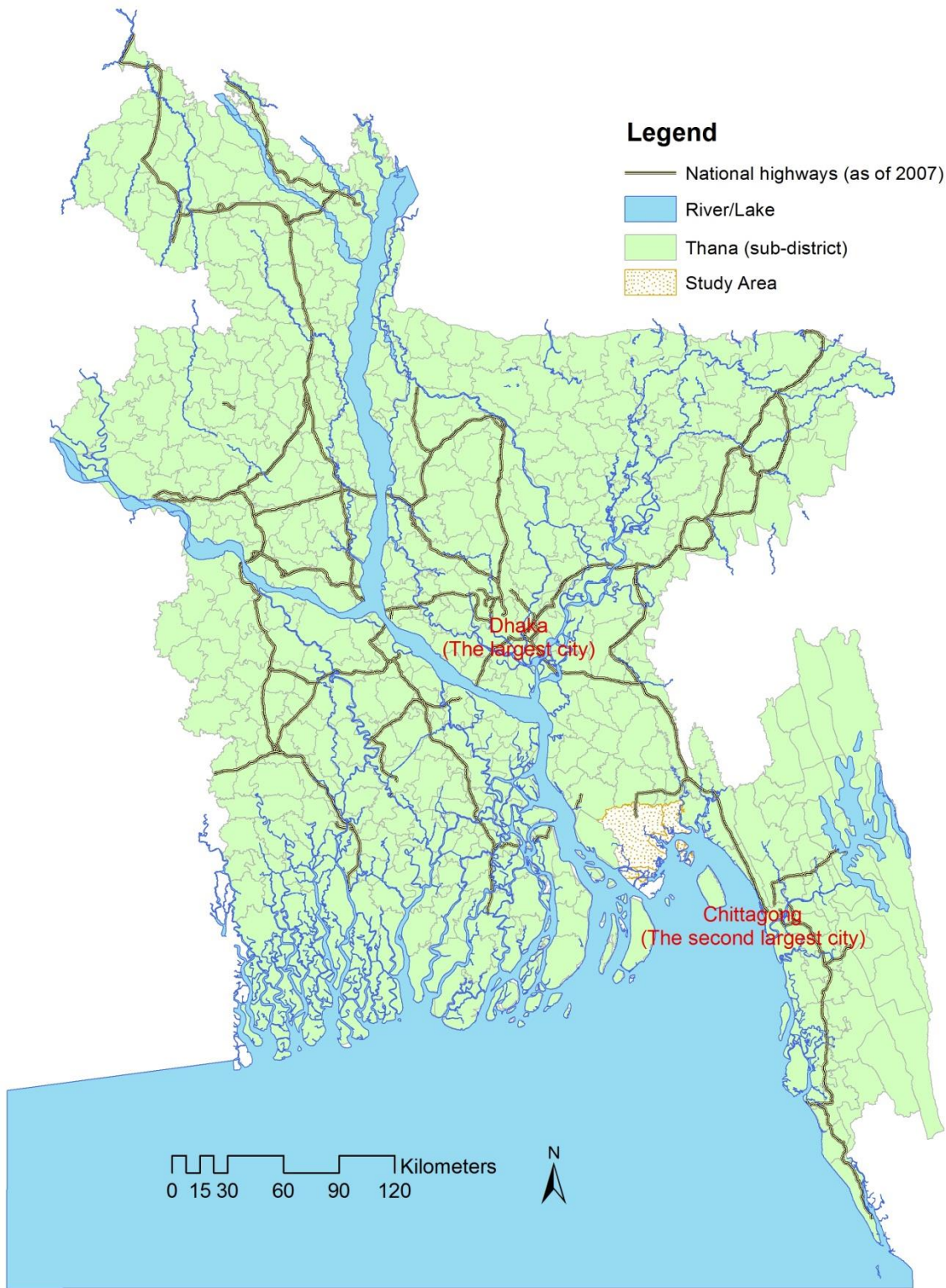
4.1 The Study Region

The study area comprises the southern 4 sub-districts of the district of Noakhali in Bangladesh. The district is one of the 64 administrative districts of Bangladesh. It is in the southeast of the country, roughly 40 miles off the highway connecting the two largest cities in the country (namely Dhaka and Chittagong). The southern four among the eight sub-districts of Noakhali are chosen as the rural region to study. The study area comprises roughly 570 square miles. There are three municipalities. However, one of them, Kabirhat municipality was declared a

municipality only in 2009, and with a population of only 14000 in an “overbound”²⁵ urban area, looks at best like a large rural market. To be coterminous with government offices and units of statistical aggregation, four contiguous *upazilas* (sub-districts) around the municipalities were chosen as the case. These *upazilas* are Noakhali Sadar, Kabirhat, Companyganj, and Subarnachar. While delimiting a “local economy” is not an exact science, the four sub-districts can be seen as a rural region where three municipalities and the contiguous area surrounding them make a large enough area for a local economy.

²⁵ An urban area whose official boundary includes large areas of rural character is called “overbound”.

Figure 9 Map of Bangladesh showing the rural region studied



4.2 Brief Description of the Research

We study this rural region in Bangladesh as a case to possibly gain some analytic generalization about the process of rural regional development, and offer some thoughts on the nature of planning for RRD. To get to what hinders or promotes development of rural regions in such a setting, we use the following empirical questions as a vehicle to explore, and subsequently arrive at some general descriptions about rural regional development:

- How are the assets and vulnerabilities that condition household livelihoods produced?
- How are the households of different levels of asset ownership and occupations conditioned by the characteristics of their immediate communities and of the rural regions (such as infrastructure, bio-physical characteristics, and economy)?
- Through what channels is the rural region's economy impacted by policies and spending of the state? How does the rural region interact with the global processes such as global migration and commodity chain?

Each of the above questions requires its own research. The research design in the sense of "...the logical sequence that connects the empirical data to a study's initial research questions and, ultimately to its conclusions" (Yin, 1989) for each of the first three researches is briefly described below. By answering these questions with both field and library research, we offer an answer to the overarching questions set out in the introduction of this dissertation.

Research method-wise, the research is designed to be what in the field of research methodology is called "case study" in the way defined in a seminal book by Robert K Yin (1989). A short note on case study is pertinent here: When the phenomenon under study is so intertwined with its context, it is difficult to subject it to a quantitative estimate and design a study to control for contextual variables, as is often done in agricultural field trials or in clinical research. Rather by analyzing a case discursively within its context, generalizable lessons emerge. For example, the well-known book *Street Corner Society* (1943), cited in Yin (1989) is based on a case study of one neighborhood and inter-personal relationships therein that provide great generalizable insights into how low-income youth move up or down in life.

With the power of such case study in mind, the three studies toward the goal of this dissertation are:

- (a) *Study of globalization and the state of Bangladesh:* a library research was conducted to study the contemporary processes of globalization, the *de jure* and *de facto* policies of the state in Bangladesh.
- (b) *The physiography, economy, history, demography and infrastructure of the rural region,* as well as the development efforts of both government and civic associations. Government statistics, maps, and historical documents were consulted, and field visit, interviews of knowledgeable residents, community leaders, and elected officials were conducted.
- (c) Survey of households and businesses with their livelihoods, assets, and vulnerabilities as the focus of inquiry.

A brief description of the three studies follows.

1. Study centered on globalization and Bangladesh: Following topics were reviewed through library research:

- (b) Experience of structural adjustment policies (privatization, withdrawal of subsidy from agriculture)
- (c) Bangladesh economy in global commodity chains (such as ready-made garments)
- (d) The State in Bangladesh (system of governance, state of decentralization/devolution, politics and civic engagement)
- (e) Major policies of interest (agriculture, land, industrialization, environment)

2. The Study Centered on the Rural region

Following topical areas were the subject of library research:

- (a) Demography
- (b) Political and governance system
- (c) Infrastructure and economy
- (d) Existing literature with the case study rural region as the geographic subject of interest.
- (e) Review of the development projects in recent years

3 Household survey

To get an insight into the assets and vulnerabilities of households and businesses in the rural region, a semi-structured survey of households was conducted for each of the following categories: (1) Landless and smallholder households with no income from outside the locality, (2) Landless and small-holder households with significant income from outside the rural region,

(3) Middle farmers with no income from outside the rural region, and (4) Middle farmers with significant income from outside the rural region.

With four sub-districts, the above four categories mathematically give 16 categories. But as it turned out the households in the northern areas of the study area have similar asset profiles and perceptions, while in the southern parts, especially in the areas that accreted within the last 50 years, there was a different asset ownership structure, and livelihoods profile. Figure 10 maps two important proxies for household welfare: (a) housing condition, measured by the construction material of the structures, and (b) proportion of households with electricity connection.

Figure 10 Percentage of households with electricity and concrete or brick and mortar structure

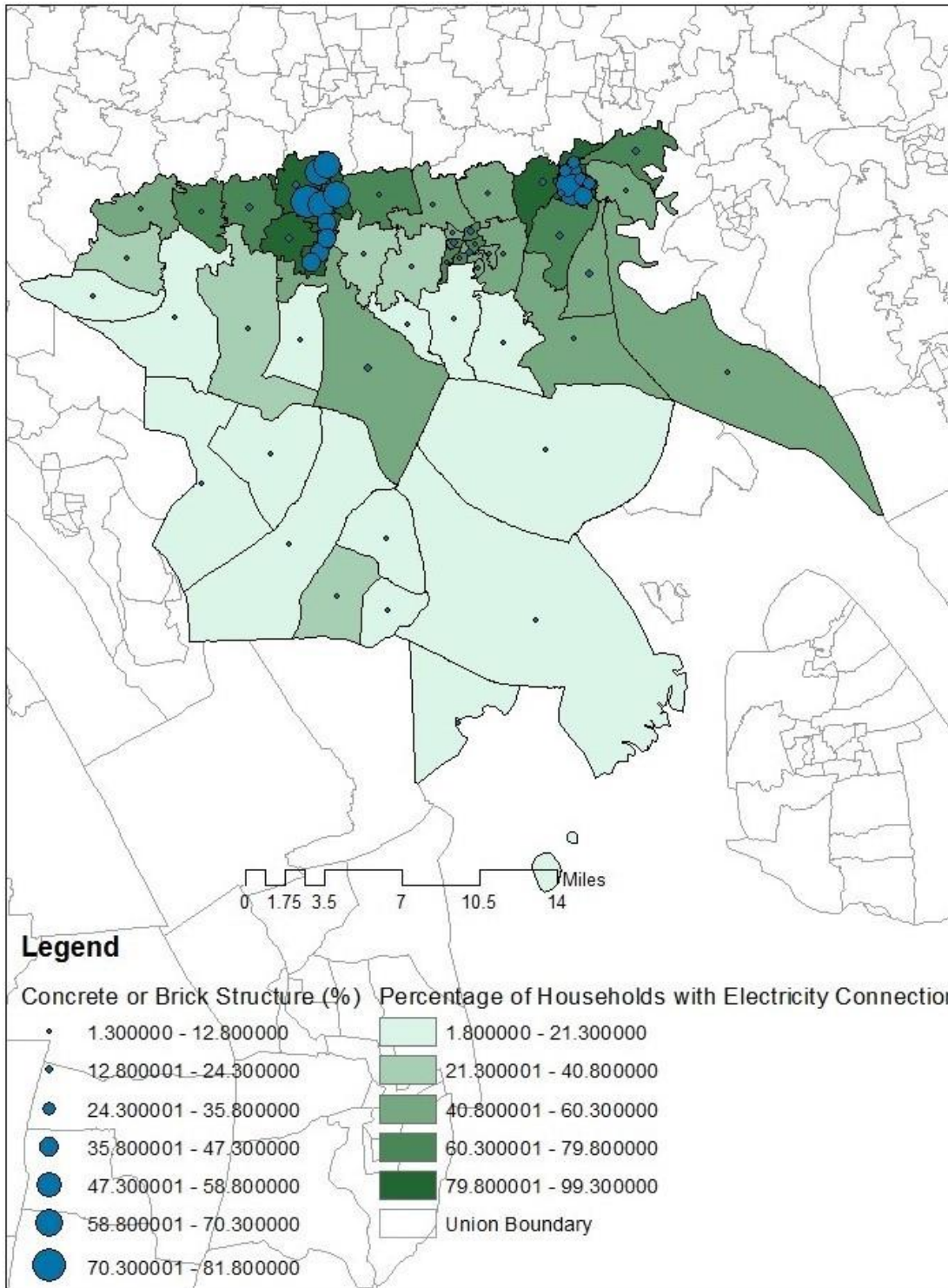


Figure 10 shows there is little difference between sub-districts. Field interviews and observations also suggest livelihoods profiles of the four categories vary little from one sub-district to another. Hence, instead of describing 16 categories (4 sub-districts X 2 land ownership categories X 2 principal locations of livelihoods), we describe the four categories of households in Section 6.6.

For each of these categories, we interviewed 15 households from each of the four sub-districts to understand the interaction of household livelihood decisions and outcomes with the community and rural regional variables. Our purposes do not call for any precise estimation of any statistic (such as, to choose one of dozens of variables considered in the study, proportion of farmer selling to wholesaler), and therefore no probability sampling was used. We did a purposive sampling that snow-balled. The interviews were complemented by cross-check with observation and interview of neighbors.

In addition to the rural households, 5 households each from Maijdee and Bashurhat towns were interviewed. The households were selected from different neighborhoods of the towns.

The research also made use of survey of businesses, their linkages and mapping of commodity chains. Interviews of political leaders, local journalists, and bureaucrats helped gain further insights.

The field research was conducted over 4 months beginning in October 2011. Further interviews over phone were conducted in the succeeding 2 years.

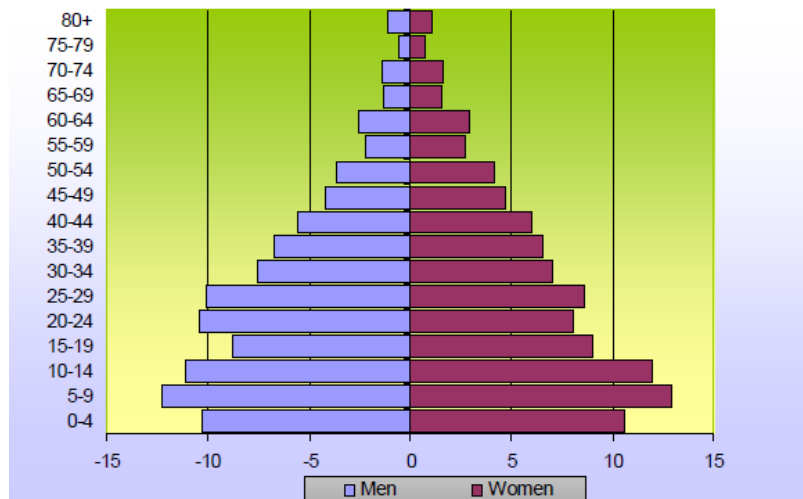
Chapter Five: The State and the Economy in Bangladesh

5.1 Environment and Population

Mostly a deltaic land mass, Bangladesh with an area of 56 thousand square miles is generally flat with approximately 10% of the landmass in hills. Three major rivers, the Ganges, the Brahmaputra-Jamuna and the Meghna flow through the heart of the country into the Bay of Bengal. Historically, this part of South Asia always had high population density, mostly due to the high soil fertility that could provide for a dense population.

The adjusted populations in million in the last four censuses were 89.9 (1981), 111.46 (1991), 130.52 (2001), and 142.32 (2011). The country historically has had a high growth rate of population. The crude birth rate (number of live births per 100 population) in the 1980s and 1990s went down. However, growth rate is still 1.2 (in 2013), and with a large base, even such reduced growth rate means that more than 1.73 million people are being added to the population every year.

Figure 11 Bangladesh Population Pyramid (2011)



Source: Reproduced from BBS (2015, p. 12)

With such high population figures for a landmass roughly the size of the U.S. state of Iowa, Bangladesh always had the world's highest human-land ratio (trailing only city-states such as Singapore). Sixty percent of the land mass in the country is used for agriculture, which is way higher than the corresponding figure for earth as a whole: 35% in 2000 (Ramankutty, Evan, Monfreda, & Foley, 2008). Over the years, the net area under cultivation has steadily decreased due to conversion from agricultural to settlements and infrastructure. The estimate of the extent of loss varies. Estimation by the Planning Commission (2009) puts it at an alarming 1% annual loss. The Soil Resources Development Institute (Hasan, Hossain, Bari, & Islam, 2013) however estimates that between 1976 and 2000, the annual loss was 0.137% (13,413ha per year), and between 2000 and 2010, 0.728% (68,760ha per year). Even taking the lower end of predicted population growth rate of 1.2% over the next decade, and because of the absence of any laws²⁶ preventing conversion of agricultural land to homestead or other non-agricultural use, the country is projected to continue to lose agricultural land in the near future.

Bangladesh is also considered one of the most vulnerable countries to sea level rise and climate change. Close to 17% of the land mass of the country is less than 1 meter (3.78 feet) above the sea level. The country is one of the most ecologically sensitive ones in the world. In the recent decades, salinity has increased in the southwestern part of the country, partly because of reduced downstream water flow resulting from a dam built on the Indian side of the river Ganges (Padma in Bangladesh). Estimates vary, but experts believe that 3.7 million acres of land in the country are now affected by varying degrees of salinity. Recent economic growth and poverty alleviation has come with significant harm to land, drainage, air and soil quality, and ecological resources.

No comprehensive report of the state of environment was published since 2001. However, there is one phenomenon that works as an indicator of the quality of environment in the new century: Brick making in kilns. There is a construction boom underway since the 1990s. In the absence of stone aggregates and other alternative building materials in the country, brick is the construction material of choice for a variety of uses, including as aggregate in concrete mix. The high demand for brick has been met by increasing number of brick fields (kilns and storage space), almost all

²⁶ There is a rural land use law under consideration by the cabinet.

of whom were built on land converted from agriculture. The growth of the Bangladesh economy in the 1990s has also been accompanied by growth of brick fields. In 1990-91, “bricks and tiles”²⁷ as category was not even in the top ten 4-digit industrial categories in terms of value-added and employment. By 2005-06 it was in the top three behind the more well-known woven and knitwear sectors with a 7.1% share of the industrial value-added, and 5.7% of the industrial employment²⁸. There are some 5,000 brick fields in the country. In violation of laws, they have cropped up in the middle of crop fields, next to children’s schools, and not far from homesteads. The brick kilns are harming air quality to unhealthy levels. To meet the demand for clay, brick field owners are buying top soil from the farmers jeopardizing the fertility of the agricultural land. While the construction sector and service sector is registering high GDP growth, it is /coming at some cost to the environment. Another major growth area is saw mills. There is no government statistics on how many of them are in the country. However, newspapers report of them emerging close to the forest borders is common, even though they are not supposed to get a permit unless proposed to be located at least 10 km from the forest borders.

The growth of saw mills, and brick kilns at random locations should be taken as a warning sign that the growth experienced in the recent years is not on a robust footing.

5.2 Land Ownership

The land ownership pattern in the country bears the imprints of colonial history, as well as policies of the governments that came in the post-colonial period. Some changes brought by the colonial bureaucracy in the sub-continent still have profound impacts on the economic, social and political life in Bangladesh. The British East India Company gained political and military control of Bengal following the Battle of Plassey in 1757²⁹. As was the experience of colonies around the world, South Asia’s economy and political and governance institutions were re-

²⁷ Bangladesh Standard Industrial Code: 2692.

²⁸ Source: Census of Manufacturing industries, 1990-91 and Survey of Manufacturing Industries, 2005-2006, cited in Ahmed, Bakht, & Yunus (2011), p9.

²⁹ After an armed revolution against the rule of the Company in 1857, the sub-continent was taken over the by the British government.

oriented at the service of the colonial interests. In Bengal, they found expression in following ways:

1. Becoming a food basket for the bureaucracy and the army of colonial administration,
2. Producing cash crops such as indigo (until economically feasible synthesis of indigo was perfected in the late 19th century), and jute,
3. Providing a tax base mostly by taxation of peasants. To keep tax collection efficient, in 1793, the colonial administration put in place a system, known as the Permanent Settlement, where landlords could hold their land in perpetuity, and pay a fixed amount as tax. This made landlordship a desired commodity, and Bengal's capital was used to buy landlordships whenever a tax-defaulting one was put up for auction. While much of Europe was industrializing throughout nineteenth century, Bengal's capital was chasing land as an unforeseen consequence of the Permanent Settlement.

After de-colonization in 1947, what is now Bangladesh became the East Pakistan. Like most other developing countries, the government of Pakistan pursued an industrialization policy at the expense of agriculture and by deliberately increasing income inequality in the distribution of income in favor of rich industrialists (Griffin, 1965). In addition to having a sectoral (agriculture vs. industry) and spatial (urban vs. rural) implication, these policies had an ethnic and regional impact too. The East Pakistan, which is now Bangladesh, saw disproportionately less public expenditure even though the export of Jute produced in East Pakistan brought most of the export income for the national economy, and the East had the larger population of the two halves of Pakistan.

Soon after Pakistan was formed, the system of landlordship was abolished in 1950. A new law tried to (a) end rent receiving interest in land that was instituted in Permanent Settlement, and (b) set a ceiling of landownership at 33.3 acres per family. However, in 1961 the military regime led by the West Pakistani generals raised it to 125 acres to gain support of the large landowners. Another political transition, namely the independence of Bangladesh in 1971 was followed by another attempt at land reform. A 1972 Presidential Order once again established a land ceiling of 33.3 acres. Another attempt at land reform, and the last to date, took place in 1987, five years after a military dictatorship seized power. All three attempts at land reform were centered on establishing ownership ceilings, and expropriating excess land to distribute among the landless.

All three attempts failed near completely. The manner of this failure is a commentary on the nature of the state and its co-optation by the elites. This point has implication for rural regional development. We return to that in Chapter Seven.

While attempts at reform failed, Bangladesh continued to have large number of smallholders notwithstanding regional variations³⁰. Seventy nine percent of the 11.8 million farm households are small, i.e. owned less than two and a half acres of land at the time of the 1996 agricultural census. In 2008 Agricultural Census, out of a total of 28.67 million households in the country, 4.48 million households (15.62%) were absolutely landless. Out of 15.62% landless households, 4.25% households were in urban areas and 11.35% are in rural areas. The share of landless households had increased from 19% in 1960 to 56% in 1996. On the other hand, while in 1960, 1% large land owning household had command over 4.7% of land, in 1996 it had gone up to 8.2%. It is believed that such trend has continued.

5.3 Economy, Urbanization, and Poverty

5.3.1 The Economy

Bangladesh has traditionally been an agrarian economy and society. The Permanent Settlement of 1793 resulted in Bengal's capital to be spent on acquiring landlordships, which stood in marked contrast to Europe of the late 18th and 19th century where capital was financing industrialization. The perception in the 1960s and '70s of Bangladesh being a land of smallholders held true for a small, but well-studied part of the country, especially the Comilla district that borders the region studied here. The rest of the country still had large land owners. In the country-side capital was still being accumulated. However, as the semi-feudal hypothesis offers, the surplus capital was being used not for mechanization of agriculture, but rather for usurious lending and land purchase (Wood, 1981).

Green Revolution's new technologies in agriculture (irrigation, high yielding variety, and fertilizer) began to spread from late 1960s, but picked up in the seventies. Empirical data from early eighties suggest that Green Revolution technologies were adopted by the farmers with all

³⁰ The northwestern parts of the country historically had large landowners, while the eastern part, especially the well-studied district of Comilla had a smallholder character.

sizes of landholdings (Orr, 2012). Productivity was higher in smaller farms. The profit however was less on smaller farms because they paid about 25 percent higher water charges and about 10% higher wage rates than the large farms (Hossain, 1988).

As in any agrarian society, significant part of the economy is non-agricultural such as artisanal processing and manufacturing (pottery, weaving, manufacturing of agricultural implements, construction) and other non-agricultural activities. Certain manufacturing activities such as weaving sector were producing products of international fame and demand (such as muslin, a cloth made of fine cotton yarn) in the pre-colonial periods. During the colonial period, such industries died as products from English industries were promoted and local industries suppressed, sometimes ruthlessly. At the end of the colonial period, there were few large manufacturing industries of note in what is now Bangladesh.

The share of agriculture in the national GDP has steadily declined ever since industrialization began in the 1950s. In 1972, the year after independence, agriculture constituted more than half of the national GDP. By 2002, that share plummeted to a quarter. The share of labor force in agriculture also declined. Still as high as around 50% of the nation’s labor force was engaged in agriculture³¹. The growth rate in agriculture hovered around 2% during the period. Much of the growth in agricultural production resulted from conversion to high yielding variety as opposed to yield increase within the same variety. Furthermore, much of the growth in agricultural sector resulted from growth of the livestock and fisheries sub-sectors.

Table 5 Changes in the sectoral composition of Bangladesh economy

	1980	1990	2000	2010
Agriculture	33.2	29.5	25.6	20.2
Of which crops and	21.5	19.3	14.6	11.3

³¹ Such data, while often used, do not account for the fact that an individual considered to belong to “agriculture” sector can have significant income from “non-agricultural” sources.

horticulture				
Industry	17.1	20.8	25.7	29.9
Of which manufacturing	11.1	12.5	15.4	17.9
Construction	4.8	6.0	7.8	9.1
Services	49.7	49.7	48.7	49.9
of which wholesale and retail trade	11.3	12.2	13.4	14.4
Financial services	1.6	1.6	1.6	1.9
Transport and communication	8.5	9.3	9.2	10.8

Source: Various statistical yearbooks

What is striking in its prominence is the growing share of the “service” sector in the economy. “Service” is a residual category that includes everything from hair dressing to intercity bus service, legal service to pulling a rickshaw in addition to activities such as wholesale and retail trade, hotels and restaurants, real estate, higher value-added services such as transport, communication, business services and financial intermediation, and the IT sector (WB 2008). With such a vague definition, this category is heterogeneous and masks more than it reveals about the nature and trends in the economy.

What were the drivers behind such changes? One well known vehicle of such changes in the numbers is the rise of the ready-made garments industry. Bangladesh’s manufacturing sector specializes in export-oriented, low-value added garment production. The garment industry’s share of manufacturing employment increased from 44 percent in 2001 to 51 percent in 2009.

Garment production accounted for 51 percent of formal manufacturing employment in firms with at least 10 employees in 2009. Woven (or ready-made) garments and knitwear are the two main product lines. Most formal garment employees (79 percent) work in the woven garment subsector, and the other 21 in knitwear. Since the late 1990s, garments sector consistently accounted for about three-quarters or more of Bangladesh's export earnings, and 18 percent of GDP³². The garments industry directly employs 4.2 million workers excluding the employment in related businesses. Nearly 90% of these workers were employed either in Dhaka or in Chittagong.

Foreign direct investment in Bangladesh has never been higher than \$1 billion a year, placing it below countries such as Albania or Belarus. Countries such as Thailand or Malaysia receive ten times as much FDI as Bangladesh.

Almost two million additional young people are added to the labor force every year, and the country lacks the ability to create jobs to accommodate all of them. Migration out of the country and consequent remittance has become an important feature of the economy. There are an estimated 8.6 million Bangladeshis living outside the country. They send an estimated 14 billion U.S. dollars every year. The share of remittances in GNI was 9.9 percent and in GDP 10.5 percent in fiscal 2011. Remittances are the largest single source of external financial inflows for Bangladesh. It has been more than ten-times larger than average annual medium and long-term official loans in the past decade (WB, 2012). Much of the money goes directly to the households which are in rural regions around the country. However, most of the money is consumed, and very little is saved. A recent survey by the Bangladesh Bureau of Statistics found that in 2012, 43% of the remittance-receiving households spent every penny they received (BBS, 2014). Overall, the saving is only 13.47 percent of the total remittance income. Seventy-eight percent of the remittance-dependent families have no alternative source of income as per the same survey.

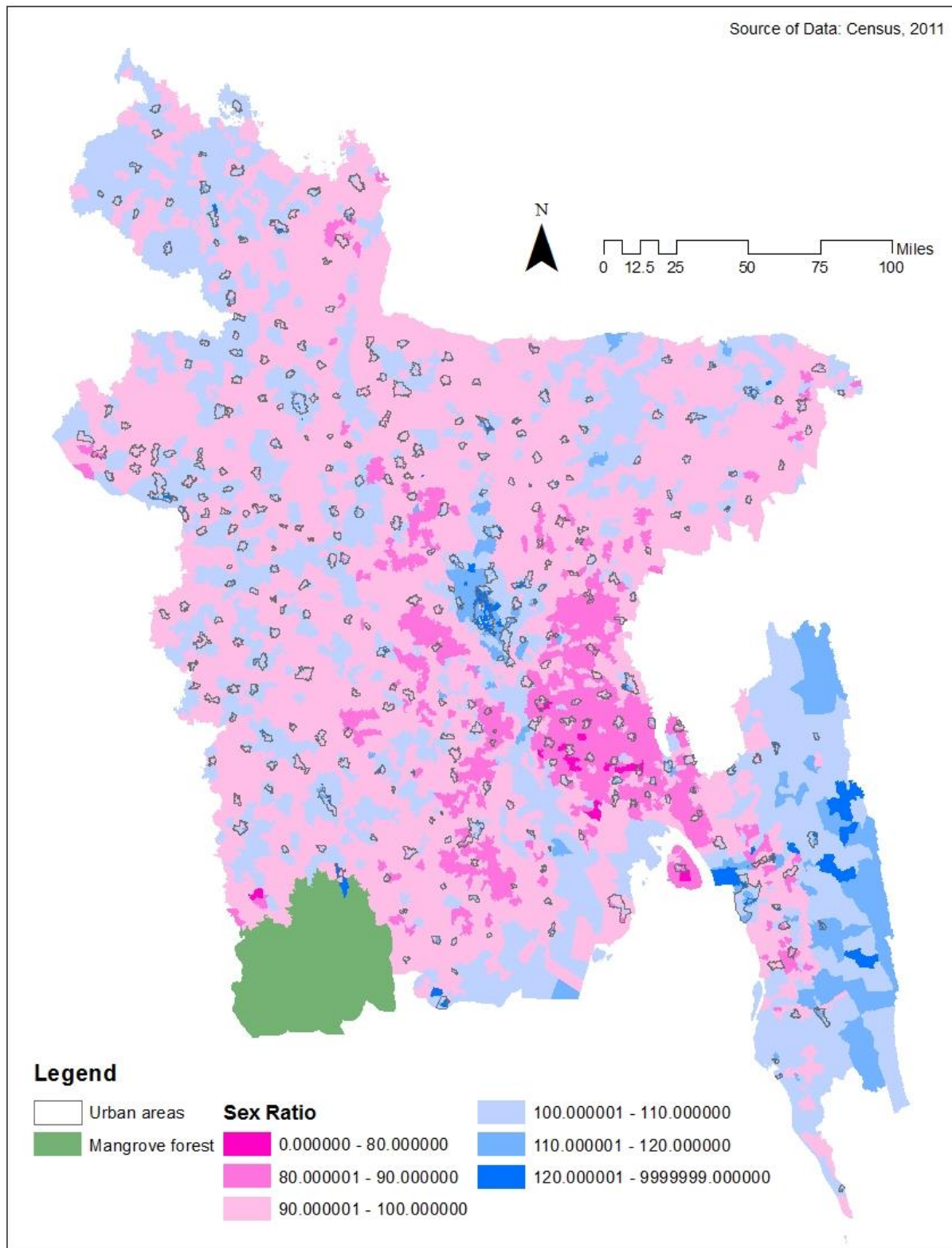
The migration out of rural regions, both to domestic urban and international destinations, is reflected in the sex-ratio in the rural regions. The figure (Figure 12) below shows a remarkable

³² Bangladesh Investment Development Authority, available at <http://www.bida.gov.bd/site/page/c9ffe4ad-1b7e-4c85-b77e-b7d9427d4533/Garments-&-Textiles>

imbalance in sex ratio. The urban areas have more males than females, and most rural *unions*³³ have more females than males. Data was not available to compute sex-ratio map for the working age (i.e. 15-64). It is fair to assume that areas with low sex ratios (in pink in the following figure), have even lower sex ratios for that age group. Such low sex-ratio clearly shows how the economy has shaped up: Urban areas (especially big cities) offer much higher incomes and attract migrants. As an indirect indicator, the sex-ratio map shows the negligence the rural regions have suffered. Developing them will help remove some of the imbalances.

³³ A *union* is the lowest unit of local government comprising a few villages. Given the area of the country without urban areas, and the number of unions, their average size comes out to be 12 square miles.

Figure 12 Sex ratio at ward/union level, Bangladesh (2011)



Remittance inflows through formal channels in FY2007 were recorded at US\$6 billion – almost 9 percent of GDP and half of gross merchandise exports. Migrant workers, who are mostly unskilled workers, amount to as high as about 6% of the labor force (World Bank, 2008).

With growth, inequality is rising at a high pace. The economy grew at around 6% in the past 10 years. Much of the growth benefitted a small segment of the population. The share of the GDP of the poorest 20% of the population went down of from 6.52% in 1992 to 5.22% in recent years. On the other hand, the number of personal bank accounts with deposit of more than Tk. 10 million, an indicator of accumulation of wealth, grew from 5,162 in 2001 to more than 40 thousand in December 2014 (AmaderShomoy.com, Mar 12, 2015 citing the Bangladesh Bank).

Table 6 Increasing Inequality in Bangladesh

Year of Survey	Share of GDP of the poorest 5%*	Poorest 10%**	Richest 5%*	Richest 10%**
1995-96	0.88%	2.24%	23.62	34.68%
2000	0.67%	1.84%	30.66	40.72%

*Ministry of Finance (GoB) Bangladesh Economic Study, 2003

**CPD, Household Income and Expenditure Survey 2000, reported in Prothom Alo (Bangla daily), Sept 10, 2003

The larger trend in Bangladesh is that the country is beginning to see local conglomerates. While relevant data is hard to collect, conglomerates are producing and increasing their collective share in retail. The share is miniscule relative to the countries where capitalism is at an advanced stage and where almost all items at any store are produced by a small number of conglomerates (e.g. ConAgra in the U.S.). However, the trend is one of rapid rise of these conglomerates, albeit from a small base. In the advanced capitalist countries, conglomerates have re-oriented rural areas by re-orienting agriculture. What shape Bangladeshi conglomerates will take is an open question. One interesting idea to consider in this connection is the idea of *lumpen* geography (Walker, 1978). While developed with the U.S. in mind, the idea of *lumpen* geography claimed a reservoir of geographic space that can be used when capital needs it. Will the increasing availability of

liquid money in the hands of corporations make them seek land all over the country? Certain speculative answers can be put forward. We return to this question in the final chapter.

5.3.2 Pattern and Trend of Urbanization

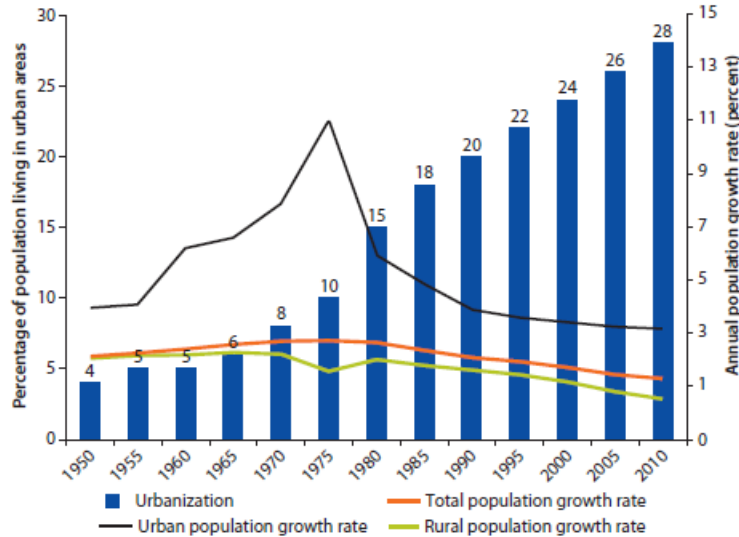
Bangladesh has six officially designated city corporations, which are the highest form of local government. These include the capital city Dhaka, port city of Chittagong, Rajshahi, Khulna, Barisal, and Sylhet. There are 320 further municipal towns that range in population from 3,000 to 750 thousand distributed over the national territory (represented by small polygons in Figure 12).

The rate of urbanization in Bangladesh since the early 1970s has been close to 6%, while population grew at 2.2% overall. Bangladesh added an additional 4 million to its urban population between 2001 and 2011. Of these, Dhaka's population increased at a higher rate and number³⁴. Outside the six city corporations (Dhaka, Chittagong, Rajshahi, Khulna, Barisal, Sylhet), the rate of growth was much lower. A stylized version of growth in Bangladesh in the new millennium is (after Rahman, 2012):

- Manufacturing-driven (especially ready-made garments) metropolitan growth in Dhaka and Chittagong
- Service sector driven growth in the secondary cities
- Remittance and urban consumption-driven rural non-farm growth

³⁴ The definition of urban areas changed between 2001 and 2011 censuses. There appears to be discrepancies with popular perception if numbers are compared without being aware of the definitions.

Figure 13 Growth of urban and rural population in Bangladesh



Source: Reproduced from Muzzini & Aperadicio, 2013, p.17 (Based on UN, 2011)

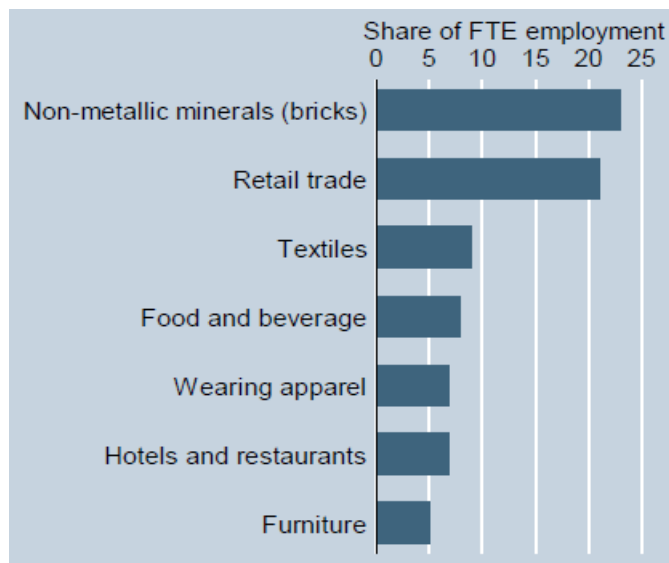
There is a strong inclination for primacy in the urban system on the country. Dhaka is the host to 37% of the urban population in Bangladesh. In 2001, Dhaka was 2.05 times the size of the next three cities combined. By 2010, this number rose to 2.12, signifying a trend for Dhaka's growth. This growth is entirely fueled by migration as less than 15% of the current residents of Dhaka were born in Dhaka. Causes of such growth is widely recognized to be centralized government and investment. It is probably hard to quantify what factors are fueling Dhaka's growth. However, certain anecdotal facts demonstrate how Dhaka is inescapable in the economic, social, educational and political life in the country. To cite an example beside the more well-known facts about industrial (i.e. garments industry) location, even the decision to transfer an elementary school teacher from one government school to another is made in the headquarters in Dhaka.

Non-farm economic activities in Bangladesh remain highly concentrated in Dhaka and Chittagong. In 2006 Dhaka alone had 81% of all non-farm enterprises employing 10 or more workers (10+) and accounted for 72% of national employment in 10+ enterprises. Chittagong followed with 12% of 10+ non-farm enterprises and 23% of 10+ employment. These estimates are based on the 2006 Economic Census for Bangladesh (BBS, 2007). Some activities such as

schools, NGOs and extra-territorial organizations are excluded in these estimates. Non-farm activities account for about 40 percent of total employment even in rural areas of Bangladesh. According to Household Income and Expenditure Survey 2005, about 62 percent of household income in rural areas was generated in the non-farm sector (World Bank, 2008). That number is expected to have only increased.

Slightly dated statistics show that 78% of the bank loan disbursed in the country is disbursed in Dhaka and Chittagong, and only 11% in the rural areas (as reported in Ajker Kagoj, November 04, 2006 citing a study by DFID and JBIC). About 10 percent of Bangladesh's population lives in the Dhaka metropolitan area, which contributes 36 percent of the country's GDP. Chittagong metropolitan area, home to 3.4 percent of the population, contributes another 11 percent of GDP (Muzzini & Aparicio, 2013, p. 22). Outside the metropolitan economy, there is little manufacturing other than brick-making (Figure 14). The economies of the rural regions (i.e. small towns and rural areas) outside agriculture comprise some large industries in textile and food and beverages. Other than those industries, household consumption (e.g. retail stores such as groceries, hotels and restaurants, small tailoring shops, and labor-intensive furniture-making in small units) comprise much of the economy. The economy of the rural region (southern part of Noakhali district) studied here has similar characteristics.

Figure 14 Non-Metropolitan Employment by Industry



From: World Bank, 2008, p8 (Based on Bangladesh Investment Climate Survey of 2007)

Note: FTE = Full time equivalent

Outside the six largest cities, the towns in Bangladesh are little more than administrative outposts and sites of consumption of “services”. Their role in the economy of the areas surrounding them is insignificant. Often, they get by-passed in the physical transport of goods between their hinterland and large centers. The decade of 2000 to 2010 for the first time saw a decline in urban population in some of the secondary towns in Bangladesh (see Marshall and Rahman, undated). It is likely that such state of rural towns is both a symptom and a cause of malaise in the rural regions.

5.3.3 Poverty and Its Geographic Pattern

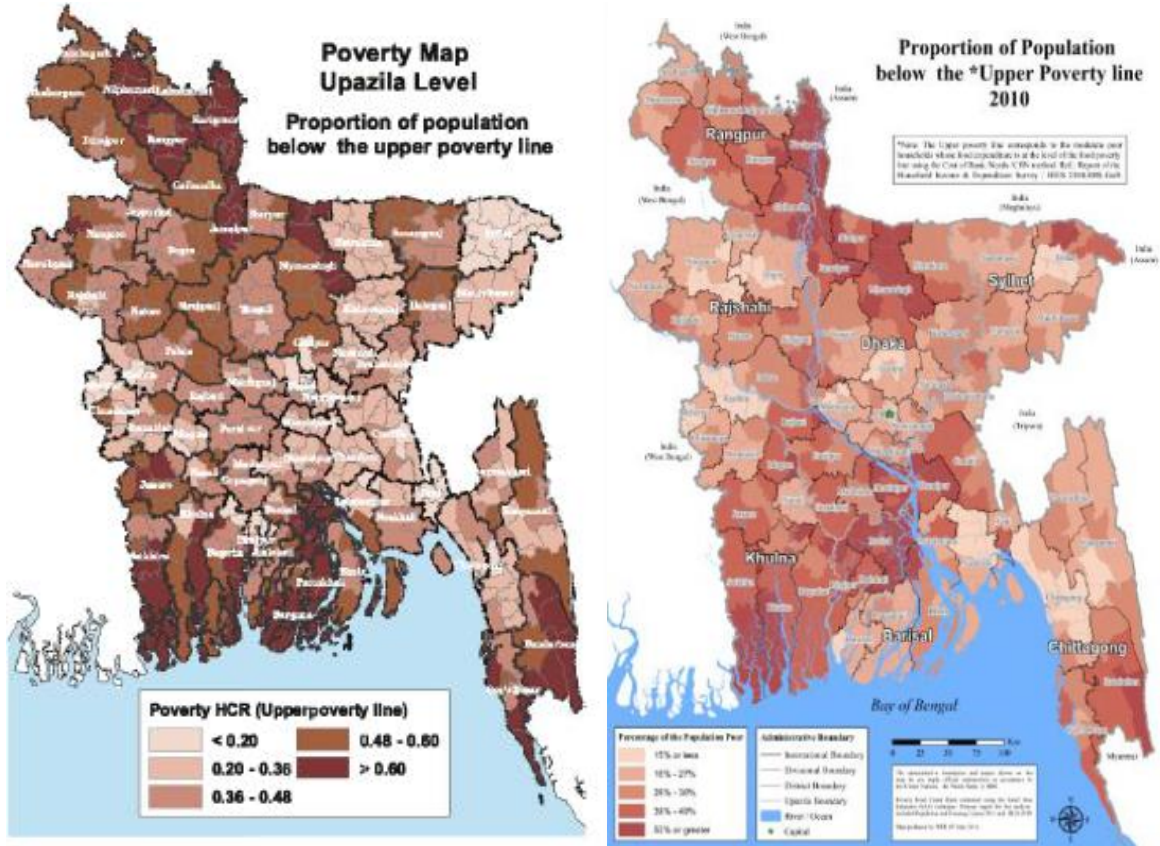
Between 2005 and 2010, national poverty figures decreased. However, in as high as 124 upazilas (out of 509), poverty increased. Among these, 44 had an increase of more than 10% in poverty rate. These upazilas are scattered all over the country.

Poverty in Bangladesh often feature in the international media. Nationwide, real per capita income rose more than 50 percent between 2000 and 2010 (World Bank 2011). The incidence of poverty, which was as high as 57 percent at the beginning of the 1990s, declined to 49 percent in

2000, 40 percent in 2005, and 31 percent in 2010 (Bangladesh Bureau of Statistics 2011; World Bank 2008). One good alternative indicator to the \$1.90 poverty line is the number of undernourished people. The number of undernourished people in Bangladesh is 26.3 million, which is around 16.4% of the population (FAO, 2015, Table: A1). The latest numbers show a very small decreasing rate over the 2005 to 2007 figures.

Despite the significant reduction in absolute poverty, deep pockets of poverty remain in the country. Alam & Iqbal (2015) recently found that “aggregate data disguises local realities – while poverty rates have decreased significantly at the national level as well as divisional level, a large number of sub-districts have seen an increase in poverty in the period 2005-2010” (p. 1). Urban poverty too steadily increased. Even though living in a slum does not equate with being in officially-defined poverty, the fact that 37.4% of the population of the Dhaka metropolitan area, and 35.4% of Chittagong’s population live in slums (Angeles et al., 2009) is a good indicator of quality of life (including financial) of the urban residents.

Figure 15 Map of poverty at sub-district level (upper poverty lines, 2005 and 2010)



Source: Reproduced from WFP, 2005 (left) and 2010 (on the right)

Poverty in Bangladesh has well-known regional pattern. Even though data at smaller geographic levels such as sub-district is available since only 15 years ago, it is widely accepted that the geographic pattern of poverty as seen in the above map has remained the same over the decades. This contrasts with the fortunes of some countries such as England and the United States where industrial restructuring in the 1970s produced a changed landscape by the 1990s. One significant development in Bangladesh in the recent decade is that seasonal migration by the poor has increased. To what extent it is equalizing poverty rates across remains to be seen. However, as evident in Figure 15, the concentration of poverty has remained much the same between 2005 and 2010. However, sub-districts with poverty increase and decrease can be found in all parts of the country. Despite that the coefficient of correlation, between 2005 and 2010 poverty rates at sub-district level (508 data points, see Appendix 03) is still close to 0.5, If not for some extreme

values, this co-efficient would be higher, indicating that migration over a decade has not done much in equalizing geographic pattern of poverty.

5.4 System of Governance

Bangladesh has a centralized system of parliamentary democracy. The country is divided into 64 administrative districts, which are sub-divided into 489 sub-districts (upazilas). The sub-districts comprise of unions (4,550 unions in the country). The country is governed by one and a half dozen ministries that have their offices at sub-district level.

The local governance system comprises two kinds of local governments: (a) urban and (b) rural. Figure 16 shows the jurisdiction of administrative units at different geographic scales. The units in the boxes that are placed side by side have mutually exclusive jurisdiction. For example, the geographic boundaries of a city corporation and a sub-district do not overlap. Also, a municipality (urban government) does not overlap with a union, which is a rural unit.

Parallel to the local government jurisdictions, the country also has 300 constituencies for seats in the national parliament. Outside the densely populated cities where a single city is divided in to several constituencies, typically two sub-districts are represented by one member in the parliament. The job description of Members of Parliament (MP) comprises law-making and accountability. They are not tasked with looking after development work such as road construction, or relief distribution. However, it is a well-known fact that junior bureaucrats look after law-making, while MPs lobby ministers and secretaries of ministries of the central government for funds and projects in their constituency.

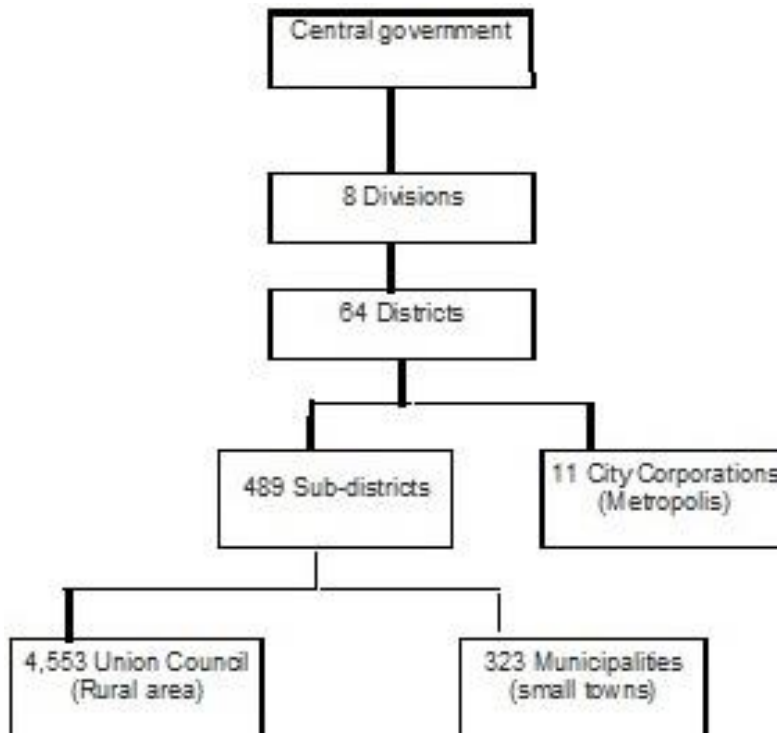
It is widely known, but never admitted in public that the MPs, and politicians in higher positions have no incentive to see strong local governments at sub-district or district level. Because the MPs opposed it (Inqilab, August 05, 2006), sub-district level local government did not see an election for nearly two decades, between 1990 and 2009. There is a local government unit at the district level that has very little responsibility and funding. No elections are held for the positions of district administrators.

As identified before, one or two sub-districts is a geographic size that contain or has potential to be a local economy. They can be viewed as forming an administratively defined micro-region.

As mentioned, the politicians who are members of parliament view strong leaders at sub-district or district level as their competitors. The bureaucrats based in the capital city also have no incentive to see a strong, well-financed administrative unit at the district level. As public choice theory³⁵ alerts us, given the situation in Bangladesh, strong government at the district level would be hard to implement because of this dual threat.

The government at sub-district level has seen changing fortunes over the years. However, one tension that has always existed is the one between the elected Chairperson of the sub-district and the government bureaucrat sent as the of sub-district executive officer. Often their powers and responsibilities overlap. Dysfunction and acrimony is never far away.

Figure 16 Administrative division in Bangladesh



³⁵ One relevant lesson from public choice theory is that public officials in public domain would act in self-interest, just as an individual would do in the market place.

Local governance finance bears testimony to the weak local governments in the country. The local governments have been given very few sources for tax revenue. Most of the revenue sources of the government accrue to the central government. Most public expenditures are conducted by the central government. A review of local government finance in 13 countries had following observation about Bangladesh:

The absence of detailed budget data sources makes it difficult to disentangle exactly what share of public sector expenditures finds its way to the local public sector to fund frontline public services in Bangladesh. Estimates for FY 2010–11 suggest that approximately 3.1 percent of public spending in the country is done by Union Councils and urban local bodies. In addition, roughly 8.3 percent of public expenditures take place through deconcentrated bodies at the [district] and [sub-district] level, whereas an additional 7.5 percent of spending is contained in central line ministries budgets in direct support of 'local' front line service delivery. These estimates suggest that in total, only about 18.9 percent of public expenditures are devoted to the local public sector. (Jamie Boex, 2013: 17)

The poor tax base of local governments has made them dependent on government grants. Consequently, politics revolves around securing government funding or expenditure in the territory of the local governments. Local governments have become a political tool for the central political parties, who reward their local cadres with positions in the local government, specially the union council, the smallest unit of local government that comprise a cluster of villages.

While the local governments are rather poorly staffed and underfunded, the central government in the decades past has been, to use Myrdal's famous term, "soft" meaning that the governments were incapable of framing right laws for collective welfare and/or are incapable of enforcing them even when they exist. Indeed, the famous original use of the term by Myrdal (1968) was slightly different when he characterized it as a condition where "national governments require extraordinarily little of their citizens. There are few obligations either to do things in the interest of the community or to avoid actions opposed to that interest. Even those obligations that do exist are enforced inadequately if at all." (p. 896). Myrdal, however did not conceive of a state that is strong but the strength of the government is used for appropriation of assets, resources and surplus. In recent years, the reach of the government has increased significantly. The institutions of the government such as police, and taxation department have increased their reach. However, the stronger state is showing a tendency for assisting accumulation by dispossession (as formulated by Harvey, 2004)). By many accounts Bangladesh politics and government is

increasingly gaining that character, as evidenced by the fact that 63% of the MPs in the current parliament are business man. The state is widely believed to be a vehicle for accumulation and dispossession.

5.5 Government Policies

5.5.1 Agriculture

Like most other developing countries in the 1960s, what is now Bangladesh experienced exchange rate, and trade and tariff policies that were aimed at capturing the surplus from agriculture and transferring it to finance the incipient industrial sector. Such policies provided the macro-incentive structure under which agriculture was practiced until policy reforms in mid-1980s.

The agricultural policies were aimed at influencing both the inputs and outputs of the agricultural sector. In 1963, the East Pakistan Agricultural Development Corporation (EPADC), a parastatal, was created with sole authority and responsibility of procuring and distributing agricultural inputs such as 1) fertilizers, 2) seeds, 3) agricultural equipment and, 4) pesticides (Ahmed, 1998). Until late 1970s, there was a rigid and extensive organization with accompanying bureaucracy that controlled virtually all of these inputs throughout the country. Importation of these inputs by private parties was prohibited.

The first waves of “liberalization” of the input markets took place in the early eighties, when private entrepreneurs were allowed to import non-nitrogenous fertilizer and irrigation pumps. Gradually most inputs were opened up to businesses throughout eighties and nineties. Curiously enough, after liberalization (i.e. removal of subsidy) the prices of equipment such as shallow tube-well and power tiller actually went down (Gisselquist, 1992 cited in Raisuddin, Tawfiq-e-Elahi, & Haggblade, 2000). Such reduction in prices in domestic market coincided with reduction of price in the international market.

The government’s intervention was even more pronounced in the output markets. The dominant policies to control the output market were (1) exchange rate control, and (2) direct purchase of rice and jute by parastatals at fixed prices. The mainstay of the policy was government purchase program that bought rice directly from the market. The stated objective of such purchase

program used to be price support to peasants, especially in the years of good harvest when price tends to fall. But researchers observing the “quantity, pricing, and manner of procurement” have claimed that it is a device “to maintain a certain level of public stock for distribution targets of the public sector [e.g. among the armed forces, urban poor, government employees]” (Ahmed, 1998, p. 56 in Faruqee, 1998). Likewise, government had near monopoly over purchase of jute. Soon after the removal of exclusive government control on import and export of food grains, the price of rice in the domestic market approached world market price.

As it turned out, much of the impact of these policies were in the case of grains, primarily rice, and jute, which used to be the main export item until ready-made garments replaced it in the late eighties as the largest export good. Agricultural activities such as vegetables and fruit production were never subjected to the price control. Despite this absence of policy disincentive, non-grain agriculture did not flourish for reasons that include lack of know-how, the inertia of tradition, and absence of market because of lack of purchasing power in the rural communities, and geographic isolation from consumers with purchasing power. One government intervention that changed the incentive pattern for such non-grain agriculture was transport infrastructure, though the construction of roads apparently was not guided by any conscious policy, as Bangladesh does not have a formal infrastructure policy to date.

Recent developments resulting from the policies include introduction of hybrid seeds by private sector businesses who are marketing channels for international corporations such as Syngenta. Such seeds are not limited to the staples alone. Several vegetables (such as eggplant and tomato) are grown from such seeds.

5.5.2 Macroeconomic Policies

The first wave of market-oriented liberalizing policies in Bangladesh appeared in the early 1980s. The policies embraced almost all aspects of government intervention in the economy. Development expenditure declined, agricultural and food subsidies were withdrawn, many state enterprises were privatized, and quantitative import restrictions were reduced or removed for many goods (Mahmud, 2004). This dissertation is not an appropriate space for a detailed review of policy reforms since early 1980s. But policies directly related to the non-agricultural sector

are briefly discussed so it can provide the backdrop for the spatio-temporal pattern of the economy in the rural regions in Bangladesh³⁶.

Government owned banks began to open branches in rural areas in the 1970s. However, the interest rate for rural branches was set at 18% while (urban) industrial loan came with a 10% rate. The international consultant who instituted this reasoned that rural people take loans from village lenders at a much higher rate any way. After structural adjustment was underway, many of the rural branches of the government banks were closed to leave a void that was eventually filled with micro-lending NGOs³⁷. As late as mid-2000s banks were collecting deposits from rural areas and lending it to urban based entrepreneurs (Inqilab, May 21, 2006). Currently the micro-lending non-government organizations are chief sources of credit in the rural areas around the country.

5.5.3 Import and Export Liberalization

Bangladesh withdrew quota restrictions in the late 1980s and reduced tariffs in the first half of 1990s. But since then, the pace of further import liberalization slowed down. The domestic industries still receive some protection as the taxation and supplementary duties are applied at a higher rate on imports than on domestically produced substitutes. The tariff reforms also put lower rates on capital goods and primary commodities (raw materials). Furthermore, a number of products such as fresh fruits and vegetables, light engineering products, jute products and fabrics used for exported garments receive cash incentives for exports.

Bangladesh joined the World Trade Organization in 1995. As a signatory to its charter, Bangladesh opened the domestic market for most goods. A few exemptions were granted such as, provision for a ban on import of poultry and eggs, and textile goods until 2009. The

³⁶ Much of this description is borrowed from Mahmud, Wahiduddin (2004), Macroeconomic Management: From Stabilisation to Growth?, Economic and Political Weekly, September 4. A short review by Hossain and Alauddin (2005) provided a useful supplement. [Hossain, Mohammed A. and Mohammed Alauddin. 2005. Trade Liberalization In Bangladesh: The Process And Its Impact On Macro Variables Particularly Export Expansion, Journal of Developing Areas, 39(1).

³⁷ This information came from a memoir of a retired Bangladesh Banker who did not have the exact numbers for number of branches opened or closed by year. However, even without numbers to show the extent, this piece of information reveals another small factor that contributed to the progress of the rural economy to be stifled.

government still exercises its powers to occasionally ban exports of raw materials. In recent years, the government banned export of raw jute, that favored the manufacturers but disadvantaged the farmers. The rural region studied here (i.e. southern Noakhali) does not have any jute production in recent years. However, government's stance to ban export of agriculture products, while perhaps good for the urban manufacturers dependent on the product, works against rural producers, and represents urban bias.

5.5.4 Public Expenditure

Beginning in the late 1980s, the size of development spending (as opposed to current) decreased steadily. Furthermore, sectoral allocations of development spending also changed. The allocations for sectors such as agriculture, water resources, manufacturing and energy declined significantly from 1980-81 onward. The government has virtually pulled out of the manufacturing sector, while the fall in allocations to agriculture in the second half 1980s reflects the reduction or elimination of agricultural subsidies.

However, public expenditure, i.e. both development and non-development expenditure combined, increased steadily since the 1990s. The development expenditure

... rose steadily from 6,024 crore taka in 1991/92 to 19,472 crore taka in current prices in 2005/26, which means a growth rate of 2.1 per cent per year and more than a threefold increase in absolute term. In 2005/06, the top four expenditures in Bangladesh were rural development, power, transport, and education respectively. (Hassan, 2008, p. 9).

Still, Bangladesh has the world's lowest public expenditures, at around 14 percent of GDP in fiscal year 2014 (World Bank, 2015). The government commitment to continuation of such expenditure is important for poverty alleviation and rural regional development. The efficiency of the government and its bureaucracy to carrying out such expenditure has long been a concern too.

5.5.5 Macro-Financial Policies

Financial institutions can potentially have a significant impact in the economy. Bangladesh allowed the first private bank in 1982. Currently, about 56 scheduled banks operate in the

country, of which there are 39 private banks. Private sector banks account for nearly half the deposit in the country. While the government-owned banks and some special purpose banks (such as agricultural, industrial) had a poor record of loan recovery and financial discipline, the privately owned banks are reluctant to serve the rural areas, and the agricultural, and small industry sectors. Between 2001 and 2003 the government collected more and disbursed less in the rural areas³⁸, putting a squeeze on financing in rural areas. A 2007 World Bank study, cited in a newspaper report without a mention of the title, found that 50% of the deposit collected in the rural areas are disbursed in the urban areas (Ittefaq, May 28, 2007). Such trend has been curbed in the last 7/8 years, specially via loans to industrial units in the rural areas. However, the participation of the banks in the rural economy, specially agriculture is still miniscule.

5.5.6 Infrastructure Policies

Bangladesh does not have an infrastructure policy *per se*. The Roads and Highways Department (RHD) in the Ministry of Transport built and maintained highways and local roads apparently without the benefit of a coherent policy. A rural development strategy was drafted in 1984 that recognized infrastructure as one of the pillars of poverty alleviation (Planning Commission, 1984). Since then a well-funded and prestigious Department (Local Government Engineering Department, LGED) grew in the Ministry of Local Government, and Rural Development that was entrusted with the task of building and maintaining local infrastructure in the country. There have been conflicts of jurisdiction between RHD and LGED that has been resolved in 2009 with a guideline as to which agency will build and operate which roads, but a comprehensive infrastructure policy is missing.

Despite the lack of an articulated policy, the government's involvement in providing physical infrastructure date back to many centuries ago. Given that infrastructure was seen as a public good, it was the government who was expected to provide it. But much of the infrastructure building in rural areas provided means to another end: Providing employment during the months of relative inactivity in crop production cycle. Programs such as Food for Works, Rural Works Program, or Test Relief Program are essentially programs emanating from the same principles

³⁸ The Daily Inqilab, January 03, 2004.

even though they were undertaken by different ministries of the government. Such infrastructure programs are generally food-assisted and seen more as a means of food security than as infrastructure development. Often, the projects were poorly designed, and the level of technology used in them was low (Mujeri, 2002).

However, the physical infrastructure such as roads, markets, and storage that LGED build were not seen as targeted programs for food security, rather as a strategy for economic growth. With considerable financial support from donors, LGED constructed, improved, and repaired roads, and rural markets at unprecedented rate. Table 4 below shows data from the period when LGED spent the most and Bangladesh emerged as the country with highest rural road density in the world.

Table 7 Rural infrastructure development by the Local Government Engineering Department

Program	Cumulative till June 1997	1997/1998	1998/1999	1999/2000
Road (km)	7,370	3,900	6,018	7,667
Bridge/culvert (meter)	85,684	33,192	34,757	46,448
Growth Centres (rural large/strategic markets)	480	143	213	176

Source: Ministry of Finance 2001 in Mujeri, 2002.

As per the figures in the table, Bangladesh experienced nothing short of a transport revolution in the 1990s. There are few people in the region today who are, to borrow Rigg’s description of Southeast Asia, “isolated from the market or, for that matter the tendrils of the state” (Rigg, 2006 in Tacoli). The improvement of roads also has significant changes in the rural production systems, and sources of livelihoods.

5.6 Provincial Politics, and Regional Policy

Bangladesh is one of the most centralized countries in the world for its size. The local governments have very little *de facto* power, finances (section 5.4 above) and capability. The districts (64 in number) and divisions (6 of them) are not even local government units. Almost all expenditures (i.e. projects) are carried out by the central government. Such power of central government has encouraged a kind of provincialism where the focus of the provincial/regional level citizen organizations is solely on getting more allocation from the central government. Civic associations typically named “association to fight for development of (greater) district X” are common. They lobby the government for investment in their area. This has incentivized citizen associations at different levels to lobby the central government for things such as piped gas supply, an airport, or simply being given the status of a higher administrative unit. Most of their energies are spent on lobbying the central government even though some have active presence as non-political citizen associations.

Such lobbying happens in the context of an absence of any regional policy. As the poverty map suggests there are pockets of poverty in some parts of the country. Policy makers and political leadership in the country often emphasize reduction of regional inequality. Projects are often formulated with purported goal of reducing regional inequality. However, there is no official regional policy. Projects are often named with a suffix of “... for regional development”. However, they often are sectoral projects. Data on location of government expenditure is difficult to collect. But experts believe that much of the money is spent in the capital city anyway. A recent analysis of budgets (Khan, 2014) showed that during the Fiscal years from 2006-07 to 2008-09 (up to March), Dhaka district got the highest allocation of Annual Development Program totaling 4160 crore taka, which is 8.4% of total allocation. In non-development budget (i.e. social and administrative expenses) which typically three times as much as development budget, Dhaka had a share of over 23% during the same period.

5.7 Conclusion: Prospect for Rural Regional Development in Bangladesh

Based on the preceding review of the bio-physical, and demographic condition on the one hand and the economic policy and nature of incorporation of Bangladeshi state into the global

economic order on the other, a few observations emerge as to the prospect of rural regional development in Bangladesh:

- (1) Almost the entire territory of Bangladesh has densities high enough to keep per capita cost of any infrastructure or services low. In this respect, Bangladesh stand in marked contrast with thinly settled areas found in some parts of the world, where some argue that it is not a good use of scarce resources to invest in.
- (2) The country's current economy is based substantially on RMG (80% of national exports) and remittance (14 billion on an average in recent years). About 90% of RMGs are located either in Dhaka or Chittagong, contributing to the fact that these two were the fastest growing cities among the large urban centers in the country. This kind of urban growth created expansion of slums, and urban poverty. While RMG is propping up an otherwise not-so-robust economy, other sectors of the economy need to and has the potential for creating income for households as well as the national economy.
- (3) The current state of governance in the country is one of the most centralized in the world for a country of this size. The two local government bodies at the level of sub-district and union levels have jurisdiction over territories that are not large enough to have a local economy, and synergy via reciprocal linkages between firms and small settlements. The level of training of the personnel of these local government bodies is also low. Local governments also get most of their funding from the central government. Two alternative scenarios can be envisaged for rural regional development in such a setting: (a) a multi-sectoral project with the goal of economic synergy at the level of rural regions. However, after the project, it will face the well-known challenges that development projects face, namely, who retains the ownership? (b) try to institute a local governance reform with more power to coordinate at the level of district. The more powerful politicians who vie to be Members of Parliament tend to find strong local government bodies at the district and sub-district level a threat to their power. This theme is taken up later.
- (4) Much of Bangladesh's recent growth has come at the expense of severe damage to the environment, as evidenced in the rise of brick kiln's in the share of GDP and

employment, increased water and soil pollution, and water-logging in both rural and urban areas.

It is within this backdrop that RRD and rural regional planning needs to be explored in the case of Bangladesh.

Chapter Six: The Case Study Rural Region (Southern Noakhali)

Guided by the analytical framework for rural regional development that was put together in Section 3.6, we study a rural region in Bangladesh. The region comprises the southern four sub-districts of the district of Noakhali (except the island sub-district of Hatia). We described the overarching state of Bangladesh in the previous chapter. Within that overarching structure, we investigate how the prospects for rural regional development are enhanced or thwarted in this rural region, and how rural regional development might be instigated. We identify the political, economic, social processes that took place or are taking place in the rural region.

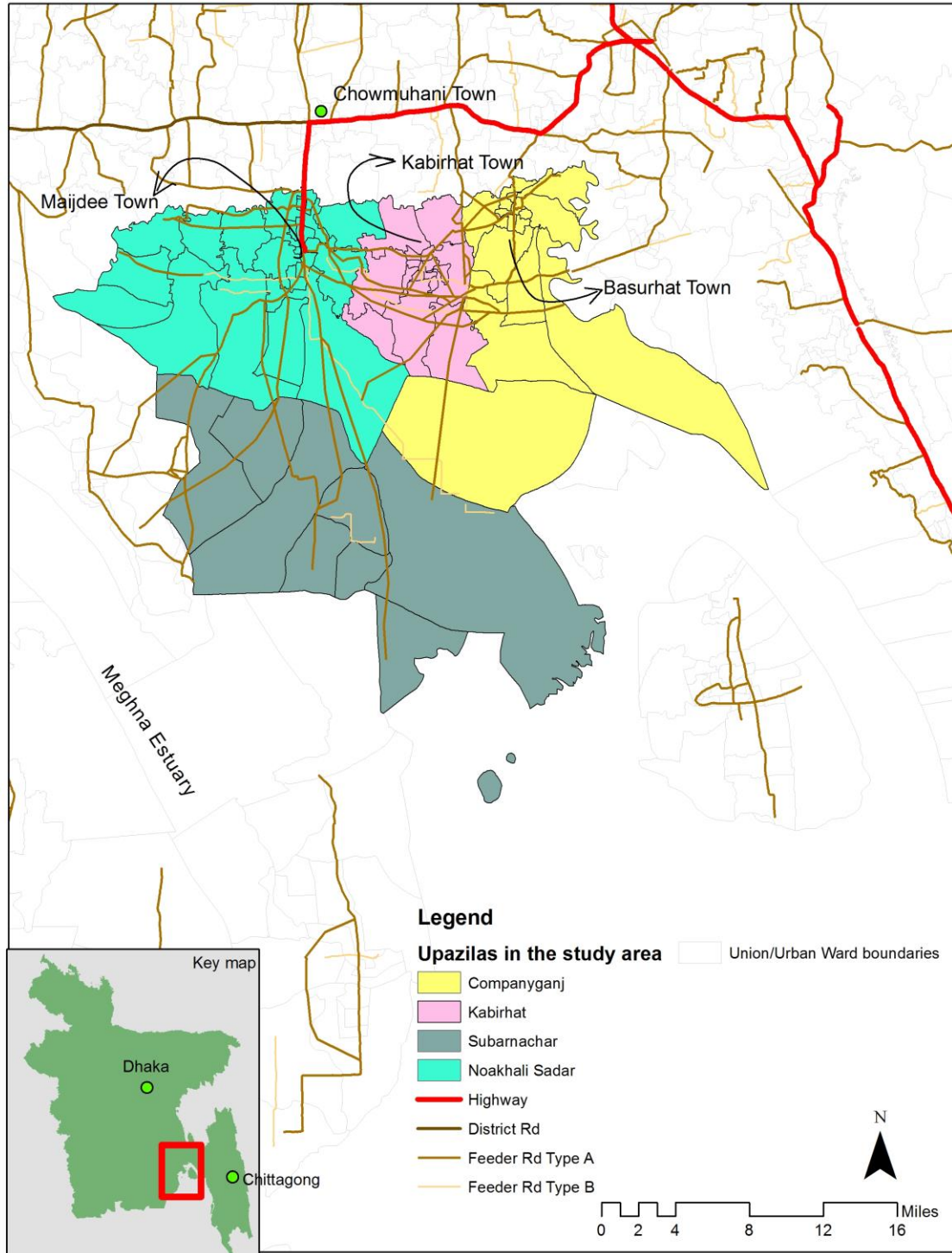
As identified in Chapter Three, household is the unit that allows a window into poverty and prosperity. This chapter begins with an analysis of household livelihoods and links them with the processes at higher scales. We identify these processes for southern Noakhali with an eye on the generalizable truths about rural regional development.

6.1 The Case Study Rural Region: Geography and Demography

The study area comprises the four southern sub-districts in the District of Noakhali in Bangladesh, namely Noakhali Sadar, Companyganj, Kabirhat and Subarnachar. It is roughly 570 square miles of flat land in the southeastern part of Bangladesh, on the northeastern tip of the funnel shaped Bay of Bengal. This location makes the region vulnerable to cyclones and tidal surges. The largest town in the study area, Maijdee town, is 20 miles (one hour in regular traffic) away from the highway connecting the two largest cities in the country, namely, Dhaka and Chittagong. To the north of the region is the northern half of the Noakhali district. The largest trading center in Noakhali district (namely Chowmuhani town) is roughly 5 miles to the northern boundary of the study region. To the south is the estuary of the river Meghna which is constantly eroding and accreting, with accretion outnumbering erosion. Much of the southern parts of the study area accreted and rose out of the bay in the last half a century (more on this in the next section).

Figure 17 The southern four upazilas of Noakhali district, Bangladesh

Note: The road network shown here is based on data from a decade ago. Many segments of the roads were constructed and/or paved since then.



The population, area, and the resultant population density of the 4 sub-districts that comprise the case study region is as follows (based on Census 2011).

Table 8 Area, population and density of the four sub-districts of the rural region

Sub-District	Area (in square mile)	Population	Density (Per sq. mile)
Noakhali Sadar*	129.75	525,934	4053
Kabirhat**	71.53	196,944	2753
Companyganj**	146.85	250,579	1706
Subarnachar	222.19	289,514	1303
Total	570.32	1,262,971	2266

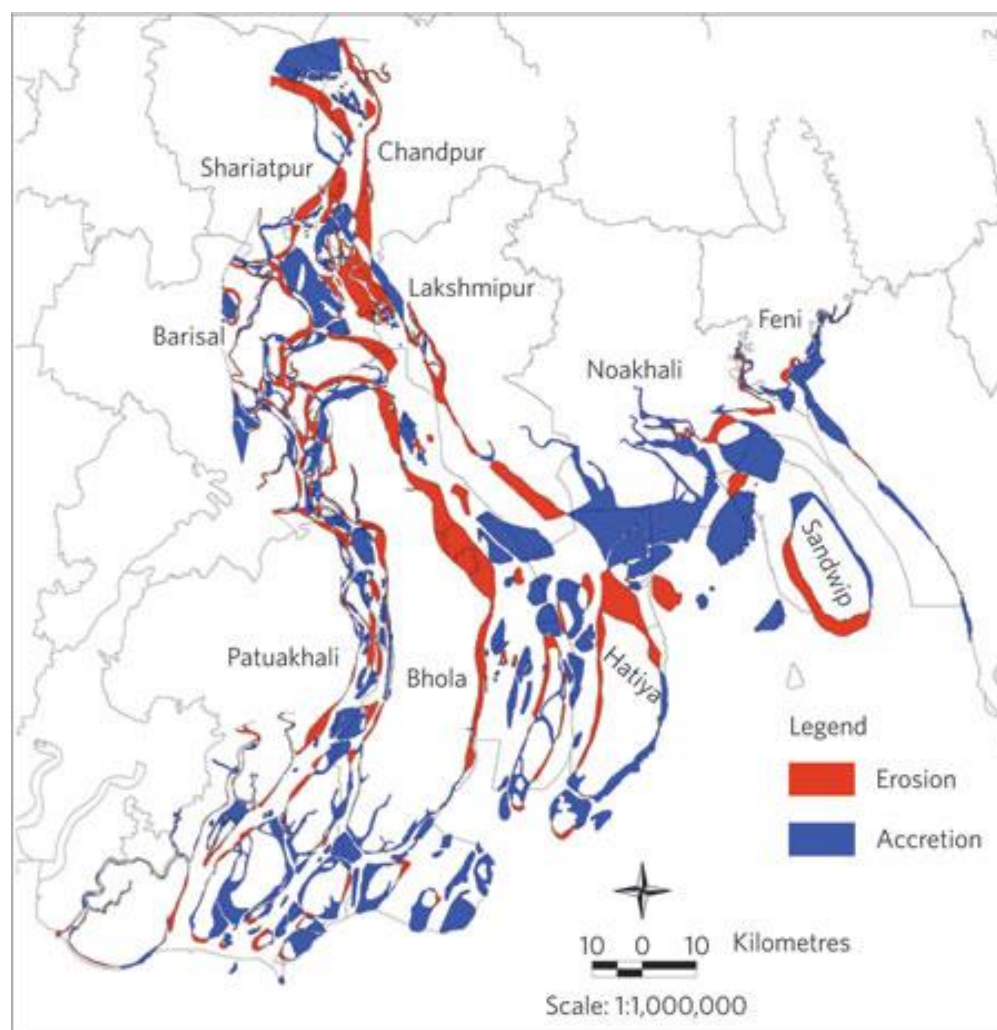
Note: *Noakhali Sadar includes the largest municipality and district headquarters (Population in 2011: 107,654)

**Kabirhat and Companyganj sub-districts have a municipality each (population in 2011 was 17,448 and 29,877 respectively)

The average density figures somewhat mislead by way of masking the dense settlements in the northern parts, because whole of Subarnachar and the southern parts of the other three sub-districts have much lower densities. Such low densities result from the fact that they are newly accreted land that are still in the process of being settled, and splintering of family land among siblings over generations has not occurred. The two sub-districts just north of the study area have densities of 5968 per sq. mile (Begumganj) and 4598 per square miles (Senbag). The areas in the northern parts of the study area have similar high densities.

The region is mostly flat. The southern parts of the region are vulnerable to erosion of the river Meghna, but also experience accretion. It is estimated that Bangladesh gained 1,000 square kilometers of new land in the Meghna estuary since the early 1970s, much of which is because of the construction of two cross-dams in 1957 and 1964. These cross-dams connected the mainland with islands a few miles off the shores. Much of the rural region's southern parts are accreted land resulting from these two cross-dams.

Figure 18 Accretion and erosion in the southeast estuary of Bangladesh, 1973-2005
(Reproduced from CEGIS, 2005)

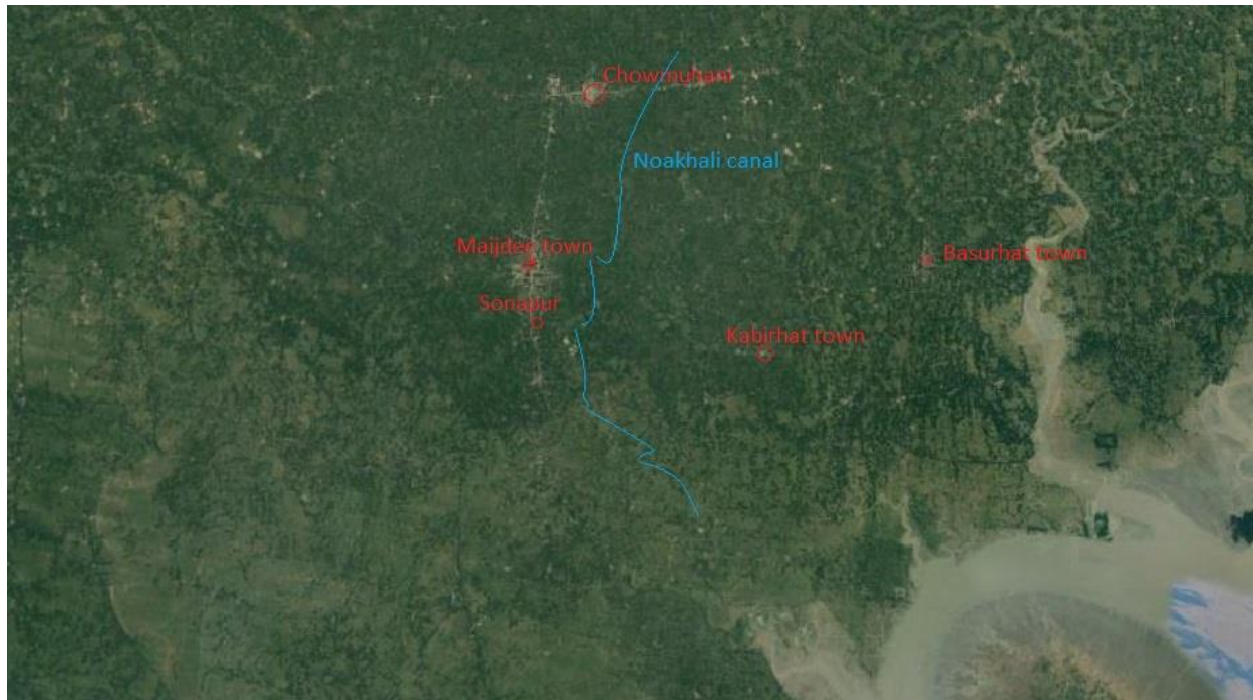


As inhabitants of a floodplain, people in this area throughout their history either carried out small hydrological projects, or adapted to nature. However, the first large-scale hydrological project to stabilize land by empoldering was undertaken only in the late 1960s. As a part of this countrywide program, some *chars*³⁹ in southeastern Bangladesh were made flood-free via poldering in the late 1960s and 1970s. Two rivers, Meghna in the west and Chhoto Feni river in

³⁹ A *char* (Bengali word) is an accreted area of land.

the east form the western and eastern boundaries of the Noakhali Zila. Within the 570 square miles of the study area, there is no naturally occurring canal system. An 18-mile canal was excavated in 1660 to divert water south to the Bay of Bengal. The canal (named the new canal) gave the district of Noakhali its name⁴⁰. Other smaller canals were historically excavated and widened throughout the history of settlement in these parts of Bangladesh.

Figure 19 The study region with approximate location of Noakhali canal

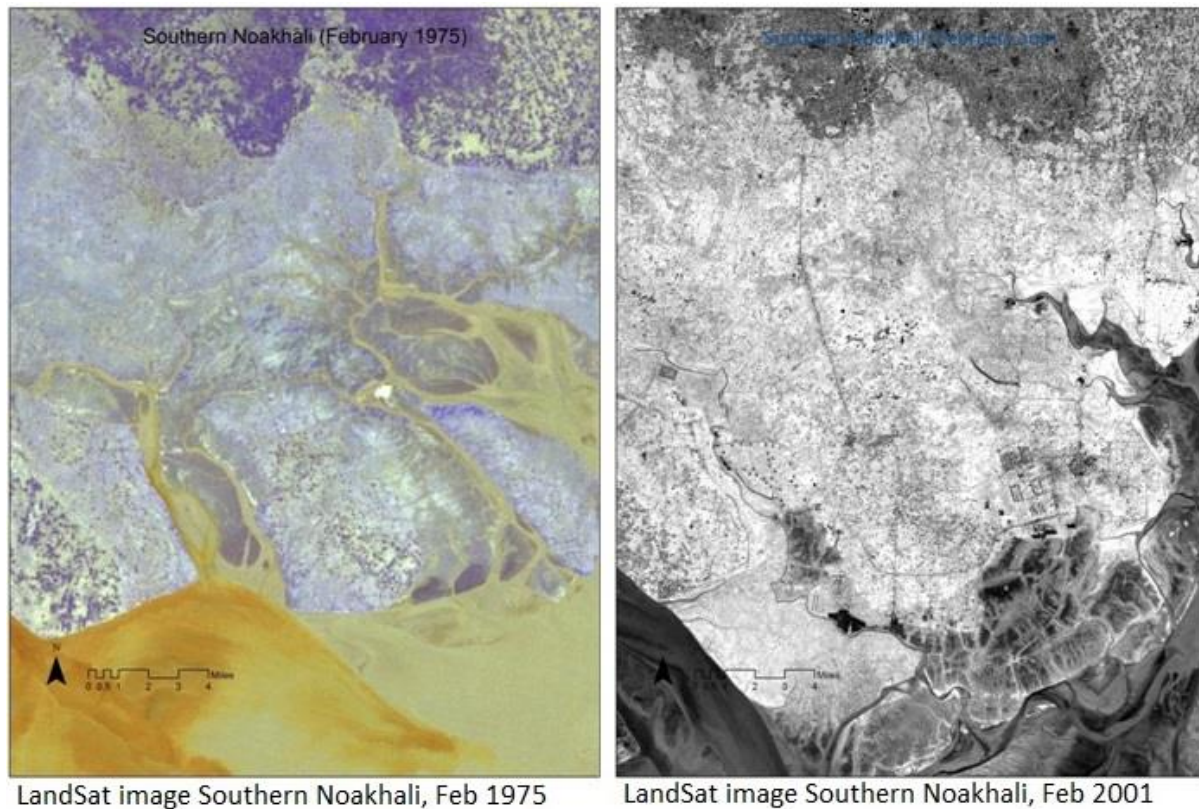


Source: Google Earth

New accretions continue to occur naturally. The satellite image below shows the accretion process in the last 40 years. It shows only about 1/6 of the study area, and half of the accreted area (there is more accreted land on the east). The dramatic developments are evident.

⁴⁰ “Noakhali” means the place of new canal.

Figure 20 Landsat images of Subarnachar sub-district (1975 and 2001) showing the extent of accretion and land grab by aquaculture "projects"



The northern parts of the study area were settled at least several hundred years ago. However, the settlements in the southern parts are barely a few decades old. Most of the study area is low land that remains under water during and after rainy season. Homesteads, roads, and structures are built on land raised with earth-filling. In the northern areas of older settlements salinity is low and irrigation possible during the dry months (roughly November to March). However, in the southern areas salinity and lack of irrigation keep nearly 40% of the land fallow as per the data from the sub-district agricultural offices of Subarnachar and Companyganj. In the southern most sub-district, Subarnachar, 65% of the land is suitable for only one crop a year. Land there is either flooded and/or too saline for much of the year.

Accretion downstream also means that some of the drainage channels, specially the Noakhali canal, that flow south have been constricted. This natural cause has been exacerbated by human encroachments on Noakhali and other canals. The result is that in the last two decades water

logging has increased (Khan, 2005) to the point that only one crop in dry winter (*boro* season) is possible in some northern areas. Such change in cropping pattern as well as net yield has put stress on the households owning land in such areas.

6.2 Land Grab in the Accreted Land, and Community Activism

By government laws since the early 1970s, any accreted land becomes the property of the government. By its own rules, the government is required to distribute such land to the landless in parcels of fixed size. In the 1970s the size of such parcels was 2.5 acres. It gradually was reduced in the face of increasing demand for land. Such egalitarian policy of the government was being sabotaged by the elites from both the nearby towns and the locality. In the early years (especially 1970s), in the absence of the state's law enforcement in these remote lands, local warlords emerged with their *lathiyals* [an army of peasants who use thick sticks, *lathi* in Bangla, as their weapons in skirmishes]. *Lathiyali* as a system parallel to the state is well-known on accreted lands around Bangladesh. Zaman (1991) offers a precise definition: "a semi-feudal system of relations between landlords and peasants in which the local *talukdars* (independent proprietors) and *jotedars* (superior tenure holders), acting as power bosses, use their patron-tied dependents as *lathiyals* to organize violent land conflict to grab new depositional land". In exchange for serving as the foot soldiers, the *lathiyals* can live on the land of the *talukder/jotedar*. In the southern *chars* of Noakhali, such *lathiyali* system, together with their collaborators from the nearby towns shaped much of the *de facto* land ownership patterns.

Such sabotage of state policies and formation of essentially parallel state is only part of the story of the study area. It is not that the elites established their effective control on land without resistance. In a remarkable story of community mobilization work, an NGO (named *Nijera Kori*) was able to organize the landless into a power bloc that could not be ignored during allocation of accreted land. With community mobilization and advocacy campaign in the study area since the late 1970s, *Nijera Kori* made the landless people aware of their rights and engaged with the government in negotiations to secure their rights to land. With the help of *Nijera Kori*, a community of former landless grew. The struggle of such communities for access to land and safeguarding their land from human-induced environmental catastrophe continued well into the 2000s (Adnan, 2011). For example, a community in Char Dhaner Shish in Subarnachar upazila

filed a lawsuit in 1999 against a powerful land grabber who set up a shrimp farm blocking a natural canal that threatened permanent water logging of their lands. Other such examples of people resisting the powerful abound from the *char* areas, especially in the Subarnachar sub-district. By the time the interviews started in 2011, the violence subsided a little. Some of the violence went south with new accretion. However, in the areas settled and allotted earlier, powerholders continue to exert influences. One common form of violence is the powerholders harvesting paddy rice grown by landless people with the fabricated claim that the land is owned by the powerholder. Such violence is possible where land is still being allotted. The people with no other alternatives cultivate these lands, only to see a powerful person to show up with his army at the time of harvest.

Powerholders, instead of staying independent and parallel to the state as they were in the 1960s and '70s, are now part of the state. One person accused of most atrocities in Char Elahi was also an elected official at the *union* level. An interview could not be arranged with him, but people living on government land described him as having connections to both the major political parties in Bangladesh. The people who leased large tracts of land from the government include mayors, and current and former members of the parliament. In other southern parts too, especially Char Clark union (in Subarnachar upazila), violence still flares up. However, in the northern parts of the study area, settlements are several generations old. While disputes over land linger in rare cases in these parts, it is nowhere near the occasional lawlessness that erupts in the southern parts.

Between 1984 and 1986, *Nijera Kori* helped 30 cooperatives secure allocation of land from the government (Adnan, 2011). The members of the cooperatives later chose to divide up their land into personal plots. When asked during field interviews why they abandoned cooperative ownerships, some of the former cooperative members said coordinating collective action among a group that came together only recently from different parts of the district was proving to be difficult.

Over the three decades, land allocation continued as more and more accreted land became high and dry enough for settlement. Data provided by the district administration office (current until Nov 2011) listed following number of allottee households since the 1970s (Table 9).

Table 9 Number of households allotted government plots since the 1970s to 2011

Sub-district	Number of households allotted
Subarnachar	33,306
Kabirhat	634
Noakhali Sadar	387
Companyganj	13226

Source: District office (State Acquisition branch), Noakhali.

When shown to people in the areas where allotments were made, they said this is “on paper” statistics to mean that many of the allottee households are decoys used by the powerful to do paperwork to keep control of the land. This study did not try to do a detailed survey of the *de facto* possession of land. But people in some southern areas of Subarnachar (except Char Jabbar, which is the island around which accretion occurred) showed areas of land that are in effect owned by powerful people both in the locality and the absentee owners in northern towns. Some of these powerholders are now deceased. Some sold their land to capitalist investors who began to come to take advantage of large tracts of land which stand in contrast with the rest of this populous and dense country.

In the southeastern part (i.e. Companyganj and Kabirhat upazilas) where poverty is higher, most of the shops in the small rural markets were found to be owned by northerners, who were renting them out to villagers. In other words, through ownership of strategic properties in the communities, the absentee owners were having access to surplus in the village communities. It represents a form of leakage from the community, even though it is not a leakage from the rural region, if analyzed as one aggregated territorial unit.

Until late 1990s there was little capitalist interests in the southern accreted lands (*charlands*). However, in the late 1990s a movement of the rich and powerful from the nearby towns took advantage of a 1992 policy⁴¹ that allowed for declaration of shrimp zones in the interest of the national economy. Passed in the early days of Bangladesh’s integration into global economy, this

⁴¹ Shrimp *Mohal* Management Policy, 1992.

law wanted to enhance Bangladesh's comparative advantage in shrimp farming. Under the purview of the law, and following a petition organized by some of the rich and powerful within and outside the study area, a 12,000 acre shrimp zone was declared in the southern coastal areas of Noakhali district. This declaration allowed for non-landless individuals to lease up to 30 acres of land from the government to cultivate shrimp. This declaration provided the legitimacy for the rich and powerful from the nearby towns to grab land via long term lease from the government. Though the limit is set at 30 acres, satellite pictures, confirmed by field visits, show one farm spanning over 1000 acres (Momen, 2012). It is ironic but somewhat predictable that there was little shrimp, and mostly inland fish species were being cultivated. The comparative advantage of shrimp farming was merely a pretext. Freshwater prawn farming increased around the *charlands* much later, in the 2000s. But when the land was being leased, shrimp was scarcely being farmed. Thus, a law inspired by globalization ended up being exploited as a pretext for grabbing land.

The way the land allocation processes were conducted, and the profile of the *de facto* owners of land reveal two things of interest for our purposes:

- (1) While the allocation of land to landless people show the intent of the state, the issue of access to and *de facto* control over land demonstrates how the state can be at the service of the elites.
- (2) The capitalist interests (as opposed to homesteading and cultivation) in the land is increasing since the late 1990s. We return to discussion of this trend in later sections.

Both trends, as elaborated later in this chapter, are likely to continue.

6.3 Roads, Transportation and Settlement Pattern

Bangladesh has a higher density of roads than any other country in the world. Such density is a function of the high density of settlements in a populous country. Outside the urban areas, there are 20,735 km of national highway and district roads in Bangladesh. There are a further 78,495 km of rural roads (WB, undated⁴²).

In southern Noakhali too there is a dense network of roads. The road that connects Maijdee town with the Dhaka-Chittagong highway is considered a regional highway, even though it is one lane

⁴² Source: WB based on Roads and Highways Department and Local Government Engineering Department. <http://go.worldbank.org/943MNTEY80>

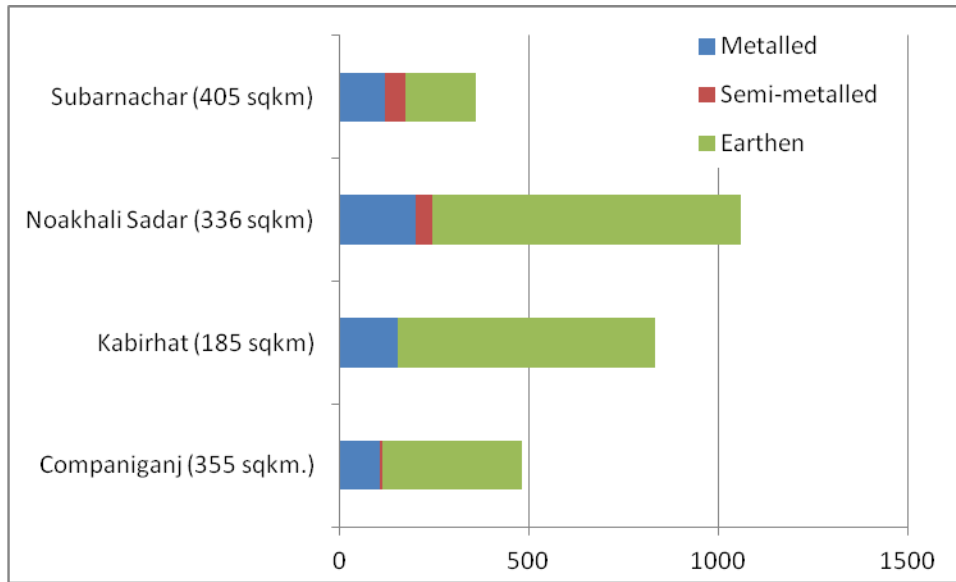
in each direction for its entire length. Other roads are feeder roads in the villages. It needs to be noted that the digital data underlying the maps in this document does not contain the roads built in recent years in the southern communities where land accretion, consolidation, and settlement is an ongoing process. Therefore, the feeder roads in Figure 17 show only a part of the road network.

Among the feeder roads in the southern parts, only a small portion is paved with tar macadam. In the northern areas, paved roads are more common⁴³. In northern parts, only the roads and pathways at the bottom of the hierarchy (i.e. the ones connecting homesteads with a rural road) were found to be earthen. However, in the southern parts, specially the southeastern parts, much of the road network is not paved. During rainy season these roads become muddy. And the supplies that are transported from the north (including the staple rice) become expensive in these village communities that already have higher poverty rate than the rest of the region. For example, in the rainy season in the southeastern Char Elahi Union, the cheapest rice was being sold for Tk. 40 a kg, while only 12 kms to the north in the Basurhat town, the price was Tk 30/kg. Residents interviewed perceive paving of their roads as the top priority ahead of direct help with livelihood. The ability of the district office of the Local Government Engineering Department (LGED) is constrained by inadequate funding. As per one of the engineers at the Noakhali district LGED headquarters, given the fund allocation from the central government, a road segment can be repaired every 7 years. Repair and maintenance at least twice as frequently would be required for adequate surface quality.

The length of roads in different parts of the study region are as follows.

⁴³ Data on road length disaggregated by surface type was not available at the level of *unions*. Therefore, the observations during field research could not be confirmed with data.

Figure 21 Length of Roads of Different Surface-Types (in Km)



Source of data: Table 8.01 of Noakhali District Stats, Census 2011

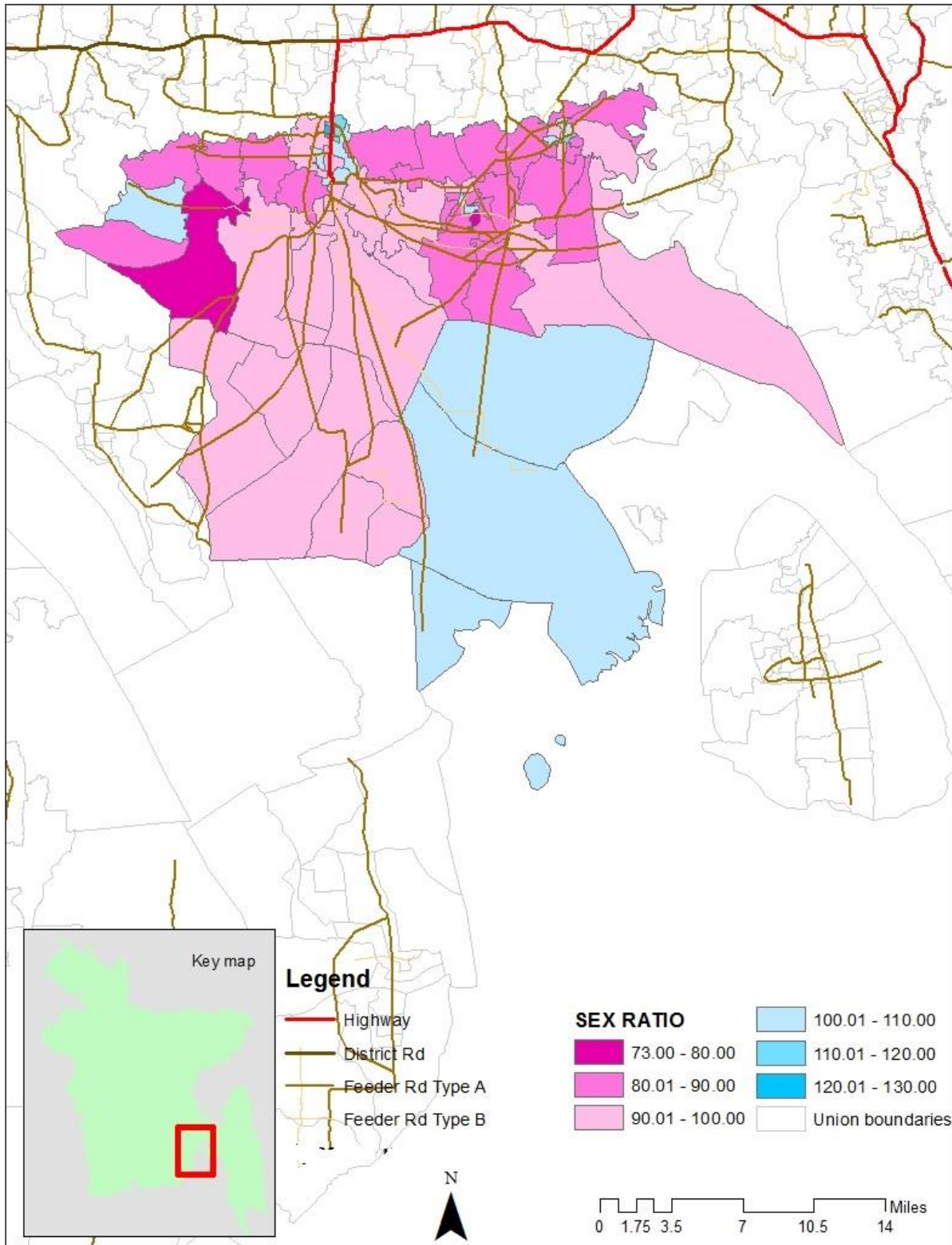
Note: The sqkm figures in parentheses are landed area, defined as total area minus forests and rivers.

In the above chart, the reason the Subarnachar and Companyganj sub-districts have significantly less road is that these two sub-districts have large areas of accreted land in the south, where infrastructure has not expanded. In fact, the length of road and the population density are almost perfectly correlated for the four data points (four sub-districts). The earthen roads are not shown in Figure 22 below (or Figure 17 above) because the old geographic (GIS) data that was used to create the map did not have many of the roads observed during field research.

The northern parts of the study area are one of the most densely populated areas in the country. In these dense parts, homesteads and small amounts of cultivable land comprise most of the land. There are no forests. Roads, water bodies, some commercial uses, brick kilns and roads effectively exhaust the land use. In the absence of a more precise estimation via remote sensing data, simple arithmetic would tell us that for the 1.2 million population in the area there is a need for 40 sqkm of homesteads (including kitchen gardens and ponds) in the current design of housing. Almost all the homesteads are on land elevated via earth-filling. Such homesteads alone would take 5% of the total landed area (i.e. total area minus forests and rivers).

What enables such density amid a low local GDP is the migration out of the region. The extent of migration is reflected, though not neatly estimated, in the sex ratio. Outside the municipalities in the study area, every *union* (the smallest geographic unit) has sex-ratios significantly below 100. The sex-ratio for working age population is expected to be much more skewed. However, census data tables do not allow for computation of age-specific sex ratios at the geographic level of *union*.

Figure 22 Sex-ratio at union level (based on Census 2011 data)



The land value went up steadily in the past two decades. The rate of land value increase is similar in both the small towns and the villages tens of kilometers away from the towns. The rate of increase in the market price of land is not commensurate with the rate of return expected from the land even if non-farm opportunities are considered. The price of land is too high even with an assumed rate of return as high as 10% (which is roughly the interest rate banks offer to long term depositors). The reason for such high value is that remittance money has increased the demand for land for building new residences. The conversion of agricultural plots to residences, while not quantified in this study, must be considerably higher than the national rate of just less than 1%. During the field research, many residential structures were found to be constructed in the last decade. More importantly, remittance receiving households (as well as some other households with steady income) consistently expressed an interest during the interviews to build a new residence nearby. This would almost always mean conversion of agricultural plot to residential use, often with earth-filling.

The major modes of transport are public buses, three-wheelers, and human powered rickshaws. There are two bus routes that run through the study area. One runs through Subarnachar and Maijdee, the other from Kabirhat to Feni, a town close to the Dhaka-Chittagong highway. It is interesting that even though Sonapur and Kabirhat are connected by a feeder road, no buses run between these two places. Thus, somebody wishing to take a bus from Sonapur to Feni must take another mode (probably three-wheelers running on fixed routes) of transport to get to Kabirhat and take a bus from there. This curious arrangement is a result of three-wheeler owners and drivers succeeding in stopping bus coverage in the Kabirhat-Sonapur segment of the feeder road. The local member of parliament is said to have supported such an arrangement. This increases the cost of travel for commuters. But on the flip side, this arrangement allows three-wheeler drivers to earn more in the absence of competition from the much cheaper buses. However, the biggest beneficiaries are the owners of the three-wheeler fleet who can rent it to low income drivers to operate.

6.4 Economy

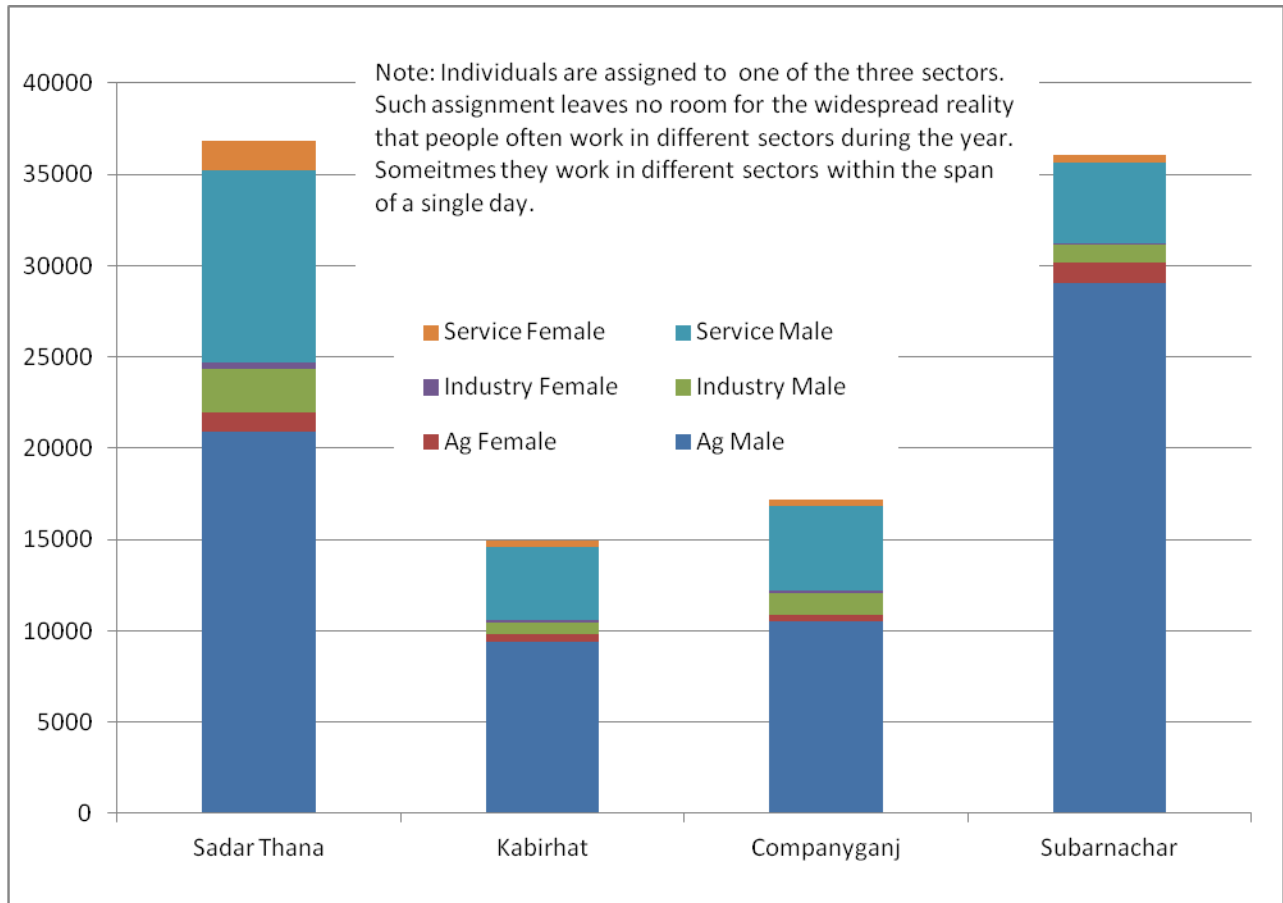
Like the rest of the country, the study area historically had an agrarian economy where crop agriculture dominated. However, rural economies always had many non-agricultural activities.

Examples include small scale processing and manufacturing such as rope-making, pottery, boat-making, among hundreds of other activities. This rural region is no exception.

The state of the economy and the dynamics of the change process are important to examining the prospects for rural regional development. The official statistics do not provide much help in understanding the economy. For example, the data on “sector of employment” divides the economy into three sectors: (a) agriculture, (b) industry, and (c) service⁴⁴ (see Figure 23 below). Every respondent is forced into one of the three categories even though a person can do agricultural hired labor for a week, then pull a rickshaw for a month, and then work as a hired worker in a construction project. To use another example, a teacher at a local school who also farms his land in effect belongs to both “agriculture” and “service” sectors irrespective of how s/he perceives her occupation. Such individuals are in such a high number (as confirmed in our field survey, reported in the next section) that having three mutually exclusive categories in data collection and reporting of sector masks the reality. However, we report the data from Census 2011 anyways below (Figure 23).

⁴⁴ Question 25 on Census enumeration form used for Census 2011 includes three mutually exclusive categories (namely Agriculture, Industry, Service). The three categories add up to “total” in statistical tables, meaning that multiple responses to the question is not allowed. See appendix IV (p481) of the Population and Housing Census, 2011 Report (Union Series) for a copy of the enumeration form.

Figure 23 Number of people working in different sectors as reported in Census 2011 report

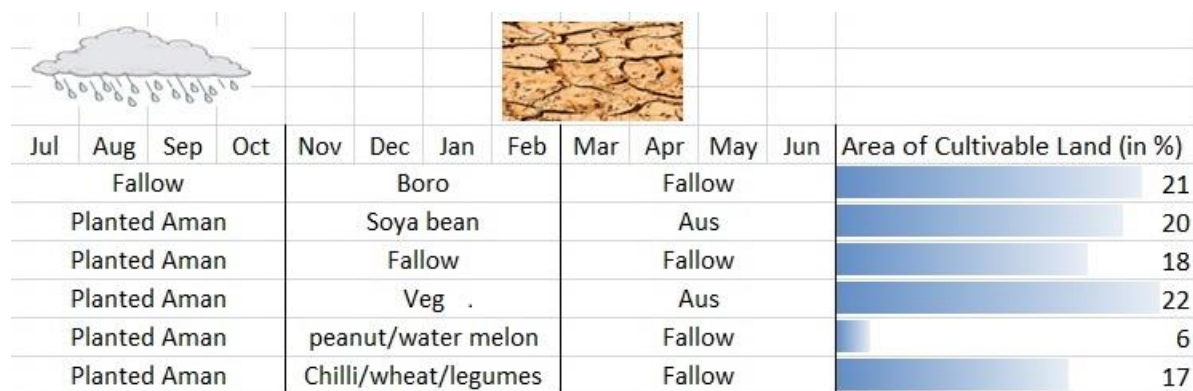


When contrasted with the findings of the interviews and observations during the field research, the share of agriculture in the above figure appears significantly over-estimated. It is likely that the Census collected data with the traditional notion that if agriculture forms any part of the total livelihood package, a household is considered “agricultural”. A recent study found that at the country level “the share of farm income in total rural income has dropped from 40% to 36% over 2000-2010. During the same period the share of non-farm income rose from 34% to 40%, and that of remittance (domestic and foreign) income from 8% to 11% (Hossain, Sen, & Sawada, 2012). Interviews in the study area suggest that such figures are likely higher in southern Noakhali.

While the agricultural labor data is hard to find, data on cropping pattern, pisciculture, livestock and horticulture exist. Noakhali traditionally is not a rice self-sufficient district. If the southern

parts, which were accreted only recently, are not included, Noakhali's deficit will grow further, because the northern settlements with high inflow of remittance depend very little on the local crop production. The main crop is the planted *aman* variety of rice that is planted in August (i.e. toward the end of monsoon). Other crops such as *boro* variety of rice, which is planted in late November, are significant albeit with a much smaller acreage. While the per acre yield is high, the high population density, increasing water logging, and lack of irrigation has kept per capita cultivable land low.

Figure 24 Major cropping patterns (across seasons) in southern Noakhali



Note: 1. Planted or transplanted *aman* are rice varieties that are planted as seedlings toward the end of monsoon. The seedlings are grown during monsoon in a separate plot, typically a raised one that does not go under water during monsoon.

Source: Compiled from data provided by the four upazila agricultural offices (Year: 2011)

In recent years, poultry, pisciculture, and to a lesser extent livestock increased significantly.

During the field research in 2011-'12 and subsequent interviews over phone, it was striking how many "projects" (shorthand used by people to describe captive fisheries farms) were undertaken within the last 10 years. A "project" can be undertaken in one of these ways: (a) a pre-existing pond can be prepared by drying up, treating the soil at the bottom with appropriate chemicals, and release of fingerlings after filling with water, (b) excavating an agricultural plot to create a fisheries pond, (3) cordon off low crop land during the time it is inundated to raise fingerlings for up to 5 months. The recent proliferation follows several pioneers in the previous decade.

Poultry farms too have increased manifold around the region, creating a demand for, but also being facilitated by manufacturing of poultry feed. Poultry farms around the country and in the

study area vary in size. Some are as small as 2000 square feet, while some are multistoried buildings occupying several acres. In places, poultry farms with their odor and discharge of effluent is harming environmental quality. In the absence of any land use zoning control, there is no law governing the siting of a poultry farm.

In the newly accreted southern parts of the region, recent years have seen significant increase in acreage for cash crops such as peanuts, water melon, and soybean. The actual impacts of these cropping practices on the livelihoods are understood in the context of household livelihoods strategy discussed in the next section.

The manufacturing activities in the study area comprise very little heavy industry. Since the data was collected for Census 2011 several major industries were established and/or went into operation. We present the Census 2011 data on some of the notable industries in the 4 sub-districts being studied as a backdrop to the discussion that follows.

Table 10 Manufacturing sector in the region

Type of industry	Noakhali Sadar	Kabirhat	Companyganj	Subarnachar
Textile Mill	2 (777 jobs)			
Rice Mill	97	14	30	44
Handloom	20 (20 jobs)			
Husking crafts mill	783	1455	260	116
<i>Bidi</i> (handmade cigarette of lower grade tobacco)		1	1	
Pottery	8	11		27
Bamboo and cane	5 (12 jobs)	188 (564 jobs)	47 (22 jobs(sic))	82(245 persons)

Wooden furniture	174 (490 persons)	132 (132 persons)	59 (295 persons)	290 (844 persons)
Saw mill	37 (182)	36 (133)	52 (276)	62 (315)
Auto rice mill				3 (71)
Semi-auto rice mill	5(60)			
Rice mill	9 (72)	3 (3)	10 (108)	17 (167)
Oil Mill			2 (15)	
Bakery	15 (154)	5 (39)	15 (81)	148 (1362) (sic)
Printing press	6 (42 persons)			
Tailoring shop	311 (1244)	175 (620)	145 (422)	240(530)
Flour mill	10 (39)			
Plastic industry	8 (32)			
Pharma industry	2 (22)			

Source: Various tables in BBS, 2013 (District Statistics, Noakhali 2011)

It is noticeable in the table above that furniture making, tailoring (many clothing items are tailored to order in many parts of rural Bangladesh), and bakery are in large numbers in all the sub-districts. This corroborates the national figures for sectors of employment in non-metropolitan areas (in Figure 14) i.e. “wearing apparel”, “food and restaurant” and “furniture” among the top seven sources of employment. In fact, during field research, every village market center was found to have several of these. As a remarkably consistent feature of the rural market layouts, furniture making shops were found to be on the outer perimeters of almost all the markets. In addition to the above industries, brick kilns were also observed during the field research.

The district has two garments factories, both producing sweaters. One was established in 2003 and the other in 2012. Both are located to the south of Maijdee town. Defying any logic of garments factory location, the factories were established there because the owners' ancestral home is in that sub-district. The owner is one of the most-renowned industrialists in the country, as well as a politician who was elected to the parliament from a constituency in Dhaka City. The official statistics from Bangladesh Garments Manufacturers and Exporters Association show nearly a thousand machines and employees working in the two factories that are merely a kilometer apart. However, people around the area give a much higher number based on their perception.

One category of enterprises that did not find their way into official statistics (i.e. District Statistics, 2011) but we came across in the field research is dairy processing. Perhaps they are counted as “hotels and restaurants” and therefore considered a “service” (not manufacturing). However, the activity of dairy dessert-making is a processing activity with a backward linkage with livestock rearing in the region as well as the newly accreting land in the south, including isolated island like accretions. Other, small-scale manufacturing not found as an exclusive category in the official statistics is blacksmith. They can be found in most village markets because they continue to produce goods that are essential for the lifestyle of the households.

Perhaps the largest source of livelihood not reflected in the official statistics is transportation services. Driving a three-wheeler or pulling a rickshaw is the source of livelihood for many, especially since extensive road paving in recent years. There are more than 4200 rickshaws in Maijdee municipality⁴⁵ alone. In addition, there are motor-operated three-wheelers operating on fixed routes that serve all major feeder roads. There are three-wheelers for hire too.

Overall, the economy of the study area is one that has agriculture as a major component. However, the nature of agriculture rapidly shifted to a non-crop one in the last decade. A retail sector has emerged along with significant number of services, including advanced medical services such as relatively higher tech pathological and imaging services for medical diagnosis.

⁴⁵ As per the officer responsible in the municipality, the number of rickshaw-owners renewing annual license varies from year to year. The number rises dramatically if the municipality can get the local police to conduct a drive against un-registered rickshaws.

Much of the consumption of retail goods and services is supported by international as well as domestic remittance. Amid the rapid growth of economy there is still poverty or vulnerability to poverty. Further discussion on livelihoods, poverty and vulnerability is taken up in Section 6.6.

6.5 Major Commodity Chains

The major economic activities in terms of use of land, number of persons involved in the economy are rice, soy bean, peanuts, vegetables and water melons, and different fish species including prawn. Some smaller commodity chains that were observed are some artisanal mat-making, and large basket making for carrying fish. As a window into the political economy of the rural region, the commodity chains of these activities are studied below.

6.5.1 Rice

Rice, the staple food for nearly whole the population of the Bangladesh used to be the main crop to be cultivated by any agricultural household irrespective of the type of tenancy. In southern Noakhali most households with access to land cultivated at least some rice in one of the three seasons.

For agricultural inputs, there is a network of seed sellers in the study region. The government's agricultural offices offer subsidized inputs such as seeds, and urea fertilizer. However, as the sub-district agricultural officers admitted, the amount distributed is grossly inadequate. Thus, a market for inputs, where commodities are priced higher, operates parallel to the government programs.

Rice is the staple food for all households. Households with significant income from non-farm sources such as a well-paying job or remittance from abroad, irrespective of their landownership, sell little or no paddy upon harvest. Households such as these who can afford to not sell rice, will hold onto rice for household consumption. However, most of the households specially the small farmers were selling rice soon after the harvest to pay off the loan they had to take at the beginning of the season to buy agricultural inputs. Though in decline, there is a traditional financing mechanism called *dadon* (output-tying loan) where the grower is offered credit at the beginning of the season with the condition that the harvests must be sold to the creditor at a lower price than the market price plus some form of interest often in kind. In the past two

decades, with the increased reach of the micro-lending NGOs, fewer small peasants are taking loan from the *dadonders* (people who offer *dadon*). On paper, there is a Bangladesh Bank Policy that requires all banks in Bangladesh (whether or not they have branches outside metropolitan regions) to offer farm credit. However, in effect this requirement has increased sleight of paperwork by the banks to show disbursement in rural areas. Whatever loan is available for disbursement, the poorest peasants who were interviewed in this study did not have access to. However, some middle farmers admitted to receiving loans from government banks that covered only a small portion of their production cost.

The marketing chain of paddy (and after milling, rice) have a few actors that have been there for decades if not centuries.

Table 11 Major actors in the marketing chain of rice

Actor	Role
Grower	Cultivates rice and can sell
Faria	Itinerant trader who collect paddy from village markets
Bepari	Itinerant trader who collect paddy from village markets and <i>farias</i> . They have enough volume to do some sorting of rice
Aratder	Large wholesaler who collect from beparis, <i>farias</i> , and even large growers
Millers (both small and recently established auto-mills that can process upto 500 tonnes a day)	Does dehusing, and often parboils rice. Sells rice
Government's food department	The share of the government's purchase in recent years is barely 4%-9% of the production
Wholesale rice sellers	Sells rice to retailers
Retailers	Sells to consumers

Source: From Murshid, 2011 (who studied part of the study area) and confirmed in field research

The flow of paddy and rice is not as linear as this table might be taken to suggest. In some places the growers will sell directly to mill. In others, middlemen are involved. The share of the total

volume passing through the above actors varies from place to place. In some northern parts of the study area, some seasonal rice processors will do the work of the mills, albeit to a much smaller extent with rudimentary technology. These rice processors are employed by the growers who do not sell in the market and consume rice from their own land.

The determination of production costs, selling price, and flow of paddy and rice require significant investigative work because the respondents sometimes did not want to divulge their trade secrets. But most of the time they do not do accounting and keep track of expenses the way a larger firm would do. There was significant recall bias too in the answers given by the respondents. For the purposes of this dissertation, we are interested in rural productivity and poverty focused value chain analysis, as opposed to detailed spatially disaggregated analysis of flow of paddy and rice. The prices vary with type of rice (*boro*, *aman*, and a few less cultivated varieties), and location within the study area that is close to 570 square miles. More importantly the prices vary across years. The estimate of production cost also varied widely from one interviewee to the next even in the same village. The average cost among the rice growers in the (of the non-probability) sample was Tk 630 per maund (37.32 Kg) in the 2011 Boro season (March to June).

The selling price for 2011 was particularly low nationally and made headlines in newspapers. Growers made very small to no profit, and in some cases incurred losses that year. In better years, they earn a profit of about Tk. 12000 per *bigha*⁴⁶ on an average.

The marketing chain of rice in the southern *charlands* was studied in the late 1980s and early 1990s by Crow & Murshid (1994). Later published as a book (Crow, 2001), the study offers a detailed picture of how paddy and rice marketing worked in the conditions that existed then. By the time the field study for this dissertation was conducted in 2011-12, the conditions changed. The findings of this study corroborates the findings of a repeat study by Murshid (2011). The major changes between early 1990s and 2011 are that the role of paddy wholesalers (*aratders*) drastically reduced, and large automatic rice mills were established by large capitalists. As mentioned earlier, large Bangladeshi conglomerates are getting into rice milling in recent years

⁴⁶ A widely used unit of area in Bangladesh. Equals 14,400 sqft.

by procuring automatic mills imported from China and Europe (The Daily Star, Jan 22, 2015). At a cost in the region of US\$2.5 million, these mills require no human contact between feeding harvest from the field and getting packaged rice in bags. There are also semi-automatic rice mills where substantial portions of the processing are done by the machine.

The reasons for such major changes in the value chain is as Murshid (2011) proposes, and corroborated by interviews in this study:

“Twenty years ago, the paddy *aratdars* in Noakhali were charged with the job of procuring supplies either from outside districts or from the *chars*. While in terms of distance, the *chars* were not far away from the market town, access was difficult due to poor roads. Moreover, these were often newly settled areas with loosely organised communities, representing greater risks in exchange, especially when it came to trade with outside entities. It was under these circumstances that paddy *aratdari* proliferated at the time. These conditions have now changed with better infrastructure, communications and the advent of large automatic mills deep inside the *chars*.” Murshid (2011, p. 9).

The appearance of the auto-rice mills in Subarnachar also is reversing the flow of paddy. Previously paddy used to be transported out of the *charlands* to the northern rice mills that used crude technology requiring significant manual work. By 2011, some paddy was transported south to the automatic machines as they can process more than the local production of paddy. However, large and some middle farmers who prefer to eat rice from their own fields use the traditional smaller rice mills, or use their own homestead yards, or occasionally seasonal millers who parboil and process paddy using crude technology.

What did not change much is the institutions that are detrimental to the small peasants and sharecroppers. For example, despite the increased reach of the micro-lending organizations, the small peasants were seen to be taking *dadon*, as well as other forms of interest where they agreed to pay off the loan in cash and an amount of rice per Tk. 1000 (often up to 30 kg of rice per Tk 1000 at the end of the season). Furthermore, government purchase program is by design not able to help the poor. It is convenient for the Government to buy rice as opposed to paddy. However, only the millers, not the growers, can sell rice. The high price the government is willing to pay does not translate into high price for paddy that the small growers must sell immediately after

harvest. Aware of this inequitable impact, the government in recent years started buying some of its purchase as paddy⁴⁷.

These exploitative relationships and meager profit with significant work load (3 and a half months of gestation period with many transactions and action items) amid volatile prices confirm that rice cultivation is not a way out of precarious existence in the current state of affairs. Higher yield in some years suppresses the price and yields little extra profit.

6.5.2 Soybean

There is an increasing number of poultry farms and fish farms in Bangladesh. Starting in the early 1990s, the number of poultry farms grew rapidly to about 100 to 120 thousand in 2015⁴⁸. This high number would have been higher if the viral flu episodes of 2007, 2009, and 2011 did not happen. Most of the commercial operators used to be small and medium operators with investments of US\$1000 to US\$5000 in the earlier years. However, since the avian flus of 2007 and 2009, many small operators have gone out of business. There is a trend of large capitalist concentration in the sector.

Together with poultry, aquaculture has increased in both the country and the study area.

Soybean is a significant ingredient (along with, among others, rice bran and mustard oil cake) in fish feed for many of the aquatic species cultivated in Bangladesh. Despite the burgeoning market for soybean oil, the bean produced in the country is used as input in the feed industries, while the major soybean oil brands import crude degummed soybean oil to produce a refined one for cooking. Soybean is cultivated in approximately 7,500 hectares in the study area. All of it is in the southern parts. Soy bean is cultivated almost exclusively by middle and large farmers because of its needs for relatively expensive inputs specially irrigation.

In 2007, a poultry feed producing factory came into operation in the Subarnachar sub-district. Another large agro-feed factory was built just north of the study area in early 2016. These

⁴⁷ For example, the government will procure 700,000 tonnes of Boro rice and 600,000 tonnes of Boro paddy at Tk. 32 per kg and Tk. 23 per kg respectively in 2016-17. Source: <http://bdnews24.com/business/2016/04/24/government-to-procure-boro-rice-at-tk-32-per-kg>

⁴⁸ World's Poultry Science Association-Bangladesh. Reported in the Daily Star (Feb 20, 2015).

poultry, fish, and livestock feed manufacturers use local soybean. In addition, a large volume of soybean is sourced from outside the district, mostly imported from Latin America and India.

6.5.3 Vegetables and Water Melon

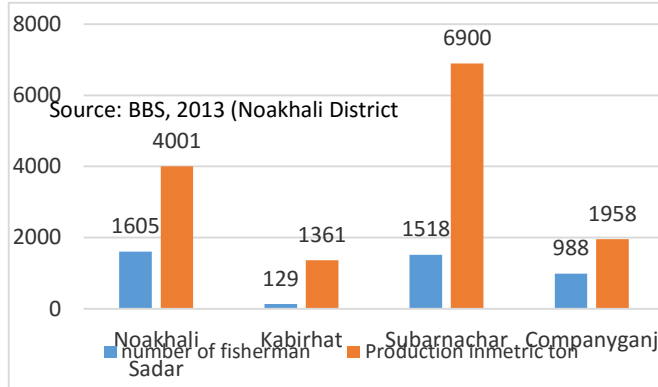
The commodity chains of these products comprise a small number of actors. Some of the traders in the largest vegetable markets in the study region as well as in Chittagong offer loans at the beginning of the cultivation season (October in the case of most, but not all vegetables). At harvest these traders bring their own trucks at the farm gate and haul the produce away, mostly to Chittagong. A small portion gets into the district headquarters market and local markets. In the case of water melon, which is cultivated only in the southern parts of the study area, wholesale buyers come from Dhaka too.

6.5.4 Fish

Ponds are a ubiquitous feature of the region. House construction requires raising a platform via earth-filling and in the process, a pond is created. However, since a cluster of homesteads that leads to creation of a pond is owned by many households, ponds are mostly jointly owned, requiring collective action. Sharing of production costs (money as well as labor for maintenance, and guarding against pilferage) and benefits require cooperation, which is not always available. In the last 10-15 years, use of both jointly and individually owned ponds for aquaculture has increased primarily because knowledge spillover, and increased availability of inputs such as fingerlings around the country.

Total pond area in the district of Noakhali is 12,322 hectares, of which 9857 hectares are cultured (BBS, 2011). This ratio should hold for the 4 southern sub-districts that comprise the study area. In fact, based on the recent trends, more of the ponds that remain fallow will be brought under aquaculture.

Figure 25 Number of fishermen and production of fish in 2010-2011



In addition to ponds created during homestead constructions, recent years have seen proliferation of fisheries projects, where nets are used to create pens in times of high water levels in fields. Many returnee migrants are getting into pisciculture as a source of livelihood because it is profitable, requires less work and fertilizer, as many interviewees reported. The level of technology is not intensive. Thus, the need for daily operation and maintenance that is characteristic of intensive techniques, e.g. aeration of water, is absent.

There is very little processing involved in the way fish is marketed in Bangladesh. There is no canning operation except for salted *hilsa* in another district in the country. Except the fish feed, ice for preservation, and fish carrying baskets woven from bamboo, it has very little backward linkage. Upon harvesting, traders take fish as inputs to the distribution network within the district. The large fish farms in the south have their own marketing channels that stay almost independent of the region that host them.

Prawn began to evolve as a commodity chain in the mid-2000s almost solely at the instigation of the Greater Noakhali Aquaculture Extension Project (GNAEP, funded by DANIDA). The project had been in operation since 1998, but later changed its focus to a pro-poor *modus operandi* and livelihoods support, as opposed to supporting large-scale “plantation” model of aquaculture. Poor households were trained to raise post-larvae to juvenile stage in backyard ponds or even

large earthen pots. The juveniles are then sold to grow-out pond owners, who are also large landowners.

Noakhali did not have a shrimp or fish processing plant until 2006. Some of the sweet water prawn produced in the area was being consumed locally. Some (quantity could not be ascertained) of it was being sent to shrimp processing plants in Chittagong via a network of traders. In 2006 a processing plant⁴⁹ was established by a large private conglomerate with the help of the GNAEP. The plant remained closed for a few years after the owner of the conglomerate that owned it was given a prison term in 2008 for embezzlement of fund in another company. This put the prawn producers as well as the producers of carps at a disadvantage. However, in 2013 the processing plant went into operation again. This study did not have the time to investigate the impacts of this re-opening on the income of small producers.

6.5.5 Poultry

Bangladesh experienced rapid growth of poultry and aquaculture beginning in the late 1990s. The number of poultry birds (i.e. ducks and chicken combined) rose from 233 million in 2005-6 to 279 million in 2010-11 (Bangladesh Economic Review, 2011). Still Bangladesh is a net importer of chicken meat and eggs. In the last two years, three prominent conglomerates in Bangladesh have started selling pre-marinated refrigerated chicken via retail chains. None of the processing plants are in Noakhali.

The poultry farmers in the region buy feed from the ubiquitous feed stores in the larger rural markets. Meat and egg produced in Noakhali are mostly for local household and restaurant consumption.

While poultry farms have produced a significant income source for many, and have helped increase the supply of meat in the market, it also has been one of the biggest sources of environmental degradation in the area. While not inherent in poultry farming, the design of farms and the way operations are conducted allow the droppings to be discharged into the surrounding environment. Water bodies which work as commons in that anybody can wash and take bath in

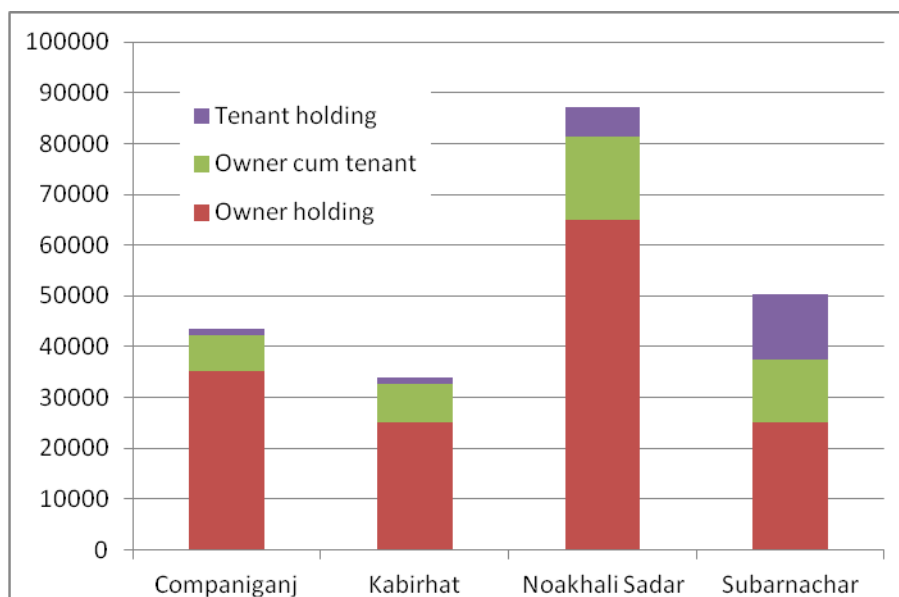
⁴⁹ Noakhali Gold Foods Ltd.

have become unusable in some areas. Some control of such discharges (perhaps as use of droppings as input in composting) needs to be introduced.

6.6 Livelihoods Profiles, Assets, and Vulnerabilities

The study area is small holder dominated area. In this respect, it contrasts significantly with the northern, especially northwestern, parts of Bangladesh where large land owners own significant amounts of land. Such relatively less skewed land ownership pattern in the region leads to a mode of production where 90% of the farming households cultivate either exclusively own land or some leased land (e.g. on crop-sharing terms) in addition to own land (Figure 26 below). The land grabbing by absentee townspeople in the newly accreted areas is reflected in the relatively high number of tenants in the Subarnachar sub-district

Figure 26 Land ownership and tenancy in the region



Source: Agricultural Census, 2008

The livelihood structure is significantly, but not wholly, influenced by the above landownership structure. We used a series of interviews of households to build a picture of different profiles of “capitals” in the sustainable livelihoods framework (namely, human, financial, natural, social, and physical) and the vulnerabilities that households have. Through these interviews and observations, a picture of livelihood patterns, perceptions, and decisions of the households of different asset and vulnerability profiles emerges.

In the preliminary interview of residents, it transpired that the choices of livelihoods varied somewhat, though not exclusively, by ownership of land. For the sake of keeping number of groups small we created two categories of households in terms of landownership. Within each group, we created two sub-categories based on where most of the family income came from. Thus, we had four groups of people to interview:

- (a) Small-holders and functionally landless households with significant source of livelihoods outside the district
- (b) Small-holders and functionally landless households with principal source of livelihood in the locality
- (c) Middle-farmers or/and large sharecroppers with sources of income in the locality only
- (d) Middle farmers with significant sources of livelihoods outside the locality

Middle-farmer and large sharecroppers with sources of income in the locality only

In the literature on agrarian transition, the middle farmers are seen as the ones with no to small amounts of surplus. In most crop cultivating bio-physical systems that would put ownership at 3 to 7 acres of land. The Bangladesh Agricultural Census defines them as owning 2.5 to 7.5 acres. Land ownership data at sub-district level is not available. In the district (Noakhali) of which the study region is a part, only 6.2% of the households are of this ownership category⁵⁰. During field visit, we requested to be shown such households. While there was no intention of precisely estimating the proportion of middle farmers and large farmers among all households, it appeared that around 4 to 7 households out of a hundred were of this category. We found households of this category at this small ratio, even though they are generally prominent to locate as they generally have a large house and are well-known in the locality.

The principal crop for most middle farmers is rice. In the planting season that starts toward the end of monsoon (August), transplanted *aman* variety of rice is cultivated on 70%⁵¹ of the cultivated land. During the dry season (*Rabi*, roughly November to February), areas in the north

⁵⁰ With large farmers comprising 0.86% of households (Bangladesh Agricultural Census, 2008)

⁵¹ Compiled from Agriculture Offices of four sub-districts that comprise the study area (for the August to Oct. 2011 season)

and some irrigated pockets in the south see a variety of crops that include, in the order of acreage, soybean, *boro* variety of rice, vegetables, legumes of different types, peanut, and chili.

Farmers would take a loan⁵² in the beginning of the season to buy the inputs. At the end of the harvest season, they sell some of it to local rice traders at “farm-gate”. The volume sold is influenced by the amount taken as loan by the households. Because of the presence of many sellers at this time of the year, the prices are low. However, the farmers with loans are bound to sell a large portion of the harvest to repay their loans. They did not have the means or connections in the larger markets to take advantage of the higher prices there. It is interesting to note that it is not lack of market information that prevents these selling farmers from getting a better price. Thus, availability of cell phone, which all households in this category owned, did not help much. As one farmer told me when I mentioned the availability of price information in a distant larger market via cell phone, I was dismissed with the question “what’s the point of having information?” (Momen, 2012b). The farmers do not produce enough to have economies of scale in transportation to distant buyers.

Cooperatives would have been one way to solve the problem, but there was never enough leadership among farmers, and the unwritten loyalty to traders also precludes any consideration of that idea.

Even as agriculture is the principal source of income, households of this category had other sources of income too. The source of such additional income, its amount and its seasonality depends on a few factors. If there are enough members in the household, perhaps one will set up a shop in the local market. Women in such households are increasingly getting into income earning activities even though traditionally households of such landholding perceived themselves as too well off to do it. Such activities include crafts of different kinds. In the households where children are now grown-up, they are often in a city holding jobs of different kinds.

In addition to rice, many of the households in this category are venturing into non-crop agriculture, including aquaculture and poultry. The conversion of land away from rice cultivation

⁵² In our non-random sample of households in this category, nearly 75% took a loan.

is highest among this group. Some of the new uses introduced are sweet-water prawn cultivation, tilapia and carp farming, non-cereal agriculture such as soybean (in Subarnachar exclusively), and even poultry farming.

Is there a typical middle farmer in the study area? This is the group that is most amenable to a generalized description compared with the other groups described below. They employ agricultural workers. They also often have another source of income other than income from land. Such occupations include teaching at a local school, a job at an NGO, running a poultry farm, or having a business in the local market. Perhaps the biggest vulnerability for this group would be lack of control over price of inputs, and the selling price that they can command. In parts of the northern older settlements, perhaps one source of vulnerability is the recent increase in water logging because of blocked drainage channels downstream. This vulnerability in the natural “capital” is not unique to this group alone. We discuss it in the conclusion of this section.

Small-holders and functionally landless households with principal source of livelihood in the locality

Functionally landless households are the households that have no cultivable land even when they have a place of residence. Among the functionally landless, a large number had their sources of livelihoods in the locality. This group is the most heterogeneous in terms of sources of livelihoods. They engage in a wide range of activities. This may include petty trading to agricultural labor, or pulling a cycle rickshaw, and more rarely, driving an auto-rickshaw. Households in this category have much less education than the other categories. In many of them children were found to be working to earn an income for the family. When the household is headed by a female, such households are further disadvantaged.

Construction of roads in the late 1990s made pulling a rickshaw or driving an auto-rickshaw more feasible. They rent these vehicles and often spend a substantial part of the year engaging in this. Another major source of livelihood is petty-trading, often dictated by season. Examples of such petty-trading include selling small amounts of fishes or vegetables, or some household utensils at a market place or from a non-motorized tri-cycle van.

Traditionally, the rainy seasons offered an interesting opportunity for the poor people. When the agricultural plots are under water, they are recognized in most parts of the study area as well as

the country as “commons”. The poor would often catch fishes and harvest aquatic edible plants. However, more and more agricultural landowners are now cultivating fish in pens during the rainy season. Consequently, they are being taken out of commons. Such practice of fish-farming is increasing in the north-central part of the region. Households of this category found such erosion of commons diminishing their opportunities at livelihoods.

People of this category cherish migration to any foreign country. Very few can save up enough, or have access to a loan to buy passage. Drawing loans from multiple micro-credit organizations simultaneously is common to the point of being the norm. Some, especially the young males will likely work in another district or city at some point in their lives, especially the ones who learn to drive an auto-rickshaw. Some make their migration permanent. Others, especially the ones with at least a place to live, were found to return.

Middle farmers with significant sources of livelihoods outside the locality

Among the middle farmers (i.e. approximately 7% of the households), nearly half had income outside the rural region, as per the non-probability sampling. More and more households are seeking income beyond the rural region. Such families typically have one or more sons or daughters (often with a post-secondary or higher degree) profitably employed in a city or in a foreign country. While countries in the Arab Peninsula were the early (1970s) destinations of migration, the East and East Asian countries such as Malaysia, Singapore, Korea, and Taiwan, and Europe increasingly became a destination since the early 1990s, with a brief hiatus following the Asian Crisis of 1997 and 1998. In recent years, migration to South Africa has increased significantly. It is estimated that there are 80,000 Bangladeshis living in South Africa now. Noakhali is one of the districts from where many people have emigrated to South Africa. Within Noakhali, the interviewees reported, almost all the migrants are from the northern parts where poverty is less.

For such households, agriculture carries increasingly lower importance in the livelihoods profile. They often offer the land for sharecropping to the landless or small-holders.

Small-holders and functionally landless households with significant source of income outside the district

This is the biggest group. In the southern parts of the region, a large number of males in such households work in brick factories outside the region for the entire dry season. They generally contract for Tk 40,000 (\$550) to Tk 60,000 (\$750) for the 5-6 months of dry season. They receive some of the money as an advance payment that they leave with their family to get through the days of their absence. Because of borrowing from the labor contractor throughout the year, many of the workers remain indebted, and are obliged to work the next brick-making season. However, a lump sum earned this way helps some households make investments for future in the form of purchasing a small plot of land, or upgrading and repairing the residence, or paying for the passage of a member of the household to the Middle East.

Other households would find work in different districts in the country in different occupations that include working in transport and petty-trading. Some recent developments see interesting home-based livelihood opportunities such as weaving ceremonial head-gears (*tupi* in Bangla). *Tupi*-making is an emerging business in some parts of Bangladesh that exports to countries in the Arab Peninsula. The women in rural households do hand-embroidery on pre-designed pieces of clothes that are then collected from door to door, and taken to a factory where they are stitched, washed and packaged for shipping to the Arab countries. The women in their leisure time can do the work for 2-3 *tupis*, earning them upto US \$16 a month. A *tupi* typically sells for US\$10 to US\$12 in the Arab countries.

6.7 Profile of Households that are in Poverty and Predicament

The study area had poor households that are income poor and socially deprived. The official upper-poverty-line poverty rates as per the Household Income and Expenditure Survey of 2010 (WB, WFP, & BBS, 2014) for the four upazilas are between 8% (Companyganj upazila) and 19% (in Subarnachar). However, this poverty line of 2105 calories of consumption is extremely low. In other words, the estimate of poverty is significantly underestimated.

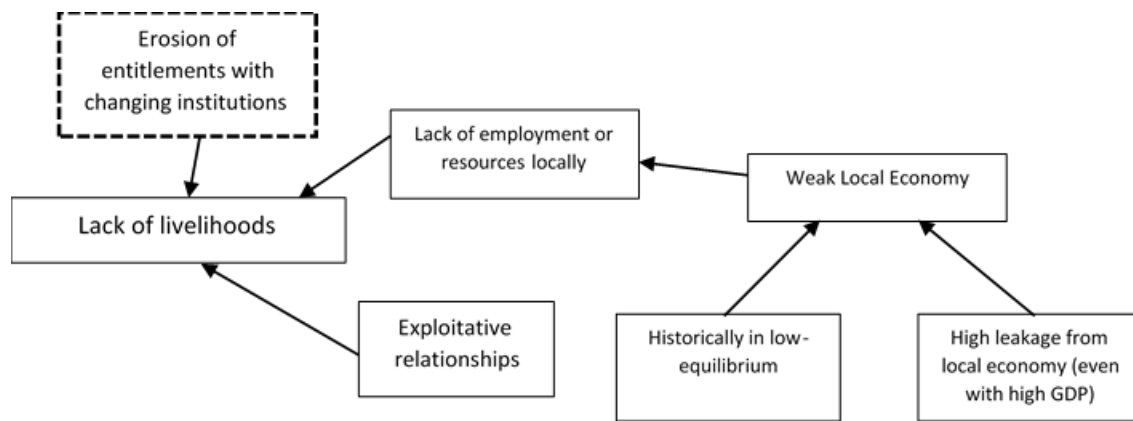
Beyond these officially defined poor, there are households that have barely enough nutrition to not be counted as poor, but do not have much else. There is no typical poor or precarious household but certain characterization is possible in light of the field research. Resource-poor precarious households (a) have very little or no land, (b) have low level of education and nearly no skills in trade, and (c) are often poor for generations. Their often seasonally variable roster of

occupations includes rickshaw-pulling, wage-laboring, street-vending and small scale capture fisheries. They include women headed households, households with a stroke of bad luck (such as an illness, or being swindled out of money by unscrupulous man-power exporting agents). None of these occupational groups have any cultural attachment to the occupation they have adopted. Hence, poverty alleviation does not have to deal with the guilt of “destroying a way of life” if it is necessary and possible to move them from an occupation that has offered them nothing more than a precarious living.

As identified here, per official statistics (i.e. using the 2105 calories poverty line), the southern parts have highest levels of poverty (Figure 16). However, deep and chronic poverty was encountered all over the study area in varying numbers. Often poor households existed as close neighbors to non-poor ones in the same cluster of households. Some such households depended on a special notion of commons where agricultural land when under water can be accessed by all for catching naturally-occurring (as opposed to farmed) fish, and for harvesting edible aquatic plants. In what might be a portent of a larger trend, some owners are now cultivating fish on their submerged land in seasonal pens, and thereby removing their land to private domain from commons even in the rainy season. This empirical observation opens our eyes to a new phenomenon: Changing social institutions can result in loss of livelihoods, which in turn can increase precariousness (figure below).

Figure 27 Changing Common Property as a Contributing Source to Loss of Livelihoods Opportunities

Note: Following figure adds (in light of field research) to Figure 4 by adding the box in dotted lines.



This last aspect of loss of entitlement through the loss of commons is reflected in the above figure. The dotted box shows an additional source that diminishes livelihoods opportunity. i.e. changing agrarian institutions can bring potential squeeze on the livelihoods options for many poor households.

6.8 The Rural Market Places, Towns and Rural-Urban Interaction

There are three towns in the study area. The largest one, Maijdee town, with a population of 107,654, (Census, 2011) is also the district headquarters. Other two are two municipalities in the Kabirhat and Companyganj sub-districts. The southern-most sub-district, Subarnachar, is entirely rural. As identified in the discussion of commodity chains (Section 6.5), much of the commodity chains by-passes the towns. A tally of types of trade license renewals by the Maijdee municipality during the second half of 2011 shows that it is mostly “service” type of businesses that constitute the urban economy. The government and administrative services provide the basis for the urban economy, while manufacturing and processing constitute a small portion of the urban economy.

The other two towns are even smaller, and the town economies are oriented toward serving the consumption needs of the hinterland.

Increasingly the towns are seeing more and more items of luxury such as ceramic bathroom fittings from Europe, refrigerators, and designer faucets. They are also serving the consumption needs of rural households. During field interviews, we found families who moved to these towns from village homes because they could afford to rent a place in the town. Two major reasons given for such move is that (a) they wanted their children to attend a school in the town and (b) superior urban amenities. However, one longtime resident who is also a journalist told us that moving to a town from the village home, even if to a rented place is perceived as increasing prestige. Often these households are remittance receiving households or households with considerable income from rural sources. In this and other similar ways, towns are becoming sites of services and consumption.

However, the towns’ involvement with the production process and commodity chains is rather limited. For example, among the market places with soybean wholesaling storage-cum-shops,

only two (Maijdee, and Chowmuhani, which is 5 miles off the study region) are in the towns. Better road connection means that commodities can be collected in the rural markets, and taken to their processing plants with no need to handover to another middleman in the towns.

The rural market places (bazaars) play an important role in the rural regional economy. There are 108 government-managed rural markets in the region as per the District Administrator's Office: 31 in Sadar upazila, 39 in Subarnachar, 21 in Kabirhat, and 17 in Companyganj (as of November, 2011). They are of different sizes. All of them have some permanent shops and trading spaces. Each bazaar on two days of the week, known as *hat* days (that are known in the locality) attract a larger number of sellers and buyers. The sellers can be as small as requiring 12 sqft space on the ground. A low-income person can be seen to be selling as small as a kilogram of assorted fish, or as few as one chicken. Some might be selling local hand made products such as half a dozen strainers/colanders made from the bark of two local plants (*mostak* and *hogla*). Urban sellers with manufactured products come too. The full extent of the diversity of the economic activities in the village communities is on full display on a *hat* day. A significant portion of such trade is rural-to-rural and has a network character (as described in in the discussion of reciprocal rural-urban linkages in Section 3.4.10). For example, artisanal basket weavers in the western parts of the study area can be seen selling their products in other rural markets in the region and beyond.

The poor people who sell their small amounts of products (such as a kilogram of fish, or two chickens raised at home) in markets like any user of market space are often asked to pay a toll. Rural markets in Bangladesh are leased out by the government to private parties for collection of tolls. It is widely known that the contracts to collect tolls are won by corrupt means and/or coercion. Thus, rural markets produce an opportunity for rent-seeking. As an important hub of local economy, the rural markets thus contribute in some way to create (Ricardian) rent. Many of the poor households interviewed mentioned such toll as something that constrains their chances at an income. In this regard, rural market development and cheap or free access to it, as in RUPP (section 3.4.6), takes on significant importance.

6.9 Development Interventions by the Government and NGOs

6.9.1 DANIDA's rural development projects including the Noakhali Integrated

Rural Development Project and Greater Noakhali Aquaculture extension Project (GNAEP)

The Integrated Rural Development Project was the largest project that the Danish International Development Agency (DANIDA) took anywhere in the world. Brunbech (2011) offers a detailed description of how the project came to be conceived in the late 1970s, and how some of its components succeeded while others went awry. The Danish agency saw the project as a “basic needs”⁵³ project, while the then Bangladesh government wanted it to be another productivity increasing IRD project. To accommodate differing preferences, the project became a motley collection of components that included:

- (a) A highly successful elementary schooling component that helped increase literacy in Noakhali district throughout the 1980s. However, the Ministry of Education could not take up the component at the conclusion of the project in the 1990s,
- (b) Agriculture support projects with the *modus operandi* of standardized agricultural extension of the time,
- (c) As a later introduction in the early 1990s, a piscicultural extension work (Demaine, 2009).

DANIDA fully supported the GNAEP and brought it to operation in 1998. In the following years, the carp and tilapia production in the district increased manifold. However, it helped mostly the large land and pond owners, as small ponds (less than a few hundred square feet) dry up after the rainy season. To reach the poor, the project later helped with establishing a prawn commodity chain. A central part of the project was to help the poor, mostly female headed, households raise prawn post-larvae during the months their small ditches have water. The juveniles are then sold to pond owners, whose production was meant to reach a processing plant that DANIDA helped establish (the Noakhali Gold Fish Co.) in 2006. This project also attempted to obtain international certification of quality and traceability of prawn and its feed. The prawn commodity chain in the district is entirely of DANIDA’s creation.

⁵³ As described earlier, the basic needs approach, articulated by Streeten (1979), emphasized direct provision of basic needs such as health services, and education to the poor to fight poverty. This stance was argued in the 1970s in contrast with the “increase rural (agricultural) productivity” theme of Integrated Rural Development.

6.9.2 Char⁵⁴ Development and Settlement Project (CDSP)

The Char Settlement and Development Project (CDSP) was undertaken in the southern parts of the study area where new land is accreting for the last five decades. The Project was undertaken with multi-agency involvement to, among other things, stabilize and protect new accretions in three different parts of the study area that comprised 12,750 acres. More recent and unstable *chars* further south remained, on paper, under the Forest Department's jurisdiction for afforestation. Like all *chars* before, most of the forest lands were already settled by desperate people, despite harsh conditions there.

Like the Land Reclamation Project (1978-1993) before it, the CDSP's goal was to settle more landless households and provide livelihoods support. There were infrastructure components where water management infrastructure—30km of embankments and two sluices—were constructed, while a total of 104 km of drainage canals were re-excavated. The Project built and improved 75 km of rural roads and constructed five bridges. It also built 17 cyclone shelters, 212 deep tube wells and installed around 4,000 toilets.

Regarding the objective of settlement, one core aim of the program was to settle 5,000 landless households on *khas* land. According to the project documents, by September 1999, 4,450 landless households were settled in three polders. Each household received different amounts of land not exceeding two acres. The deed of registration was made in the joint names of the husband and the wife.

CDSP's other major settlement component was 34 clustered villages with 990 houses in them. In all of them, the allottees got little or no agricultural land. There was land around the cluster villages that on paper was *khas* land. However, it is a sad commentary on the state of affairs that the government was not in actual possession of the land, and had to design housing projects that fitted that deficiency. The Project included multiple components that included awareness building about health and nutrition, training of village birth attendants, support to primary schools, help government's agricultural department in demonstration and extension on improved farm and aquaculture practices, support to livestock vaccination and development of community-

⁵⁴ Bengali word for accreted (depositional) land.

based water management institutions. The CDSP was extended for a second phase for another 5 years, from 1999 to 2004. In its second phase, it extended further south and east with two new sites added for empoldering⁵⁵. The project also undertook a host of interventions in unprotected *chars*⁵⁶ that were not yet ready for empoldering (CDSP, 2005).

The experience of CDSP highlight several themes related to the framework for rural regional development that was laid out toward the end of Chapter Three. The settlement component succeeded in settling many genuine landless people in plots of at least an acre. The roads and drainage components also set the basis for human settlement for future. However, despite best efforts of the CDSP, significant amounts of land were captured by the townspeople (as described in Section 6.2). This reflects the relative helplessness of a project in the face of a corrupt state. It is perhaps possible for rural regional development to happen even in the face of a corrupt state. However, in the given context of high importance of land, the corrupt state perhaps undermined the long-term prospect of rural regional development by creating an unequal land ownership pattern in the southern parts of the rural region.

6.10 Issues in Rural Regional Development for Southern Noakhali District

The examination of the state in Bangladesh and the political economy of the rural region studied here allow us to deduce an answer to the question of prospects for rural regional development in the region. To do that we go back to several issues below.

6.10.1 The Assets and Vulnerabilities Shaping Livelihoods

The livelihood options of the households, as described above, can be summarized as follows: For most households, it is small-holder agriculture supported by one or more low-reward labor intensive non-farm livelihood options (rickshaw pulling, petty trading and similar occupations). Another strand is migration of one or more household members. Subsistence agriculture, i.e. producing for own consumption while staying independent of markets, has virtually disappeared.

⁵⁵ South Hatiya (SA) area and Muhuri Accreted Area (MAA) area.

⁵⁶ Among these were Char Torabali-Gangchil, Nijhum Dwip-Bandartila and Char Moradona.

Many still do not hire labor, but they are forced to run their small farms as an enterprise, where inputs must be purchased, and output must be enough to reproduce.

With household welfare as the goal, the long list of issues to inform a rural regional development strategy must start with the ones pertaining to household livelihoods. Such issues, as put together in the synoptic (though not analytic) Sustainable Livelihoods Framework, are the assets and vulnerabilities that shape the livelihoods outcomes for households. As the review of livelihoods pattern and their underlying determinants in this chapter reveal, other than “human capital” and “financial capital” most of the assets are in the domain of the community or larger geographic scales.

The resource-poor households have very little human and financial capital. Interview of households show that they have their perception of “capitals” they are missing or inadequate in. Often the “capitals” that interviewees thought they lacked were the ones that the government can provide. Examples include physical infrastructure, law enforcement, and fairness in the conduct of the state apparatus (such as in disbursing low interest rate agricultural loans, upkeep of roads and drainage systems). Most interviewees see the level of their education or skills as a given, and do not perceive it as something they can change. Perhaps they know it is too late in their lives to address that. It is telling that households in poverty or near-poverty rarely identified education for their children as a priority. Perhaps education is too long term an objective, and they have more short term concerns.

Some of the inadequacies of capitals as identified by the households are:

- (a) Water-logging in parts of all four sub-districts, perhaps most prominent around Noakhali canal and the Maijdee and Kabirhat towns,
- (b) Lack of irrigation (deep tube well) throughout the region,
- (c) Disrepair of roads in the region,
- (d) In the newly accreted lands, the collusion between the state apparatus and the power elites in capturing land, and threat of violence,
- (e) River erosion in the south of Companyganj sub-district.

Water logging is increasing in parts of the region because of two major reasons: (1) The Noakhali canal (approximately 18 miles), which was first excavated in 1660 can discharge very

little of the water it carries south to the bay. The area close to the bay has accreted and the canal does not have an outlay downstream. In addition, the bed of the canal has also risen through sedimentation. Dredging the canal will increase its capacity to hold water during the months of high rainfall (May-August), and provide water for irrigation afterward into the *Kharip 2* season (August to November). In the eastern part of the region, during the years of heavy rain, the deluge overwhelms the silted Bamni and Chhoto Feni rivers and causes flooding.

The region does not have any Ministry of Agriculture-administered deep tube-well irrigation. The only deep tube wells are installed by large private operators⁵⁷ who do large-scale pisciculture. The lack of irrigation is most acute in the Subarnachar sub-district. As was observed during field visit, during the dry *boro* season, some small farmers and sharecroppers use small pitchers, often as small as 3 gallons in size, to carry water from a pond to irrigate land. It is hard work walking a few hundred feet to and from the pond for a few gallons of water. Others innovated to transport water from hand-powered tube well in their homestead via polythene pipes to the fields. Despite these valiant efforts, some 163 thousand acres remain fallow in the region for want of irrigation. This is complicated by the fact that in the southern parts of the region, sweet water cannot be found at depths shallower than 250 feet.

The region has a high density of rural roads, a large portion of which is paved with tar macadam. From time to time they fall into disrepair. Small traders who transport their products such as fish, and vegetables to rural markets are most inconvenienced by the muddy and potholed roads. It adds to their cost and time of travel. In much of the southern areas, even the feeder roads (let alone village roads) are muddy during the rainy season. As most items the poor consume are transported from northern markets (including the staple rice), it puts a burden of higher price on them.

Thanks to the work of the sensitization by the NGO *Nijera Kori* and a few others, the landless people are aware of their rights to any accreted land that rises from the sea. This community

⁵⁷ The District Statistics 2013 published by the Bangladesh Bureau of Statistics list zero deep tube wells (DTWs) in the table “4.13 Number of deep tube-well scheme 2010-11”. However, during field visit we came across privately installed DTWs.

mobilization has created what can be called “social capital”. However, in other areas of the district, the “capital” is often truncated.

As documented here the state is appropriated in the service of the powerful. This fact perhaps is the most serious impediment to the prosperity of the rural region. The sustainable livelihoods framework does not list a “government capital”, but having a supportive government is indispensable. Lack of a supportive state can produce significant vulnerabilities. In the case of water-logging and depletion of irrigation sources, it is the absent government “capital” that is compromising natural “capital”. In the case of the state being used as a tool for elite land grab, the absence of a fair government is compromising the natural and physical “capital” that is so vital for the households.

Another failure of the political process was reflected in the discovery of “selling of votes” in a few high-poverty villages. The poor voters in this part of the region (southeast) accept money from candidates before local government and national polls. By accepting money, they abandon all their claims to the candidate, who can use his (all office-bearers to date are male) elected position to pursue personal goals without obligation to serve his constituents. This “selling of vote” and consequent failure of democratic political process stands in contrast with the communities in the south central and south western parts (i.e. Subarnachar upazila) of the region, where awareness of politics and collective action even against the powerful to preserve community interests is high.

Localized in the southeastern part of the sub-district Companyganj, a few thousand households are losing their land and homes to erosion on the banks of rivers Chhoto Feni and Bamni. This erosion made hundreds of households destitute.

As the description in this section demonstrates, household livelihoods can only partially be shaped by intervention at household level via human and financial capitals. This means that widely popular micro-credit can work only to a limited extent in the absence of other “capitals”.

6.10.2 Local Enterprises and Value Chains

Most commodity chains are short within the study area. For example, milk either gets to local consumption or is processed for sweets, butter or purified butter locally. In the northern parts,

high density of settlements means that there is scarcity of land for livestock rearing. The demand for milk is several times larger than the local production of milk, as evidenced by availability of pasteurized milk packets brought from other parts of Bangladesh and sold at groceries in the study area. The milk from large buffalo stocks in the southern *charlands* get sold to a dairy company that established a chilling vat less than a decade ago. During times of political agitation on the streets in the towns and highways to Dhaka City, they stop buying milk from milk producers (that include livestock owning households) because they cannot transport the milk to the processing center in Dhaka. During such days when the milk chilling facility does not buy, the local price of milk goes down. This is a story that gets repeated and generates news reports every time transport stops because of political violence.

For agricultural produces, too, the segments of the value chains within the region are rather short. Because of advance output-tying loans from the large traders from cities, the growers are obligated to sell to the traders at a lower price. For the grower, it is an acceptable arrangement because it promises them security. In such transactions where the price is low, most of the value added is down the chain especially in wholesaling and retailing. In other words, the value-added is outside the study region.

Artisanal activities such as pottery, mats, basket-weaving from indigenous plants have niche markets. Industrial products have gradually replaced artisanal products over the decades. A trip around rural market towns will reveal the extent of manufactured goods from cities and increasingly, abroad that meet local consumption. There have been attempts at boosting some of the local artisanal activities such as *hogla*⁵⁸ (a type of reed) based mat, bio-degradable rope, and utensil making. However, with the rise of cheaper plastic, it has been an up-hill battle. Some of the unique artisanal activities are nearly extinct. For example, *mostak*⁵⁹ plant that grew around the ubiquitous ponds used to be the raw material for making the famous cool mat, and utensils (such as strainers, colanders, and bowls). With new house construction, the habitats of the plant are decreasing. With the increased availability of plastic goods, households are letting go of the skills of past generations.

⁵⁸ Scientific name: *Typha angustata*

⁵⁹ Scientific name: *Schumannianthus dichotomus*

6.10.3 Major Processes in the Economy

Overall, there are several processes in the economy that have implication for the cornerstones of RRD identified in Chapter Three:

- (a) The economy has potential for growth. However, the multiplier effect of the current economic activities is not captured locally, creating leakage.
- (b) Remittance from abroad is a key determinant of household welfare. Census data cannot give any hint that can quantify migration. Data of remittance disaggregated at sub-district level is not available from census sources. However, there is data from a special government survey on migration and remittance. Per this survey in 2013, less than a quarter of the remittance in Chittagong Division of which the rural region is a part is invested. Of such low investment, nearly three quarters are used in house construction, repair and improvement. Average investment of remittance receiving households in Chittagong Division was Tk. 74,401 (\$960) in 2013 (BBS, 2014).
- (c) Field observation and interviews reveal that there are pockets of areas where from there is little international migration, and these are also the areas with higher levels of poverty. Once a household has money from abroad, moral hazard effects are apparent. As evidenced in the land value, and from the attitudes expressed in interviews, significant amounts of money go into purchase of land and construction of homesteads in addition to financing luxury consumption.

However, some households, especially the ones with a perennial large pond and land were investing some remittance money in the cultivation of carps and prawn. Some of these same households found crop agriculture not remunerative enough, and gave their land to sharecroppers. The low-tech semi-intensive aquaculture practiced in Noakhali is less labor and supervision intensive than rice cultivation, and the per acre net returns is much higher than crops. This creates enough incentives for some remittance receiving households to invest in it.

This phenomenon gives rise to the question of what other economic activities might encourage investment of some remittance in the local economy. Processing and manufacturing, because of internal economies of scale will tend to attract large investors. It will likely be a scale neutral activity that will offer such opportunity to remittance receiving households. At the current time, there are few that appear to be attractive to such households.

- (d) Despite teeming micro-processing and artisanal manufacturing such as mat-weaving by women in their spare time, there is little in the way of manufacturing. Industrial products, often from conglomerates, are replacing the last holds of artisanal products such as wood and rattan baskets, and pottery. The overwhelming numbers of jobs in retail and wholesale tells us

that the marketing and distribution of mostly outside goods (together with service such as repairs, hair-dressing, and restaurant) dominate the economic landscape.

Perhaps the major concern for the region is ecological destruction. The water table is receding to further depths. Water logging was reported to be a major problem. Pollution of water in some parts is so much that many respondents reported water in the submerged crop fields causing skin irritation. Some of the sources of such pollution is siting of incompatible land uses next to each other without mitigating measures (poultry farm next to residences), inability to manage wastes in the face of growing densities, and increased use of insecticides and fertilizer.

For many households with migrants, especially in the northern parts of the region, land is not as important as a source of livelihood any more. In fact, households with more land tend to have international migrants in the household. Consequently, conversion of agricultural land to residential and other uses is common. Judging from the aspirations of households interviewed, this trend is slated to continue if migrants can save up enough money. Land being a scarce resource, encroachment on to ecologically sensitive public lands such as canal is common. The state has been incapable of preventing such destruction of the environment.

In the national and local economy, even though corporate financial reporting is less than robust, a cursory look at products at stores, and product advertizements reveal that corporations are diversifying. Conglomerates will continue to capture larger segments of the markets. Will it trickle down as prosperity via jobs created in marketing network and in retail? Perhaps yes. It remains to be seen if such jobs will be paying a decent enough salary.

6.11 Conclusion: Southern Noakhali and the Local and Global Processes of Policy Relevance

The major processes in study area are summarized in a descriptive and synoptic way in Figure 27. It is hard to establish cause-and-effect relationship among the processes. However, a synopsis offers interesting insights that are relevant to rural regional planning. The region is integrated with the world economy as an exporter of labor for low-paying jobs. It's integration to global commodity chains is negligible. The level of welfare is perhaps most directly tied with the (*de facto*) policies of the central government of Bangladesh. As the governance currently stands, the

region is in effect completely dependent on the state for public finance. Apart from some community-based political action, the local politics virtually revolve around the national politics.

Amid all these the region's environment and infrastructure are becoming increasingly fragile. This in turn is threatening the ability to achieve much of the three cornerstones of RRD (Figure 6) for southern Noakhali.

Figure 28 A synoptic view of the major processes of policy relevance in southern Noakhali



Considering such economic, political, and social reality, what can be done for rural regional development? We take up the question, and return to the general question set out in the beginning of this dissertation in the next chapter.

Chapter Seven: The Prospects for Rural Regions within Changing Economic Structure, and a Framework for Rural Regional Development

7.1 Introduction

Is it possible to create an opportunity structure for all households in a rural region to earn an adequate livelihood while ensuring that it is sustained? Is rural regional development, in the sense defined in Section 3.6, a realistic policy goal given the global, national, and local context outlined here? If yes, what would a rural regional development policy framework look like? The overarching goals of this dissertation were to (a) identify the markers of rural regional development and (b) offer a plausible outline of planning (in the broader sense of the word) to achieve rural regional development. A survey of literature on globalization, history and political economy of agrarian transition, rural transformation, and development experience helped identify the markers of development (Section 3.6.2). Such survey also led to a framework to locate rural regional development in the context of the global and national forces, as well as to relate household welfare to RRD. In this chapter, we discuss the nature of planning (in the broadest sense of the term) for rural regional development in the context of the concrete case of the southern contiguous part of Noakhali district in Bangladesh. In the process, a few generalizable guidelines for RRD emerges.

The study of southern Noakhali makes it possible to both pin down some of the cornerstones of rural regional planning as well as to speculate some paths forward. In advancing an outline for rural regional planning, one starting point would be to examine what facilitates and constrains household livelihoods and local firms' profitability/income.

The model of RRD developed from literature review in Section 3.6 integrates both household level variables and the factors at the community, rural regional, national and global levels. The framework identified household level characteristics such as "capitals and vulnerabilities" (as in the Sustainable Livelihoods Framework), the characteristics of the regional political economy

and geography, and the national and global policies and forces all having a role in poverty alleviation, and regional prosperity.

Considering southern Noakhali, what are the context specific insights that emerge? As discussed in the previous chapter, southern Noakhali, as a rural region did not experience much RRD. In fact, some of the markers of rural regional development, such as retention of multiplier of local economic activities, are not visible to any considerable extent. Most of the household income comes from outside the economy that requires substantial emigration from the region, with all its attendant adverse impacts on families and community social life. There are significant leakages in some of the value chains such as soybean and fish. Some of the precarity of many households is purely from lack of “capitals” such as skills or cash. Elite capture of land in the southern parts of the study area creates a condition of low income for many households even though there is considerable production in the economy. Amid all these, the towns perform very little in productive organization of the rural region and are restricted to being places for consumption of services and goods. As the literature survey suggests, such (what we argue to be) undesirable economic, social, and spatial orientation of rural regions is more the norm than exception in contemporary Bangladesh as well as the world. The instances of regional prosperity in an agrarian society is rather few and far between. Given the preceding description, southern Noakhali as a case of mixed success can still offer insights to illuminate a policy and planning framework. In the following sections, we identify the insights that transpire from the case of southern Noakhali.

7.3 Immediate Needs of the Households and Firms

One way of looking at planning is its role in increasing “capitals”. Based on the study of households as well as the rural region of southern Noakhali, a generalized description of the “capitals” important to households and firms of different types emerge. Table 13 lists some of the capitals needed and speculates how they might be effected.

Much of the table is self-explanatory. However, some of the “capitals” in the table need to be repeated for extra emphasis. The road to income comes from a combination of (i) jobs, (ii) operating an enterprise, and (iii) entitlements granted by the state/society or charity. For each of these routes, it becomes clear that the needs of the households are subject to factors that often lie

beyond the household, and even the geographic scope of a rural region. In the interest of saving space, no ethnographic history of individuals was included in the previous chapter⁶⁰. It is obvious from all such histories recorded during the field observation that people are highly entrepreneurial within their constraints. However, entrepreneurship and hard work are not enough to help many of them rise above precarity and vulnerability.

⁶⁰ Please refer to Momen (2012b) for ethnographic descriptions of two males. Both reveal a remarkable degree of desire and hard work to take advantage of different opportunities in different seasons.

Table 12 The specific nature of "Capitals" required for the poor

	"Capital" and its current state	Possible sources of the "capital"	How to bring it out	Who will do it	Conditions to be fulfilled for a poverty reducing role
Human capital	Low institutional education	Educational institutes (elementary, middle, and high schools)	Investment in education (not just quantity, but also quality)	Government NGO schools such as BRAC and DANIDA's schools have succeeded	Obtaining education should not stand in the way of household income, as children are expected to make an income.
	Lack of skills in trades that take advantage of local agro-ecological resources	Skills training such as the one in provided in GNAEP (prawn post-larvae)	Skills training (which is often offered as a component of value chain approach)	Government or the NGOs with experience of conducting such programs	In conjunction with other assistance such as financial help, information, "match-making" with businesses upstream and downstream.
Financial Capital	Income	Job	Ag labor is one option as a source of job, and ag wage is rising	Farms (both large ones and the medium farmers) must employ	At present wage level, the annual income is still not enough to provide for the basic needs because jobs are available during small windows (planting and harvesting seasons)

			Manufacturing, processing, and service firms.	Entrepreneurs	facilitated by appropriate law, source of finance, and infrastructure
			Local retailing and services resulting from increased consumption	Private parties, mostly as small and medium enterprises	Consumer demand stays high, and economies of scale in retail does not obliterate small firms and stores
			New processing and manufacturing	Tends to be medium- to large-scale that needs large sums of money hence large capitalists	when land is available, and wage is high enough
			Jobs in another district or internationally	Migrant support from governments and NGOs	Current uncertainty of outcome (e.g. swindling) need to be removed

		Owning a business	For the poor, the options are microenterprises such as road-side vending, shrimp post-larvae production	Households, financed and facilitated by government or NGOs	Continued availability of microcredit Micro-enterprises in certain sectors such as vegetable and fruit, and fish selling is crowding the market out.
			Independent labor such as pulling a rickshaw, tricycle van.	Individuals as well as owners of transport who rent out	Good roads, as well as fair reward for the labor
	Entitle payments to the extremely vulnerable	Government	Major changes in the government priorities, and availability of funding	Government	The bureaucracy has to reach the deserving individuals
	Loans	Governments, banks, micro-finance institutions	Allocation of funds	Governments/MFIs	At the right interest rates, at the right times, and without any exploitative terms

Natural capital	Land (access to land) Currently large number of functional landless	Government allocation from government land Confiscatory land reform is untenable given the political climate	Changing institutions such as sharecropping With road and electricity more land can be brought to use, specially the accreted land that government owns (even though mis-appropriated in many areas)	Rights movements by NGOs at different political scales.	Government's ability to fight against or work around elite interests.
	Increased water-logging		Drainage, both via engineering works and land use enforcements	Government or (at least theoretically) the village communities	Evicting encroachers in some places will also test the mettle of the state (which is strong but colonized by the elite)
	Land and water degradation from fertilizer and insecticide use	Averting further degradation will require new ag. technology and practice	Innovations or adaptation of current practices through both research and extension	Government, communities, NGOs	Environmental preservation should not be costly to the poor

	pollution from industries such as poultry	Preventing effluent to escape from farms	Creating incentives for the farmers	Environmental regulations, awareness building	Asymmetric power relations (esp. when an absentee farm owner has no stake in the quality of environment) to be removed
	Conversion of agricultural and open land to settlements	design of rural housing to change to a more compact form	Some working models to show new more compact design, and its financing	Government Private builders, with government subsidy if necessary	The new design does not have to be high-rise. Rather, low-rise designs already built elsewhere in the world might provide a model.
Physical	Road infrastructure	Construction or upgrading or maintenance of roads	-	Government, in some cases, local communities too	significant investment required
	Land, waterbody and other means of production such as a boat,	Possibly some tenancy reform Alternative access to land	As a thorny political issue, hard to accomplish in the present climate	The government	The social institutions such as <i>dadon</i> , usurious lending, and sharecropping

	Electricity	Electrification		Government for electricity Solar power by both government and NGOs or businesses	Cost needs to stay low and availability in times of need such as irrigation season guaranteed
Social capital	as the most vaguely definable “capital”, it is hard be specific with this. Households of different characteristics will need different relationships and associations	With human capital social capital also increases	Community mobilization centered on rights	Government, NGOs	There is potential for power struggle.

The analysis of household capitals unmistakably encourages rural regions as the locus of planning as described in the following section. In other words, the macro-structure subsumes the micro-characteristics of individuals and households, and one of the central tasks of rural regional planning is to bring about a structure that is conducive to enhancing household capitals.

7.4 The “Capitals” and the Geographic Scale for Policy

Many of the “capitals” of the households such as finance, education, and skills are attributes of a household or an individual. But providing them as policy intervention will require interventions at immediate community or at regional levels. The quality of education, especially the availability of schools and teaching staff is poor in some parts of the study area even by the relatively lower standards of rural Bangladesh. During the interviews, poor households expressed no expectation of getting education for children. Perhaps their immediate needs are too demanding, and they see no upward mobility through education. Vocational skills that often help find jobs in factories both domestically and abroad are available via several vocational training (polytechnic) institutes in Maijdee. There is a science and technology university in the southern tip of the Sadar upazila. However, entry into the university is administered via a nationally conducted admission test, and most of the students are from other parts of the country. However, presence of a university offers the chance of university education for some households who would otherwise never even try it as the consideration of cost of boarding and travel in another part of the country can discourage them from doing so.

The for-profit privately owned vocational training schools, in and around the Maijdee town currently produce emigrants to other parts of the country or even abroad. Locally based manufacturing and industries, if incentivized to be established, would create synergy with these already existing schools.

Provision of good quality education is a community level and even regional level policy intervention. In the recent decades in Bangladesh, free education for girls and free food in exchange for school attendance have increased school enrollment and reduced dropping-out. However, the quality of education and its practical use in obtaining satisfactory literacy and in obtaining social mobility is questionable as numerous interviewees confirmed. Without schools providing the literacy and some knowledge of civics, much of civic engagement for common

causes such as landless households asserting their rights to government land can only happen through community mobilization with external help. This civic engagement happened in the part of the region where accretion happened (Subarnachar upazila). We surmise that two factors unique to the accreted areas contributed to the success of mobilization: (a) the threat of the elite capturing land that the community has legal right to, and (b) the homogeneity of interests among households. However, can community mobilization happen in other areas where there is no large definable threat such as the presence of a land grabber? There are examples of communities coming together for repair and maintenance of community infrastructure such a bamboo made foot bridge across a canal, or repair of a small section of road with voluntary labor. The challenge would be to bring such transient community organizations into a structure where they function as a unit of governance.

In the southeast part of the region, there are communities of high-poverty villages, where voters “sell their votes” (Section 6.7). Amid such miscarriage of democracy, the role of the (local) government as a player is severely undermined. The role of communities to lobby for their own good is compromised too.

The physical and natural “capitals” are more evidently in the domain of community, region, and even national levels. The road network within the study area showed needs for expansion, repair and improvement. The dilapidated and muddy state of feeder roads came up repeatedly in the interviews as a grievance. The rural feeder road system that have fallen into disrepair or are earthen increases cost of living for all households, especially the ones in poor homestead clusters. These communities pay higher in the rainy season for the grocery that are transported on these virtually unpliable muddy roads from the larger markets. Uneven surface on feeder roads also make rickshaw or bicycle pulling harder, laborious and time-consuming. These hardships fall particularly on the poor households. On these findings in field observation and interviews, there is reason to believe that feeder road improvement is pro-poor.

Even widening an existing set of feeder roads between Sonapur and Basurhat to trunk roads will likely benefit the poor. The Sonapur-Bashurhat road (which will shorten distance to Dhaka-Chittagong highway) if widened into a trunk road will help marketing of produces (such as

vegetables, and fish) from the area around Sonapur and to the south of Sonapur to higher paying markets to the east including the port city of Chittagong.

The uninterrupted supply of electricity is another regional infrastructure that can help the rural region. The southern parts of the study region are not part of electricity grid. Electricity in general increases productivity. It will, among others, allow irrigation with the use of deep tubewell, bring large areas of currently unirrigated land to irrigation and make cultivation more intensive. Since much of the land is owned or sharecropped by small farmers, the benefits will likely be pro-poor. However, one caveat remains from experience in other parts of Bangladesh where government subsidized irrigation pumps were often offered to large farmers for operation and maintenance, and they tended to charge small farmers more than the stipulated amount of money. It is however likely that because of the pre-existing community building exercise by the NGO *Nijera Kori*, the chances of elite capture of such government run deep tube wells will be lower in southern parts of the region than any other part of the country.

Caution, in light of literature, has to be sounded too about the possibility of road and electricity re-orienting the entire land-abundant southern part of region as the site of production of large capitalists. Will such roads and electricity create a situation where the regional resources and profits will be drained “out of the local economy⁶¹? One short answer is that none of the value chains discussed here point to any possible takeover by the downstream actors outside the rural region. But again, complete re-orientation of economy is possible. What is certain is that none of the outcomes should be seen as inevitable. The choice of planning intervention will determine the socio-economic life in the region. Building just a trunk road and supply of electricity will simply play into the hands of large capitalists, who can use the geographic space to create industrial-scale value-added and siphon the profits out of the region. However, when coupled with other planning interventions such as support for small and medium industries, community mobilization, feeder road improvement and similar planning interventions, it is possible that “backwash” in the form of resource capture by outside interests can be prevented.

⁶¹ A process described as “backwash effect”, made famous by Myrdal (1957).

In summary, many of the infrastructure that impacts households and firms in the study region are at the level of communities and the region. This points to a need for regionwide planning into the focus. The planning of these “capitals”, such as road and waterway network, electricity, and rural markets needs to have a synoptic view of the region and beyond.

7.5 A Note on Delineation of Regions

Delineation of a region is often an exercise fraught with an element of arbitrariness. In the case of delineating the study area for this study, two nearby towns, Maijdee and Bashurhat and the contiguous area surrounding them turned out to be the study area. For the sake of being coterminous with statistical aggregation units, and to conform to the administrative boundaries, four sub-districts were chosen. On the east and south, there are some natural boundaries. In the south, there is the Bay of Bengal, and on the east, is the *Chhoto Feni* River. However, on the west is the district boundary of Noakhali with the Laxmipur district, and in the north, the northern boundaries of the Noakhali Sadar, Kabirhat, and Companyganj sub-districts define the boundary of the study region. Five miles north of the northern boundary of the study area lies the Chowmuhani town, that meets some of the needs for urban function of the people in the northern parts. However, this study is not focused on any basic and non-basic industry analysis where a rigidly defined geographical unit is taken as an absolute, and in- and out-flow of money across the border is analyzed as a way of understanding the economy. In such an analysis, often called base analysis, where a boundary is drawn influences the results (i.e. ratio of basic to non-basic activities) of the analysis. Such sensitivity to demarcation of boundary demands how a region is determined to be an exercise in precision.

However, for the purposes of this exploration into the plausibility of rural regional planning in Bangladesh, boundary has a much less implication, if any at all.

7.6 The Importance of Community

Notwithstanding the difficulty in how it can be defined, communities proved to be a building block for RRD. In the analysis of southern Noakhali, it becomes evident in at least two different ways:

- (a) Using region as the unit of analysis in certain analyses misses some of the variable important for the well-being of the population, specially the poor. For example, the capture of land in the southern areas by elites from the north (specially from Maijdee town) will not be reflected in an economic base analysis, because the resultant flow of income to Maijdee is deemed intra-regional, and hence will not register as a leakage. Also, missed will be the rent that the northerners collect from their land in the rural markets in the high-poverty villages (e.g. at Char Elahi market described earlier) in the south. The use of communities as a unit of analysis allows highlighting such sources of poverty and precariousness.
- (b) The success of poor communities in getting access to government land is a glowing example of the kind of success that community mobilization can bring. Communities appearing as a political force in the political economy of the rural region offers a promising way to remove some of the causes of poverty that the social institutions in collusion with an approving state allow to set in. Is it possible to mobilize communities in other parts of the rural region? As mentioned, the southeast (i.e. in the southern parts of Companyganj upazila) the poor villagers have no organization, and sell their votes at the time of elections. The goals and manner of community mobilization is an area of study that should draw research interest. From sporadic reports in newspapers, it seems that communities around Bangladesh volunteer in repair of village roads and foot bridges across canals and rivers. However, when the extent of work is too big and too expensive (such as excavating an 80 feet wide canal like the Noakhali canal), voluntary resources within the community is not enough. There does not appear to be any theory of community mobilization in such agrarian contexts. Rural regional development can perhaps benefit from such theorization.

Communities are not homogeneous in some parts. A middle or even a large farmer and functionally landless person were found to reside in the same homestead cluster. Despite being neighbors, the poor borrow from the richer neighbors on usurious terms. Their economic interests vary. However, territory-based cohesion rather than class-based cohesion rules. Often, lobbying for community infrastructure in their locality give households of different social power a common purpose to mobilize for. The poor rarely mobilize to uproot the social institutions that produce their precarity.

7.7 The Role of Towns, Rural Market Centers, and Regional Spatial Planning

As identified in Chapter Six, the municipalities of Maijdee, Bashurhat, and Kabirhat in the study area, and the large trading and industrial town of Chowmuhani 5 miles to the north of the study area act as a wholesale market place for some of the commodity chains such as soybean, rice and

fishes. Other than these, the towns are mostly places of consumption and a node for downstream distribution in the retail marketing chain. They also are places of consumption in the sense that schools, restaurants, hospitals, and other services comprise a significant portion of their economy. Their connection with the hinterland, therefore is mostly through consumption.

The manufacturing activities in these towns and elsewhere in the study region are not based on local produces. For example, the biggest manufacturing facilities such as the Delta Jute mills (in Chowmuhani municipality) exists even though the district of Noakhali (not just the study area) does not produce any jute (District statistics 2011). One large automatic flour mill in the Sonapur Industrial Estate and another in southern Maijdee buy imported wheat (from as far as Canada via the Chittagong port). A coarse soap factory located in the same industrial estate imports lard from Dhaka City. Very few of the local products are used as inputs in the medium to large manufacturing units in and around the study area. However, outputs of these industries are sold in local markets as well national markets. For example, the flour from the mills sells to the ever-growing number of restaurants in the district.

Looking at the case of southern Noakhali, what would be the role of towns if rural regional development is to happen? Currently, the towns are significantly detached from the hinterland's agriculture. Much of agricultural marketing by-passes the towns. Many of the traditional urban functions such as banking and other financial services are less important now because of the advent of mobile-banking, and increased reach of remittance service providers such as the Western Union. It is no wonder that some of the small towns in Bangladesh for the first time in their history lost population during an inter-censal period (2001-2011)⁶². In contrast with the regions in Bangladesh that lost urban population, the study region and the areas surrounding it receives significant amounts of remittance. Hence, the consumption and service based economy of Maijdee and other towns and even the larger rural markets will perhaps continue to thrive. However, unless some planning intervention complements and creates synergy with such municipal growth, it will likely not create much of an interconnected set of economic activities in

⁶² From a cursory look of the census data. No comprehensive analysis of all 320 municipalities plus the city corporations was done.

the region. In other words, the types of retail and services in Maijdee and other towns will have nominal linkages with the regional economy.

The role of the towns is intertwined with the role of the rural markets. As trading places, rural market centers play a central role in the rural economy. Many of the grievances expressed by the small and medium farmers and people of other means of livelihoods were about the rural market centers. Some of the grievances were about the physical condition of the markets such as lack of pavement. In the markets where there is no or inadequate paved surface, the market becomes muddy in the rainy season making the simple act of selling, say, a few kilograms of fish in the rural market a difficult task. More than the physical obstacle for small sellers, the major constraint for poor occasional sellers is the high amount of money they are asked to pay as toll by the leasees of the market places. Government-owned rural markets in Bangladesh are leased out to private parties who can collect money from market users. For the poor seller, having access to a market place without having to pay a high fee is more valuable than many expensive investments that can be conjured up.

When the roads to the local market is muddy, it makes it time consuming and costly for people to sell there. Despite such troubles, some of the rural market centers, especially the ones with paved trading spaces and roads continue to have some processing and manufacturing. For example, furniture making and tailoring, appeared to be a ubiquitous feature of the larger markets. Rural market centers, confirmed by all interviewees, are increasing in the number of shops and in terms of availability of types of goods and services.

What will be the role for towns and the rural markets in bringing about rural regional development? It looks increasingly likely that “towns and a hinterland dependent on it for central functions” model of spatial structure will not take place as more traditional urban functions are spatially defused (e.g. financial services done through cell phones). With some of the processing activities happening in rural areas (whenever electricity is available), it is likely that the new landscape is heading toward one of scattered mixed land use. Such land use will have environmental consequences, if their siting is not coordinated and controlled.

7.8 Planning for Synergistic Rural Regional Development: The Do-Nothing Scenario

In the following sections, we consider what will planning look like for rural regional development. Planning here is used in a broad sense, which means that it is not seen as a government activity alone. The actions of multiple actors such as different units of the government, and different sizes and types of civil society organizations are considered here. However, before speculating about the shape of planning, it would be worthwhile to speculate a scenario in the absence of any additional intervention on the part of all levels of government and civil society organizations.

The need for rural regional planning and the nature of it can best be understood when contrasted against such a “do-nothing” scenario. There is already some poverty alleviation and development work being carried in the region, most notably the work of the government ministries, and the Char Development and Settlement Project (CDSP)⁶³. Nationally there are processes within advancing capitalism (such as appearance of conglomerates) that have set in. In such a setting, “do-nothing” would mean “doing-nothing-NEW”.

The current development effort from the state can be describes as: (a) Scattered road construction and infrequent and belated maintenance, (b) Micro-loans from NGOs, (c) Some health services, and (d) some agricultural and piscicultural extension work including recent attempts at low-tech mechanization such as promotion of power tiller, and hand thrasher, and (e) support for small and medium enterprises.

The major processes underway are:

- (a) conversion of agricultural land to meet the increasing needs of construction of residences, non-crop agriculture, manufacturing and businesses, and
- (b) increasing market share of the conglomerates, albeit from a low base. There is abundance of capital in the hands of the growing conglomerates in the country. They are constrained by land and infrastructure in their expansion of manufacturing.

⁶³ Described in Section 6.9.2.

With the growing strength of the capitalist class, will capital chase *lumpen*⁶⁴ geography such as Southern Noakhali? The answer, we speculate, lies in the technology used in manufacturing and all sectors of agriculture. As machines for large-scale production become more affordable for the capitalists, such manufacturing and processing becomes economic and preferred in almost every manufacturing sector. Large-scale manufacturing requires large tracts of land. In Bangladesh, large tracts of land near Dhaka and Chittagong are rarely available. In fact, lack of land is cited as one of the reasons why large (in the hundreds of millions of US\$) funding commitments from foreign corporations are not happening. However, at lower levels of economic undertaking such as a few hundreds of thousands of US\$, there is already a tendency for such investments to come in. For example, automatic rice mills are being set up replacing smaller manual or semi-automatic rice mills. Other examples include fish and poultry feed factories, large hatcheries, and poultry farms sited on several acres of land. The only garments factory in the region was established because the owner's ancestral home is in the area (south of Sonapur), and he is said to have political ambitions that can be furthered by job creation in the area. Investments larger than these are unlikely to come at present level of road and electricity infrastructure.

Continuation of this above scenario would only mean continued dependence on out-migration, both domestic and international. The international migration is contingent upon the world economy being able to support it. If the major labor-importing countries occasionally are unable to hire labor from these areas (or layoff workers), as was the case during the crisis in Saudi Arabia in 2010, there will be significant economic stress for the households in the region. The do-nothing-new will also see an increase in the market share of conglomerates both in the country and the study region. The continuation of status quo will also mean continued ecological destruction, because of increased conversion of land and construction in the absence of any land use control in the rural areas⁶⁵.

⁶⁴ Not used in the strict sense in which Walker (1978) used it. He used *lumpen* geography as territories that capital can use to keep the existing areas of manufacturing cheap. Here *lumpen* geography is used as a reserve area to expand to.

⁶⁵ There is no rural land use control law in Bangladesh. There is one being considered currently.

It is likely that the do-nothing-new approach will not improve the opportunity structure for all the households in the rural region.

7.9 The Three Cornerstones of RRD and Planning

Even though the field research provided important insights into the ecology, economy, and society in the region, how the three cornerstones of RRD identified in Section 3.6.2 can be achieved is still an exercise in educated guess, approached through informed speculation.

7.9.1 Increasing Regional Economic Activity and Productivity

While not a sufficient criterion, increasing economic productivity in the study region will help create an improved opportunity structure for the households in the study area. How can a rural region in advanced stages of agrarian transition increase productivity in an age of globalization, and within the kind of a state such as Bangladesh?

There does not appear to be any theory of what new agri-based or other products can be introduced. There are stories of one single crop transforming an entire region such as grapes in the Chilean region of Limari (Gwynne & Ortiz, 1997). However, introduction of any product, agricultural or non-agricultural, require a careful analysis of both the potentials and pitfalls. For example, in the case of Limari region, the opportunity to export grapes during North American off-season provided an opportunity for fast growth of grape production. However, such growth was also aided by large corporations and improvement of irrigation systems. Relevant to the third cornerstone of RRD discussed below, the reformed grape sector also forced small peasants to sell their lands and become wage labor in large vineyards or in the city.

In the case of southern Noakhali region some of the new activities that appears to have potential are fresh water prawn, *mostak* plant whose bark is used to weave cool mat, *hogla* plant whose stem can be the fiber to weave coarse mats, and livestock rearing in the abundant open newly accreted land. However, the production of rice itself can be raised with irrigation in certain parts of the region, especially if irrigation and drainage can be improved. If the price of rice can be kept predictable (by keeping the import policy somewhat predictable), rice itself can show higher monetary value of production.

All these products can have comparative advantage because these products have suitable bio-physical and meteorological conditions in the region. However, cost (which is the basis of opportunity cost used in the analysis of comparative advantage) also depends on how production is organized. Planning, again in the broadest sense, is crucial to creating such comparative advantage. Large scale plantation mode of production brings within-firm economies of scale. However, they also adversely impact the laborers by creating a monopsony in the labor market. At the level of production of rice and most fishes, practitioners in the study area mentioned that there is very little difference in the production cost between producing on a small piece of land or pond and on a large tract of land or water body. This is even more so in the case of some artisanal manufacturing and processing such as mat-making using *hogla* or *mostak* plants. Much of the economies of scale come after production, i.e. in processing and marketing. Hence, there is room for facilitation of post-production processing, especially for fishes and prawn that can be sold to foreign markets. The safety and hygiene standards in the North American and European markets require large plants that need large investments. It is hard to imagine if such large plants can be financed and managed as part of a development project, where profits and value-added can be shared among the producers in a cooperative arrangement. Therefore, private ownership of large fish and prawn processing plants is the more likely scenario.

7.9.2 Retention of Multiplier Effects

This is perhaps the most important of all factors in RRD. An analysis of value chain provides an understanding of how leakages happen. In southern Noakhali, for some agricultural product chains such as soybean, the output-tying loans⁶⁶ forces the producers to sell at a lower price to wholesalers than they otherwise would have commanded. The higher price of the beans at the fish and poultry feed factories in urban areas outside the rural region represents missed value-added in the rural region. Vegetables too, because of their perishable nature, showed big difference between price at farmgate and urban retail markets.

However, a large source of leakage is the elite capture of the resources. As mentioned earlier, almost all the large (dozens of acres to hundreds of acres) aquaculture projects are owned by

⁶⁶ Dadan in Bangla. See Glossary.

people from the towns in the region. Their income from the lands in the study area represent leakage from the communities, even though technically it is not a leakage from the region. This represents the biggest barrier to retention of linkages in the community, if not the region.

The source of such barrier is a state that has been captured by the elites. It perhaps needs repeated pointing out that the state is not weak or soft. With its bureaucracy and law enforcement abilities, the state has great control over its territory, unlike fifty years ago when Myrdal used his famous characterization of “soft state”. In the face of such captured state, the planning options might seem to include only the radical ones. However, facilitation of peasant and citizen movements have shown success elsewhere in the world. How to facilitate such movements and how they can take place is beyond the information collected in this study.

7.9.3 More Equitable Access to Resources for All

With the lack of availability of land because of dense nature of settlements, gains from land or tenancy reform will be minimal in the northern parts of the region. Thus, land reform does not carry the same crucial importance it did in different places and times. There is not enough land for the people who are willing to cultivate through leasing the land or as sharecroppers. Noakhali has a several centuries old tradition of migration out of the area, which enabled the high density that land alone could not support. However, the volatility of employment in the Arab and North African countries, as tragically experienced in 2010, is a reminder that uncertainty is real for many households.

Given the nature of the Bangladeshi state, it is hard to imagine how the illegally grabbed lands in the south can be brought back to the ownership of the government. However, given the importance of non-farm opportunities, it is possible to imagine policy and program support for activities that do not need land as much. What will work and how it will work in creation of such economic activity tend to not have a theory. For example, in the Philippines, the famous Marikina shoe cluster helped many small shoe making factories, and firms upstream and downstream in the commodity chain to have access to increased incomes. However, they lost to the Chinese manufacturers only a decade later. In development practice, targeted interventions such as helping functionally landless households raise post-larvae (as GNAEP project did in Noakhali) can by-pass the dependence on land and at the same time avoid elite capture.

One aspect of commodity chain focused intervention that is rarely pointed out is that it is not often pro-poor (in the sense that it does not benefit the poor more than the non-poor). Commodity chain-wide support often brings more profit to the large traders who sell to a city or foreign market, and only a small income to the poor producers. However, commodity (or alternatively known as value) chain approach has become accepted as an expedient measure. The NGOs who help with marketing of artisanal crafts via coordinating with city-based businesses have accepted this as a way to help the poor. The study region will perhaps benefit from such arrangements as it will create linked sets of economic activities that will benefit the poor.

7.10 Role of Governance and Form of Government

What kind of governance will help achieve these cornerstones of RRD?

Currently the smallest territorial unit where from decisions are made, and which is used as an administrative and budgetary unit is the sub-district (upazila). The *union* level, which is the lowest unit typically do not have any funding source to speak of, and only some small programs are implemented through them. Adjacent sub-districts rarely cooperate. In fact, they are often in competition with each other. Unless central government is taking up a project, in which it will have a project headquarters independent of local governments, neighboring sub-districts rarely cooperate for any cross-border planning. As reported in the case of Indonesia (Firman, 2009), neighboring local governments can have no incentive to cooperate. On the contrary, they can have incentive to be hostile to each other, or at least be competitive with each other.

Can a plan that spans several local government bodies (sub-districts in this case) be implemented? As noted earlier, rural regional development is hard to imagine without the government leading it. But questions about the nature of bureaucracy and governance remain. For example, as the building block in development practice is projects, can rural regional development for a region be accomplished as one? Even if set as a program (as opposed to a project), which provides a framework for the bureaucracy to take up time- and fund-specific projects, it in the end has an end date. Should rural regional development be an integral way of the way governance takes place, or can it be approached as a project? It is necessary to speculate on what a project titled “governance reform for RRD” might look like.

With the above questions and possibilities in mind, a few scenarios can be envisaged.

7.10.1 Two Governance Scenarios

Scenario 1: Government devolved to district level.

The outlook for this option is not very promising in the case of Bangladesh. The current finance minister has been advocating district budgets for several years. His ministry published the necessary background papers. In 2012-13 he offered one district budget for a north central district (Tangail district) as a taste of how things might be. However, in later national budgets he did not include any budget for even a single district. This surrender of a prominent minister speaks volumes about the prospects of district being the center of governance in the near future.

As mentioned in Chapter Five (section 5.4), strong local government at sub-district or district level threatens the *de facto* power the members of parliament enjoy. Within this status quo local government reform looks to be a distant possibility.

Scenario 2: Centralized government

What will be the look of the study area under devolved governance? The district level organization (un-elected) in Bangladesh currently has no power, at least not in actuality. As noted, given the hostility from the members of the parliament, devolution at the level of districts or even sub-districts is hard to imagine taking place within the current political culture of Bangladesh.

In that case, as an expedient measure the district councils can be made the planning agency, but not the executing agency. The plan that they make becomes a guideline for all the agencies that coordinate activities in the realm of the tools identified in the following section. By keeping the executive powers and budget access in the hands of traditional power-holders (central ministries, MPs, and sub-district level bureaucracy), this expedient and pragmatic option increases the chances of its success.

If the central government continues to have the power it holds, central ministries will continue to have the money and power. As we have seen, local level civil societies can be useful, but they will need extra-ordinary levels of support to carry out the tools required in rural regional

development. Such support is unlikely. Hence under the scenario of “centralized government”, the focus of rural regional development strategy would be to be able to coordinate sectoral projects at district level or sub-district level for complimentary and synergistic effect.

7.10.2 Vertical Coordination of Multi-Scalar Planning

Perhaps the most important governance issue in rural regional development is the issue of vertical coordination of planning (in the broader sense) at different geographic scales. The world-famous NGO sector in Bangladesh has generally done a good job of making village communities aware of their rights, in addition to other development works. Village communities even when organized into cohesive associations cannot induce planning at the larger scales. As mentioned, there are no planning decision-making unit at the district level in Bangladesh. In the countries where there is strong (often elected) government at district level, such as Indonesia and Ghana, the district level planning is rarely informed by smaller units. Regional infrastructure is useful, but it can help little with poverty alleviation if not informed by community level organizations.

Some striking examples of the need of coordination of multi-scalar planning can be found in the planning of physical infrastructure. Roads, bridges, and waterways often need a larger scale than sub-district to plan. In Bangladesh, the district office of the powerful Local Government Engineering Department (LGED) can help coordinate the infrastructure planning of the sub-districts within its jurisdiction. However, if there is any planning necessary for cross-district coordination of planning and budgeting, it can get tricky. For example, between Subarnachar (in the study region) and Ramgati (in Luxmipur district) there is a bridge across a canal that was constructed in 2002. The bridge is now in a dilapidated condition (pictured below in Figure 29). However, despite its importance, it has been hard to bring two district committees to plan and find budget for the bridge.

Figure 29 Photograph of a dilapidated bridge between two districts (over Bhulua canal, between Noakhali and Luxmipur districts) do not have fund for repair from either one



Source: Dhaka Tribune, Sept. 07, 2014

There are other situations that are less striking, but require the same principle of vertical coordination of multi-scalar planning.

7.11 A Toolkit for Rural Regional Planning

Based on the picture of rural regional development that emerges from the case, we can perhaps identify some of the tools needed to bring about rural regional development.

7.11.1 Community Mobilization

Development of rural regions, as an attractive normative goal, prompted the “rural territorial development” movement in the Latin America, as well as this research. However, in the course of the research, it became evident that while synergy of infrastructure planning and governance can be achieved at the level of regions, much of the reality of rural regions is experienced in communities. Despite the heterogeneity of interests in communities such as villages, their organization and mobilization into contributors to the political and governance processes is important to achieving RRD and removal of poverty and precarity.

As the success of community-based organization in Greater Noakhali Aquacultural Extension Project (Demaine, 2009) and the work of *Nijera Kori* showed, when need based community organizations function well, they provide the conduit for other services such productive inputs such as fertilizer distribution. More importantly they also can be important vehicles for representation in the governance system.

However, the households in a village are not homogeneous, or do not represent same interests. Within the same village there can be a majority of resource-poor households, with a minority of large farmers and power elites. Experience of community-based organizations amid such inequality has shown that territory- and community-based associations can get colonized by the power elite, with the Comilla farmers' associations being one of the most prominent examples of such colonization (Khan, 1979).

Despite this pitfall and inadequacy of theories in community mobilization, it remains an essential tool for rural regional development. Without enhancing associational life at the level of neighborhoods or other small communities, regional scale interventions will likely by-pass the disenfranchised sections (often the majority) of the society.

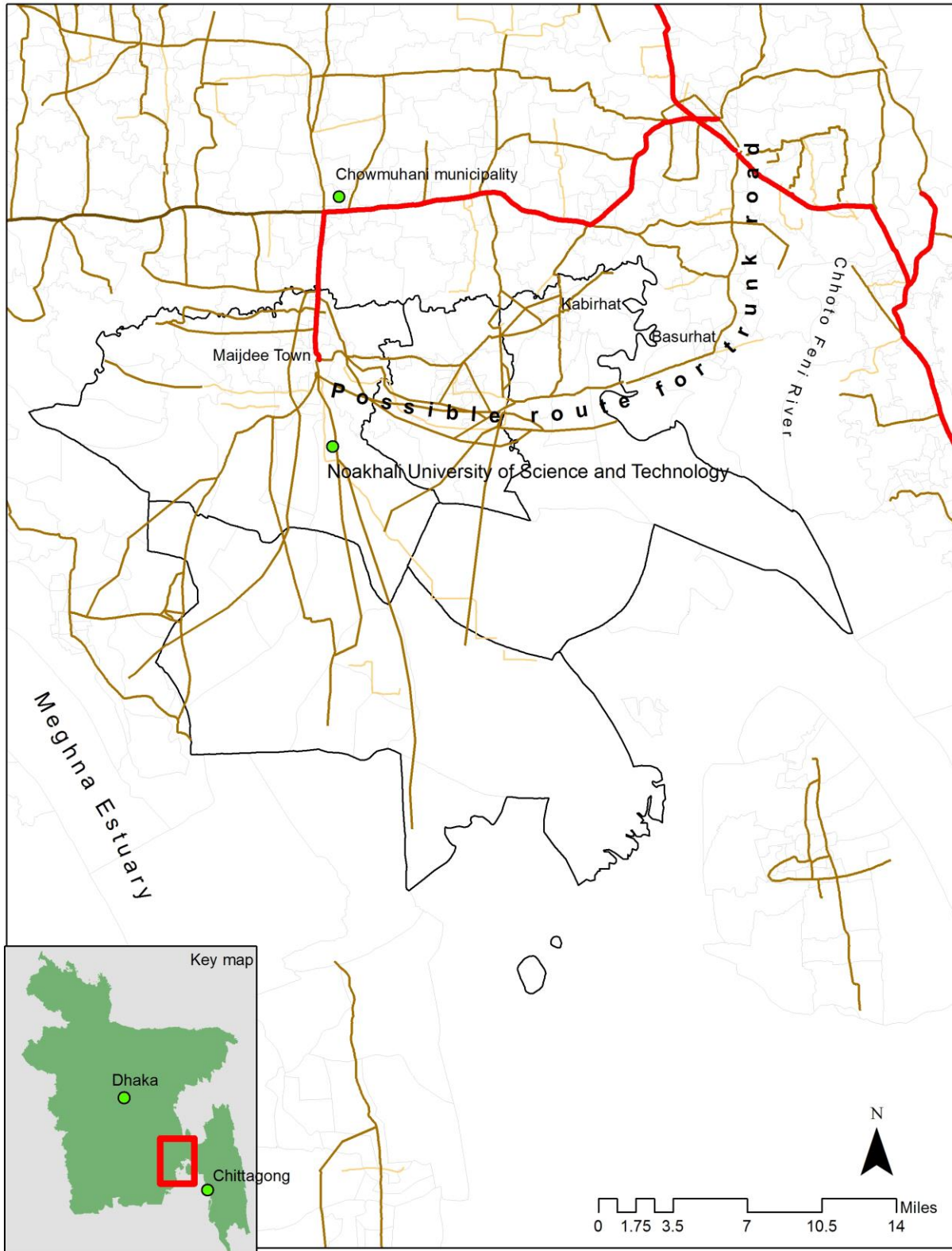
7.11.2 Regional Infrastructure

Physical infrastructure can be a tool to help achieve goals of rural regional development. Road is perhaps the most obvious component of the regional physical infrastructure. The anti-poor impacts of roads (specially trunk roads) are well-known. Large trunk roads can help outside interests in extracting resources from a resource rich area (i.e. forests with timbers, or mineral rich area). As mentioned in Chapter Three, indeed colonial interests in resource extraction prompted road-building between forests and ports around the colonies. Even in the absence of colonial powers, roads have served large urban interests or the national governments.

However, if built judiciously, roads are vital for the overall quality of life, and reduction of cost of production, distribution, and consumption in the rural regions. In the context of a more egalitarian society, roads can only improve communities' welfare. Much of this road construction and repair needs to be at the level of village roads (feeder roads).

There are routes that need to be widened and paved better considering the current needs. While developing a regional “thoroughfare plan” is not an objective here, it is obvious, and was pointed out by many residents that a wide road connecting Sonapur and Chittagong highway will be required. From the Subarnachar sub-district, traveling east to Dhaka-Chittagong highway is cumbersome, because segments of the current east-ward road connecting Sonapur and Basurhat is narrow, and because their alignments were defined by edges of rectangular agricultural plots, these feeder roads are full of bends. Figure 29 shows the route proposed for the road.

Figure 30 Possible routes for additional trunk roads



Another regional infrastructure is irrigation. Around the world irrigation has important impacts on agricultural productivity. Because of its crucial importance, irrigation has also been subject of elite capture everywhere. In Bangladesh, it has found expression in large landowners getting the government-sponsored community deep tube wells on their land. They also get to operate them and can charge small farmers stipulated rates. This privilege often allows them to charge more than the stipulated fees.

Southern Noakhali is mostly occupied by owner occupied small holders. In addition to them there are many owners who also do sharecropping on other's land. Noakhali district, despite the presence of land grabbers has the least inequality of land ownership in Bangladesh. Amid such situation, road-building, especially feeder roads, will likely not disadvantage the small farmers and share-croppers.

7.11.3 Economic Cluster Formation

Industrial cluster formation as a concept has received a prominent position in the discussion on territory-based approach to planning. As identified in Chapter Three (Section 3.4.12), the literature centers on ex-post analysis of a collection of success stories. Can the southern Noakhali enlighten the literature on cluster formation?

As seen in the case of southern Noakhali, and in empirical studies around the world, two things stand in the way of beneficial cluster formation in the rural regions:

- (a) The part of the value chain that is in the rural region is very short. Often transporting local produces out of the rural region without even minimal processing (not even sorting) is the norm.
- (b) In other instances, the processes that lend themselves to significant economies of scale (such as rice milling), increasing capital in the hands of the few are creating conditions of monopsony.

As identified in Section 3.6.2, such tendencies are known around the world (e.g. urban tobacco traders won't buy dried tobacco from the rural producers, because the traders want to capture the value-added). The local apparatus of the state is also at the service of such powerholders. The fact that producers can collectively retain some of the value-added is an idea that will likely not

have many believers at this point. The literature of cluster, including clusters in the developing countries, is centered on manufacturing. However, indigenous clusters in agriculture or artisanal work are rarely studied. We can hypothesize that if they are small and scattered enough they can avoid elite capture. For example, there was short project to help create small enterprises around the *hogla* (reed) producing part of the region that would manufacture ropes, bowls of different sizes, and mats out of *hogla*. A development NGO was aiding with building a marketing channel. However, with advancing plastic goods, the *hogla* products could not hold on to the niche market it created briefly.

Can there be a theory of “indigenous” clusters? While we leave it on the agenda for future research, certain hypothesis can be offered about what hinders formation of indigenous clusters. One obvious hindrance is when most of the value chain is owned by one party such as the large fish farm owners in our rural region. Another hindrance is when the forward and backward linkages are small, as in the case of carp and tilapia production (where fish feed and fish basket comprise most of the backward linkage). It would perhaps take some form of action research to find a theory of indigenous cluster that the review of the existing development project could not.

7.11.4 Rural Environment and Land Use Planning

With the low-income world struggling with the planning and management of their cities, rural land use planning is rarely emphasized. However, many areas officially labeled rural have densities higher than many urban areas. While urban areas are growing faster and the press surrounding the ubiquitous “the world is urban now” is drawing attention to urban growth and urban poverty, rural areas are seeing population growth too. Economic growth coupled with population growth is introducing new economic activities (such as non-crop agriculture, poultry, artisanal work, and even tourism) in rural areas that are changing land use around the countryside. With increasing population, and especially with remittance money, conversion of agricultural land to residences is rampant, making settlements denser.

Many of such land use changes are harmful either by being polluting, or by upsetting natural drainage, or reducing the overall beauty and charm of the environment. This degradation of rural environment is a threat to the future health, and overall quality of life. In the parlance of the Sustainable Livelihoods Framework, this is an erosion of natural capital.

Bangladesh does not have any law that directly addresses rural land use zoning or land use conversion. Existing town planning laws apply to areas designated as urban. In the absence of such deterrent the rural landscape is becoming polluted (e.g. by brick kilns, poultry farms with waste and effluent released in open canals), overall productivity of soil is threatened, and other sources of economic loss such as water-logging is being introduced. There are laws to control the siting and method of operation of brick kilns and (timber) saw mills. The consensus is that they are too lax, and even the stipulated lax standards are not enforced. A recent (a decade old) trend has been to remove the fertile topsoil of agricultural plots and use the soil for brick-making (Appendix 04).

It is hard to see how rural regions can develop and sustain it without some measure of preserving the land and environment. The experience of the Southern Noakhali (and other parts of Bangladesh and many parts of the world) calls for rural land use planning to be on the agenda. However, such planning needs to stay sensitive to social power, and not be a vehicle for further aiding of elite interests. The models of land use planning seen so far, such as land use structure plan, are often oblivious to power relations in society. Given poverty is a major focus of RRD, land use planning needs to be conscious of social powers to be an aide toward rural regional planning.

7.12 Prospects for Rural Regional Development

One commentator in 2005 speculated that there are vast areas of “valleys” (i.e. rural regions that can be contrasted with the “peaks” of New York and London) that have “little connection to the global economy and few immediate prospects” (Florida, 2005, p. 48). Looking at the inability of the big cities such as Lagos, Dhaka, Mumbai and Karachi to alleviate national poverty, we must ask, why do these vast areas of human settlements that hosted human communities for hundreds of years must be written off as having few immediate prospects? As Florida himself recognizes, raising these “valleys” without cutting down the “peaks” is the challenge of our time.

Even if, perhaps faulty, economic analysis springing from a neoliberal ideological springboard claims these rural regions to be of few immediate prospects, should we resign to such finding? Rural regional development needs to be an active policy goal, set normatively, and a research agenda made to serve the normative goal.

However, formulating a theory for development practice has always been hard. For example, in the introductory article to a special volume of the journal *Growth and Change*, (Ward & Hite, 1998) asks: “is it more correct to assume that rural development actually has a body of theory, but that the corpus of that theory consists of hundreds if not thousands of individualized, informal models residing one by one in the minds of some or other practitioner in rural development?” (p246). What their introductory and concluding papers to the volume point to is that rural development theory must accommodate for contexts. Frameworks for rural territorial development (as in Scheijtman & Berdegué, 2008) or a “model of sub-national regional development” (Jain, 2009, reproduced in Appendix 1) readily draw attention to the more than a dozen boxes and arrows that these models have. Such lack of parsimony evidently confirms that rural regional development involves many variables, and areas of action.

This study, which combines a review of literature and the study of a case also identify that RRD requires understanding of a wide array of factors. Perhaps the most important is the fact that there is significant leakage from rural areas. This leakage results from an array of social and political institutions and policies. Some of the main ones identified in this study such as elite capture of resources, inequitable agrarian institutions and practices, and a centralized government dominated by national elites need to be given more visibility, since contemporary rural development practices tend to ignore them. Policy-making needs to be informed by the awareness of some of the well-known facts that were confirmed in southern Noakhali: (a) Lack of equitable access or provision of productive assets perpetuates precarity and poverty, (b) Geographic community based social organizations offer the first building block for removal of many of the obstacles to increasing income, (c) Household level interventions, while useful and effective can ultimately prove sub-optimal in the absence of regional infrastructure, (d) Devolution and regional scale planning go hand in hand with community planning because top-down regional planning tend to be able to work with regional variables such as infrastructure only.

Access to global labor markets have opened opportunities for some (not the poorest) rural households. Some regions have been connected to global commodity (value) chains. Few are beyond the influence of national markets for labor and goods, as well as the influence of the state. Within these changes, planning for rural regional development can still modify the forces

and help empower communities, as well as increase rural regional productivity and decrease leakage. In the current ideological climate, it might appear as a tall order, compared to some of the more easily understood paradigms that are concise and have the appearance of precision. However, planning for RRD with the above principles need to be the guiding light in contemporary development practice before it is too late.

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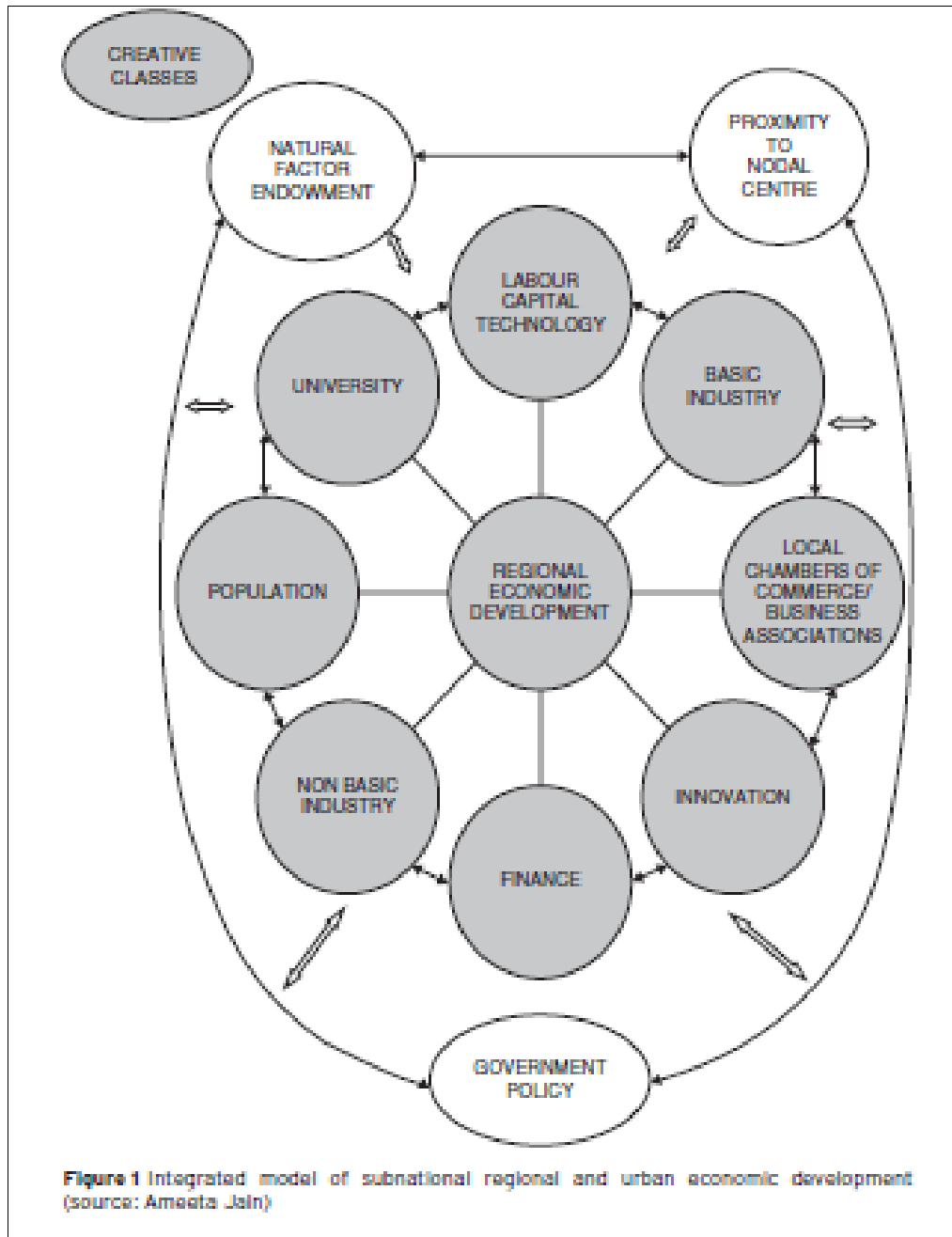
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Appendices

Appendix 1: An example of a model of sub-national regional model (Jain, 2009)



Appendix 2: Figure 1 of (Barrett & Swallow, 2006)

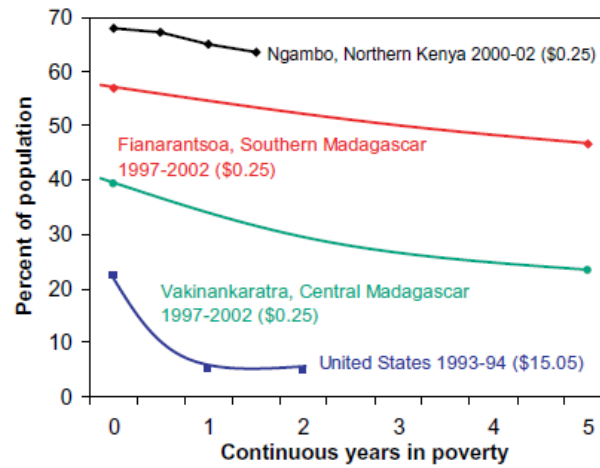


Figure 1. Comparative poverty dynamics. Sources: USA: Naifeh (1998), others BASIS CRSP project. Poverty line levels are all in inflation-adjusted 2002 US dollars.

Appendix 3: Rates of poverty (by both upper and lower poverty lines) in the sub-districts of Bangladesh

Note: The table shows the poverty rates for only those upazilas (sub-districts) that existed in 2005. New upazilas created by splintering existing ones after 2005 are not included here. The splintered upazilas do not have the same geographic area and population in 2010. However in the interest of keeping the computation simple, no adjustments were made.

Upazila (in alphabetical order)	2005		2010		Change UPPER pov. line (2005 to 2010)	Change LOWER pov. Line (2005 to 2010)
	% Poor (Upper poverty line)	% Extreme Poor (Lower poverty line)	% Poor (Upper poverty line*)	% Extreme Poor (Lower poverty line*)		
Abhaynagar	60.1	45.9	36	15.9	24.1	30
Adamdighi	45.5	29	13.05	5.14	32.45	23.86
Aditmari	55.7	35.5	35.95	17.31	19.75	18.19
Agailjhara	33	16.6	51.11	38.24	-18.11	-21.64
Ajmiriganj	50	31.6	32.61	26.38	17.39	5.22
Akhaura	31.2	14.6	26.87	12.91	4.33	1.69
Akkelpur	42.7	26.4	26.92	13.43	15.78	12.97
Alamdanga	21.9	11	26	9.88	-4.1	1.12
Alfadanga	49.3	37	29.92	15.47	19.38	21.53
Alikadam	78.4	54.1	42.88	23.2	35.52	30.9
Amtali	67.4	50.4	22.77	11.96	44.63	38.44
Anowara	22.9	9.6	15.49	5.59	7.41	4.01
Araihazar	25.5	14.1	34.39	19.76	-8.89	-5.66
Ashuganj	28.3	13.5	21.81	9.57	6.49	3.93
Assasuni	70.3	57.5	48.41	32.05	21.89	25.45
Atgharia	47	26.6	31.2	15.98	15.8	10.62

Atpara	29.9	18.1	31.61	17.24	-1.71	0.86
Atrai	46.9	29.9	13.48	5.02	33.42	24.88
Atwari	47.9	31.1	24.05	11.15	23.85	19.95
Austagram	31	19.4	33.7	20.51	-2.7	-1.11
Babuganj	61	32.6	48.71	36.83	12.29	-4.23
Badalgachhi	43.5	27	15.04	5.7	28.46	21.3
Badarganj	66.3	50.1	48.32	30.61	17.98	19.49
Badda	18	6.4	13.43	1.25	4.57	5.15
Bagati Para	45	28.3	13.43	1.25	31.57	27.05
Bagerhat Sadar	42.7	31.6	35.92	18.65	6.78	12.95
Bagha	47.1	29.7	33.64	18.32	13.46	11.38
Baghai Chhari	49.9	25.4	33.64	18.32	16.26	7.08
Bagher para	43.1	30.4	42.52	20.92	0.58	9.48
Baghmara	47.5	30.8	29.45	14.92	18.05	15.88
Bahubal	47.6	29.3	24.08	19.27	23.52	10.03
Bajitpur	22.5	13.1	28.22	14.78	-5.72	-1.68
Bakalia	30.8	2.4	4.9	0.75	25.9	1.65
Bakerganj	71.5	53.3	55.38	42.18	16.12	11.12
Bakshiganj	63	48.5	50.39	34.35	12.61	14.15
Balaganj	11.4	5.4	19.67	15.75	-8.27	-10.35
Baliadangi	51.3	34	26.46	11.3	24.84	22.7
Baliakandi	40.8	27.2	39.65	24	1.15	3.2
Bamna	50.7	37	17.05	8.9	33.65	28.1
Banari Para	56.5	34.5	52.25	38.12	4.25	-3.62
Banchhampur	42.1	21.8	27.32	13.18	14.78	8.62
Bandar	25.7	10.2	20.9	4.04	4.8	6.16

Bandarban sadar	47.7	26	30.81	15.6	16.89	10.4
Baniachong	50.6	31.7	27.56	22.25	23.04	9.45
Banshkhal	42.6	22.2	27.87	11.28	14.73	10.92
Baraigram	49.2	32.1	36.11	22.11	13.09	9.99
Barguna Sadar	66.6	44.4	19.24	9.89	47.36	34.51
Barhatta	30.6	19	35.17	20.13	-4.57	-1.13
Barisal Sadar (kotwali)	66.1	50.3	49.89	30.95	16.21	19.35
Barkal	42.7	19.6	26.11	8.53	16.59	11.07
Barlekha	32.3	17.9	25.68	20.79	6.62	-2.89
Barura	32.7	15.1	37.86	20.23	-5.16	-5.13
Basail	33.6	21.7	19.67	11.06	13.93	10.64
Batiaghata	61.4	48.7	40.54	22.71	20.86	25.99
Bauphal	61.6	40.7	23.95	13.86	37.65	26.84
Bayejid Bostami	29.9	2.3	9.2	2.16	20.7	0.14
Beani Bazar	11	5.4	15.87	11.77	-4.87	-6.37
Begumganj	24.8	10	5.87	1.83	18.93	8.17
Belabo	35.1	20.5	21.89	11.65	13.21	8.85
Belai Chhari	51.5	31.7	34.71	14.6	16.79	17.1
Belkuchi	50.6	34	42.46	26.4	8.14	7.6
Bera	53.6	32.7	39.44	22.93	14.16	9.77
Betagi	48	27.6	19.58	10.33	28.42	17.27
Bhairab	22.3	13.4	33.91	15.44	-11.61	-2.04
Bhaluka	54	39.5	31.08	14.82	22.92	24.68
Bhandaria	44.7	34.2	41.95	29.94	2.75	4.26
Bhanga	40.5	28.4	33.53	17	6.97	11.4
Bhangura	50.6	30.3	33.52	18.27	17.08	12.03

Bhedarganj	37.8	24.3	56.31	38.25	-18.51	-13.95
Bheramara	39.7	30	3.41	0.79	36.29	29.21
Bhola Sadar	41.4	27.5	49.16	35.65	-7.76	-8.15
Bholahat	41.6	25.3	20.82	8.87	20.78	16.43
Bhuapur	42.7	28.8	34.38	21.41	8.32	7.39
Bhurungamari	68.2	52	65.14	44.7	3.06	7.3
Biman Bandar Thana	11.3	7.3	1.31	0.3	9.99	7
Biral	49.6	32.8	38.84	20.59	10.76	12.21
Birampur	49.9	32.9	35.89	18.97	14.01	13.93
Birganj	54	37.1	43.14	24.81	10.86	12.29
Bishwambarpur	52.2	29.7	30.39	24.68	21.81	5.02
Bishwanath	12.8	6.2	12.54	9.66	0.26	-3.46
Boalia	19.8	12.1	24.06	10.45	-4.26	1.65
Boalkhali	13.8	5.5	10.48	3.76	3.32	1.74
Boalmari	46.6	34	39.25	21.54	7.35	12.46
Bochaganj	49.3	32.3	38.36	20.97	10.94	11.33
Boda	55.5	38.5	26.59	12.03	28.91	26.47
Bogra sadar	43.4	28.8	17.57	9.08	25.83	19.72
Brahman para	29.5	13.6	39.93	21.67	-10.43	-8.07
Brahmanbaria Sadar	33.1	15.9	26.01	12.2	7.09	3.7
Burhanuddin	45.8	29.1	28.32	16.34	17.48	12.76
Burichang	30.3	14.1	33.29	17.31	-2.99	-3.21
Cantonment	12.1	4.6	1.54	0.04	10.56	4.56
Chakaria	39.5	16.9	28.45	13.21	11.05	3.69
Chandanaish	26.1	12.4	13.51	4.78	12.59	7.62
Chandgaon	33.5	3.4	16.95	4.85	16.55	-1.45

Chandina	36.1	16.6	41.22	22.59	-5.12	-5.99
Chandpur Sadar	26.3	13	45.51	25.86	-19.21	-12.86
Char Bhadrasan	45.9	33.6	35.76	19.78	10.14	13.82
Char Fasson	50.4	38	28.22	14.92	22.18	23.08
Char Rajibpur	73.9	58.8	68.82	48.67	5.08	10.13
Charghat	44.1	27.1	31.43	16.77	12.67	10.33
Chatkhil	17.5	6.6	4.78	1.5	12.72	5.1
Chatmohar	51	30.4	31.41	16.09	19.59	14.31
Chauddagram	31	14.6	34.39	19.05	-3.39	-4.45
Chaugachha	59.7	46	42.82	20.67	16.88	25.33
Chauhali	54.2	36.9	45.51	28.06	8.69	8.84
Chhagalnaiya	9.8	4	25.94	14.45	-16.14	-10.45
Chhatak	47.5	27.6	23.62	18.59	23.88	9.01
Chilmari	69	53.1	61.07	42.14	7.93	10.96
Chiribandar	50	33.5	38.54	22.64	11.46	10.86
Chitalmari	6.6	2.4	50.01	30.03	-43.41	-27.63
Chittagong port	28.5	2	12.43	3.58	16.07	-1.58
Chuadanga Sadar	28.2	16.2	29.21	11.69	-1.01	4.51
Chunarughat	46.7	28.6	27.5	22.51	19.2	6.09
Comilla Sadar (kotwali)	17.6	7.5	24.43	12.62	-6.83	-5.12
Companiganj	41	19.4	34.55	28.71	6.45	-9.31
Companiganj	12.9	5.6	34.55	28.71	-21.65	-23.11
Cox's Bazar Sadar	38.5	17.7	26.18	12.24	12.32	5.46
Dacope	73.3	60.4	44.49	24.9	28.81	35.5
Daganbhuiyan	12.4	4.7	16.28	7.51	-3.88	-2.81
Damudya	29.6	18.1	47.91	29.38	-18.31	-11.28

Damurhuda	55.9	38.6	27.07	10.53	28.83	28.07
Dashmina	76.6	63.8	21.76	11.35	54.84	52.45
Daudkandi	33.3	15.3	38.52	21.04	-5.22	-5.74
Daulat Khan	56.7	32.5	30.32	17.99	26.38	14.51
Daulatpur	58.9	34.5	29.44	15.74	29.46	18.76
Daulatpur	25.2	13.7	29.44	15.74	-4.24	-2.04
Daulatpur	46.9	32.3	29.44	15.74	17.46	16.56
Debhata	56.6	42.8	43.12	27.46	13.48	15.34
Debidwar	29	13.3	41.38	24.48	-12.38	-11.18
Debiganj	57.7	40.6	34.21	16.63	23.49	23.97
Delduar	36.7	24.4	24.35	14.47	12.35	9.93
Demra	21.5	8.2	19.94	2.82	1.56	5.38
Derai	47	26.4	26.18	20.66	20.82	5.74
Dewanganj	67.7	54.2	58.51	41.59	9.19	12.61
Dhamoirhat	43.5	27	17.85	7.71	25.65	19.29
Dhamrai	35	23.2	22.84	9.07	12.16	14.13
Dhanmondi	2.5	1	1.37	0.1	1.13	0.9
Dharampasha	52.1	28.9	25.5	20.15	26.6	8.75
Dhobaura	68	53.7	58.2	38.44	9.8	15.26
Dhunat	52	34.5	19.84	7.28	32.16	27.22
Dhupchanchia	44.3	27.5	13.18	5.11	31.12	22.39
Dighalia	68.7	41.9	39.27	21.87	29.43	20.03
Dighinala	33.4	16	22.54	8.23	10.86	7.77
Dimla	75.7	61.5	35.22	17.43	40.48	44.07
Dinajpur Sadar	45.6	30.7	28.17	16.52	17.43	14.18
Dohar	38.5	27.2	23.93	10.06	14.57	17.14

Domar	71	55.8	31.31	15.51	39.69	40.29
Double Mooring	0.1	0	0.01	0	0.09	0
Dowarabazar	51	28.7	29.91	24.3	21.09	4.4
Dumki	36.4	28.6	22.03	13.14	14.37	15.46
Dumuria	32.5	21	37.23	19.57	-4.73	1.43
Durgapur	33.1	20.5	25.73	12.32	7.37	8.18
Durgapur	45.9	28.5	25.73	12.32	20.17	16.18
Fakirhat	65.9	55	36.39	19.2	29.51	35.8
Faridganj	29.1	13.8	46.56	26.81	-17.46	-13.01
Faridpur	47.7	27.9	31.51	16.61	16.19	11.29
Faridpur Sadar	42.2	31	38.35	21.35	3.85	9.65
Fatikchhari	36.6	18.7	17.61	7.08	18.99	11.62
Fenchuganj	11	5.1	16.92	13.42	-5.92	-8.32
Feni Sadar	11.4	4.3	18.59	9.38	-7.19	-5.08
Fulbari	47.9	31.4	33.77	17.84	14.13	13.56
Fulbaria	60.4	46.2	52.63	32.79	7.77	13.41
Fulchhari	60	42.7	58.06	39.76	1.94	2.94
Gabtali	48.4	31.3	15.64	5.72	32.76	25.58
Gaffargaon	55.7	41.5	43.92	25.85	11.78	15.65
Gaibandha Sadar	50	33.8	44.76	28.3	5.24	5.5
Galachipa	76.8	68	25.96	14.39	50.84	53.61
Gangachara	64.7	48	58.29	38.96	6.41	9.04
Gangni	14.5	7.8	15.84	5.25	-1.34	2.55
Gauripur	61	46.9	50.63	30.53	10.37	16.37
Gaurnadi	59.4	37.7	55.45	39.88	3.95	-2.18
Gazaria	35.3	23.2	26.83	14.75	8.47	8.45

Gazipur Sadar	18.4	7.3	22.11	8.15	-3.71	-0.85
Ghatail	42.1	28.1	28.71	17.68	13.39	10.42
Ghior	32.3	20.4	13.73	5.74	18.57	14.66
Ghoraghat	51.6	34.6	41.83	24.31	9.77	10.29
Goalandaghat	47.1	32.5	50.47	31.83	-3.37	0.67
Gobindaganj	51	34.2	45.39	29	5.61	5.2
Godagari	52.2	35.5	44.15	27.3	8.05	8.2
Golabganj	11.4	5.5	44.15	27.3	-32.75	-21.8
Gomastapur	43.1	27.4	26.05	12.24	17.05	15.16
Gopalganj Sadar	40.8	28.2	41.11	25.2	-0.31	3
Gopalpur	39.2	25.3	29.31	16.9	9.89	8.4
Gosairhat	38.2	24.6	58.33	40.7	-20.13	-16.1
Gowainghat	13.3	6	52.59	46.53	-39.29	-40.53
Gulshan	8.6	2.9	3.34	0.79	5.26	2.11
Gurudaspur	53.1	35.5	36.97	22.81	16.13	12.69
Habiganj Sadar	40	23.7	16.88	12.24	23.12	11.46
Haim Char	30.8	16.6	61.3	41.03	-30.5	-24.43
Hajiganj	29.4	16.1	53.74	32.54	-24.34	-16.44
Hakimpur	46.3	29.3	38.9	22.36	7.4	6.94
Halishahar	28.8	2.1	5.59	1.09	23.21	1.01
Haluaghat	60.8	46.2	50.33	30.6	10.47	15.6
Harinakunda	31.1	17.6	26	10.6	5.1	7
Haripur	55.6	38.6	29.72	13.08	25.88	25.52
Harirampur	36.8	24.1	18.12	8.27	18.68	15.83
Hathazari	30.1	2.3	1.11	0.09	28.99	2.21
Hatibandha	56.5	36.9	38.08	18.42	18.42	18.48

Hatiya	48.7	25.5	16.02	5.91	32.68	19.59
Hazaribagh	17.2	6.6	12.19	1.51	5.01	5.09
Hizla	60.2	60.7	62.26	49.55	-2.06	11.15
Homna	39.1	19.3	38.35	19.84	0.75	-0.54
Hossainpur	23.8	13.5	32.99	18.51	-9.19	-5.01
Ishwardi	45.9	26.9	26.25	13.23	19.65	13.67
Ishwarganj	61.5	47.5	55.97	35.8	5.53	11.7
Islampur	65.5	51.7	54.99	38.2	10.51	13.5
Itna	34.8	22.1	34.86	21.08	-0.06	1.02
Jagannathpur	46.4	27.2	21	15.81	25.4	11.39
Jaintiapur	11.7	5.3	34.65	28.91	-22.95	-23.61
Jaldhaka	74	59.3	43.54	24.87	30.46	34.43
Jamalganj	52.1	29.7	24.62	19.44	27.48	10.26
Jalpur Sadar	50.3	36.7	49.76	32.66	0.54	4.04
Jessore Sadar (Kotwali)	62.1	51.5	35.29	16.4	26.81	35.1
Jhalokati Sadar	42.7	24	37.73	22.28	4.97	1.72
Jhenaidaha Sadar	40.7	26.7	23.94	9.66	16.76	17.04
Jhenaigati	47.2	32	36.91	21.64	10.29	10.36
Jhikargachha	66	51.8	38.86	17.85	27.14	33.95
Jiban Nagar	26.2	13.5	29.09	11.48	-2.89	2.02
Joypurhat Sadar	44	28.3	26.03	13	17.97	15.3
Jurai Chhari Thana	35	18	19.3	6.23	15.7	11.77
Kachua	36.1	22.5	56.29	34.99	-20.19	-12.49
Kachua	31.5	18.4	56.29	34.99	-24.79	-16.59
Kafrul	13.1	4.7	6.98	0.42	6.12	4.28
Kahaloo	44.1	27.6	11.68	3.97	32.42	23.63

Kaharole	50.4	33.5	44.29	25.57	6.11	7.93
Kala Para	74.2	64.5	20.31	9.71	53.89	54.79
Kalai	44.2	27.3	25.6	12.12	18.6	15.18
Kalaroa	49	32.9	45.95	28.7	3.05	4.2
Kalia	45.5	32.1	23.28	9.7	22.22	22.4
Kaliakair	48.8	37.3	10.98	3.9	37.82	33.4
Kaliganj	47.6	34.8	47.96	31.71	-0.36	3.09
Kaliganj	27.6	14.8	47.96	31.71	-20.36	-16.91
Kaliganj	52.7	32.8	47.96	31.71	4.74	1.09
Kaliganj	74.9	62.5	47.96	31.71	26.94	30.79
Kalihati	40.7	28	23.46	12.5	17.24	15.5
Kalkini	42.3	29.4	33.17	15.84	9.13	13.56
Kalmakanda	34.6	21.8	37.62	22.57	-3.02	-0.77
Kamalganj	28	14.8	26.72	22.02	1.28	-7.22
Kamarkhanda	51.3	34.2	32.47	17.64	18.83	16.56
Kamrangir Char	51.7	30.8	21.98	2.6	29.72	28.2
Kanaighat	12.4	5.6	45.77	39.73	-33.37	-34.13
Kanthalia	40.7	18.5	34.19	21.44	6.51	-2.94
Kapasias	52.9	39.1	27.05	17.82	25.85	21.28
Kaptai	24.3	11.7	12.22	3.89	12.08	7.81
Karimganj	23.7	13.7	27.14	14.04	-3.44	-0.34
Karnafuli	6.5	0.2	27.14	14.04	-20.64	-13.84
Kasba	33.3	15.6	25.54	11.93	7.76	3.67
Kashiani	46.7	32.7	39.06	24.63	7.64	8.07
Katiadi	23.5	13.5	31.57	17.07	-8.07	-3.57
Kaunia	67	50.9	44.98	33.15	22.02	17.75

Kawkhali	27.9	17.2	52.16	39.55	-24.26	-22.35
Kawkhali (betbunia)	44.1	21.2	23.43	8.73	20.67	12.47
Kazipur	51	33.7	36.23	20.19	14.77	13.51
Kendua Thana	32.4	20.1	40.91	24.08	-8.51	-3.98
Keraniganj	36.7	20.2	25.86	10.2	10.84	10
Keshabpur	51.4	37.2	42.04	20.44	9.36	16.76
Khagrachhari Sadar	34.6	14.8	19.52	7.31	15.08	7.49
Khaliajuri	29.4	18.3	37.22	22.27	-7.82	-3.97
Khalishpur	53.7	30.6	41.05	23.54	12.65	7.06
Khan Jahan Ali	58.1	33.7	31.88	16.76	26.22	16.94
Khansama	54.7	37.6	46.48	25.79	8.22	11.81
Khetlal	42.7	26.2	26.06	11.74	16.64	14.46
Khilgaon	11.6	4.1	13.66	1.49	-2.06	2.61
Khoksa	34.4	23.6	4.66	1.05	29.74	22.55
Khulna Sadar (Kotowali)	50.7	28.9	35.47	18.84	15.23	10.06
Khulshi	29.8	2.2	1.1	0.1	28.7	2.1
Kishoreganj	71.8	56.2	30.86	14.74	40.94	41.46
Kishoreganj Sadar	20.7	12.1	27.65	14.52	-6.95	-2.42
Kotalipara	41.6	28	43.64	27.65	-2.04	0.35
Kotchandpur	21.6	11.9	20.24	7.47	1.36	4.43
Kotwali	9.9	0.7	5.88	1.1	4.02	-0.4
Kotwali	3.9	1.7	5.88	1.1	-1.98	0.6
Koyra	50	34.8	49.14	29.05	0.86	5.75
Kulaura	30.8	16.4	28.11	23.11	2.69	-6.71
Kuliar Char	21.1	12	32.73	17.24	-11.63	-5.24
Kumarkhali	40.2	31.2	3.96	0.9	36.24	30.3

Kurigram Sadar	66.1	49.9	57.99	40.48	8.11	9.42
Kushtia Sadar	22.5	14.1	3.04	0.73	19.46	13.37
Kutubdia	50.3	24.3	31.09	13.76	19.21	10.54
Lakhai	50.8	31.7	25.22	20	25.58	11.7
Laksam	38.1	18	37.39	19.98	0.71	-1.98
Lakshmichhari	53.2	27.4	30.96	12.62	22.24	14.78
Lakshmipur Sadar	26.9	10.8	45.61	28.81	-18.71	-18.01
Lalbagh	10.2	3.7	16.03	1.79	-5.83	1.91
Lalmohan	47.5	27.5	27.78	15.2	19.72	12.3
Lalmonirhat Sadar	49.1	30.4	31.3	15.1	17.8	15.3
Lalpur	48.6	31.5	35.75	21.75	12.85	9.75
Lama	59	35.9	40.95	21.58	18.05	14.32
Langadu	56.7	30.5	29.29	9.93	27.41	20.57
Lohagara	31.3	14.8	19.9	7.57	11.4	7.23
Lohagara	58.2	46.9	19.9	7.57	38.3	39.33
Lohajang	22.8	13.8	33.56	20.12	-10.76	-6.32
Madan	31.8	19.9	41.57	23.55	-9.77	-3.65
Madarganj	62.1	47.2	55.45	38.16	6.65	9.04
Madaripur Sadar	33.8	22.3	35	17.48	-1.2	4.82
Madhabpur	45.4	27.4	25.88	20.66	19.52	6.74
Madhukhali	42	30.3	30.52	16.08	11.48	14.22
Madhupur	41.4	27.2	36.42	21.48	4.98	5.72
Magura Sadar	26.3	13.9	43.03	24.05	-16.73	-10.15
Mahadebpur	45.4	28.8	15.62	6.12	29.78	22.68
Mahalchhari	36.5	18	21.35	7.51	15.15	10.49
Maheshkhali	60.7	34.8	40.2	21.36	20.5	13.44

Maheshpur	28.8	14.5	23.63	9.36	5.17	5.14
Manda	47.2	30.2	14.7	5.39	32.5	24.81
Maniarchar	32.5	14.3	14.7	5.39	17.8	8.91
Manikchhari	41.3	19.9	30.11	12.76	11.19	7.14
Manikganj Sadar	36.2	24	18.66	7.25	17.54	16.75
Manirampur	54	39.6	40.21	19.45	13.79	20.15
Manohardi	35.8	20.9	22.73	11.82	13.07	9.08
Manpura	48.6	34.5	32.81	19.38	15.79	15.12
Mathbaria	38.1	17.9	38.03	25.62	0.07	-7.72
Matihar	23.4	11	33.33	15.18	-9.93	-4.18
Matiranga	39.5	18.7	28.29	11.45	11.21	7.25
Matlab	33.9	19.1	28.29	11.45	5.61	7.65
Maulvi Bazar Sadar	26.8	14.1	49.93	28.58	-23.13	-14.48
Meghna	33.2	15.5	37.32	18.96	-4.12	-3.46
Mehendiganj	68.4	57.5	37.32	18.96	31.08	38.54
Meherpur Sadar	10.3	4.9	15.13	5.06	-4.83	-0.16
Melandaha	62	47.2	47.22	30.58	14.78	16.62
Mirpur	8.6	2.8	3.35	0.72	5.25	2.08
Mirpur	17.4	9.4	3.35	0.72	14.05	8.68
Mirsharai	26	11.4	13.41	4.6	12.59	6.8
Mirzaganj	41.7	24.7	17.77	9.58	23.93	15.12
Mirzapur	36.6	24.5	26.75	16.01	9.85	8.49
Mitha Pukur	62.2	45.5	45.45	28.95	16.75	16.55
Mithamain	33.8	21.8	35.22	22.96	-1.42	-1.16
Mohammadpur	11.7	3.9	50.77	30.59	-39.07	-26.69
Mohammadpur	35.8	22.5	50.77	30.59	-14.97	-8.09

Mohanganj Thana	33.3	21	34.3	18.15	-1	2.85
Mohanpur	45.7	28.5	24.87	11.96	20.83	16.54
Mollahat	4.9	1.9	46.11	26.73	-41.21	-24.83
Mongla	56.4	41.5	41.91	22.68	14.49	18.82
Morrelganj	64	50.3	46.52	27	17.48	23.3
Motijheel	3.1	1.2	1.3	0.13	1.8	1.07
Mujib Nagar	11.5	5.9	13.56	4.48	-2.06	1.42
Muksudpur	42.8	29.2	46.46	29.86	-3.66	-0.66
Muktagachha	58.6	44.8	43.35	23.95	15.25	20.85
Muladi	56.6	36.8	58.21	44.14	-1.61	-7.34
Munshiganj Sadar	21.3	12.9	30.77	15.05	-9.47	-2.15
Muradnagar	25.2	10.9	45.02	26.97	-19.82	-16.07
Mymensingh Sadar	50.7	38	52.28	39.33	-1.58	-1.33
Nabiganj	48.4	30.3	26.76	21.48	21.64	8.82
Nabinagar	41.5	21.2	30.47	15.04	11.03	6.16
Nachole	40.2	24.7	24.16	11.43	16.04	13.27
Nagarkanda	47.7	35.1	35.87	19.17	11.83	15.93
Nagarpur	48.4	33.8	39.85	26.38	8.55	7.42
Nageshwari	70.3	55	64.96	45.45	5.34	9.55
Naikhongchhari	72.8	49.6	46.05	26.27	26.75	23.33
Nakla	46.5	31.6	46.76	28.54	-0.26	3.06
Nalchity	50	33.1	46.52	32.54	3.48	0.56
Nalitabari	53	37.8	41.76	24.13	11.24	13.67
Nandail	60.5	46.6	60.66	41.75	-0.16	4.85
Nandigram	46.1	29.3	16.09	6.27	30.01	23.03
Nangalkot	25.8	11.1	45.1	26.15	-19.3	-15.05

Naogaon Sadar	49.9	33.9	17.44	8.27	32.46	25.63
Narail Sadar	32.7	20.2	17.34	6.07	15.36	14.13
Narayanganj Sadar	22.9	10.2	27.93	10.07	-5.03	0.13
Naria	30.7	19.1	48.06	30.49	-17.36	-11.39
Narsingdi Sadar	34.6	22.5	22.84	10.84	11.76	11.66
Nasirnagar	42.9	22.3	43.71	24.98	-0.81	-2.68
Natore Sadar	49.4	32.6	31.79	18.85	17.61	13.75
Nawabganj	42	29.3	37.28	20.51	4.72	8.79
Nawabganj	51.5	34.8	37.28	20.51	14.22	14.29
Nawabganj Sadar	43.5	28.8	37.28	20.51	6.22	8.29
Nazirpur	13.7	11.5	51.54	36.6	-37.84	-25.1
Nesarabad (swarupkati)	20.3	11.3	43.31	30.1	-23.01	-18.8
Netrokona Sadar	28.7	17.5	30.77	16.16	-2.07	1.34
Niamatpur	50.9	33.8	19.45	8.4	31.45	25.4
Nikli	26.4	15.5	30.04	17.03	-3.64	-1.53
Nilphamari Sadar	69.2	54	36.45	21.04	32.75	32.96
Noakhali Sadar (sudharam)	44.3	21.6	10.21	3.69	34.09	17.91
Paba	28.6	13.2	33.4	17.06	-4.8	-3.86
Pabna Sadar	45.2	26.7	27.81	14.29	17.39	12.41
Pahartali	31.8	2.8	30.04	11.68	1.76	-8.88
Paikgachha	49.6	34.4	42.4	23.26	7.2	11.14
Pakundia	23	13.1	26.11	13.53	-3.11	-0.43
Palash Paurashava	25.6	15.2	22.23	9.89	3.37	5.31
Palashbari	50.3	33.3	44.75	27.07	5.55	6.23
Pallabi	12	4.2	11.95	1.75	0.05	2.45
Palong	28.7	17.6	11.95	1.75	16.75	15.85

Panchagarh Sadar	58.6	42	24.19	11.17	34.41	30.83
Panchbibi	44.2	27.6	28.34	13.62	15.86	13.98
Panchhari	37.7	17.2	23.41	8.38	14.29	8.82
Panchlaish	31.2	2.6	0.76	0.06	30.44	2.54
Pangsha	45.5	31.2	45.68	28.83	-0.18	2.37
Parbatipur	49.5	33.5	39.75	22.08	9.75	11.42
Parshuram	11.9	4.7	30.62	18.61	-18.72	-13.91
Patenga	9.9	0.4	3.93	0.59	5.97	-0.19
Patgram	53.3	33.5	33.29	16.99	20.01	16.51
Patharghata	56.3	36.1	12.9	6.12	43.4	29.98
Patiya	26.8	9.3	8.07	2.39	18.73	6.91
Patnitala	48.5	32.4	18.56	8.06	29.94	24.34
Patuakhali Sadar	52.1	41.3	36.94	23.32	15.16	17.98
Phulbari	65.8	49.1	68.48	48.76	-2.68	0.34
Phulpur	66.9	52.9	58.8	39.19	8.1	13.71
Phultala	45.2	36.7	33.66	16.96	11.54	19.74
Pirgachha	62.3	45.3	49.73	30.5	12.57	14.8
Pirganj	62.1	45.6	23.25	9.6	38.85	36
Pirganj	52.7	35.8	23.25	9.6	29.45	26.2
Pirojpur Sadar	22.7	16.9	42.66	28.69	-19.96	-11.79
Porsha	63.9	48.6	21.74	9.41	42.16	39.19
Purbadhala	32.3	20	35.36	20.28	-3.06	-0.28
Puthia	45.9	29.1	26.79	13.28	19.11	15.82
Rajapur	54.5	38.1	42.03	29.77	12.47	8.33
Rajarhat	64	47.3	67.69	48.63	-3.69	-1.33
Rajasthali	48.1	25.7	20.54	7.21	27.56	18.49

Rajbari Sadar	41	27.6	38.67	23.05	2.33	4.55
Rajnagar	31.5	16.7	22.32	18.02	9.18	-1.32
Rajoir	33.3	21.4	31.38	15.44	1.92	5.96
Rajpara	19.3	11	24.39	10.69	-5.09	0.31
Ramganj	20.1	7.8	21.39	12	-1.29	-4.2
Ramgarh	34.7	17.3	32.59	14.83	2.11	2.47
Ramgati	58.1	32.2	30.37	15.96	27.73	16.24
Ramna	4.7	1.7	3.82	0.2	0.88	1.5
Rampal	47.6	33	41.13	22.46	6.47	10.54
Ramu	59.7	34.6	34.32	17.85	25.38	16.75
Rangamati Sadar	27.5	13.2	7.35	1.7	20.15	11.5
Rangpur Sadar	55.3	40.2	37.12	25.78	18.18	14.42
Rangunia	29	13.3	13.98	5.06	15.02	8.24
Raninagar	46.4	29.5	13.29	4.88	33.11	24.62
Ranisankail	54.6	37.5	25.8	11.06	28.8	26.44
Raozan	17.7	7.1	8.52	2.92	9.18	4.18
Raumari	73.5	58.1	57.01	35.99	16.49	22.11
Rowangchhari	75.4	55.2	32.91	16.16	42.49	39.04
Royganj	53.3	36	39.43	22.84	13.87	13.16
Roypur	32.1	14	16.72	8.71	15.38	5.29
Royapura	40.7	25.8	29.44	16.18	11.26	9.62
Ruma	75.4	55.3	42.3	23.38	33.1	31.92
Rupganj	24.9	14.6	22.52	8.69	2.38	5.91
Rupsa	67.5	41.1	36.88	20.22	30.62	20.88
Sabujbagh	13.8	4.9	11.64	1.13	2.16	3.77
Sadarpur	47	34.4	36.94	20.54	10.06	13.86

Sadullapur	51.4	34.2	50.99	31.06	0.41	3.14
Saghatta	52.5	35.3	52.75	34.08	-0.25	1.22
Saidpur	59.2	43.2	27.72	16.17	31.48	27.03
Sakhipur	44.5	29.6	26.04	15.51	18.46	14.09
Sandwip	40.8	20.3	19.13	7.43	21.67	12.87
Santhia	53.3	32.5	33.06	17.5	20.24	15
Sapahar	58.6	42.4	21.36	9.01	37.24	33.39
Sarail	40	20.7	31.08	15.49	8.92	5.21
Sarankhola	62.8	48.7	48.01	28.24	14.79	20.46
Sariakandi	53.5	35.7	21.6	8.72	31.9	26.98
Sarishabari	52.7	38.8	21.6	8.72	31.1	30.08
Satkania	30.5	14.6	15.16	5.51	15.34	9.09
Satkhira Sadar	46.2	33.4	43.15	26	3.05	7.4
Saturia	38.4	25	15.01	6.17	23.39	18.83
Savar	16.8	6.7	34	17.97	-17.2	-11.27
Senbagh	24.4	10.5	5.36	1.67	19.04	8.83
Serajdikhan	36.6	24.2	28.84	16.52	7.76	7.68
Shah Makhdum	17.8	8.2	30.93	13.37	-13.13	-5.17
Shahjadpur	56.4	39.8	41.76	25.12	14.64	14.68
Shahrasti	25.7	14.3	50.53	29.53	-24.83	-15.23
Shailkupa	51	35.4	28.19	12.11	22.81	23.29
Shalikha	9	3.9	44.21	24.67	-35.21	-20.77
Sharsha	49.1	36.8	40.81	19.37	8.29	17.43
Sherpur	49.4	32.4	15.72	5.62	33.68	26.78
Sherpur Sadar	46.1	32	55.82	35.6	-9.72	-3.6
Shib Char	44.5	30.3	38.76	20.22	5.74	10.08

Shibalaya	34.6	22.3	15.81	6.96	18.79	15.34
Shibganj	47.6	30.6	25.98	12.17	21.62	18.43
Shibganj	42.6	27.3	25.98	12.17	16.62	15.13
Shibpur	29.7	17.2	18.9	9.85	10.8	7.35
Shyamnagar	75.7	65.2	50.19	33.82	25.51	31.38
Shyampur	14.9	5	12.88	1.22	2.02	3.78
Singair	37.3	24.5	18.08	7.13	19.22	17.37
Singra	51.1	34	37.75	23.43	13.35	10.57
Sirajganj Sadar	51.2	34.4	36.72	21.64	14.48	12.76
Sitakunda	21.5	1.5	11.46	3.64	10.04	-2.14
Sonadanga	52.8	30.2	19.3	7.31	33.5	22.89
Sonagazi	16.8	6.3	44.51	28.54	-27.71	-22.24
Sonargaon	16.4	8.5	21.32	9.95	-4.92	-1.45
Sonatola	50.1	32.9	23.73	10.34	26.37	22.56
Sreebardi	47.5	32.4	49.08	30.42	-1.58	1.98
Sreemangal	28.3	14.6	29.35	24.67	-1.05	-10.07
Sreenagar	25.8	16.1	26.27	14.4	-0.47	1.7
Sreepur	52.3	38.9	45	25.52	7.3	13.38
Sreepur	44	30.6	45	25.52	-1	5.08
Sujanagar	51.4	30.7	35.45	19.44	15.95	11.26
Sulla	50.1	27.9	28.32	22.87	21.78	5.03
Sunamganj Sadar	45.8	25.6	25.1	19.29	20.7	6.31
Sundarganj	56.1	39	47.55	29.44	8.55	9.56
Sutrapur	4	1.6	4.58	0.31	-0.58	1.29
Sylhet	13.7	6.9	4.58	0.31	9.12	6.59
Tahirpur	52.1	29.3	31.2	25.34	20.9	3.96

Tala	45.6	33	45.25	28.94	0.35	4.06
Tangail Sadar	38.1	26	31.7	20.93	6.4	5.07
Tanore	52	34.6	35.67	20.72	16.33	13.88
Taraganj	66	49.7	52.44	32.42	13.56	17.28
Tarail	29.2	17.8	26.08	14.73	3.12	3.07
Tarash	51.4	34.1	35.75	20.01	15.65	14.09
Tazumuddin	67.1	33.6	22.28	11.27	44.82	22.33
Tejgaon	5.7	1.7	5.28	0.33	0.42	1.37
Teknaf	73.1	52	38.15	19.74	34.95	32.26
Tentulia	56.1	38.7	21.53	8.85	34.57	29.85
Terokhada	40.7	26.7	49.6	30.03	-8.9	-3.33
Thakurgaon Sadar	50.5	34.8	28.64	17.66	21.86	17.14
Thanchi	76.7	55.8	53.05	31.7	23.65	24.1
Tongibari	24.9	15.3	25.06	14	-0.16	1.3
Trishal	57.5	43.3	47.78	28.82	9.72	14.48
Tungipara	38.4	25.8	42.58	26.08	-4.18	-0.28
Ukhia	68.7	43.3	37.81	20.15	30.89	23.15
Ulipur	66.9	50	65.32	46.23	1.58	3.77
Ullah Para	53	36.5	36.65	20.91	16.35	15.59
Uttar Matlab	25.9	14.7	24.92	4.27	0.98	10.43
Uttara	13	4.8	3.75	0.75	9.25	4.05
Wazirpur	44.4	31	52.06	37.78	-7.66	-6.78
Zakiganj	13.2	6.7	39.01	32.92	-25.81	-26.22
Zanjira	32.2	19.9	54.03	34.88	-21.83	-14.98

Appendix 4: District planning in India

Appendix 4: Use of Topsoil for brick-making



Source: Chaloman Noakhali, March 09, 2014