Chapter II

Review of Literature

In recent times, a much debated issue in the context of rural development has been receiving increasingly attention that recognizes the pervasiveness of the rural economic activities surpassing the periphery of the agricultural sector. In fact, the rural economy satisfies a wide range of needs of rural inhabitants including social service provision, economic activities, infrastructure and natural resources (Csaki and Lerman, 2000). Since the early 1970s, a large number of studies on rural development have emphasized the importance of the non-agricultural economic activities. Evidences from the developing world suggest that occupational diversification in the countryside has the potential to promote local economic growth and to alleviate the rural-urban income gap as well as rural poverty. Diverse incomes portfolios in the rural non-farm economy can include income from (1) seasonal / longer-term domestic/overseas migration and remittances, (2) daily travel to nearby urban employment, (3) local wage labor opportunities and (4) self-employment in trade, agro-processing, tailoring, services etc.

In this chapter, we chronicle the different perspectives for examining the rural non-farm sectors commonly used in the existing literature and their developmental role. We also provide a comparative study of the evolution of the rural non-farm activities in Asian, African and Latin American countries and the success story of some of those countries which may be helpful to build an understanding about the pre-conditions required for the expansion of remunerative rural non-farm activities and their poverty implications. The chapter also summarizes some important region-specific empirical findings and different issues raised by the researchers in the context of the rural non-farm activities which would explain our interest in this field of research for the purpose of rural developmental policy formulation.

2.1 Different Perspectives on the Rural Non-Farm Activities

If we go through the existing literature on the non-farm activities, we can identify four major perspectives that emerged for examining the rural non-farm economy, which are:
(1) Agricultural growth-induced expansion of the non-farm sectors: This literature stems out from the notion of increase in demand for non-farm goods via consumption and production linkages driven by the growth in agricultural income and production. The source of inspiration of such thinking has been embodied in the success of the Asian green revolution.

(2) Off the farm view on non-farm employment: This type of literature focuses on different constraints faced by the rural non-farm enterprises on both demand and supply sides and views agricultural sector as the dominant source of rural demand.

(3) Rural households' livelihood diversification strategy-induced promotion of the non-farm activities: Such theories deal with risk management, labour allocation and push and pull factors that induce farm households to diversify into various non-farm activities.

(4) Region-specific development of the non-farm activities: This provides a spatial perspective that highlights the spatial concentration of demand as well as supply-side determinants of the non-farm activity focusing on the rural infrastructure and public services.

There is some overlapping among these different perspectives which makes the study on the rural non-farm activities a multidisciplinary approach involving agricultural economics, anthropology, business management, economics, geography, public administration, regional planning and sociology.

2.2 Agricultural Growth-Induced Promotion of the Non-Farm Activities and Rural Development: Farm-Non-Farm Growth Linkage

In the early 1970s, we observed an increasing concern regarding the failure of the urban industrialization to absorb the surplus labour and to control rural poverty coupled with the amazing success story of agricultural productivity gains from the green revolution technologies in Asia. This coincidence motivated agriculturists to claim that the agrarian sector could itself serve as the locomotive instead of the common belief on the industry as an engine of growth. There was also shift in the priorities from mere focus on the economic growth rate to thrust on the issue of equity, income distribution and poverty throughout the developing world. Industrial growth failed to address the issue of equity. Even when growth had been rapid, income distribution and poverty did not necessarily improve. The benefits of industrial growth had not trickled down to the poorer sections. In this context, agriculture took the center stage displaying its ability to grow at historically unprecedented rates. The new agricultural technology also proved to be labour-using. The rapid and broad-based
agricultural growth changed the conventional pessimistic views on agriculture’s potential to contribute to economic development.

According to Mellor, Johnston and Kilby, agriculture could play a crucial role in rural development and economic growth. Johnston and Kilby (1975) focused on the substantial production linkages generated by the successful implementation of the green revolution technology. The use of newly introduced high-yielding varieties of seeds needed to be supported by the uninterrupted supply of pumps, sprayers, fertilizers, cement, construction-labour and repair facilities from the non-agricultural firms. Consequently, substantial backward linkages had been produced. Moreover, strong forward linkages were generated in rural areas through considerable expansion of milling, processing and marketing activities. Mellor and Lele (1973) pointed out that consumption linkages were also generated by the increase in agricultural income due to technological development. As agricultural income increased, farm households spent their additional earnings on rural non-farm products such as the non-agricultural goods and services as well as perishable and high value farm commodities like milk, meat, vegetables etc. As a consequence, a growth impetus was created in both the farm and non-farm sectors. Combining these findings, Mellor developed his famous ‘growth-linkage theory’ (1976) based on his experience with rural India following green revolution since the mid-sixties. He argued that as a result of development of green revolution technologies and the subsequent increase in productivity and incomes of farmers, demand-led growth of both the agricultural and non-agricultural sectors would take place through their multiple linkages, stimulating a ‘virtuous circle’ of growth of food production and employment. Consumption linkages would arise out of increased incomes for farmers and labourers, generating increases in demand for goods and services, and would be largely concentrated in the rural areas since the goods and services demanded are typically produced by the small-scale, labour-intensive enterprises. Production linkages would also emerge from the agricultural sector. Backward production linkages would result from the farmers’ increased demand for inputs from the non-agricultural sector, whilst forward linkages would develop through the increased need for agro-processing activity. Thus, according to Mellor, the initial increase in rural income triggers a sequence of multiplier effects, which can invigorate expanded production and employment in other sectors of the economy including consumer goods industries and small-scale units in the RNFS which are likely to be labour-intensive. In fact, Mellor’s growth-linkage theory challenged Hirschman’s theory of unbalanced growth (1958) by
arguing that agriculture has not only production linkage but also consumption and fiscal linkages. While Hirschman saw agriculture in general, and subsistence agriculture in particular to have a little linkage effects, Mellor realized that technologically advanced agriculture allows a large net increase in national income. This, in turn, provides the dynamics of growth led by the agricultural sector. The basic difference in their perception comes from the fact that while Hirschman identifies two types of production linkages working in the economy, Mellor identifies an additional and even stronger demand side linkage, called the consumption linkage, which affects other sectors of the economy too.

**Empirical Evidences on Agriculture-led Growth**

The empirical issues that emerged in the field of applied agricultural economics during the decade of 1970s were broadly classified into two sets. The first set of issues emphasized on employment, underemployment and surplus labour. Employment and farm management surveys began to assemble data measuring the extent of employment, underemployment, and productivity of farm labour in order to understand the phenomenon of surplus labour. In this context, it was observed that the farm households might devote as much as 30 to 40 per cent of their annual household labour to the non-farm pursuits (Norman, 1972; Byerlee and Eicher, 1974).

There is also a second set of issues which emphasized on the measurement of the production and consumption linkages intrinsic in the agricultural development. Initially, Mellor and Lele (1973) focused on the spending pattern of the farm households. This attracted a series of parallel works. All these works suggest that consumption linkages are approximately four times as important as production linkages. Bell and Hazell (1980) estimated combined linkage effects using their newly developed analytical methods of combining input-output and consumption parameters. Their new techniques motivated a large number of emulators and launched a veritable cottage industry to the measurement of agricultural growth linkages.

In the 1990s and 2000s, the periphery of linkage theory further expanded beyond its initial concentration on product market consumption and production linkages to labour market linkages and general equilibrium interactions between the agriculture and the RNFE. In the historical context, Adleman (1984) showed that agricultural demand-led industrialization can generate superior growth and equity as compared to export-promoting industrialization strategies using her classic computable general equilibrium model of the
growth linkages in the South Korean economy. Adleman and Mellor threw challenge to Hirschman’s theory of unbalanced growth (1958) by arguing that agriculture has not only production linkage but also consumption and fiscal linkages.

2.3. Rural Development via Promotion of the Small-scale Enterprises: Off-the-Farm View

In the 1950s and 1960s, the policymakers and researchers were under the dark regarding the existence of the rural non-farm activity. Only a few scholars and policy makers advocated the role of the small-scale industries. Most of the policymakers across countries largely ignored small enterprise except in Nigeria (Kilby 1962) and India. While the Gandhian philosophy strongly supported the role of the non-farm sector for rural development in India, Staley and Morse’s (1965) classic initial efforts supported by the Ford Foundation funding promoted small-scale enterprises in Nigeria. After collectivization of the communes in 1958, China recognized the rural small-scale industry as priority sector to support agricultural growth. Their strategy of “walking on two legs”, and prioritizing the "five small industries" drew wide attention. Staley and Morse (1965), McClelland and Winter (1969) and Kilby (1971) highlighted the importance of the small-scale enterprises by describing them as the ‘seedbeds of new entrepreneurs’, considering small firms as the building blocks of future industrialization.

However, there were two widespread beliefs which dominated over the above-mentioned early small enterprise efforts, thereby influencing also the rural developmental research works. In the first place, it was conventionally believed by the industrial planners that the small scale industries were not efficient and only the large-scale industries could operate efficiently. The second line of belief was that the rural non-farm goods and services were basically inferior in nature. Thus, Hymer and Resnick (1969) expressed their pessimistic view regarding the developmental role of the rural non-farm sector. They argued that the consumers’ substitution of inferior rural non-farm goods (Z-goods) for imported manufactures, could contribute to economic growth. By releasing productive resources formerly used in inefficient Z-good production, the opening up of trade would allow a region to increase farm production and import preferred, efficiently produced manufactures thereby increasing consumption possibilities, aggregate production and welfare. Later, Resnick (1970) presented evidence of declining rural industries, mostly home-based
handicrafts, in Burma, the Philippines and Thailand between 1870 and 1938. However, they failed to recognize the role of the rural commerce and services.

Since 1970, there had been an important departure from the prior convention of looking at the non-farm sector as inefficient and inferior goods producing sector. The ILO researchers ascribed the sector as a "sleeping giant" (ILO 1972). The second major group involved in primary data collection converged on the RNFE from an alternate direction, via spin-offs from agriculture. The Michigan State University’s USAID-funded African Rural Employment Project incorporated explicitly a rural non-farm component for the first time. Liedholm and associates (Liedholm, 1973; Liedholm and Chutta, 1976) became the principal architects of the emerging conventional wisdom concerning the RNFE. Since then, a large number of evidences suggested that small-scale enterprises can be efficient (Bhalla, 1975; Stewart 1977; White, 1978; Page and Steel, 1984; Cortes, Berry and Ishaq, 1987; Liedholm and Mead, 1987; Pack, 1987 and Mead 1991). On the other hand, analysis of household survey data (King and Byerlee, 1978; Hazell and Roell, 1983; Deb and Hossain 1984; Hazell and Ramasamy1986; Rogers, 1986; Hossain, 1988; Evans, 1990; and Lewis and Thorbecke 1992) also rejected Hymer and Resnick’s hypothesis of inferior rural non-farm goods and services. According to the empirical evidences, the demand for most of the rural non-farm goods and services covering imported and factory manufactures, commerce and services such as transport, education, health and ceremonial services have positive income elasticity except cottage manufactures having low income elasticity (King and Byerlee, 1978; Hazell and Roell, 1983; Hossain 2004). Thus, by the beginning of the 1980s, it had been well established that RNFS were neither inefficient nor inferior goods producing sector and hence should be promoted as a part of rural development measures. While Hymer and Resnick's pessimistic predictions about the decline of many labour-intensive, household-based industries may have been right, later evidences suggest that they were wrong about rural factories, commerce and services (Fabella 1985).

2.4. Households’ Diversified Livelihood Strategies and the Rural Non-Farm Activities

Most of the rural non-farm activities are undertaken by diversified rural households that operate farm and non-farm enterprises simultaneously. In response to a series of agro-climatic shocks and dislocation accompanying structural adjustment programs of the 1980s and 1990s, analysts have developed household economic models and field methods to
understand how poor rural households have adapted to their radically altered production environment. A large number of empirical works on the household’s livelihood strategies has been developed in this line of thought to provide valuable insights regarding the evolution and opportunities of the rural non-farm activity for the rural poor.

Empirical evidences suggest that there are two sorts of motivation on the part of the rural people to participate in the non-farm activities: (i) demand-pull, and (ii) distress-push. The demand-pull factors work where rural people respond to the new opportunities. Reardon et al. (1998) suggest that when relative returns are higher in RNFEs than in farming, and returns to farming are relatively more risky, pull factors are at work. The demand-pull also includes any increase in the demand for rural products resulting from increases in income of lower and middle-income rural households and increased demand from urban areas (Islam, 1997). Conversely, the distress-push diversification occurs in an environment of risk, market imperfections and of open and/or hidden agricultural unemployment. Thus, when rural people engage in economic activities that are less productive than agricultural production and are motivated by the need to avoid further income decreases, the push factors are at work.

The major implication of this approach is that the distribution of diversification activities over households would follow a bimodal distribution over household incomes in the presence of both the demand-pull and distress-push diversification. There would be two clusters of low-return and high-return activities, which are engaged in by the poor and affluent households, respectively. Moreover, if distress-push diversification dominates, we would expect poorer households to engage more in diversification than others. In the case of the predominantly demand-pull diversification, we would expect that higher income households would engage more in the non-agricultural diversification than the poorest households. The non-farm economy is thus important in situations of both stagnant and buoyant agricultural sector.

Many farm households in agriculturally advanced zones are found to pursue opportunities for diversification into attractive non-farm activities. Evidence from a series of sites across Africa suggests that the high-income farm households appear to be more able to diversify into high-return non-farm activities requiring skilled labour. Likewise, historical evidence from Japan confirms that wealthy farm households are diversifying into subcontract weaving and commerce in textiles (Hayami, 1998).
Case study evidence from Sri Lanka also supported the view that the households in high-risk and low-potential agricultural environments regularly respond by shifting themselves to the non-farm activities. In fact, high population density and acute population pressure drive those poor rural households to seek over half of their incomes from the off-the-farm sources (Von Braun and Pandya-Lorch, 1991). In the West African Sahel, farmers cope with their unpredictable agricultural environment by devoting significant resources to non-farm commerce and labour migration to Ivory Coast (Reardon, Malton and Delgado, 1988). Women, in northern Ghana, found to be engaged in the non-farm activities for coping with agricultural production uncertainty (Abdulai and Delgado, 1999).

A U-shaped relationship between the rural non-farm activities and incomes is reported for rural households in many developing countries. These observations support the distinction between the ‘demand-pull’ and ‘distress-push’ factors in the rural diversification process. They also explain the recent shift in attitudes towards the RNFE from viewing it as a symptom of backwardness towards a potential motor of the rural economy (Lanjouw and Lanjouw, 1997).

Davis and Pearce (2000) summarize the push and pull factors of diversification in the rural non-farm economy. According to them, the push factors are (1) population growth, (2) increasing scarcity of arable land and decreasing access to fertile land, (3) declining farm productivity, (4) declining returns from farming, (5) lack of access to farm input markets, (6) decline of the natural resource base, (7) temporary events and shocks, (8) absence or lack of access to the rural financial markets. On the other hand, the pull factors are (1) higher return on labour in the RNFE, (2) higher return on investments in the RNFE, (3) lower risk of RNFE activities, (4) generation of cash in order to meet household objectives, and (5) economic opportunities, often associated with social advantages, offered in urban centres and outside the region or country.

2.5. The Asian Experiences

It has been a widely recognized fact that economic activities in rural Asia are becoming highly diversified in the form of the rural non-farm activities. A large proportion of the rural labour forces of Asian countries are employed in the rural non-farm activities. It varied from 19 per cent in India (in 1981) to around 50 per cent in Malaysia (in 1980). During the mid-1980s, the observed retardation in the rate of labour absorption in South
Asian agriculture made a group of Asian scholars to search for an alternative employment generation strategy. Rapid population growth in South Asia accompanied with increasing landlessness and a simultaneous failure of agriculture to absorb the ever growing labour force, was leading to an increase in low-return rural non-farm employment. On the contrary, agricultural growth in Japan, Taiwan, and other newly industrializing countries in East Asia led to rapid expansion of increasingly remunerative rural non-farm activities. On the basis of these differential results, a section of economists came to the conclusion that in an agriculturally backward region, the rural non-farm employment may simply serve as a "sponge" or employer of last resort offering low-productive jobs. Mukhopadhyay and Lim (1985) distinguished two types of RNFA prevalent in East Asia: RNFA-1 with certain degree of technical sophistication yielding higher income and RNFA-2 with primitive technology catering mostly to local market yielding lower income. They argued that, the “rural non-farm units with strong links with urban industry in countries like Taiwan, Japan and Korea, have higher rates of profitability and dynamism. On the other hand, there are also some units which have stronger linkages with agriculture.”

The Ranis-Stewart Model and the East Asian Experiences

The East Asian studies improved our understanding of the rural non-farm activity along several important dimensions. On the basis of the evidences from Taiwan and the Philippines, Ranis and Stewart (1993) reformulated the Hymer-Resnick model by distinguishing between the modern and traditional non-farm goods. They generated completely different growth dynamics. According to Ranis and Stewart, the pessimistic conclusions of the Hymer-Resnick model regarding the role of the rural non-farm sector depend on a restrictive set of assumptions, which may not apply, either during the colonial period or after the independence. By relaxing those restrictive assumptions, particularly allowing for a dynamic food producing sector and the modernization of the rural non-farm goods sector, they showed a very different picture from that of Hymer and Resnick which was very much optimistic regarding the role of the rural non-farm sector, which has the potential for the generation of balanced growth in the rural areas, complementing efficient urban industrialization. They pointed out that conditions may be relatively favourable and unfavourable for the achievement of rural balanced growth depending on the policies adopted by the government in both the colonial and post-colonial era.
The Colonial Policies Favourable to the Expansion of the Rural Non-farm Sector

If the colonial government focused more attention on the food producing agriculture and sometimes on the land reform measures for the purpose of satisfying their own interests, the agricultural income tends to be more uniformly distributed, yielding strong linkages with the non-agricultural activity. In such a favourable case, the colonial government is less restrictive with respect to the local entrepreneurs, permitting indigenous industrial development to progress as a consequence of the various linkages. In such a case, as agricultural productivity increases, more labour and land are released for the expansion of the modern rural industrial sector which is much more dynamic and innovative in character as compared to the traditional inefficient rural non-farm sector. The Taiwanese case closely approximated this colonial favourable situation. Taiwan was a colony of Japan from 1895 till the end of the World War II. Prior to 1930, Japan was interested almost exclusively in Taiwan's agricultural output, particularly sugar and rice, as a complement to the Japanese home economy which faced food shortages at the beginning of the 20th century. Consequently, Japanese colonial policy was heavily rural-oriented from the very beginning. The land reform measures in 1905, thrust on the development of physical as well as organizational infrastructure and substantial agricultural research expenditures were some of the important measures taken by the colonial government for agrarian development in Taiwan. However, Japan's colonial policies discouraged large scale Taiwanese industrial activity. As far as the colonial educational policies of Japan were concerned, Taiwanese were largely excluded from higher education in the pre-1930 phase. However, a broad support for primary education led to relatively high literacy levels. After 1930, a change in policy favoured broader access to secondary, especially technical, education. Therefore, the gradual development of human, organizational and physical infrastructure favoured the development of an indigenous entrepreneurial class. Thus, a high-quality labour force conducive to the growth of modernized rural non-farm sector were created by the time of independence consequent upon high literacy rates and greater emphasis on vocational, non-academic, education at the secondary level.

The Post-Colonial Policies Favourable to the Expansion of the RNFS

Both the colonial policies and the government policies of a developing country coming out of the colonial rule played a very important role for the promotion of the rural
non-farm sector in the post-colonial period. The favourable conditions required for the expansion of the non-farm activities, as pointed out by Ranis-Stewart, are as follows:

(i) Government does not discriminate against domestic agriculture relative to traditional primary export activities so that productivity of food grains expands and additional resources are released to the rest of the economy; (ii) The expansion of foodgrains producing agricultural sector generates stronger potential demand for the output of the rural non-farm activities, because the income generated within the foodgrains producing agricultural sector is more likely to be equally distributed than that within the export oriented cash crop producing sector; and (iii) Government policy with respect to the allocation of infrastructure and the macro-economic environment are generally more evenhanded as between the rural and urban industry, as well as between the agriculture and industry (Ranis and Stewart, 1993).

Ranis-Stewart further argued that, “as a consequence of the above, the rural industrial sector faces relatively more favourable conditions, both from the perspective of demand, via linkages with agriculture, and of supply, via the dynamics of investment and the adoption of new technology. The resulting modernization transforms the rural non-farm goods producing sector largely composed of very small, low productive household and village enterprises of the $Z_T$ to one increasingly represented by $Z_M$ activities, i.e., composed of small factories using modern (often imported and then adopted) technologies and producing products of a more uniform (and often higher) quality than the traditional $Z_T$ goods, selling at favourable prices relative to the output of U-sector and imports.”

As for example, the favourable initial conditions for the rural non-agricultural development in Taiwan, as mentioned earlier, were reinforced by post-colonial macro and micro policies. As far as the macro-policies in Taiwan are concerned, it remained within an import substitution framework in 1950s. However, the exchange rates and interest rates were substantially closer to market values throughout, with quantitative import controls used less than tariffs. Since 1960s, Taiwan moved towards an export substitution path based on the expansion of competitive labour-intensive products. The sector-specific micro policies in Taiwan were also favourable for the expansion of the rural non-farm sector.

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1 $Z_T$ refers to traditional rural non-farm sector.
2 $Z_M$ refers to modernized rural non-farm activities.
3 U refers to urban industrial sector.
Lessons from the Growth of China's Town and Village Enterprises (TVEs)

The experiences of the expansion of the Chinese rural non-farm sector have contributed much to the rural non-farm literature reemerging from Asia. The early history of rural industrialization in China has attracted ongoing academic interest. Since 1949, China has been pursuing the objective of industrialization, urbanization and modernization. Rural non-farm activity in China was collectivized during the period of first five year plan (1953-57). However, the process of the promotion of rural industrialization was initiated in China in 1958 during Mao Tse-Tung’s Great Leap Forward. The subsequent steady growth of collectively owned commune and brigade enterprises from 1968 to 1978 was portrayed as ‘phenomenal’. Before the initiation of economic reform in the late 1970s, the town and village enterprises (TVEs) were fully integrated with agriculture within the commune system. From the 1980s onwards, China invested heavily in agricultural technology, infrastructure and input supply which had propelled rapid agricultural growth. This agricultural prosperity fuelled the rural economic growth forming the base for the expansion of the rural non-farm sector by releasing the surplus labour to the non-farm sector and creating demand for industrial product. China’s rural non-farm development was largely driven by the growth of the TVEs. China has been experiencing an extraordinary burst of growth in rural TVEs during the period 1984 to the early 2000 which attracted considerable international attention. It has been observed that the TVEs’ contribution to gross national industrial output increased from 9 per cent in the late 1970s to 58 per cent in the late 1990s (Lim and Yao, 1999). Although agriculture served as the motor of China's rural non-farm growth during the 1980s, the international export markets and urban subcontracting to rural TVEs have enjoyed increasing prominence during the late 1990s and early years of the twenty-first century. In fact, China has experienced more rapid growth of the rural non-farm employment than India during the nineties as China’s TVEs have become internationally competitive than India's rural non-farm enterprises. This is due to fewer price and quota protections for the non-farm sectors in China.

2.6 The Latin American Experiences

Unlike the widespread interest among scholars of Africa and Asia, Latin American scholars were not so much focused regarding the developmental role of the rural non-farm sector for many decades. After many years of neglect, the Latin American scholars started
to concentrate on the rural non-farm debates since the late 1990s. As liberalization facilitated trade, foreign direct investment, and the application of supply chain organizational models from the outside world, rapid concentration in agribusiness and food retailing had emerged prominently in Latin America since the 1990s. Consequently, during the 1990s, the share of supermarkets in total food retailing grew from 20 per cent to over 70 per cent in both Brazil and Argentina. In Mexico, Costa Rica, and El Salvador, the supermarkets controlled over half of all food retailing by the end of the twentieth century. In rural Latin America as a whole, income from the non-farm activities accounts for roughly 40 per cent household income.

Empirical literature on the expansion of the non-farm sector in Latin America documented how motive forces outside of agriculture might propel the growth of the RNFE. There are four important features of the rural non-farm sector as identified in the literature:

(i) **Large variety of non-farm activities:**

The non-farm incomes are derived from a very wide variety of sources like construction, manufacturing, commerce, services, administration etc. However, an important feature of the Latin American experience is that the service sector is a more important source of income than manufacturing. While agricultural growth linkages have received comparatively little attention in Latin America, non-agricultural motors such as tourism and mining play a more prominent role. Likewise, rural subcontracting constitutes a growing source of rural non-farm employment gains in Latin America as urban firms seek to lower labour and factory rental costs by subcontracting production to rural firms. As in the large metropolitan suburbs of Asia, subcontracting appears to offer a significant source of non-farm employment growth in rural Latin America.

(ii) **Importance of human capital, infrastructure and location**

In Latin American countries, special importance is given on education, particularly up to secondary level and even in some cases beyond secondary level for getting access to remunerative non-farm employment. The RNFE tends to be residual and non-remunerative in remote rural areas. However, productive non-farm activities tend to cluster around relatively densely populated, semi-urbanized settlements and also in areas, where dynamic growth motors exist, particularly in the form of agriculture tourism, mining, forestry and proximity to urban areas. Transport infrastructure, electrification and telecommunication can help in supporting and promoting productive rural non-farm activities. In Chile, 50 per cent of rural labour is employed in the urban locations.
(iii) Inequitable access to remunerative non-farm activities

Empirical evidences suggest that, in Latin American countries, indigenous population, blacks (as in Brazil), those with little wealth, women etc. face barriers to entry even if they had the higher education levels. With excess supply of labour willing and able to work in RNFE, jobs may get allocated not via wages falling, but via some non-transparent rationing procedure like payment of bribes.

(iv) Pro-poor impact

There is an indirect mechanism as identified in Latin American literature on RNFAs through which the poor get the benefit. Initially, the remunerative non-farm employment tends to go to the relatively better off. It leads to a general tightening of the labour market, including agricultural wage labour market where the poor are, usually, concentrated. The tightening of wage labour markets ultimately benefits the poor through higher wage and higher participation rate. Further, even if the poor are engaged in low-productive activities, it controls at least the intensity of their poverty. Thus, the role of the RNFs as residual sectors cannot be ignored in view of the widespread poverty of the developing countries.

2.7. Empirical Evidences from India

The existing studies on the rural non-farm sector in India can broadly be classified into two types. The first set of studies focuses on the pattern of non-farm employment and their significance at national, state and district levels. On the other hand, the second set of studies investigates the macro and micro determinants for the expansion of the non-farm activities.

Some Macro Evidences on the Expansion of the Non-Farm Employment in India

As per the Census data, there has been a continuous shift in rural employment towards the non-farm sector. As observed from the Census data, the percentage of the non-farm workers has steadily increased from 18 per cent in 1981 and 1991 to 28 per cent in 2011. However, there have been considerable variations in the degree of occupational diversification across states. According to Chadha (1994), the various states of India stood at three levels of non-farm development, towards the end of 1980s, in terms of the percentage of rural non-farm workers. Analysis of the Census data for 1961 to 1981 indicates that the states where non-farm employment expanded were Gujarat, Haryana,
Jammu and Kashmir, Karnataka, Kerala, Maharashtra and Rajasthan (Bhalla, 1993b). Analysis of the NSS data shows that the states where non-farm employment for male workers expanded fast during the 1970s and 1980s were Punjab, Haryana, Gujarat, Himachal Pradesh, Rajasthan, Kerala and Tamil Nadu. A modest expansion was witnessed in Karnataka, Maharashtra, Orissa and West Bengal (Chadha, 1997). During 1987-88 to 1993-94, the proportion of rural male workers engaged in non-farm activities witnessed a sizeable growth only in Haryana and West Bengal. In most other states, it remained constant or increased marginally.

Bhalla (1993a and 1997) computed a diversification index at the state level for 1961, 1971 and 1981. This is a more sensitive measure, which takes into account the changing composition of the non-agricultural segment as well as agriculture’s and non-agriculture’s shares in the total workforce. According to her, rural India experienced, over the two decades up to 1981, a deepening of workforce diversification—an increasing complexity and balance within the non-cultivating segments—rather than a significant widening of rural workforce diversification. Of the three broad sectors of the rural economy, the tertiary sector has diversified the fastest, the secondary sector next, while the primary sector has scarcely diversified at all. Within the primary sector, however, the other than cultivation segment has diversified the most, even more than the tertiary sector. Analysis of district-level data reveals the existence of three kinds of regions: The first, concentrated in Bihar, displays symptoms of agricultural involution; the second, high farm productivity districts of Punjab and coastal Andhra Pradesh, shows increasing concentration in agriculture. The third is now a large block of highly diversified districts, clustered around industrial towns, or forming long geographical corridors, linking large urban conglomerations (Bhalla 1997). Most conspicuous of this extends from Delhi through Haryana, Rajasthan, and Gujarat all the way to the coast, viz., Ahmedabad and Surat (Bhalla, 1993b).

Factors Determining the Expansion of the Rural Non-Farm Employment in India

The regional studies in Indian context may be classified into two types. The first are cross-sectional econometric estimates of the relationship between the level of non-farm employment and either level or growth of the independent variables. The second type tries to estimate the dynamic association between growth of non-agricultural employment and changes in various macro indicators. According to Lanjouw and Lanjouw (1995), such aggregate level estimates, using cross-sectional or pooled data, suffer from the fact that both
sets of growth rates may differ across regions for many reasons, introducing bias which might swamp any relationship which exists.

Empirical researchers such as Bhalla (1981), Papola (1987, 1992), Chadha (1994), Hazell and Haggblade (1991) and so on emphasized the importance of agriculture-induced growth of the non-farm sector. Chadha (1986) documented strong relationship between agriculture and the non-farm economy using time-series data in the Indian context from Punjab, a fast-growing agricultural state. Bhalla (1981) highlighted the importance of agricultural production in Haryana for raising demand for consumer goods and agricultural inputs. It was Harris (1987) who cited a number of factors on which policy formulation regarding the agriculture-led growth of the non-farm sector had been conditioned: (i) whether growth linkages are stronger in agriculture or industry; (ii) whether consumption linkage is stronger than the production linkage; (iii) whether local linkages are stronger or weaker than the non-local; (iv) whether state governments should implement policies to strengthen local secondary benefits in regions already favoured with public sector investment in agrarian sector. Taking cue from this, a large number of researchers examined the relationship between agricultural growth and the growth of the non-farm sector. Nachane et al. (1989) found a strong correlation between the agricultural and non-farm growth and also argued that agriculture had strong forward as well as backward linkages with agro-based industries. Dev (1990) showed that agricultural productivity is a more important factor rather than crop production at disaggregated level. However, he also admitted that inequality in land distribution was negatively correlated with the non-farm employment. Using survey data from Tamil Nadu, Harris (1991) pointed out that agricultural development is necessary but not sufficient for the growth of the rural non-farm activities. On the basis of district level data, Hazell and Haggblade (1991) argued that growth in agricultural sector is the principal factor responsible for the growth of the non-farm activities through both production and consumption linkages. However, according to Shukla (1991, 1992), consumption linkage is more important than production linkage. On the basis of his econometric modeling of data from the state of Maharashtra, he showed that consumption linkage were twice as strong as production linkages and concluded that ‘once the consumption effect had been removed, agricultural production had little impact on the growth of the non-farm sector’. Moreover, she argued that forward production linkages were stronger than the backward linkages. Papola (1994) found that the rural industrial sector as a sub-sector of RNFS had strong correlation with agricultural productivity in
different states. Fisher et al. (1997), using the 1991 Census data, observed that in states with a healthy agricultural sector, such as Punjab, Haryana and West Bengal, over 25 per cent of the rural workers were engaged in the non-farm sector, whilst in Bihar and Madhya Pradesh (with more limited agriculture), it was only 10 per cent. Thus, they conclude: “growth in the RNF sector is clearly boosted by a thriving agricultural economy”. Basant (1994) found, in his district level study on Gujrat, that the level and growth of agricultural productivity, per capita agricultural production and production of non-food crops are not significantly correlated to expansion of the rural non-farm activities. Chadha (1994) conducted an extensive micro study in 18 villages of Bihar (representing backward region), Andhra Pradesh (as agriculturally developed region with relatively low non-farm activities) and UP (representing agriculturally developed region with developed non-farm sector) and concluded that although increase in agricultural productivity promotes non-farm activities within the villages, the proportion of non-farm income increases for poorer households.

However, Vaidyanathan (1986)’s study based on data from 16 states initiated a lively debate in India on the issue of whether growth in rural non-farm employment is a consequence of distress diversification, or because it is responding to demand as the rural economy develops. Vaidyanathan found a positive correlation between the non-farm employment and unemployment rate, and postulated that the non-agricultural employment absorbed surplus labour when the potential of agricultural employment was limited, suggesting a distress-induced growth of the non-farm sector. Unni (1991), however, hypothesized that distress conditions perhaps do not lead to the growth of non-farm activity due to lack of demand for such goods in such regions. Unni pointed out that Vaidyanathan’s findings were based on the NSS data, which only capture open and visible unemployment. Using the Census data for the districts of Kerala, Eapen (1995) found that land-man ratio and percentage of marginal to total land holdings were positively related to non-farm employment in 1981 and 1991. She concluded that while both demand-related and distress factors were important for growth of the non-farm employment in 1981, the distress factors and urbanization were important in 1991. According to Saith (1991), the rural poor engage in non-farm activities in the labour and product markets as part of their survival strategies.

In the context of West Bengal, the study by Chandrasekhar (1993) is widely referred as it demonstrated the absence of a clear relationship between agricultural growth and the RNFE. He described three phases of this relationship, resulting in an inverted U-shaped ‘time profile’ when per capita output is plotted against share of non-farm employment: (i) In
the pre-green revolution phase, there is some limited local demand for products of labour-intensive manufacturing and services, and percentage of nonagricultural workers is low. (ii) As the locality enters the early green revolution phase, increased demand for agricultural labour reduces the elasticity of labour demand for RNF employment resulting in a net movement of labour into agriculture (despite increased demand for agriculture-supporting RNF activities), thus reducing further the share of the rural non-agricultural workers. (iii) As the agricultural sector matures, increased demand for more specialized goods of higher quality increases the share of RNF employment, with some of the demand met by urban-based production. Chandrasekhar argues that much of India is yet to reach the third phase, or is in the early stages, explaining low participation in RNF employment in certain regions of India. Basant (1994), however, argues that such a process cannot be necessarily generalized for the rest of India.

Another much-debated issue, in this context, was whether the process of rural diversification has been driven by the growth in the agricultural sector (justifying Mellor’s linkage theory based on agriculture-led growth strategy) or it has been driven by the strong linkage effect of the urban economy. It was Eapen (2001) who examined the role of agricultural and urban linkages in the growth of rural non-farm sector in Kerala and highlighted the importance of both the factors depending on the location of rural villages relative to the location of nearby rural town.

Empirical studies also suggest some other prime movers of the non-farm economy such as rural infrastructural facilities (Hazell and Haggblade 1991, Jayraj 1994), literacy and education (Eapen, 1994; Jayraj, 1994; Samal, 1997a; Basant, 1993), urbanization (Bhalla, 1993, 1997), migration, liberalization of the domestic economy, commercialization of agriculture, rural-urban linkages, declining land to man ratio, landlessness, and so on. Unni (1998) pointed out that rural infrastructure, urbanization and government rural development schemes also play crucial role to promote the rural non-farm activities. Bhalla (1993, 1997) after analyzing the district-level Census data, highlighted the importance of proximity to the urban centre. The importance of urbanization has also been emphasized in the study of Shukla (1991, 1992) in Gujarat, Jayraj (1994) in Tamil Nadu and Eapen (1995) in Kerala.

Hazell and Haggblade (1991) highlighted the importance of rural infrastructure in promoting the rural non-farm activities. Good communication can help the rural people to commute to the nearby urban centre on a regular basis for their livelihood. Further, rural
products can have a better marketing channel and distribution network due to improved road connectivity (Visaria and Basant, 1994). Jayraj (1994) gave emphasis on the development of rural transport system, whereas Singh (1994) stressed on rural electrification. Expansion of areas under rural electrification can induce setting up of electricity-driven manufacturing units in rural areas. Harris (1991) pointed out that the development of rural infrastructure is one of the important preconditions for strengthening the farm-non-farm linkages. The development of infrastructure in the newly industrialized Taiwan is the evidence of this effect. However, Islam (1997) pointed out that infrastructural development in the form of better transportation and rural electrification could have a negative impact by changing the tastes and preferences of rural households towards urban products like household electrical goods by reducing the demand for rural products.

Empirical studies also identified literacy as another prime-mover. Eapen (1994) in Kerala, Basant (1993) in Gujarat, Jayraj (1994) in Tamil Nadu and Samal (1997b) in Orissa found that rural literacy rate had strong positive correlation with the non-farm activities. Higher level of schooling is found to be strongly associated with non-farm activities, especially those such as regular salaried employment. Educational attainments not only open direct employment opportunities to high-return non-farm activities, but also contribute indirectly through ‘spill-over effect’ of knowledge.

Public expenditure on rural development and the different public developmental schemes also play important role to promote the rural non-farm sector. Sen (1997), Ghosh (1995) and Unni (1998) found a positive correlation between public expenditure on rural development and the non-farm activities. Case studies in Orissa (Samal, 1997b) and Kerala (Eapen, 1994) also support this view.

2.8 The Post-Independent Industrial Policy and the Rural Non-Farm Sector in India

The newly formed Indian government after the independence emphasized on the import-substitution policy replacing imported consumer goods with locally produced manufacturing goods. The first industrial policy resolution in 1948 mentioned China as a model in order to organize cottage and small-scale industries into effective institutions for providing employment opportunities. However, the second five-year plan (1956) shifted the focus towards large-scale capital intensive heavy industries based on the “Mahalanobis Model”. At the same time, provisions for special concessions were continued for household
and small industries, the village and khadi (handloom) industries. In 1954, The Small Scale Industries Board and the Central Small Industries Organization were set up to facilitate the development of the small-scale manufacturing sector for the next two decades.

After the initiation of the use of green revolution technologies, almost all parts of rural India experienced higher farm output and productivity resulting in a growing demand for goods and services produced locally. In order to meet up these demands, small household enterprises flourished in all segments of the non-farm sector, especially in manufacturing, transport and services. This farm-non-farm growth linkage influenced the industrial policy resolution of 1980 which incorporated the domestic protection policy through the licensing of small-scale units and the external protection policy through the imposition of ‘quota’ restrictions on imports, coupled with cheap credit, investment subsidy and infrastructure provision. This led to substantial increase in both employment and output share of the rural non-farm sector during the period of 1983 to 1993. But an important point should be noted is that policy makers gave little importance on the matter of technological improvement of the sector and also on the improvement of technical efficiencies of the non-farm labour-force.

In this backdrop, the economic reform process initiated in 1991 adversely affected the small-scale industries, especially the traditional rural manufacturing sector. The economic reforms in the early 1990s have effectively removed protections for village and ‘khadi’ industries. Many such industries have closed down as they are inefficient and unable to compete with the modern small scale industries. There is a ‘vicious cycle’ operating on the rural manufacturing sector. Lack of education, together with lack of technical skills, provides little incentive for rural firms to invest in technology, leading to low level of labour productivity in the rural manufacturing sector. Thus, high levels of illiteracy in rural India have hampered the growth of the modern rural non-farm sector.

In fact, inadequate infrastructure, regulatory restrictions on the small-scale sectors and deficiency in quality manpower are the major weaknesses of the rural non-farm sector in India. However, the changing scenario in the face of economic reforms demands a shift from the relatively less dynamic rural activities using technologies targeted to the local rural market to more dynamic high quality product producing activities for satisfying the demands in urban and export markets. This transition from the traditional to modern non-farm sector requires some pre-conditions in the form of higher rural literacy and skill-formation, and improved rural infrastructure.
2.9 Non-Farm Employment, Poverty and Inequality

Another important issue that has been raised in the empirical literature in the recent times is whether rural occupational diversification, through the generation of non-farm income, can reduce rural poverty as well as inequality. On the basis of his household level survey data, Lanjouw (2001) observed that the rural non-agricultural sector had immense potentially to alleviate poverty in Ecuador. Poverty declines as the share of income from non-agricultural sources rises. The non-agricultural employment and earnings are positively associated with better education and access to infrastructure. Poverty could be expected to fall substantially with expansion in the non-farm sectors of construction, transport, commerce and services. Lanjouw also analyzed a recent household survey dataset for Ecuador to assess the impact of the non-agricultural rural economy in reducing poverty. In this context, his main finding is that the greatest fall in poverty could be expected from expanding employment opportunities in transport, commerce-related activities and services such as administration and the hotel and restaurant and trade. However, most of the poor, in the developing countries, have limited access to more remunerative non-farm activities due to poor asset base, lack of skills and education. Moreover, the poor are often forced to be engaged in low-return non-farm activities in the face of income uncertainty from their traditional sources resulting in further deterioration of their poverty status arising out of some unforeseen calamities.

As regards the inequality impact of the non-farm sector, the mere reduction in the incidence and intensity of poverty does not ensure that such rural non-farm activities have equalizing effect on the rural economy. There are two conflicting points which are worth-mentioning here. According to some researchers, the expansion of the non-farm activities have an equalizing effect on rural incomes as the poor households become capable of employing their resources to a greater extent and thereby increasing their net income through their participation in the non-farm activities. On the other hand, some researchers argue that diversification towards the non-farm activities has an inequality-enhancing effect on rural income. The reason is that the richer households with better asset-base and educational status have greater access to highly remunerative non-farm activities. As the poor face entry barrier to participate in the high-return activities due to some socio-economic constraints, they are bound to be engaged in the low-return non-farm activities driven by their abject poverty. Therefore, the coexistence of high-return and low-return non-
farm activities should have greater implication in the context of inequality. While Bagachwa and Stwart (1992) found that landless and poor were getting a higher percentage of their income from non-farm occupations suggesting a favourable influence from the viewpoint of poverty reduction, others like Lanjouw and Stern (1998) found that in the North Indian village of Palanpur non-agricultural employment opportunities had inequality increasing effect.

Reardon et al. (1998) identified a number of conditions for the development of the RNFE to be more equality enhancing, which include proximity to urban markets, physical and market infrastructure, resource endowments and the distribution of productive resources within rural areas. Piesse and Thirtle (2001) observed that access to markets increased the poverty reduction potential of the RNFE in Zimbabwe. Deininger and Olinte (2001), studying data from Colombia, observed that the relationship between diversification and wealth/income is a U-shaped curve. This suggests that there are two types of diversification: a low-return refuge from poverty, and a high-return innovative diversification based on high levels of asset endowment and human capital and a well-developed rural infrastructure, including access to credit markets.

Bhaumik (2008) examined the role of rural non-farm activities in poverty alleviation using field data collected from 600 rural households in two agro-climatically contrasting regions of West Bengal and came to the conclusion that the expansion of both farm and non-farm employment seemed equally important for reduction in poverty among the rural households. Thus a balanced growth is required for reaping the benefit of the rural non-farm sector.

2.10 Liberalization and the RNFS

Another associated issue in the context of the RNFS is about its potential to reduce poverty in the face of opening up of the local market in this age of liberalization. One view is that as long as the local economy is open, workers can commute and local farm and non-farm enterprises can sell to the area where the economic base is growing rapidly. For example, a mine or a big city in a coastal region may induce non-farm employment growth in the nearby hinterlands. In some instance, liberalization opens up significant opportunities for growth of rural non-farm business activity. The demise of state marketing agencies across Africa has created a broad swath of economic space for private delivery of fertilizers and hybrid seeds and for marketing and processing of both food and cash crops. Similarly,
the regular withdrawal of public agencies from utilities such as electricity and municipal water supply, and from services such as inter-city transport, telecommunications, education, and health have all generated opportunities for the private sector to fill these important service needs.

As in the Philippines (Kikuchi, 1998), the rural non-farm subcontracting has grown rapidly in many parts of Asia during recent decades (see Hayami, 1998). In areas with increasing urban congestion, high differentials between rural and urban wages, high population density and low transport costs, urban-led demand for rural subcontracting will remain high. In such cases, urban-to-rural subcontracting can indeed serve as a motor for rural non-farm employment growth. In India, for example, many of the large industries like the carpet weaving industries, the glass manufacturing industries, the bangles industries, leather bag and shoe manufacturing industries, garments industries etc. have been split up into very small units. They have also shifted production to urban slums to utilize the services of cheap labour (inclusive of child labour). Some of these industries give subcontract to enterprises that produce a component of the formal sector output on an informal basis. For example, in the city of Kolkata leather tanning process is handled by the informal sector. Similarly, for the garment industry, the informal sector participants on a subcontracting basis do the dyeing of garments. Per rings, Bhargava and Gupta (1995) have shown that much industrial growth in developing countries is due to employment, investment and value added by the informal sector (or more broadly the SMEs) in environmentally damaging activities like chemicals, textiles, leather and fur products, food processing, non-ferrous metal work, charcoal and fuel wood supply.

On the other hand, some categories of rural non-farm activity have thrived in the past because of protection from outside competition by high transport costs, restrictive production (e.g., reserved handicraft industries in India) and trade policies (e.g., barriers to cheap imported consumer goods), subsidized inputs and credit, and preferential access to key markets (e.g., town and village enterprises in China). Globalization and market liberalization removed many of the barriers effectively de-protecting the RNFS. The transition may prove brutally abrupt for many traditional small-scale manufacturing activities whose products cannot compete with higher quality, mass-produced goods. For this reason, the initial stages of de-protection can lead to massive job losses in the RNFS, even though many of these may later be recovered as new types of RNFS activity sprout up, as in India during the 1990s (Bhalla, 1997). Since poor households congregate
disproportionately in traditional, low-investment, low-productivity rural non-farm activity, they tend to suffer most during this transition. Given their vulnerability, policy makers need to remain especially attentive to this problem. In some cases, it may prove necessary to provide a helping hand to cushion this transition.

2.11 Categorization of the Rural Non-Farm Sector

The discussion so far points to the fact that the non-farm sector does not consist of a homogeneous set of activities in terms of income and productivity levels. Duality in the non-farm sector has been pointed out by relatively early studies. Mukhopadhyay and Lim (1985) suggested that the rural non-farm sector consists of two sub-sectors. Sector 1 enterprises run on a more or less stable basis with an eye on surplus generation and growth, hiring labour and with a certain degree of technical sophistication. Sector 2 consists of products or activities which are often seasonal, run solely with the help of unpaid family labour, using primitive technology and catering mostly to the local market. According to them, the differences in the two sub-sectors are discernible in terms of capital use and production relation rather than product categories. A third category of ‘wage-paid’ employment sector characterized by low earnings and atomized markets with respect to labour supply is also distinguished. Rural industry has also been categorized, based more on the products, into three types. First, the production of low quality and cheap variety of goods meeting certain consumption needs, using locally available raw materials and primitive techniques. Second are the agro-processing industries. Third, transitional location of modern industry in rural areas which leads over time to these areas being absorbed as urban centres (Chandrasekhar, 1993).

It is necessary to recognize the dichotomy in the rural non-farm sector when analyzing its linkages with the farm sector because the growth pattern will be different in the various sub-sectors (Samal 1997). The rural non-farm sector can be classified as consisting of formal and informal sub-sectors. The informal sector is further subdivided into the modern and traditional sectors. The latter consisting of caste based artisan and service workers, of which particularly the former is expected to be adversely affected by agricultural development (Samal 1997).

Saith (1991) highlighted another interesting categorization. Such categorization was based on the spatial versus the linkages approach to rural industrialization. In the spatial approach the definition of rural industry is primarily based on location in rural areas. It
helps as a safety valve to contain urban congestion. In the second approach, rural industry is viewed from the point of whether it generates sufficient linkages in the rural sector. Thus, there emerge four categories of industry: rural-located, rural-linked; rural-located, urban-linked; urban-located, urban-linked; urban-located, rural-linked.

2.11 Summing Up

Our review of literature provides extensive ideas regarding the on-going researches on the developmental role of the RNFS and also explores the heterogeneity of the sector which helps to identify those areas of the sector which has developmental impact on all sections of the people in the developing countries. We saw that the rural non-farm sector was first recognized widely during 1970s on the background of the failure of urban industrialization-led growth strategy in terms of employment generation and rural poverty alleviation.

We also reviewed the development experience of some Asian, African and Latin American countries to facilitate our comparative developmental analysis which would help us in framing the suitable policies in Indian perspective. The success story of the TVEs in China would help us to find out the limitations and faults of the Indian policy-maker in framing the rural developmental policies. In fact, China has experienced more rapid growth of rural non-farm employment than India during the nineties as China's TVEs have become internationally competitive than India's rural non-farm enterprises. This is due to fewer price and quota protections for the non-farm sectors in China. We also highlighted the basic issues of the rural non-farm sector in the present scenario characterized by liberalization, economic reform and structural adjustment policies and their poverty and inequality impact.

We identified, from our literature survey, a large number of factors likely to be responsible for the expansion of the non-farm activities. However, it varies from time to time, region to region. Those factors are broadly classified into two categories: demand-pull and distress-push. However, while some of those factors are generated from the agricultural sector, some others are non-agricultural in nature. We also have noticed in our literature survey a ‘vicious cycle’ operating on the rural manufacturing sector. Lack of education, together with lack of technical skills, provides little incentive for rural firms to invest in technology, leading to low level of labour productivity in the rural manufacturing sector. Thus, a high level of illiteracy in rural India seems to have hampered the growth of the
modern rural non-farm sector. This point must also be important as far as the rural development of West Bengal is concerned.

It has been observed from our review of literature that most of the existing studies have concentrated on analyzing the causes for the growth of the non-farm sector at an aggregate or regional (state/district) level. The causal factors identified are, therefore, factors emanating either from the agricultural sector or outside it at the regional level, such as levels and growth of various indicators. Moreover, such studies tend to treat the non-farm sector as a homogeneous group of economic activities which are all affected similarly (positively or negatively) by any one factor. Some attempts to disaggregate this by regions (i.e., developed and backward) and by industry groups have been made. However, within such disaggregation, the non-farm sector is treated as homogeneous. The non-farm sector, however, consists of a heterogeneous set of activities which are best classified in terms of capital use, productivity and production relations rather than product categories. The rural non-farm manufacturing activities range from household and village production on a very small scale, producing very simple, low-quality products, to small modern factories using mechanical horsepower, sometimes using imported technology, and producing modern higher quality products.

The classification of non-farm workers under different categories appears more difficult. Broadly, the non-farm sector consists of both wage or salaried employees and self-employed workers. However, wage employed can be classified into regular and casual workers. Therefore, broadly, these workers have been classified as regular wage/salaried, casual wage labour and self-employed in most of the empirical literatures. All these groups can be further subdivided into low income/productivity and high income/productivity groups. Such a classification of the non-farm sector is useful from the policy point of view.

Regional factors that facilitate or retard the growth of the non-farm sector are likely to affect the various segments of the non-farm sector differently. Therefore, one needs to identify the impact of those factors on various segments of the non-farm sector for the purpose of policy formulation.

The regional level analysis can be useful in identifying the broad factors that influence the decision-making of the households to participate in different types of non-farm activities. However, in order to foster non-agricultural activity at the micro level, it would be useful to know how and why various segments of the non-farm sector develop. This would require a micro level analysis at the level of the household, individual or
enterprise. As noted in the review, there are as yet very few such household or individual level studies that inform us of the micro dimensions. While micro or village studies do exist in large numbers, few focus on the non-farm sector. Owing to these gaps in the existing literature, we have attempted to analyze the nature and extent of the non-farm activities and examine the role of such activities in reducing the incidence of rural poverty and the degree of inequality at a disaggregated level, with reference to West Bengal.