OCCUPATIONAL DIVERSIFICATION AND ACCESS TO RURAL EMPLOYMENT: REVISITING THE NON FARM EMPLOYMENT DEBATE

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Occupational Diversification and Access to Rural Employment- Revisiting the Non-farm Employment Debate

1.1 Backdrop and Importance of Rural Non-farm Sector

The non-farm sector, particularly in rural areas is being accorded wide recognition in recent years as a potent instrument for alleviating rural poverty and providing employment opportunities. A number of factors account for the recent interest in the rural non-farm economy. *Firstly*, employment growth in the farm sector has not been in consonance with employment growth in general. For instance, in India, during the period between 1993-94 and 1999-00, whereas annual growth in aggregate employment fell to 1.07 per cent from 2.67 per cent between 1983 and 1993-94, employment growth in agriculture fared much worse shrinking from 2.2 per cent to a negligible 0.2 per cent. Even though annual employment growth in agriculture increased to 1.8 per cent during the period 1999-00 to 2004-05, the rate of growth was lower than in the 1983 to 1993-94 period. Thus the above trends suggest that the agricultural sector alone cannot sustain growing rural communities.

Secondly, most of the rural communities in the developing countries derive their incomes from multiple sources of livelihood. In particular, the rural poor derive significant income shares from rural non-farm activities. The FAO (1998) estimates the figure to be 32 per cent for Asia.[1] In such a scenario, the role of non-farm activities assumes importance. *Thirdly*, a planned strategy of rural non-farm development may prevent many rural people from migrating to urban industrial and commercial centres. In the face of the growing social and economic problems associated with urbanisation, urban centres cannot, for economic, social and environmental reasons, be assumed capable of supporting a consistently high influx of migrants. As a result, the rural migrants end up in poorly paid semi-skilled or labour-intensive jobs or remain unemployed. Urbanisation of this kind is inevitably accompanied by an increase in urban slums, poverty, malnutrition and crime. Hence, through localizing employment in the rural areas themselves, the rural non-farm activities could contribute to

[1] The FAO study summarises data from over 100 studies focusing mainly on farm households undertaken over three decades (1970's to the 1990's).

easing urban congestion and reducing the pressures on scarce urban infrastructure facilities (e.g. housing, transport, education, etc). *Fourthly*, when the economic base of the rural economy extends beyond agriculture, rural-urban economic gaps are bound to get narrower along with salutary effects in many other aspects associated with the life and aspirations of the people. It is much more likely for the rural people to see, assimilate and adopt urban work patterns and higher earning expectations when their own non-farm sector is expanding. Thus, the development of the rural non-farm sector can be an important mechanism for reducing rural-urban disparities. *Fifthly*, rural industries are generally less capital-intensive and more labour absorbing. The social objectives of deriving higher employment and output gains for every unit of capital invested are readily fulfilled through a chain of rural industrial activities. *Sixthly*, rural industrialization has significant spin-offs for agricultural development as well. Industry-agriculture linkages assume increasing significance as agriculture moves on to a higher growth trajectory through modernization of its production. If the expansion of rural industry is limited, this can adversely affect agricultural growth. *Seventhly*, rural income distribution is much less unequal in areas where a wide network of non-farm avenues of employment exists; the lower strata of the rural societies participate much more intensely in non-farm activities, though their involvement is much less remunerative as compared with that of the upper strata (Bhalla and Chadha: 1983: pp.95-101). *Eighthly*, a real dent into rural poverty is reported to come more readily through a wide network of non-farm activities because, in most cases, per worker productivity and earning are higher in non-farm than farm employment (Chadha: 1994: Ch.8). *Ninthly*, a gender-related aspect that usually does not get due recognition is a sizeable involvement of female rural workers in some of the non-farm sectors. *Women account for one-third to one-half of employment in manufacturing, trade, and services in the South-east Asian countries and their importance in financial-services is also substantial… Women are very minor participants in the transport and construction sectors in all the countries reported* (Rosegrant and Hazell: 2000 quoted from Chadha: 2002). Finally, such activities and industries, as are usually labour- and local-resource intensive would be in line with the perceived comparative advantage of most developing economies. Furthermore, *rural industrialization policies also fit in well with the industrial location strategies being*

followed by multinational enterprises and national industrialists alike in a wide range of products of light industry…(Saith: 1992:p.7).

However, until recently, lack of adequate knowledge about the potential role of the rural non-farm sector, an integral component of the rural economy, had resulted in a relatively scant cognisance of its role in the overall development process. This gap in knowledge is attributed to rural non-farm sector's *great heterogeneity, coupled with inadequate attention at both the empirical and theoretical level* (Lanjouw & Lanjouw: 2001: pp.1). There also prevailed a general view that rural non-farm employment was a low productivity sector generating inferior goods expected to wither away as a country develops and incomes rise. To some extent, opinion has been swinging away from this position. Arguments for paying attention to the non-farm sector generally centre around the *sector's perceived potential in absorbing a growing rural labour force, in slowing rural urban migration, in contributing to national income growth and in promoting a more equitable distribution of income*.

Therefore, there is a growing feeling of urgency for enlarging the ambit of non-farm activities for accelerating the pace of rural development, bettering the employment prospects, augmenting productivity and earnings, alleviating poverty and redressing urban problems. It is interesting to note that what was once deemed as a *passive side-route for employment growth* is now vociferously recommended as the *pivotal plank* of a rural development strategy (Ho: 1986: pp. 1). Thus, widening the network of its non-farm activities and paving the way for the transfer of workforce out of agriculture to other non-farm avenues thereby reducing its dependence on agriculture are seen as a *sine qua non* for a developing economy like India.

Against the above backdrop, in the following sections we first examine the definitions that demarcate the boundaries of the rural non-farm sector. The subsequent section explores the theoretical linkages between the agricultural sector and the rural non-farm sector. Next, we appraise the theory-based factors that may cause diversification towards non-agricultural activities, also known as

rural non-farm sector (RNFS)[2], by the people eking out their livelihood. Lastly, we outline the objectives of the present study.

1.2 Defining Rural Non-Farm Sector

The extant literature on diversification lacks common definitions or well-established conventions on the collection and classification of data or on the use of indicators particularly with regard to activities to be included while defining RNFS in order to capture diversification behaviour. Inconsistent terminology is another common source of confusion in the literature. This lack of standard approaches impedes effective comparative analysis and too often leads to mistaken inferences. Saith (1992) emphasizes that the question of definition is important because it specifies the scope of the sector paving the way for overall analysis and consequently policy formulation. Construction of a working definition entails consideration of various points. Hence, we turn to conceptual distinctions at the outset.

Rural non-farm activities may be defined in a number of different ways. In the background paper for the *1995 World Development Report*, Lanjouw & Lanjouw (1995) defined the rural non-farm sector as incorporating *all economic activities in rural areas, except agriculture*[3]*, livestock, fishing and hunting*. Like Lanjouw & Lanjouw, many Indian scholars have also followed the common convention of including animal husbandry, hunting and trapping, forestry and logging, fishing etc., in agriculture and accordingly, all other economic activities in rural areas as falling within the purview of the RNFS (for e.g. Chadha: 1993, 2002). The RNFS would then include activities like handicrafts, mining and quarrying, household and non-household manufacturing, processing, repairs, construction, trade, transport and communication, community and personal services in rural areas.

On the other hand, Saith points out that the RNFS needs to be defined in a broader framework. This is important in order to capture all aspects of rural diversification. Accordingly, auxiliary activities like fishing and aquaculture,

[2] the terms *farm* and *agricultural* are symmetrical in our analysis.
[3] refers exclusively to crop production.

dairying and animal husbandry, poultry rearing and bee keeping can be included in the RNFS sector. It is due to the fact that the strategic focus on the non-farm sector derives from the *limitations placed by agricultural land (and productivity) and hence such activities as tend to bypass this agricultural* [4] *constraint seem worth including (*Saith: *op.cit*: pp. 12). In our analysis, we go by the latter's understanding and define RNFS that include all activities except crop production.

The second source of confusion in the literature is whether rural non-farm employment refers to employment anywhere by rural households, or is solely confined to rurally located employment. Chadha (1997) notes that while National Sample Survey (NSS) data show what percentage of the rural workforce are employed in different gainful activities, or the share of rural workers in total workforce in each production sector, there is no indicator of whether employment is in rural, semi-urban, or urban areas. Saith (1992) affirms that the rural sector should include all economic activities which display sufficiently strong rural linkages[5], irrespective of whether they are located in designated rural areas or not. In our study, although rural locations form the basis of the survey, yet it includes those non-farm workers also who have worked outside the villages but exhibited linkage with the rural areas. Keeping in view the basic purpose of the study, such widening of its scope was essential.

Another difficulty in comprehending the rural non-farm sector is that it is not a homogeneous set of activities in terms of income and productivity levels. Many studies pointed out duality in the non-farm sector. According to Mukhopadhyay and Lim (1985) the rural non-farm sector comprises two sub-sectors. Sector I *inter alia* includes those ventures that are administered on an approximately steady basis with an objective of generating surplus and registering growth, hiring labour and with a certain degree of technical sophistication. Sector II includes products or activities which are usually

[4] Ellis (2000) makes the point that there are no hard and fast rules governing income classifications (and the same can be said for activity classifications). Agriculture could take as a rough short-hand for renewable natural resources, so that gathering/cultivation of forest products and fishing could have included.

[5] Hirschman (1977) defined a linkage as the record of how one thing leads to another and further explained that a linkage exists when ongoing activities invite some operators to take up new activities.

seasonal, managed exclusively with the help of unpaid family labour, relying on primal technology and catering mostly to the local market characterized primarily by petty production. Likewise, Fisher *et al* (1997) and Unni (1998) emphasise heterogeneity within the rural non-farm sector, where different activities require different entry qualifications, and argue that recognition of such diversity is often lacking in the literature.

1.3 Theories on Linkages in Rural Development

The growth linkages model provided a leading paradigm in policy discussions on rural non-farm employment creation from the mid-1970s. These theoretical models suggest that economic development in any country should bring about significant changes in the structure of production and industrial distribution of the workforce, particularly in the wake of enhanced growth of national per capita income and national product. Augmentation of per capita income culminates in increased demand for manufactured goods and services of diverse sorts as compared to agricultural products because of differences in income elasticity of demand for various goods and services. Such alterations in demand would have concomitant effects on agriculture's share in real income. Besides, the share of the agricultural labour force will also decline unless productivity per unit of labour decreases (Kuznets: 1959: pp. 58-59). An application of Engel's law to processes of income change over time is the general explanation for the decline in the share of the agricultural sector in the labour force and national income.

Colin Clark (1951: p 51) noticed a shift in the allocation of labour from primary to secondary and secondary to tertiary employment which he then explained on the basis of changes in domestic demand. Kuznets (1959) making use of time series and cross section data, authenticated the hypothesis that with rising income per capita, the proportion of workers in agriculture and allied activities falls markedly and that of workers in manufacturing industries rises correspondingly. While these effects occur at the economy-wide level with non-agricultural growth occurring in urban areas, they would impact on the structure of economic activity within the rural areas as well.

However, Stephen Hymer and Stephen Resnick (1969) have advanced the argument that rural non-farm activities, denoted as *Z* goods, are *inferior goods* and thus the demand for these goods will decline as rural income increases. Resnick (1970), in a succeeding article, provided empirical evidence in support of this claim by tracing the corroding of rural industry in Burma, Philippines and Thailand from 1870 to 1938. However, in the absence of exhaustive time series data, Resnick, was left with no option but to rely on fragments of data from various sources. Consequently, the results of the study cannot be considered conclusive.

The *Kuznets hypothesis*, however, remains insufficient to explain certain elements of the Indian case. An argument has been advanced that in India during the two decades between 1951 and 1971, per capita income registered an increase of nearly 39 per cent and income from agriculture rose by nearly 65 per cent but the proportion of labour force in agriculture remained more or less stable. This phenomenon, according to Vyas and Mathai (1978: pp.341) could be explained in terms of weak linkages between agricultural and non-agricultural sectors and lack of employment buoyancy in industries that meet the demands of the more affluent segments of the peasantry. This is because the demand by opulent sections of the peasantry gets deflected to the organized, capital-intensive industries located in urban areas. The pattern of growth of consumer goods industry is a testimony to this. The growth in this industry has occurred in the urban organized sector and declined in the household sector.

There seems no gainsaying the fact that the linkage between agriculture and industry has been one of the fundamental concerns in development economics. For instance, Hirschman (1958) advocated unbalanced growth in his theory of *big push* with specific reference to industries. He regarded agriculture as a weaker stimulant, compared to industries, to start new economic activities through linkage effects. Ho (1982), on the other hand, laid stress on the significance of agricultural growth for rural industry and a more decentralized pattern of industrial growth.

Mellor (1976) has demonstrated that agriculture has the potential to stimulate new economic activities in the RNFS through consumption-expenditure, and backward and forward production linkages. The consumption linkages would arise out of increased incomes for both farmers and labourers, generating increases in demand for goods and services, and would be largely concentrated in rural areas since the goods and services demanded are typically produced by small scale, labour intensive enterprises[6].

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 RNFS which are likely to be labour-intensive. The enhanced income due to higher employment of lower-income households who spend large portions of their increased income on food, stimulates the demand for additional food grains production. Higher income farmers also spend more on non-food products, but import a higher proportion of these products from large urban centres. This paves the way for the establishment of inter-sectoral linkages between farm and non-farm sectors in rural areas leading to simultaneous development of both the sectors.

Therefore, an accelerated rate of growth in agriculture wields tremendous impact on both farm and non-farm employment and incomes. Steadfast expansion of on-farm employment can be facilitated by means of constant extension of irrigation facilities and expansion of cropped area, adoption of new labour intensive crop combinations on a wider scale, greater per hectare use of labour with regard to existing crops and by increasing the level of cropping intensity etc. In the wake of augmented volume of agricultural output, different kinds of post-harvesting activities, especially those pertaining to trade and trade-related activities, within as well as outside the village develop and hence the prospects of providing non-farm employment become fairly high. The sources of providing additional employment and earnings include, *inter alia,* construction, transport, trade and services.

[6] However, Hirschman had noted that consumption linkages could also be negative, for instance through the destruction of established handicraft and artisan activities with rising income levels.

In addition to these consumption linkages, production linkages are also derived from the agricultural sector. Backward production linkages would result from farmers' increased demands for inputs from the non-agricultural sector. The inputs acquired for enhancing production in or in the vicinity of rural areas spawn rural industries. On the other hand, forward linkages result in a process of agro-based industrialization involving the establishment of a number of small-scale agro-industrial units. Accumulated commercial surpluses from agriculture give rise to a whole chain of industrial activities like wheat flour and rice milling, oil extraction, cotton pressing and ginning, sugarcane processing, and so on and so forth. The development experiences of Punjab, Haryana and Western Uttar Pradesh are a clear testimony to this. In this process, some benefits accrue to rural areas as well, though gradually. This opens up fresh avenues for the availability of non-farm incomes and employment to the rural households.

Spilling-over of accumulated agricultural surpluses in rural areas to urban industrial areas and commercial centres and the employment benefits implicit in their transportation, processing and marketing etc., imply closer linkages between the agricultural and non-agricultural sectors. However, the growth of agro-processing industry is, to a large extent, contingent upon the availability of considerable agricultural surpluses on the one hand, and the increasing demand for processed food and non-food products on the other. Furthermore, the level of supplementary requirements for rural products, together with external demands for rural products particularly handicrafts, and location, size and technology of activities harnessed to meet these demands also impact upon this linkage (Vaidyanathan: 1986).

1.4 Diversification Typologies

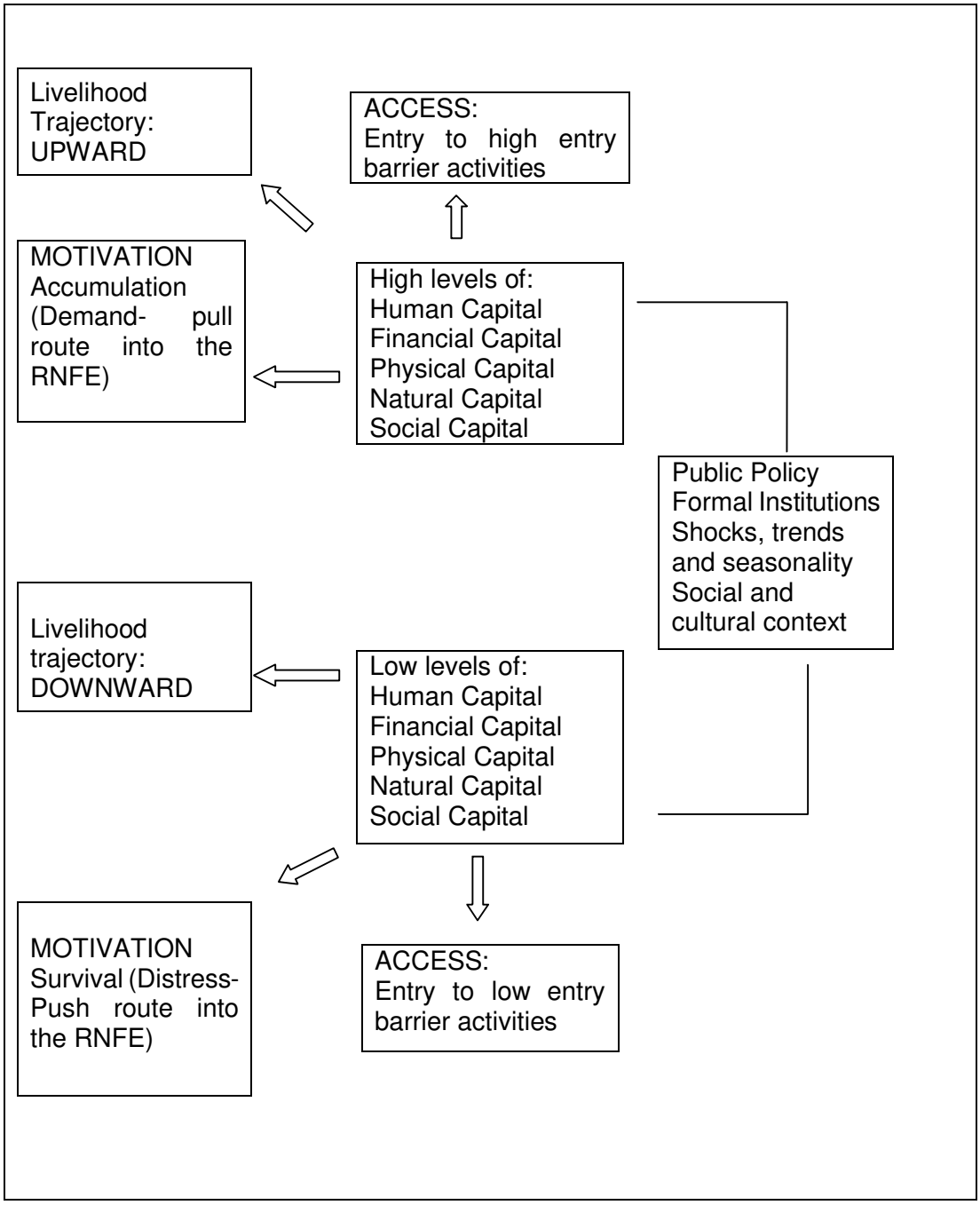
One of the key areas of discussion in the literature is to understand whether individuals respond to new opportunities in the RNFE – *demand-pull* – or are driven to seek non-farm employment because there are no opportunities on-farm – *distress-push*. This distinction suggests a number of specific inferences in terms of the relationship between diversification strategies, household characteristics and the socio-economic environment.

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. *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, *distress-push* diversification occurs in an environment of risk, market imperfections and of open and/or hidden agricultural unemployment. Thus, when rural populations engage in economic activities that are less productive than agricultural production and are motivated by the need to avoid further income decreases, *push factors* are at work.

One 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 *demand-pull* and *distress-push diversification.* There would be two clusters - of low-return and high-return activities, which are engaged in by poor and affluent households, respectively.[7] Moreover, if *distress-push* diversification dominates, we would expect poorer households to engage more in diversification than others. In the case of predominantly demand-pull diversification, we would expect that higher income households would engage more in non-agricultural diversification than the poorest households. The two extremes of contextual factors will result in differing RNFE entry motivations, access capabilities and livelihood trajectories as shown in figure 1.1.

[7] What about those that are neither rich nor poor? Although numerous analyses of the RNFE and diversification tend to distinguish between these two extremes, often the situation on the ground is not that clear-cut, so it is important that diversification typologies are not oversimplified.

Figure 1: Contextual Factors, Capital Assets And Participation In The RNFE



Source: Natural Resource Institute, November 2000.

The distinction between *demand-pull* and *distress-push* diversification is extremely useful for evaluating the economic significance of the RNFE sector. Distress-push diversification may require policymakers to develop appropriate social safety nets and interventionist policies to mitigate the short run negative effects that sometimes accompany this type of diversification (for example, over-rapid urbanisation placing tremendous pressure on urban centres, negative environmental impacts etc.). Where demand-pull factors are driving the process of diversification, policy-makers might seek to provide a suitable *enabling environment* to support the development of the RNFE and sustainable rural livelihoods. However, deciding on whether demand-pull or distress-push factors are at work may not be straightforward.[8] Yet, the key features of *distress-push* and *demand-pull* diversification are outlined below.

Table 1: The Push And Pull Factors Of RNFE Diversification

Push Factors	Pull Factors
• Population Growth • Increasing scarcity of arable land and decreasing access to fertile land • Declining farm productivity • Declining returns from farming • Lack of access to farm input markets • Decline of the natural resource base • Temporary events and shocks • Absence or lack of access to rural financial markets	• Higher return on labour in the RNFE • Higher return on investments in the RNFE • Lower risk of RNFE compared to on-farm activities • Generation of cash in order to meet household objectives • Economic opportunities, often associated with social advantages, offered in urban centres and outside of the region or country

Source: Davis and Pearce (2000).

[8] It is very important to note that although participation in the RNFE can be categorized as *distress push* or *demand pull*-the activities associated with each will differ among households. Brick making may be a distress-push activity for someone previously working as a driver, but a demand- pull activity for someone previously collecting fuel wood to sell.

The table shows that distress-push diversification would dominate in rural areas which have one or more of the following characteristics: geographical isolation, low quality physical infrastructure, low human capital, underdeveloped markets, resource scarcity, or incidence of some natural disaster. Demand-pull diversification would be possible in the presence of expanding technological innovations (whether within or outside agriculture) market development, or intensifying links with markets outside of the local economy.

It is to be expected that distress-push diversification would characterise households in a rural population, which are less endowed, or which have lower incomes. These households will enter non-agricultural activities that are less rewarding (e.g. in terms of labour productivity) than demand-pull diversification activities, since the higher-return activities typically require higher investment that only the richer households can afford. For instance, poorer households will obtain a larger share of their non-agricultural income from wage employment, while richer households have better opportunities to enter non-agricultural activities in their own independent enterprises.

Further, it may also be noted here that poverty–induced participation in the RNFS may indicate that the non-farm sector is absorbing a residual of surplus labour that cannot be employed on-farm. Vaidyanathan (1986) had advanced the *residual sector* hypothesis as an alternative to the *inter-linkages* hypothesis. According to it, non-agricultural activities act as residual activities so that rural workers who are not absorbed fully in agriculture spill over into the non-agricultural activities, with the latter acting as a sponge for the excess labour. This assumption is plausible in a situation where commercialisation has occurred and the wage labour system has become almost rampant. Besides, as a sequel to these twin trends, the traditional social mechanisms for taking care of the unemployed tend to get weakened. In this process, the pressure starts building on those who are unable to find work in agriculture to explore other avenues of employment outside agriculture. Such workers generally join traditional low-productivity non-farm activity such as rope or coir making, basket making etc., either as self-employed or hired workers. A majority of such workers hail from

the lower rungs of the rural society, they have no alternative but to fall back upon whatever wages they are offered.

Nonetheless, the *residual sector* hypothesis underplays the most important effect of distress conditions in the rural areas (Samal, 1990 and 1997a). Owing to adverse conditions in rural areas such as decline of handicrafts, inadequate income, poverty, unemployment, underemployment, seasonal employment, loss of property and source of income due to natural calamities, etc., the landless agricultural labourers, small marginal farmers and artisans are pushed out of the rural areas and move mainly to urban centres in search of jobs in the informal sectors.

1.5 The Causal Origins of Diversification

The distress-push/demand-pull distinction discussed above suggests that there are different prerequisites, constraints, motivations and outcomes for households engaging in RNFS. From a policy perspective, it is important to understand why individuals enter the rural non-farm economy. In general, following are the important factors which might lead to an increase in rural non-farm employment, as discussed in the literature.

Asset endowments –comprising of land, livestock, real estate etc. The size of land holdings is one of the most important underlying factors that appears to be responsible for the extent of RNFE within a household. The relationship between land endowments and participation in the non-farm economy is a complex one. Theoretically, the relation between landholding size and the share of non-farm income in the total household income is likely to be depicted by a negatively sloped curve. The reason is that rural households with good access to land are not compelled to diversify into non-farm employment to the same extent as landless or marginal farming households, and tend to show a strong attachment to farming as a way of life, thereby having a tendency to specialize in agriculture and allied activities. Those with limited or no access to land have to work as agricultural labourers and engage in non- farm activities in order to earn a living, often having to migrate as a response to limited local employment opportunities.

However, an inverse correlation between land ownership and the share of non-farm income at the household level may not always verified empirically on account of following reasons. First, access to land is only one amongst many factors that influence employment and income patterns across households. Second, successful farming may constitute an entry point for agricultural processing and trading and provide financial resources for investment in non-farm enterprises, while at the same time constituting a safety net that enables riskier and potentially higher-return household investments. In other words, medium and large farmers tend to be better positioned to engage in more remunerative self-employment in the non-farm sector because of resource and risk conditions.

Thus, the possible role of asset endowments in the participation of RNFE is mixed. From one point of view, wealth could increase the opportunity to invest in education, in establishment of suitable contacts or in productive assets that generate income through entrepreneurship or wage labour. Endowments and the level of income tend to encourage specialization in the most productive capacity. Nonetheless, endowments may also reduce the need to undertake non-agricultural activities.

Human capital attributes – age, skills, education – broaden the set of employment and entrepreneurial options for individuals. Household age composition (usually assessed in the form of dependency ratios) and education levels are an often-cited measure of human capital used empirically in explaining the degree of participation across a wide range of income groups in the rural non-farm economy. An example of this has been tendered by Abdulai and Delgado (1999) who found that the probability of participation in non-farm work increases with age up to 33 for men and 30 for women, and is thereafter inversely related to age.

The level of education is considered as a potent instrument in influencing the rural non-farm employment pattern. Better educated individuals are likely to possess skills which facilitate successful involvement in non- farm activities, including the ability to manage a business, to process relevant information, to adapt to changing demand patterns, and to liaison with public and private service

providers. They are also likely to have greater aspirations with regard to working outside agriculture.

Education is also linked with higher productivity in trading, construction, service and manufacturing activities (Islam: 1997). Secondary education stimulates entrepreneurial capacity whilst primary education enhances work force productivity. Further, it has also been evidenced that the schooling of other family members, not directly employed in the enterprise, also affects incomes through advice, suggestions and hints, and self-employed rural family enterprises benefit greatly from education irrespective of the sector or location of the rural enterprise. This is consistent with considerable anecdotal evidence of the high priority attached to education by poor families, once threshold income and expenditure needs have been met. The positive association between literacy and rural non-farm employment was noted by several studies including those of Chadha (1993), Fisher et al (1997), Narayanmoorthy et al (2002) at the all-India level and Basant (1993) in Gujarat; Jayaraj (1994) for Tamil Nadu, Eapen (1995) in Kerala and Samal (1997b) in Orissa. However, it may be noted that it is particularly the *non-farm proper*[6] activities that are strongly influenced by education.

The usefulness of formal education for successful participation in the RNFE is not always evident. The skills required to engage in many rural non-farm activities are either very simple or acquired outside the formal school system, through relatives and friends and on-the-job training. Hence, relatively high educational levels are by no means a guarantee of remunerative wage or self-employment in the non-farm economy.

Caste/Religion and Gender Affinities- *Religion* and a variety of cultural factors may mean that there is a preference for involvement in certain types of non-farm livelihood activity on the part of all members of a community or on the part of some section of the community. There are often activities that are seen as undesirable by members of certain castes/classes or certain ethnic groups. There are also activities that are seen as inappropriate for certain categories of individuals in keeping, e.g., with their sex or age. Access barriers may also be related to caste or class divisions, to ethnicity, language or other cultural factors

(aspects of social capital). High status groups of all kinds, including high castes and high status/majority ethnic groups, may gain access more easily to more remunerative non- farm activities. Individuals and households belonging to low status groups, on the other hand, find it difficult to diversify into better-paid sectors, and tend to be forced into certain less remunerative non-farm activities.

In rural India, despite considerable changes over the past decades, the caste system remains a major stratifying force especially at the village level. Broadly, it is the menial and manual jobs like shoe making, blacksmithy, hair cutting, pottery, weaving, sheep rearing, carpentry and plough making belonging to informal non-farm sector which are done by lower castes whereas the upper castes, especially the Brahmins and Kshatriyas, are reluctant to engage in activities traditionally assigned to specific lower castes. In addition to it, the lower caste people also appear to face barriers to employment in the attractive non-agricultural jobs.

Dréze *et al*. (1998) noted that high-ranked Thakurs (previously landlords) in Palanpur had acquired a disproportionate share of non-agricultural employment through better contacts, status or by wealth. Unni (1997) observed that social status (proxied by caste) in rural Gujarat, after controlling education and other personal characteristics, exercised an important, independent, influence on access to high-productivity non-agricultural occupations. Field research by Som *et al* (2002) in Madhya Pradesh and Rath *et al* (2002) in Orissa had established that activities such as bamboo work, shoe making, tailoring, carpentry are undertaken by particular lower castes and the tribes residing in the villages. On the other hand, they barely found members of the higher castes (especially the Brahmins and Kshatriyas) engaged in the above-mentioned activities. Lanjouw and Shariff (2004) based on the NCAER survey data also noted that individuals belonging either to a scheduled caste or a scheduled tribe were relatively less likely to be involved in either non-farm own enterprise activities or well paid non-farm salaried employment.

Likewise, gender has emerged as an important factor influencing participation patterns and trends in the RNFE. However, while some general commonalities were found across studied regions and countries, the role of

gender in enabling or restricting access to economic activity also varies from country to country, and within country, from region to region. Aside from wide regional variation, it is also important to acknowledge that the relation between gender and livelihood opportunities and outcomes is not static, but one that evolves over time and varies across socio-economic groups. Ultimately, gender issues must be understood in the context of historical processes and the political and socio-economic conditions found in a given place and society.

In India, rural non-farm employment over the past decades has expanded rapidly for men. In general, average female participation rates in the non-farm sector are low compared to those for men. Chadha (1997) reasoned out that women are culturally less mobile, and are thus disadvantaged in terms of rural non-farm employment because on-farm employment is available closer to their living abodes, and because they are not as well equipped (in terms of education and skills training) to compete for the limited, but remunerative, non-farm jobs as men are. It is particularly so in modern manufacturing activities which are skill-selective.

Social norms restricting female mobility and ability to work outside the household were identified as an important constraint in many villages in Madhya Pradesh and Orissa, particularly among the upper castes (Rath *et al*: 2002; and Som *et al*: 2002). Other barriers particularly faced by women are also well documented. Singh and Kumar (1995) point out that numerous socio-economic factors, including familial responsibilities such as child care and food preparation, poor health, limited access to education, lack of skills constrain the ability of women to devote considerable time to economic activities. Vyas and Bhargava (1995) found that social disapproval and family pressures faced by many women discourage them from entering into economic activities outside the household.

But there is a body of literature that evidences a gross under-enumeration of female non-farm employment. For example, Hazell and Haggblade (1991) criticize the Census for classifying women's work too readily as agricultural labour. Further, Fisher *et al* (1997) criticize the Census and NSS surveys for not capturing the complexity of much rural employment where households and

individuals may pursue a number of different activities, and employment patterns may vary both seasonally and across different years.

Urbanisation- The process of urbanization also affects the growth of RNFS and sometimes wields a positive influence on RNFS employment (Kundu: 1991). Visaria and Basant (1994) detail the following ways in which urbanisation can influence the rural non-farm sector employment. Urbanisation expands the market for rural enterprises, and also encourages non-agricultural activities in secondary and tertiary sectors in neighbouring rural areas to meet non-local demand. Rural enterprises may therefore benefit from economies of scale, resulting in decreased costs and increase in efficiency. Moreover, decreased transport costs open up rural resources and markets to exploitation, and facilitate movement to a more specialized productive rural economy. Such processes can be encouraged by policies of industrial relocation in backward areas. Additionally, improved transport facilities allow many rural households to shift to non-agricultural occupations without necessitating a change in residence, by commuting.

However, urbanisation also affects rural non-farm employment adversely. Over the passage of time, rural localities become classified as towns. Additionally, boundaries of cities expand to include surrounding 'rural areas'. Such urban expansion is likely to generate an apparent decrease in the magnitude of RNF employment (or at least limit the apparent growth of RNF employment). This is so because the share of the non-farm sector in those rural areas which get classified as exceeds that in other rural areas. Besides, urbanisation and associated improvements in infrastructure render certain rural manufacturing industries non-viable through competition of better quality and /or cheaper products.

Papola (1992) laid stress on the importance of the role of small towns in the rural hinterland in the employment of rural workers and in promoting non-farm employment in rural areas through backward and forward linkages facilitated by these towns. Further, he also contended that rural non-farm enterprises located in regions having widespread urban settlements in the rural hinterland yielded higher productivity and earning levels as compared to areas where only a few

towns were concentrated. In addition, the small towns entail the potential of serving as catalyst for enhancing the viability and sustainability of rural enterprises. He remarked that productivity and incomes of non-farm enterprises in India are higher in regions where rural towns are more evenly spread than where there are only a few concentrated settlements. This he attributes to the action of forward and backward linkages.

Similarly, Bhalla (1993) also contended that switch to consumer demand in favour of better quality products, in tandem with the shift to urban produced inputs, led to significant growth of the non-farm sector in districts of high agricultural productivity in India. Shukla (1991, 1992) found that benefits from agglomeration, i.e. regional industrialisation at large, had translated into broad localisation benefits for similar activities leading to livelihood diversification in Maharashtra. A number of other studies also emphasized the positive influence of urbanization on the growth of rural non-farm sector[7].

Access to markets- Proximity to a market base promotes all kinds of economic activities, be they agricultural or non-farm. Market access is determined by factors such as distance to markets, access to transport infrastructure and telecommunications, access to market information, the quality of goods and services produced, volumes produced, etc. Still it can be argued that better roads and improved infrastructure in general can either increase participation, or make it more difficult for lower asset households to participate in the RNFE because of increased competition from outside areas. Besides this, the distributional impact of improved infrastructure on poverty will depend on the involvement of the poor as producers or labourers in activities favoured or harmed by the reduction of *de facto* protection and the changes that lower transaction costs generate in the degree of integration between local and distant labour markets. Whilst increased integration will provide poor or landless households with opportunities for non-farm employment, the development of rural towns may push up land prices, driving the poor off the land, whilst their lack of skills and start-up capital may relegate them to a pool of landless casual labour.

Various studies have highlighted the role of rural infrastructure in development of non-farm sector. Hazell and Haggblade (1991) pointed out the

significance of rural infrastructure in augmenting the size of the income multipliers of agricultural growth to the non-farm sector in India. Shukla (1992) found in Maharashtra that *trading* and *non-household manufacturing* particularly benefited from construction of roads whilst *household manufacturers* became disadvantaged. Jayaraj (1994) emphased the importance of the development of transport infrastructure for rural non-farm employment opportunities in Tamil Nadu. Singh (1994) mentioned significance of rural electrification in the state of Uttar Pradesh. In the more recent studies, Narayanamoorthy *et al* (2002) tested for the factors influencing the variation in rural non-farm employment in India for the years 1971, 1981 and 1991. Regarding infrastructure, he used pucca *road facility* as its proxy and found a significant association between this variable and rural non-farm employment. The village level study by Pandey *et al* (2002) in Orissa and Som *et al* (2002) in Madhya Pradesh mentioned poor road connections as an important marketing constraint in many communities and unreliable power supply as an impediment to the development of agro-processing at the village level.

Social capital – participation in social networks also broadens the set of employment and entrepreneurial options for individuals. The concept of social capital has several different interpretations. Fafchamps and Minten (1998: pp.1) provide two definitions from an economist's perspective:

The first meaning sees social capital as a 'stock' of trust and an emotional attachment to a group or society at large that facilitates the provision of public goods … The second meaning sees social capital as an individual asset that benefits a single individual or firm; this meaning is sometimes referred to as social network capital to emphasize that agents derive benefits from knowing others with whom they form networks of interconnected agents.

From a livelihood perspective the second definition is pertinent. If social relationships are not taken into account, the significance of barriers to entering the RNFE may be seriously under or over-estimated. For example, certain employment opportunities may not require a great deal of capital, experience or skill, but a friendship or kinship relationship might be an important determinant of

access (Davis: 2002). However, it will be difficult to capture fully the significance of social capital using a formal questionnaire approach.

Dréze *et al* (1998) study is a notable study that had comprehended social capital in their village study in Palampur in Uttar Pradesh. They established in their study that a bribe-paying capacity and personal connections are important factors in job-allocation process. They also observed regular non-agricultural jobs *clustering* around a small number of establishments where some village residents initially succeeded in making an entry and then helped others to enter. Those who follow generally either belong to same caste or are otherwise related to the nascent entrant. This role of personal contacts and influences in job search could have wide-ranging implications. It could, for example, explain the large gap which is often observed between agricultural and regular non-farm wages, the low turnover of regular non-farm jobs and the fact that persons with low social status seem to be at a disadvantage in the competition for regular non-farm job.[8]

Government Policies- The presence of the state in a given area and expansion of public administration and services is considered an important factor for the development of non-farm economic activity. The relative importance for the development of non-farm economic activity is likely to be greater in poor regions, which typically lack other significant sources of demand. For example, public investment in schools, training centres, health clinics, roads, irrigation systems, and other social and economic infrastructure can provide a major boost to local construction and related activities. Moreover, the development of public administration and services generates salary employment and income, often in areas where such opportunities are lacking, which will partly be spent locally. Some public services, for example in education, may also give rise to linkages with upstream non- farm activities.

Fisher *et al* state that the rural non-farm sector in India has often been treated as a residual category, where agriculture and industry have been the principle policy focus which have influenced the diverse non-farm sector. Within broad industrial policy, they come under the ambit of *khadi and village industries;* within agricultural policy, they aim at promoting agro-processing activities. The

impact of such policies, however, has often been contradictory owing to the diverse nature of the non-farm sector and non- integratedness of such policies.

The impact of government development programmes and public expenditure on rural non-farm employment was examined by a few studies. Sen (1997) argues that rapid diversification in employment growth during 1970s and 1980s was primarily on account of a very significant increase in public expenditure in rural areas. The case studies by Eapen (1994) in Kerala and Samal (1997b) in Orissa, confirm a positive role of administrative, development and social services in generating rural non-farm employment, both directly within such services, and indirectly as a consequence of their activities.

Incomplete/Missing markets- Additional explanations turn on *incomplete/missing markets* (e.g., for land, labour, credit, or insurance). Missing land markets, for example, can help explain why a skilled blacksmith who inherits land spends scarce time farming although his comparative advantage lies in smith work. Were land markets operative, he might rent out or sell his land and devote all his time to blacksmithing. But in the absence of land markets, and in the presence of labour market imperfections that preclude his simply hiring others to work his land for him, his optimal use of labour time may well include time spent on relatively less productive farming, else his land asset returns nothing to him. Observed diversification of labour activities and income for this hypothetical individual would then be attributable primarily to the absence of markets. For the poorest, this typically means highly diversified portfolios with low marginal returns, or desperation-led diversification (Barrett, 1997). In remote areas where physical access to markets is costly and causes (household-specific) factor and product market failures, households diversify production patterns partly to satisfy own demand for diversity in consumption (Omamo, 1998).

However, missing markets can also discourage diversification. For example, missing credit markets can impede diversification into activities or assets characterized by substantial barriers to entry. Smallholders typically cannot afford to purchase a truck and enter the long-haul transport niche of the food-marketing channel, no matter how profitable it might be (Barrett, 1997). In

the absence of complete credit or insurance markets, individuals are typically unable to smooth consumption in spite of a strong desire to do and hence individuals must act outside of financial markets in order to reduce consumption variability driven by real income variability. Thus, lack of access to credit is a critical obstacle to successful engagement in the non-farm economy. In all regions and countries studied, credit access problems are a consequence of a complex set of factors operating from the demand and supply sides.[9]

It has also been noted in the literature that rural non-farm sector in India is poorly served by the formal credit sector, which is again characterized by government intervention and direction. Additionally, Chadha (1995) identifies high transaction costs and cumbersome procedures in addition to the inhibiting nature of collateral and the low share of credit for tiny, artisan and village industry as key limiting factors for the non-farm sector.

Eapen (1996), based on fieldwork in Kerala observed that despite a high degree of ingenuity and entrepreneurial spirit among the tiny enterprises (the growth of which has largely resulted from a lack of alternative employment opportunities), lack of credit was identified as a major inhibiting factor. She also reported NABARD figures to show that while between 1985 and 1990 advances by commercial banks to the SSI sector rose by 100 per cent, only 4.5 per cent of the share went to petty producers; and advances from regional rural banks to this sector accounted for only 8 per cent of total lending. In addition, Mahajan and Ramola (1996) figured that costs of such transactions ranged from 17 to 22 per cent of the loan value from commercial banks, in addition to the substantial amount of loan time. In one Rajasthan district, it took six months between loan application and disbursement. They also drew similar conclusions in their analysis of access of the rural poor and women to financial services, notably the IRDP and DWCRA schemes, anti-poverty programmes, with the objectives of promoting income-generating assets and thus livelihood diversification.

Risk- The risk factor also induces people to diversify activity. The *risk* inherent in agricultural production may cause single-source income to fluctuate, which can be mitigated by diversifying the portfolio of activities (Reardon: 1998). Economic theory indicates that risk-neutral farmers will divide their labour supply between

on-farm and non-farm employment opportunities such that the expected marginal returns to an extra hour of effort/work are equal. If farmers are risk-averse either less time will be allocated to the more risky jobs if the expected returns to each sector are the same, or alternatively the farmer will be willing to accept lower wages in the less-risky environment (Mishra and Goodwin: 1997). Non-farm labour can be used by farmers to reduce the total variance of their income, that is, the overall risk, or to increase the total returns from labour. However, this does not necessarily mean that risks associated with non-farm opportunities are lower than, independent of, or inversely related to on-farm risks – it is more often the case that on-farm opportunities are very limited (Davis and Pearce, 2000). While a combination of the above demand/supply and labour availability conditions must still hold in order for RNFE activities to be viable, price or income shocks may have constituted an additional, or a major reason for individuals to consider diversifying into the RNFE.

Seasonality- Seasonal labour and asset employment of agricultural production may be another reason for the growth of the RNFE. Using idle labour or machinery and empty buildings for non-agricultural activities may supplement incomes without capital investments and at low opportunity costs. As the demands of agricultural production on labour and capital are usually seasonal, this motive would imply a strong competitive position for rural non-farm producers, since revenue and profits are practically equal since additional costs of existing assets are fairly small. It would restrict non-farm activities to those that are farm-asset based or capital intensive. It would also interact with the risk motive as it stabilises income over time.

To conclude, we notice ample evidence in the literature to suggest that various factors, both internal and external to the rural economy, operate on rural non-farm employment. And as noted above, these factors could go beyond the purview of agricultural linkages as well.

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