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POLICY BRIEF - 20

Farm Non-Farm Linkage and Role of Non-farm Sector for Rural Development

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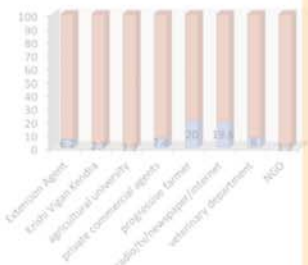

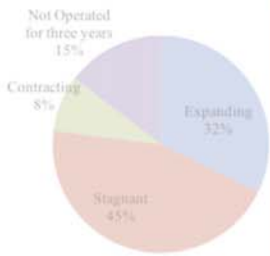

Introduction

The rural non-farm sector (RNFS) involves a spectrum of economic activity in rural areas, and encompasses all rural productive entities other than farm holdings. It has the potential to play a pivotal role in holistic and inclusive development of India's rural areas by increasing the employment and wages of rural labour, which can reduce income inequalities. The presence of a well-functioning RNFS can act as a complementary force in balancing agricultural income fluctuations by decreasing the vulnerability of rural households arising from several factors ranging from the vagaries of weather to a lack of access to sufficient credit.

The process of non-farm sector development, however, varies with the level of agricultural achievement in a region. Economically backward areas may be incapable of providing adequate employment opportunities in agriculture, and low incomes make farmer households particularly susceptible to the risks of crop failure. As a result, non-farm activities in these areas develop as a mechanism to cope with the lacunae of the farm sector (termed 'push factors'). Alternatively, in agriculturally developed districts, surplus incomes from agriculture may be invested into non-farm activities to provide a diversified income source (pull factors).

Owing to the differences in the process of development of non-farm activities between developed and less developed areas, the relationships that are created between the farm and non-farm sectors can be expected to differ between regions. These relationships, termed 'linkages', need to be carefully and thoroughly studied in order to construct a feasible working model of the Indian rural sector to aid research understanding and policy formulation. Consequently, the current study has delved closely into the linkages between the farm and non-farm sector in India, with an emphasis both on the level of agricultural development in different regions as well as the policy backdrops present.

Objectives

This study aims at creating a better understanding of the rural non-farm sector in India, and the possible linkages that have developed with the farm sector. In this regard, the following objectives have been conceptualized:

- To study how enhanced agricultural productivity affects RNFS
- To analyse how crop diversification affects RNFS
- To study the impact that the prevalence of small and marginal farmers has on the RNFS
- To look into the growth of the modern (urban formal) sector on the RNFS.
- To delve into the impact of access to credit for rural non-farm enterprises

Methodology

A variety of secondary databases have been utilized to provide a national level overview of the state and performance of the rural non-farm sector in India. These include unit record data collected by the National Sample Survey Organization as part of their 59th, 67th, 68th, and 70th rounds of surveys on topics including debt & investment, farmer situation assessment, and employment & unemployment, as well as data from the 2011-12 India Human Development Survey, conducted by the University of Maryland and the National Council of Applied Economic Research.

Analysis of secondary level data, however, is only capable of providing a partial and quantitative

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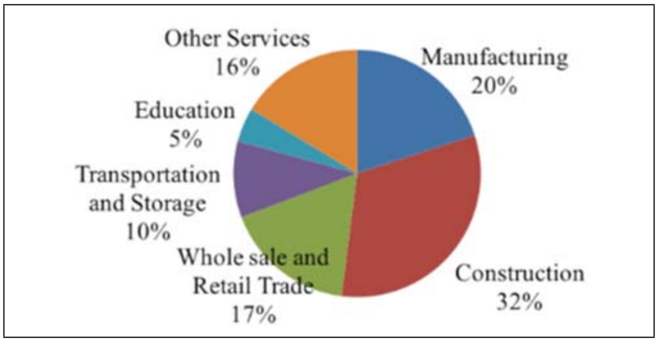
picture of the non-farm sector. To understand linkages at a more complete and qualitative level, a primary survey was conducted. Three states of interest were selected for study, namely Karnataka, Assam, and West Bengal. Each of these selected states has exhibited a unique pattern of rural development and linkages, and the field survey helps us to better understand this.

Karnataka was selected owing to its rapidly growing modern sector in spite of its relatively lower agricultural development. Five districts close to Bangalore city were selected for study in Karnataka, namely Mandya, Ramnagara, Kolar, Bangalore-rural, and Tumkur. This helps reduce variations in type of non-farm activity so as to concentrate on linkages formed due to proximity to an urban centre. A limited sample of 100 households was surveyed from these districts. A structured questionnaire seeking to understand the different types of activities and linkages was administered. Being a relatively developed state both in terms of agriculture and size of RNFS, West Bengal was chosen as well. To understand the development of RNFS in a relatively less developed state, Assam was chosen for the study.

Key Findings

Analysis of secondary data revealed that the RNFS accounted for 36% of total employment in rural areas as of 2011-12, having grown from 27.3% in 2009-10. Agriculturally advanced states had a higher share of employment in the non-farm sector than the national average, with some of the highest shares found in Kerala (68.58%) and Tamil Nadu (48.8%). Much of the RNFS comprised own account enterprises, i.e., enterprises involving no hired labour (91% of all enterprises) engaged in service based activities, possibly petty stores attached to rural households. While construction accounted for the largest share of RNF employment (32%), only a fifth of enterprises were engaged in manufacturing. Fig 1 shows the share of different types of enterprises in total rural non-farm employment:

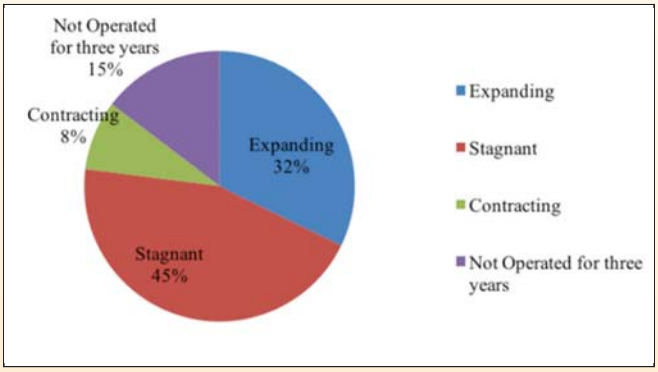
Fig 1: Share of Employment by Different Sectors



Source: NSSO 67th Round Enterprise Survey

Only 13% of RNF enterprises could be classified as 'modern', and industrial sickness was rife with a majority of enterprises stagnating (45%), contracting (8%) or non-operational (15%) (see Fig 2). This pattern was true even in states with a relatively higher share of modern enterprises, and can be attributed to resource and demand limitations, and lack of access to credit.

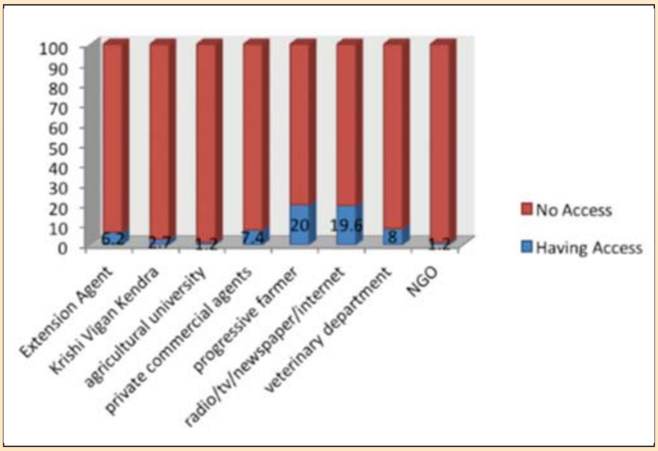
Fig 2: Status of Non-farm enterprises in India



Source: NSSO 67th Round Enterprise Survey:

Access to technology and knowledge was also severely limited as seen in Fig 3:

Fig 3: Access to Technology/Knowhow



Source: 70th Round SAS (2012-13)

A regression analysis reveals that increased productivity and prevalence of small & marginal farmers had positive marginal effects on employment, especially in manufacturing and services. The results also indicated a movement of labour away from manufacturing and services and into construction over time.

A tobit regression on household per-member non-farm business income for small and marginal farmers revealed that agricultural development had a significantly positive marginal effect on non-farm income, as did district level monthly per capita consumption expenditure, access to credit, and media access. For credit, the regression revealed that each extra loan, ceteris paribus, increased non-farm income on average by approximately 900 rupees, and a rupee increase in access to credit (largest loan size) increased earnings by 0.03 – 0.04 rupees on average. Family labour was mainly used for these activities, and larger households earned more from non-farm activities, as did households with lower farm earnings.

Field surveys provide a more recent picture of the shape and development of the RNFS in the selected study regions. In Karnataka, a distinction was observed between households without cultivable land (which were confined to traditional caste-based occupations or casual labour, with only a small presence in the RNFS) and those with cultivable land (which engaged in multiple productive activities, with non-farm enterprises in these households often linked to the modern sector). Non-farm incomes were often higher than crop incomes, with construction-linked manufacturing being the most lucrative (90% of enterprises earned above Rs 2 lakh per year). The prevalence of industrial sickness was lower, with all fertilizer shops and cement dealerships reporting expansion, and almost none of the enterprises reporting contraction.

In contrast to the traditional pull mechanism, we found that surplus from RNFS activity was an important source of income generation and funded cropping. Credit access was woeful, with a majority of funds for RNFEs coming from own savings or moneylenders, in contrast to farm activities. Surpluses were mostly found to be reinvested in the same activity (more than 50% of surplus) rather than used for diversification.

In West Bengal, to begin with non-farm enterprises were mostly traditional, and relied on growth in food grains (primarily rice) production for marketing their output. The recent movement toward cash crop production has placed strains on some of these traditional enterprises due to falling demand for products like sickle and other such implements used traditionally for rice cultivation. People engaged in these occupations now need to shift to other activities to earn a livelihood and this has become a major challenge.

Regular salaried employees of the formal sector, however, create consumption and investment linkages for the RNFS in West Bengal, improving its competitive ability. Access to credit was found to be helpful for some non-farm entrepreneurs, but many faced capital scarcity owing to inaccessibility of formal lending institutions.

Contrastingly, it was found that farm activity was relatively underdeveloped in Assam, with lack of irrigation allowing for only a single cultivation in a year. Incomes from farm activity remain low and generate virtually no surplus to be invested in any non-farm enterprise. This is further exacerbated by lack of access to credit, which disallows farmers from investing in agricultural machinery, keeping incomes low. Many households do engage in some non-farm activity, but it was often confined to activities such as fishing in ponds and raising poultry, both for personal consumption.

Among productive non-farm activities in the state, handloom and handicrafts play a major role. These goods are locally sold, and thereby generate consumption linkages with the farm sector in the region, but income from these enterprises remains low owing to inadequate marketing.

Rubber plantations in recent years have begun to process cultivated rubber into rubber sheets with some capital investment, and this has proven to be a profitable venture. The state has encouraged this development through training partnerships for youth in Kerala, which is well known for its rubber plantations. Such activity is a good source of income for the region owing to hilly terrain making paddy cultivation difficult, and over time there is some hope for these ventures to create investible surplus for other non-farm activities.

Policy Implications

This study has revealed many interesting facets of rural non-farm enterprises in India, and based on our findings, the following suggestions for policy intervention emerge:

- Due to small land holdings, even with modern technology agriculture income cannot grow substantially to provide better living conditions for farmers. The study found that development of non-farm sector can enhance income for farmers to a great extent. Among small and marginal farm households that had non-farm business income, such activity contributed on average Rs 2,895 monthly (survey estimate).
- It is also found that the small and marginal farmers engage in non-farm activities in order to sustain themselves in the face of low agriculture surplus. Large farmers on the other hand tend to be engaged in agriculture alone. Small farmers however need much more support to develop meaningful non-farm activities in a sustainable manner.
- Further, agriculture income is characterized by high level of uncertainty and non-farm income is found to stabilize a farmer's income. Hence, any policy towards developing the non-farm sector should go hand in hand with agriculture development.
- The study finds that both production and consumption linkages are critical for the development of rural non-farm sector. Thus development of agriculture and rural non-farm sector should go hand in hand. It is also essential to ensure that products of both agriculture and non-farm sector receive remunerative price. Developing contract farming is one option to ensure better price for farmers. The surplus in

one sector can then be channelized to the other for meeting the investment needs. Further, the non-farm sector should engage in those areas where consumption linkage can be easily established. Without marketing avenues, production cannot be sustained.

- It is however found that though employment in the non-farm sector has been growing over time, more than 90% of these enterprises are own account enterprises, that is, they do not use any hired labour. Most of these enterprises are home based petty businesses and do not generate enough surplus. It is therefore important to have skill development and knowledge dissemination programs suited to the rural sector so that people can take up more meaningful activities in the non-farm sector.
- Only about $1/5^{th}$ of these enterprises are in the manufacturing sector and petty service based activities such as trading dominate the scene. It is important to remember that manufacturing enterprises generate more employment per rupee of investment. Therefore, plans should be put in place by the Government to develop industries based on local resources. Developing food processing units based on local resources can be a good option in addition to developing animal husbandry products.
- Only about 13% of these non-farm enterprises can be termed as modern and the rest are traditional enterprises with low value added. Providing training and marketing support is essential to change the scenario.
- Our analysis shows that out of the total enterprises, around 70% are either dead, contracting or stagnant. Lack of funds for investment, inadequate knowledge about new production possibilities and lack of knowledge about marketing facility act as major impediments. The formal financial sector should come forward to provide funds and in addition training needs to be imparted.
- One of the major impediments in developing non-farm entrepreneurship is the lack of resources. Credit can play a crucial role in this context. Access to credit, however, was found to be dismal among RNF enterprises in India, with only 0.1% of households accessing a formal source for non-farm fixed capital and maintenance of loans. Having access to credit was also found to improve the prospects of RNF in terms of income generation significantly among small and marginal farmers (conclusion of the study based on regression analysis). This points to the necessity of making lending for this sector a part of priority targets. The existing MUDRA Yojana, which is targeted towards lending to small and medium enterprises, can be utilized as a vehicle to deliver this credit. To improve loan quality, the credit history of borrowers can be maintained and the credit-worthy can be granted expanded credit limits.
- Access to credit also depends on financial literacy. The financial literacy of farmers in states like Assam is found to be quite low. Even though bank accounts have been opened under the financial inclusion drive, most rural populace access these accounts to get cooking gas subsidy only. Financial literacy drives are necessary in these regions to develop better income generating opportunities.
- Self-help groups (SHG) or joint liability group (JLG) formation can be of much help to take up income generating activities and access credit for these endeavours. While SHG with women members are common in the state of Karnataka, other states such as Assam need to develop such groups on a large scale. JLGs with male members are yet develop in most states.
- Construction was found to be the largest provider of RNF employment, but construction activity is often found to be highly correlated with the economic cycle, which in turn introduces volatility in RNF income. An improvement in diversified manufacturing activities can help alleviate this, and the 20% share of manufacturing in RNF employment needs to be improved through policies that provide incentives such as improved and subsidized credit, and tax breaks for manufacturing enterprises.
- Access to technology and knowhow for setting up and operating non-farm business were severely lacking across India. Cooperative banks can be utilized to improve this, by maintaining a list of businesses that have been found to be successful in the past and disseminating this information to entrepreneurs. Dr Vaidhyanathan Committee report on revival of Short Term Credit Cooperative Societies insists on greater role for cooperative banks in *business development activities*, and this suggestion is applicable here as well.

Thus the non-farm sector in India is yet to develop to its full potential. Only with proper support and awareness, the rural non-farm sector can grow as an alternate income generating avenue for farmers and can help achieve the target of doubling farmers' income.

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