

**DRAFT**

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# Rural Non Farming Economy in India and South-Asia



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## Executive Summary

It is universally accepted that excessive pressure of population leads to subsequent additions to labour force, and agriculture alone will never be able to provide employment opportunities nor can it provide sufficient income for the people to sustain livelihoods of rural households<sup>1</sup>. There are two main reasons for this: first, climate change and extreme weather conditions often ruin the crop leaving farmers in debt and second; the advancements in the agriculture in recent past has improved the productivity of crops so as to enhance rapid growth of agriculture that it is unlikely to employ entire labour force. Therefore, it is inevitable to initiate a comprehensive planning approach towards the promotion and expansion of rural non-farm activities so that effective measures are taken in time to address the issues of unemployment, migration and poverty.

There is an emerging consensus that the livelihood security and well being of rural households improve with the blending of non-farm economic activities with farm activities and such diversification of rural livelihood positively impacts the farm efficiency. Rural non farm economy accounts for roughly 25 percent of full time rural employment and 35-40 percent of rural incomes across the developing world. This is the collection of seasonal trading, household and large scale agro-processing manufacturing and supplying local goods and services to consumers. Rural non-farm development is a strategic priority for many developing countries during their economic transformation from an agricultural to industrial society. It plays an important role in generating local employment and linking with other sectors in developing countries<sup>2</sup>. The structure of rural economy in every country has been changing along with the overall economy. The farm and non-farm sector have been changing in structure through diversification of activities through increasing employment and income generation<sup>3</sup>. Diversification in sectoral activities has brought desired transformation of rural economy and economy in general.

Livelihood diversification has an important role to play to mitigate the effects of disasters. It seeks to offer protection to communities which lose their livelihood on account of the disruption caused due to disaster. However, such diversifications are also subject to the local

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<sup>1</sup> Dave and Dave, 2012

<sup>2</sup>Reardon et al. 2007

<sup>3</sup> Pal and Biswas, 2011

natural endowments, geography and policies prevalent. There is a positive correlation observed between livelihood development and diversification which can be worked upon to develop disaster resilient livelihood practices.

This research project aimed to use diversification that can be improve the livelihoods to reduce poverty, risks and therefore vulnerabilities of the vulnerable communities<sup>4</sup>. These techniques, many of which are already in practice, increases the preparedness level of the communities and also help the authorities in the response and recovery activities. The development of the Rural Non-Farm Economy is necessary for the development of those communities who are perennially affected by the climate change issues. RFNE depends upon the livelihood diversification in rural India and other south-east Asian countries. It is thus necessary to adopt the principle of '*Include All, Exclude None*' in order to build resilient communities which are better prepared for any disaster.

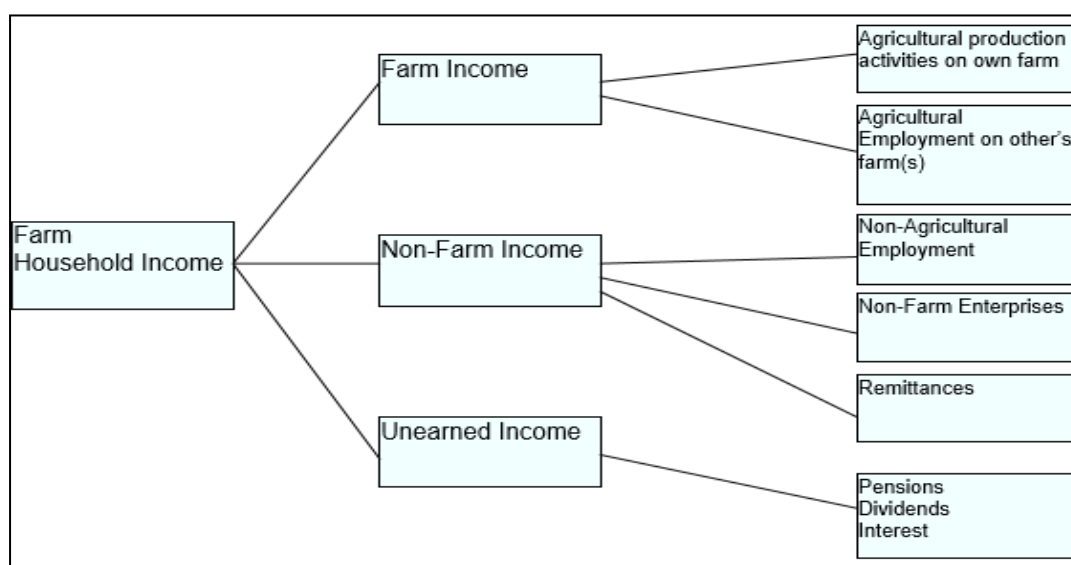
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<sup>4</sup> Wiggins and Hazell. *Overseas Development Institute* (2011)

## 1. Introduction

### 1.1 How is income generated?

The income for farm household can be generated in three main ways; farm livelihood, non-farm livelihood and unearned income in terms of pensions or interests. Potential sources of non-farm activities can be divided into three main components: non agricultural employment; non-farm enterprise and unearned income. Enterprise diversification activities involves establishment of enterprise for both on and off farm activities. Unearned income such as pensions can be easily ignored but substantially affects on the choices made by households.



**Figure 1: Potential Sources of Farm Household Income<sup>5</sup>**

It is necessary to differentiate the activities that depend on direct production from natural resources to the ones who depend on market or non-market institutions or the ones that provide entitlement from state welfare schemes. These can have a major effect on the decision making of rural households depending on the financial gain and skills required for each one of them.

<sup>5</sup> Davis and Pearce (2001)

## 1.2: What is Rural Non-Farming Economy (RNFE)?

RNFE creates a positive impact on the income generation and livelihood activities. 70% (Approx) of our nation's population resides in rural India, and the same proportion represents the poor<sup>6</sup>. Most of India's workforce remains primarily involved in agriculture but this has been changing since last decade. Recently, land based livelihoods of small and marginal farmers are increasingly becoming unsustainable, as land has not been able to support the family's food requirements and fodder for their cattle. Rural non-farm activities include manufacturing (agro processing); switching from cash crop farming to commodity trading or taking up some non agricultural job to support themselves financially<sup>7</sup>. RNFE may be defined as comprising all those activities associated with waged work or self-employment in income generating activities that are not agricultural. Rural non-farm activities are important sources of local economic growth; thus promotion of these activities may be an important component for poverty alleviation in rural areas<sup>8</sup>.

## 1.3: What is diversification?

Warren Buffet rightly said "do not put all your eggs in one basket". Diversification has been defined as 'the process by which rural households construct an increasingly diverse portfolio of activities and assets in order to survive and to improve their standard of living<sup>9</sup>. People tend to spread their income sources, spread their wealth into different assets rather than using it in one activity. Their choices reflect hazards, vulnerability and risks.

Livelihood diversification can take place through both agricultural diversification i.e., production of multiple crops or high-value crops; and non-agricultural livelihood diversification i.e. undertaking small enterprises, or choosing non-agricultural sources of livelihood like casual labour or migration.

Employment diversification is a major livelihood strategy in rural areas. Diversification represents opportunities to improve livelihood and reduce poverty. Diversification away from agriculture transforms the economy by:

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<sup>6</sup> Government of India (2011)

<sup>7</sup> Davis, 2006

<sup>8</sup> Davies, 2003

<sup>9</sup> Ellis (2000)

- i) Increasing the income of rural people considerably as non-farm wage is usually higher than agricultural wage;
- ii) Reducing climate dependency and therefore provides security against increasing uncertainty in climate;
- iii) Tendency of the rural people to migrate to urban area.
- iv) Responding to failures in factor markets; for instance, inability to access credit leads the households to take up supplementary activities to collect investment money for their main activity.

However, it generates a desperate need to create jobs to employ the rising population for non farm economy. The gap between the number of new rural workers and the number of new jobs in agriculture is growing; agriculture advances will not meet the rural employment challenge. Migration will be inevitable as several opportunities will be available in urban centres than rural.

It is important to understand the reasons of why more and more people are diversifying and joining the rural nonfarm sector. Livelihood diversification is often illustrated as being driven by two processes: Distress-push where the poor are forced to seek non-farm employment but wish for adequate on-farm opportunities. Conversely demand-pull is where the rural people are able to respond to new opportunities. Table 1 gives an idea of brief characteristic of each type of diversification.

**Table 1: Davis and Pearce (2000)**

<b>Push Factors</b>	<b>Pull Factors</b>
Population growth	Higher return on labour in the RNFE
Declining returns to farming	Lower risk of RNFE compared to on-farm activities
Declining farm productivity	Higher return on investments in the RNFE
Decline of the natural resource base	Generation of cash in order to meet household objectives
Temporary events and shocks	Economic opportunities, often associated with social advantages, offered in urban centres and outside of the region or country.
Lack of access to farm input markets	Appeal of urban life, in particular to younger people

The extent to which households are pushed into activities with ill-returns depends on the strength of pull factors. It is easier to get jobs that pay well if the pull factors are strong. Similarly, handling harvest failures will be much less painful when there is a thriving non-farm economy and productive interactions with cities. Hence the same push factors may in one context encourage diversification into productive and well rewarded activities, but in others lead to poverty wages. Moreover, it is difficult to decide if demand-pull or distress-push actors are at work in moving the economy from farm to non-farm activities in transitional economies. Entrepreneurs enter the non farm economy purely due to demand pull factors; while vulnerable villagers join non-farm activity due to distress push reasons<sup>10</sup>.

### **1.3.1: Distress-Push strategies**

Market imperfections, hidden agricultural unemployment and environment of risk are all a product of distress-push diversification. It is typically triggered by economic adversity that leads to a downward income trajectory. Regionally, distress-push diversification will dominate in rural areas which have one or more of the following characteristics: geographical isolation, low-quality physical infrastructure, low human capital, underdeveloped markets, scarcity of resources, or recent shocks to the natural environment, economic system or agricultural sector<sup>11</sup>.

The growth of RNFE is very different in absence of dynamic economic base. Slow income growth in agriculture will lead to fall in consumer demand, limited agro processing and stagnant wages. This hinders the entrepreneurial and wage earning opportunities. Sometimes, non-farm employment is a way out of unproductive agriculture rather than a response. For example, several workers in semi-arid zone of western India, where off farm employment opportunities are limited, have migrated elsewhere in search of jobs. In this case, workers are being pushed into the non-farm sector<sup>12</sup>.

In absence of land management, both the soil fertility and land availability declines because of the continuous population growth. Due to slow technological advances in agricultural, the labour productivity and per capita farm production falls. In such situations, landlessness

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<sup>10</sup> Davies, 2006

<sup>11</sup> Davis and Bezemer, 2004

<sup>12</sup> Islam, 1997



pushes labour force into non-farm activities to earn livelihood. Few opportunities in agriculture, low cost of labour and diminishing purchasing power leads to diversification into low return and labour intensive non-farm activities such as pottery and construction work. Declining economic conditions motivate labour to migrate to towns in search of jobs. Hence, migration serves as a safety valve for households who cannot seek livelihood in their region. The rural towns and cities absorb the labour into the enterprises rather than accelerating agricultural advances. Slow growing agriculture fails to introduce any structural change in rural areas. Thus, the slow agricultural advances and growth leads to fall in demand for the agricultural inputs, processing or personal services leading to a downward spiral.

### **1.3.2: Demand-Pull Strategies**

Demand-pull diversification, on the other hand, is characterized as a response to evolving market or technological opportunities, which offer the potential for increasing labour productivity and household income<sup>13</sup>. Availability of new agricultural technologies and modern farm inputs leads to increase in opportunities for both jobs and trade. This will stimulate the growth of RNFE through a number of key linkages. Rising labour productivity on farm will increase per capital food supplies, allowing members of farm workers to take up non-farm activities. For the same reason, during the green revolution in India the agricultural labour fell from 75% to 65% in the first 25 years<sup>14</sup>. Increase in farm incomes therefore will make capital available for investment in non-farm activities.

Increase in the productive modern agriculture will create a demand for seeds, fertiliser, pumps, farm machinery etc, in turn creating a growing demand for non-farm firms to provide for these services. The increase in the incomes of farm households will raise their standard of living leading to accelerating demand for housing, clothing, and schooling and leisure activities. To meet these demands households increasingly diversify into production of rural non-farm goods and services. The demand for the labour intensive non-farm household product will shrink due to import of cheap products. However, the lost jobs by labourers will be replaced quickly due to changing consumer spending which leads to faster growth of commerce and services.

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<sup>13</sup> Bezemer, D. and Davis, J. 2003

<sup>14</sup> Hazell and Haggblade, 1991

On the other hand, the migration continues to rise and the demand agricultural workforce decreases due to technological advances. In due course, the dependency on agriculture for economic growth reduces and becomes a relatively minor economic activity for the regional economy.

Increase in the real wages in non-farm activity will raise opportunity cost of labour, hence termination of low return non-farm activities to higher return non-farm activities such as transport and educational services. Growing agricultural incomes attract labour into more productive, higher return rural non-farm services. Poor households benefit both directly and indirectly in such settings. Growing consumer demand means direct business opportunities for self employed whereas indirectly, rising rural wages rates for unskilled labour benefits the rural poor.

## 2. Why diversify?

The following are the main reasons for diversification:

*i. To reduce risk and overcome shocks:*

It includes all the activities undertaken to reduce exposure to risk in particular activities and to overcome shocks such as disasters. The activities taken up to overcome shocks are usually very difficult as this can involve taking up jobs that are very strenuous and ill paid; for example making charcoal or cutting firewood; or activities that are demeaning such as sex work<sup>15</sup>. “Poor farmers who increasingly engage in off-farm activities may rather be doing so as a long-term adaptation to stress, shocks and poverty – these farmers are trying simply to survive in a poorer, riskier world.

*ii. As a Coping strategy:*

Some people have to sell their components that reduce consumption by selling off assets. Off farm activities may be undertaken due to sheer desperation, to avoid destitution. Several people even force their children to child labour as their need to survive is much larger than having opportunities in future. If they don't survive today then they wouldn't have tomorrow.

Rural nonfarm economy offer opportunities to marginalised groups including women, unskilled youth, handicapped persons, migrants, indigenous people, and minorities to kick start their lives after a disaster, achieve some independence, and reduce their poverty levels.

It is essential to include women in rural work force. For example, starting a home based activity will allow them to carry out their household duties, be flexible in their hours, and extend their caring and personalized services beyond the household to the customers. More income can be generated if the male members have migrated or are involved in other businesses. Taking up additional work will not only make the women independent but will help reduce the vulnerability of people. Moreover, participation in SHG will lead them to a road to recovery.

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<sup>15</sup> (Wiggins & Hazell, 2008).

For example, Shavitri Parida, a worker from a coir-spinning group enterprise in Madhuban village, explained the importance of Self-Help Groups as follows:

*“Acute and frequent floods cause migration; my sons migrates every year during the monsoon due to the lack of livelihood opportunities here. I joined the Self-Help Group to support my family. The group gives me strength. We are many. Our pool of ideas is many hands. What a group can do an individual can do.”*



**iii. Respond to failure in factor market:**

Inability to access credit can lead households to undertake supplementary activities to raise the necessary funds for investment in their main activity<sup>16</sup>. For example – working as a day labourer in a coal mine in order to collect money for agricultural activities.

**iv. Seasonality:**

Seasonal labour and asset employment of agricultural production may be another reason for diversification and growth of the RNFE. Using the idle labour, machinery and empty buildings for non agricultural activities may supplement incomes without capital investments and at low opportunity costs. It causes peaks and troughs in labour utilisation on the farm, and creates insecurity due to the mismatch between uneven farm income and consumption patterns.

**v. Flexibility:**

A full time secure viable job does not exist in the rural parts of developing economies. In such cases, flexibility and multiplicity can become important to optimal livelihood management. Thus active diversification may make good economic sense, not just to mitigate risk, but because the sum of many small investments may be greater than the returns to one alone, especially if marginal returns are high at low levels of inputs (i.e. economies of scale are negative)

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<sup>16</sup> Wiggins & Hazell, 2008

vi. **Complimentarity:**

Diversification is not always a defensive strategy but can enhance complementarities. For example, own production may compliment processing or trade or capital raised in capital market can compliment agricultural investments.

vii. **Location:**

It is essential to understand the role location plays in the rural non farm sector. Barrett and Reardon (2000) highlight the difficulty in defining the RNFE from a spatial perspective. They note that “an activity can be ‘local’, with two sub-categories (a) at-home (or the more ambiguous term ‘on-farm’); (b) local away-from-home, with sub-categories of (i) countryside or strictly rural; (ii) nearby rural town; and (iii) intermediate city”. The distance from home can involve migration within the country or abroad<sup>17</sup>. It is essential to identify the importance of locational aspects and understand this distinction with respect to the extent to which the household is dependent on local economy.

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<sup>17</sup> Barrett and Reardon, 2000

### 3. Adapting to climate change in India and South Asia through Livelihood Diversification

Agriculture plays a pivotal role in the Indian economy. Although its contribution to gross domestic product (GDP) is around one sixth, it provides employment to 56% of the Indian workforce<sup>18</sup>. The backward and forward linkage effect of agriculture helps in the growth of other non agriculture sectors. A number of sectors intertwined closely with agriculture are animal husbandry, aquaculture, weaving, dairy, pottery, cottage industries, etc which has also been a major source of livelihoods in rural areas since the beginning. In addition, growth of commercial crops has significant potential for promoting exports of agricultural commodities and bringing about faster development of agro-based industries. Therefore, it not only provides employment and food security, but reduces poverty and helps the country grow<sup>19</sup>.

Significant climate changes are taking place worldwide due to global warming. Different states of India and developing South Asian countries are severely affected by climate change; thus ecology and weather have undergone noticeable changes in last decade. It has severely affected agrarian communities living in coastal, tropical and sub-tropical regions; who are now dealing with extreme weather conditions: the dry lands are further drying up while the flood prone areas are over-flooded; leading to undeniable impact on agriculture. In addition, change in the time and amount of rain during the cropping season has badly hit agriculture; making it an unviable livelihood option. As a result, livelihoods and food security is threatened in parts of India and youth is forced to migrate to urban areas as labourers. Studies suggest that climate change has led to:

- 23 percent increase in annual mean rainfall in deltaic region
- Increase in annual maximum temperature by 2.4 degree Celsius to 3.7 degree Celsius.
- Substantial shift in pattern of rainfall towards the flood-prone coastal regions with dramatic increase in the incidence of flooding in Orissa.

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<sup>18</sup> Dev, 2012

<sup>19</sup>Dev, 2012

- As a result of high concentration of rainfall during the few monsoon months, rivers in the state carry huge discharges that result in devastating floods, particularly in deltaic areas and coastal plains.
- The inadequate capacity of riverbanks to contain high flows, excessive silting in riverbeds, lack of an adequate drainage system and weak embankments leads to the surge of water in many areas.

These impacts have made Indian agriculture very vulnerable. To add to vulnerability, 60% of India's agricultural areas are rain fed; and, more than 80 percent of farmers in India are small and marginal (having less than 1 ha of land) thus having very low capacity of cope with the climate change impacts on agriculture. Therefore, it becomes necessary to make the agriculture sustainable. Another way to gain sustainability can be in form of livelihood diversification. Small farmers must balance their nonfarm livelihood to deal with economic challenging situation and sustain livelihood.

### 3.1: Case Study: Need of Diversifying Livelihood as an Adaptation to Climate Change

*Saudamini Das belongs to Deulipari village in Odisha.*

*She is an Accredited Social Health Activist (ASHA) worker, the President of a Self help group (SHG) and a very active member of Village Disaster Management Committee (VDMC) and looking into the issues concerning basic health. Some of the key issues highlighted by her during the onset of flood were:*

- *Recurring floods does not allow villagers to a live without debts*
- *Reaching safe place is a challenge as there is no availability of boats*
- *Nearest Public Distribution System (PDS) is 2 km away causing problems for village community to obtain food and other materials*
- *Floods causes unsafe environment for living leading to outbreak of diseases*
- *Acute shortage of clean drinking water*

Figure 2: Saudamini Das with a fish trap



*Due to large dependency in agriculture, livelihoods of many villagers suffer. In order to find alternative sources of livelihood, villagers migrate to urban areas. However, local people use traditional methods to make common household commodities such as broom, traps for catching fishes and garland out of cane seeds. When taken to market outside the village, the commodities were very well received and demanded. The restricted use of these items to domestic purpose overlooked the potential of livelihood it can generate. People in other villages will make a better livelihood if the same is channelized in the markets outside the vicinity of the village.*



#### 4. How do we adapt to Climate change

A range of adaptive measures are available or proposed (such as crop insurance, use of drought resistant varieties etc.) to reduce the vulnerability of climate change by enhancing adaptive capacity and; increasing resilience by developing early warning system, hydrological framework etc. Adaptation to climate change means doing things differently because of climate change. Most often, it does not mean doing completely new things, but rather purposefully modifying interventions.

It is essential to consider various aspects of livelihood system for effective implementation of adaptive measures. Moreover, it is essential to consider the vulnerabilities of the poor; assets and resources that help them to survive and; how do they respond to threats and opportunities. Recently, the uncertainty of land based livelihoods of small and marginal farmers are becoming increasingly unsustainable as their lands have not been able to support farmers to generate livelihood. Consequently, the farmers are forced to look for alternative methods that will support their livelihoods.

Acclimatizing to new methods that enhances their longer term adaptive capacity are not used by farmers due to procedural complexities and stringent eligibility criteria, compounded by lack of awareness. For instance, farmers who fail to repay a bank loan are rendered ineligible to apply again. Consequently, they prefer taking loans from private moneylenders, even at three times the interest rate.<sup>20</sup>

##### (i) Innovations to Fight the Impact

In context of India, it is very important to fight the problem of climate change as major portion of India's population are dependent of agriculture as a main source of income and from the aspect of food security also. This challenge can be overcome by using better technology, using tolerant varieties of crop, management of natural resources and supporting nonfarm livelihood support mechanism and rural enterprise and amongst others. Such efforts can majorly help to reduce the impacts of climate change on agriculture.

To give an example: the International Rice Research Institute (IRRI) has stepped up to help rice farmers by providing free seed of its popular flood-tolerant rice Swarna-Sub1. Fondly

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<sup>20</sup> (TERI, 2003).

called “scuba” rice, because of its ability to survive under water for up to two weeks, Swarna-Sub1 has been widely adopted across eastern India, but had yet to reach the state of Assam. The 2 tons of Swarna-Sub1 seed donated to Assam by IRRI will be used for seed multiplication during the paddy (boro) season from around November to May – ensuring many Assam farmers will have access to flood-tolerant rice<sup>21</sup>.

In addition, efforts and policies are made to preserve the mangroves along the coastline to protect the coastal habitat. Forests are also protected to both fight the climate change effects and to protect the tribal population.

### (ii) Crop Diversification

During the 1980s, several Southeast Asian countries enthusiastically embraced agricultural diversification and rural industrialization as a strategy for rural development<sup>22</sup>. One of the basic forms of rural economic diversification is the crop diversification. Crop diversification gives a wider choice in production of variety of crops to both expanding the business activities and lessening the risk. It entails growing more than one or two crops throughout the year.

Diversification can occur at micro, regional and macro levels. At the micro level, the individual household diversifies to strengthen its sources of farm and non farm income. This may involve both horizontal and vertical crop diversification; horizontal crop diversification means adding more crops in the existing cropping system whereas; vertical crop diversification means the extent and stage of industrialisation of crops with practicing enterprises like agro-forestry and dry land horticulture. However in countries like India, at micro level, the operational holding size is small (average operational holding is 1.3 hectares) and individual farmers have limited scope of diversification in their farms<sup>23</sup>. At the regional level, regions pursue agricultural activities where they have comparative advantage; example rain-fed farmers becoming specialised coffee producers<sup>24</sup>. At macro levels, diversification implies structural shift from agricultural into non-farm activities.

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<sup>21</sup> International Rice Research Institute (IRRI). 2012

<sup>22</sup> Goletti, 1999 (International Food Policy Research Institute (IFPRI))

<sup>23</sup> Mehta, 2009 (Government of India)

<sup>24</sup> Goletti, 1999 (International Food Policy Research Institute (IFPRI))

*(iii) Farm Sector Diversification*

It is an extension to rural farm diversification through animal husbandry, poultry and fisheries and its measurement in terms of value of outputs. It has been observed that semi-arid central and western India has lesser scope of multiple cropping thus animal husbandries reduces the vulnerability of farmers. In the regions where forward integration of small cattle holders has been strengthened by institutions such as cooperatives, the economic conditions of farmers have improved. The cooperatives, self-help groups and other institutions of marketing etc. have stimulated the process of on-farm and off- farm diversification by putting the opportunity, empowerment and security as the rural development package. The extension of farming activities to certain on farm post-harvest operations not only adds to the farm gate value creation it also expands the production entrepreneurship of the farmers to services.

The crop and farm diversification have potential to augment income and strengthen livelihood. But due to its confinement to labour participation in the farm related activity, it remains diversified in the limited sense<sup>25</sup>.

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<sup>25</sup> Mehta, 2009 (Government of India)

(iv) Non Farm Diversification

A self help group (SHGs) plays a major role in poverty reduction in India by providing rural non-farm employment through enterprise development and marketing (Adolph, 2003). The emergence of small enterprises and its activities have made a considerable contribution in the socio-economic development of rural poor in the society.

**4.1: Case Study: Empowerment through Self Help Group**

*15 years back, women were isolated and were not allowed to take part in village planning and decision making. A ray of hope was seen when community-based organisation SWAD (Society for Women Action Development) entered the village and started an SHG with collecting rice. This gave us a chance to be a part of pali-sabha and gram-sabha; and thus participated in community decision-making process.*

*Our SHG group had 12 members who contributed money to buy a piece of land for cultivation; which will help us to support our families. Today, we have more than 1.5 lakh in our SHG account.*

*Other than that, we have also started fish cultivation, pond renovation and plantations. We are exploring more methods for diversification of livelihood.*

**-Rashmi Rekha Naik,**

*Deulipuri, Puri District in Odisha*

*(Female, 46 years)*



**Figure 3: Rashmi Rekha Naik**  
(Deulipuri, Puri District.)

## 5. Factors influencing to the Expansion of Non-Farm Sector:

### 5.1: Emergence of Rural Non Farming Economy in India

Up to this point, we have looked at the importance and determinants of diversification. Now we will try and look at the emergence of the rural non farm economy and its acceptance. There has been steady increase in the non-farm employment in South Asian countries as the agriculture is not doing as well it was before and due to other developments in both the areas. Therefore, several non-governmental and governmental organizations are aggressively promoting small and medium enterprise to reduce the dependence of people on climate.

The rural population in South Asia was last reported at 69.86 in 2010, according to a World Bank report that was published in 2012<sup>26</sup>. Despite strong economic performance, South Asia remains among the most impoverished regions in the world. About 500 million people are still living in the state of severe deprivation, lacking insufficient access to adequate basic facilities such as health and housing. Moreover, poverty goes beyond inadequate incomes. Interviews with the poor people in South Asia revealed some of the major problems they faced which must be considered before making policies for them. They complained about the labour market fluctuations, violence and acute effects of natural disasters.

The Economic Census of India estimates that 41.89 million rural people are employed in non-agricultural establishments which registered a growth rate of 4.56% during 1998-2005<sup>27</sup>. Between 1999-2000 and 2004-05 in India, rural non-farm employment has increased by 16 million by principal of which 8 million was in form of self employment, 5 million as casual employment and the rest as regular employment<sup>28</sup>. This proves that gradually, rising incomes of rural non farm economy is due to change in the livelihood options.

In order to overcome the issues related to agriculture, people are now dealing with extreme conditions by adapting non-farming work. However, there are a few obstacles for the growth of rural non-farm economies such as raw materials, supplies, infrastructure, technology and marketing techniques. It will be difficult to promote the rural non-farm activities without proper communication and logistics. Not only this, but even the people are less informed about the activities. Increase in urbanization attracts several workers from rural regions to

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<sup>26</sup> World Bank, 2012

<sup>27</sup> Mukhopadhyay et al, 2008

<sup>28</sup> Himanshu et al, 2011

migrate to towns and cities in search of jobs. As a result, the share of workforce for agriculture declines even though the absolute level of agricultural output and employment continues to grow for some time. Overtime, the dependency and growth of the economy shifts from agriculture to industries and jobs.

Rural industries are generally less capital intensive and more labour absorbing. In addition income distribution is less unequal in areas where a wide network of non-farm avenues of employment exist; the lower strata of 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<sup>29</sup>.

## **5.2: What determines the growth of Non Farming Economy??**

### **(i) Natural Resources:**

One of the major factors for growth in economy is the availability and access to natural resources; however the growth is not determined by its mere presence but depends on how it is used. In addition, certain countries may face 'resource curse' where countries that are rich in natural resources tend to export them to other countries.

### **(ii) Quality of Government:**

The growth of an economy also depends on the consistency of their policies and their implementation will be expressed by the levels of corruption, democracy and government stability. Several governments do not support the growth of rural non farm economy and therefore agricultural paradigm usually dominates. Local government usually understands the needs of the people; however they have very less power to make change in developing countries.

### **(iii) Local physical infrastructure:**

Physical structures such as proper transport and communication lines serve as an important aspect in the growth of rural non farm economy.

### **(iv) Proximity to Urban Centres:**

Rural growth often depends on the links with urban centres, for marketing of rural goods or consumption of urban goods that could be sold in rural centres.

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<sup>29</sup> (Mukhopadhyay et al, 2008).

**(v) Ethnicity, Gender and Cultural aspects:**

Several ethnic groups live together in the same area in countries like India. Different religions, cultural practices and beliefs will lead to greater diversification; as certain activities may be undesirable or inappropriate by certain members who belong to different castes, classes, and age or ethnic groups. In addition, households belonging to low status groups often find it difficult to diversify into better paid sectors. Moreover, women play a major role in farming in developing countries.

## 6. The Role of Rural Non Farm Activities in Disaster Recovery

Rural Nonfarm sectors were found to have played an enormous role in enabling local communities to recover from the floods of 2011 in Odisha, a role which due to their small size has often been overlooked. The agricultural interviewees pointed out that without the RNF sector the villages would not have been able to function and that the after-flood recovery would have been slower. They stated emphatically that RNF sector play an important role in keeping families and communities together as due to poor employment and income prospects in the villages, out-migration rates were very high. The constant ‘people-flow’ was not stabilising the communities – as it was mainly the men who migrated, women were being burdened with the responsibilities of providing for the family in addition to their household duties and bringing up their children. Children had to cope with not having their fathers and uncles around, and often they had to take up additional household work which left them with no time for school at all.

In short rural nonfarm activities were social, political and economic stabilisers. They contributed to the community’s recovery in the following ways:

- (i) **Link between community, government, and CSOs:** In all four villages the authorities and CSOs utilised the RNF sector’s links with their customers, suppliers, and communities for a wide range of disaster relief and recovery activities, such as collecting information on the community, acting as a coordinating point, storing material, stocking relief supplies, offering extra hands in assistance, helping with making loss estimates, and offering advice on how to revive livelihoods. The RNF’s were also used to broaden community participation.
- (ii) **Stimulate local economies:** After the 2011 floods, SWAD offered small loans and credits to the RNF sector so that the owners could purchase goods for their households, repair their homes, and rebuild their asset base. A few owners used the loans to invest in disaster risk reduction measures such as raising the plinth level of their vegetable beds. Others used the financial assistance provided to replace their damaged tools and materials so that they could resume operations. The eventual repair and reconstruction of roads, as well as the restoration of the local environment, were integral to restarting the RNF sector’s operations as this enabled them to obtain the supplies they needed and reconnect with clients and markets.



The recovery of the RNF sector did not just revive their livelihoods their worker but stimulated domestic and village economies both in the communities and beyond. The recovery of one leads to the recovery of others. Moreover, the recovery of one RNF sector improves its resilience to future disasters and in turn, the disaster resilience of others as well.

(iii) **'Fall back' alternative to agricultural and coastal livelihood activities:** As prolonged water-logging made agriculture and coastal livelihood activities completely untenable, goods and services RNF sector became an essential alternative source of income.

(iv) **Livelihood opportunities for the marginalised:** It also offered opportunities to marginalised groups including women, unskilled youth, handicapped persons, migrants, indigenous people, and minorities to kick start their lives after a disaster, achieve some independence, and reduce their poverty levels.

## 7. Challenges faced by the Rural Non-Farm Economy in India

The following are a few strategic challenges faced by rural non-farm economy in terms of development and implementations of policies:

(i) **Diversity across Rural India:**

India is very diverse in terms of culture, religion and language. Not only geographically, but in terms of availability of natural resources, asset distribution, economic policies, demographics, credit policies and educational systems amongst others. Hence, it becomes extremely difficult to implement one single policy that will serve the needs of India.

(ii) **Small Firm Size:**

The rural poor either depend on earnings from self-employment in small scale, often dispersed across large areas. Moreover, asymmetry in power and information between small and large firms raise oligopolistic abuse of market power.

(iii) **Co-ordination issue among authorities:**

In spite of economic importance of rural non farm economy, it remains an institutional orphan – unclaimed by any single government authority but influenced by many<sup>30</sup>. On the other hand, private firms work in their own interest of making large profits by exploiting resources. This lack of coordination between the private and public sector makes it very difficult to implement policies. Therefore, the growth of rural non farm economy is very slow.

(iv) **Role of Women and Social Groups:**

Men and women have clearly defined and differentiated roles that are maintained socially and culturally, which value the contribution of men at both the household and community level more highly than that of women. There is a large gap between the policies and implementation regarding gender inequality. Despite of the existence of gender inequality, very little is actually done at grass root level for gender mainstreaming. Very often women are excluded from the decision making roles in the community level committees and are not even informed about them; making them vulnerable. This gender based exclusion can be further exacerbated by caste, creed and religion. Some groups are reluctant to claim rights as

<sup>30</sup> <http://environmentportal.in/files/ib58.pdf>

they fear violence or abuse from the dominant communities. This inequality must be addressed so every member of the community can contribute to the growth of rural nonfarm sector.

Women's political participation provides a clear demonstration of what is happening with the implementation of gender mainstreaming in disaster risk reduction and climate change adaptation in South Asia and India. Political participation is mandated in law and women must hold between 33 and 50 per cent of elected positions of power. Many people believe that this has addressed the problem of gender in politics, so do not believe it requires further investment of time or financial resources. In reality the actual participation of women is limited. In an estimated 80 per cent of seats women are standing as a proxy for their male family member. The government policy is mandated but sufficient resources to provide women the tangible skills they require to lead be this education, empowerment or provision for the wider community to understand why their participation is vital. A policy exists to place gender concerns in a greater position of prominence but its implementation is very limited.

However, there has been an increase in the participation of women's activities, which is creating a positive impact and is changing the thinking patterns. The female to male sex ratio in both household and non-household manufacturing industries has risen significantly between 1981 and 1991, which has been linked to growth in the unorganised sector<sup>31</sup>. There is still a lot that needs to be done gender mainstreaming.

(v) **Land Issues:**

In most of the developing countries, the rural population is highly dependent on the climate. Land available for cropping is sold by farmers to companies for infrastructure development due to the losses incurred because of natural disasters. Therefore, rural labour force wanting to work in nonfarm sector is increasing rapidly. The nonfarm sector must be expanded if the government of these countries want to avoid rural poverty.

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<sup>31</sup> Coppard, 2001 (DFID and World Bank)

(vi) Access to Credit and infrastructure:

Lack of infrastructure and higher level of education and skills will hinder the growth of rural nonfarm sector. The expansion of roads, transport, communication and buildings will not only offer nonfarm jobs to people but will give means to survive in the future. The rural enterprises can readily obtain materials and market them in the urban centres to earn profits. However, this will not be possible if the government of the transitional economies do not actively participate in the rural development activities.



Figure 4: Dharendra Behra paid 30% interest on a loan taken from

Lack of access to credit and financial resources; example *Dharendra Behra's plight highlights the financial difficulties faced by rural nonfarm economy. A resident of Balapur village, he established his two-month old grocery shop business after his mud and thatch house collapsed due to the 2011 floods. Problems in obtaining finance forced him to take a loan from a mahajan at an interest rate of 30% to rebuild his house and establish his business, thus making it all the more harder for him to provide for his family and pay off his debts.*

(vii) Education:

Primary and secondary education will promote the growth of the rural population. Literacy will not only help to increase the productivity of the workforce but will make on job training easier. But in developing countries like India, the literacy rates of the rural population are low due to lack of schools and some children involve in child labour or as the survival get difficult. People cannot think about educating their children if they do not have anything to eat. Governments in developing countries must ensure the promotion of importance of education and provide support to the school going children by providing books and other materials to reduce the burden for the parents.

(viii) **Risk and Vulnerability:**

Climate change is affecting rural people most of all because they are *climate dependent*: they are almost entirely reliant on farming activities that are directly affected by the weather. As the climate changes – with often negative effects on rainfall, temperature, seasons and extreme events (including floods and cyclones) – the rural economy will suffer more. Adaptation to these changes is very difficult if you are already poor. Even changing the types of crops used, or altering the cropping system and planting times, is not likely to escape all effects of the changes. Adapting within agriculture is not a complete safeguard to overcome climate dependency. Therefore, climate change adaptation is the need for a rapid rural transformation in India top priority.

### Livelihood Diversification and Cyclone Phailin

Globally, the number of cyclones has increased more than threefold from 1975 to 2012<sup>1</sup>. The strength and the number of major cyclones may be increasing because of higher sea surface temperatures associated with global warming. <sup>1</sup> Tropical cyclones and storm surges are severe in the Bay of Bengal region<sup>1</sup>.

One such severe cyclonic storm “*Phailin*” made its landfall in Gopalpur in Ganjam district in Odisha on October 12, 2013; affecting more than 9 million people and killing approximately 44 in Odisha. Several hundred thousands of homes were washed away when wind-driven tidal surges up to 3 meters destroyed the coastal belt. The storm brought additional rainfall to inland areas that have already borne the brunt of an overly active monsoon season. Many areas of the affected districts are inundated; houses, roads and embankments were damaged; and drinking water ponds are contaminated. Crops worth 2,400 crore was destroyed by the cyclone making it one of most severely affected sectors.

Despite of such mass evacuation, extreme events such as cyclone *Phailin* are responsible for many direct and indirect impacts on general health. It is not only about lives but livelihoods as well. According to officials, the first to get hit, even before the cyclone made its landfall near Gopalpur on Odisha coast on Saturday evening, were small shops and business establishments as markets remained closed due to heavy rain and strong gusty winds. The coincidence of the cyclone with the festive season further multiplied the losses incurred<sup>1</sup>.

Crops worth 2,400 crore was lost due to cyclone *Phailin*. Families entirely dependent on agriculture and other climate related activities will have to face the brunt of cyclone. It is evident that without some fundamental transformation, climate change will make things worse. Families dependent on agriculture will have to look for alternative livelihood option – which will push them either to migrate to urban towns and cities or take up daily labour.

Diversification of economic activities has led to a visible structural shift from an agriculture based economy to an industry-led and service-led economy in Odisha<sup>1</sup>. Growth of RNF sector is critical for growth and poverty alleviation in Odisha post cyclone *Phailin*. It will make rural communities more adaptable and resilient to frequent natural disasters. Equitable growth of RNF sector will not be automatic; a lot will depend upon government policies and regulatory authorities to push the growth in right direction. Development of the informal sector by integrating it into the mainstream economy, and making this sector demand-induced, will generate adequate employment opportunities, ensuring sustainable livelihood to significant numbers.



Villagers stocking dry hay to project their homes.  
(Source: AIDMI)



Trees uprooted due to strong cyclonic winds  
(Source: AIDMI)

Odisha belongs to top 10 states of India in terms of the employment generated by the MSME sector, according to the union ministry of MSME's annual report for 2012-2013<sup>1</sup>. As many as 3.32 million people are employed in the MSME sector in Odisha. About 0.173 million are employed in the registered sector and 3.15 million are engaged in the unregistered sector<sup>1</sup>.

A recent visit to Rajgopalpur – a handicraft village in Puri district of Odisha post cyclone *Phailin* made it clear that less dependence on climate for their livelihood has made them disaster resilient. *'The only loss we incurred is the loss of foreign customers for same time period due to the cyclone'* said Akshay Kumar Barik, a patachirta artist.

Cyclone *Phailin* provides a strong evidence that it is inevitable to promote and strengthen livelihood diversification in rural (coastal) India for a balanced income at family level, as a strong adaptation strategy and for safer recovery options.

An important factor is accountability of loss and damage suffered by women and law that covers women's right to property do not match. Legal rights of women to property may vary and are not equal to men. Women may be left out, that is, losses and damage suffered by women may not be fully and equally accounted for in most situations. For example, loss and damage to the care giver at home is hardly even accounted for and as a result "care economy" is overlooked. The similar is the case with people working in the informal sector and micro businesses.

To overcome this problem, the poor and vulnerable communities can be insured under *Afat Vimo* (Disaster Insurance) with very low premiums. Several insurance holders were able to make claims post cyclone *Phailin* in Puri, Odisha as they had covered themselves under the policy to protect against loss and damage to their shelter, livelihood and household items. The case is under process, and such policies that target the poor and vulnerable communities help to build their capacity against climate change.

From policy point of view, there is a high need to cover nonfarm livelihoods in loss and damage assessment for not only supporting affected people but will accurately assess the impact of any climate related disasters. Cyclone *Phailin* and the post cyclonic floods reflected the need to study the impacts of nonfarm livelihood programmes and how it benefits and challenges Cyclone *Phailin* and post cyclone floods, reflects the need to conduct the study the impact of nonfarm livelihood programmes - benefits and challenges (how fast is their recovery when compared with farm livelihoods; and how stable is it to deal with climate uncertainty).



Communities returning from cyclone shelters in Puri district. **Source: AIDMI**



Victim looking at his destroyed house in Ganjam, Odisha **Source: AIDMI**

## 8. Lessons learnt

With increasing diversification, the links to agriculture are decreasing; more people are involved in seasonal activities; and are making efforts to convert those activities into full time businesses<sup>32</sup>. There is a positive correlation between RNFE activities;

- 1) Higher income level for rural families
- 2) Higher potential for diversification and income sources
- 3) Higher productivity in agricultural activities.

In addition, the interdependence of rural nonfarm activities and income has a positive correlation. Example, it leads to increase in level and quality of education, access to infrastructure, and more access to financial credit amongst others.

In developing countries like India, due to diversity in cultures and religion, there is a clear distinction between the activities that are taken up by people. For example, there may be activities which are seen as desirable for certain ethnic groups or classes, and gender influences the roles taken in the community. Hazell (1998) states that one reason why the RNFE should be actively encouraged: when agriculture grows, the RNFE benefits from powerful income and employment multipliers. In many developing countries, discrimination against small rural non-farm firms constrains the effects of these multipliers<sup>33</sup>.

Forces like globalisation and urban led rural transformation are the actors that powerful in the countries like India and China. Correlation between agricultural growth and growth of the non farm economy is weaker; more and more people are shifting to cities and big towns in search for jobs that pays them higher wages leading to congestions and pollution in urban centres. To save the urban centres, rural areas must be developed and urbanised by having access to infrastructure, better markets, access to credits etc. Overall, the key to stimulating growth lies in the rural non farm economy lies in sparking growth in key regional tradable such as agriculture, tourism or mining<sup>34</sup>.

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<sup>32</sup> Barrett and Reardon, 2000

<sup>33</sup> Hazell, 1998

<sup>34</sup> [http://fsg.afre.msu.edu/responses/Haggblade\\_World\\_Dev\\_forthcoming.pdf](http://fsg.afre.msu.edu/responses/Haggblade_World_Dev_forthcoming.pdf)



In addition, the developing countries must make efficient use of their resources. For example, some countries or states can specialise by focusing on tourism by developing museums, parks and conserving heritage. In absence of the any such strength, focus should be shifted on export markets in local areas. Therefore policies must consider these different individual strengths and weaknesses.

Moreover, employment opportunities must be given to people living in rural areas by starting infrastructural projects that can make rural areas look attractive for business. Resources must be directed to regions to highlight for potential growth due to location or comparative advantage. Therefore, the key is to stress on cross disciplinary and multi sectoral approach for development of rural non farm economy. Local actors play a crucial role and thus they must be involved in the development process.

## 9. Recommendation for Policy Implementations:

The rural nonfarm economy has grown too big for policy makers to ignore. In order for the RNFE to develop, it is important that the policy makers focus on alleviating poverty and strengthen both rural supply and demand side policies. The following areas should be considered for policy changes:

Firstly, the rural non farm economy must be growing robustly. Both income and nonfarm employment must be growing if nonfarm growth is to contribute effectively. This growth in non farm economy will require investments in productive activities and infrastructure. For development of rural non farm sector, it is inevitable to develop good road transport. This will open up many avenues for both marketing of goods and services produced by rural enterprises and procurement of raw materials. Road network will provide a chain of forward and backward linkages and will facilitate development.

Second, upgrading the traditional techniques of production that is used by the rural population will reduce the dependency on the climate and natural resources; and would improve the efficiency of rural enterprises and agriculture. Improvement in the quality of goods will boost sales.

Third, the government must provide employment opportunities in the rural areas; and ensure that the posts are filled by rural populations.

Fourth, disasters the conditions of the people in the rural areas are usually very bad; government must ensure that training programs are held to develop new skills to reduce the dependency on climate. Moreover, techniques must be taught so that people can stay safe and act adequately in the time of a disaster.

Fifth, it is also essential to remember that growth of rural non farm economy does not guarantee access of the poor and marginalised to nonfarm activities.

Sixth, greater focus on improving educational standards in rural areas which can help the principle players understand the challenges and therefore adapt.

Seventh, developing an environment that can help small enterprise to grow and flourish.

Eighth, poorest households who are in the greatest need for remunerative RNF employment (because of risk management and the need to cope with income shocks or farm-level limitations), as they are also the most constrained owing to a lack of key assets (education, skills, start-up capital) and opportunities (determined by distance from and access to RNF labour and product markets). Conversely, wealthier households have less "need", but

at the same time enjoy a greater capacity to participate in the RNF sector, particularly in its most remunerative activities. The degree and nature of their participation is thus based mainly on considerations of relative returns and profit opportunities.

Ninth, the diversity of rural livelihoods in South Asian countries is receiving increased attention in discussions about rural poverty reduction. There are several good practices were found related to different approaches to build sustainable livelihoods in rural areas. However, risk transfer specific to livelihood is still needs to develop. The need and opportunity both are available especially in coastal areas of South Asia. Humanitarian agencies should take this issue with donor agencies to see this matter beyond than project period.

Tenth, zones or locations with poor agricultural potential (and frequently poor infrastructure) are the ones that have the greatest need for remunerative RNF employment (to offset a poor farm sector) but are the most constrained by a lack of assets for RNF market development (such as good roads, a skilled workforce and economical sources of raw materials). Another aspect of this situation is that a lack of buying power limits a zone's potential for RNF sector development.

Eleventh, market distance and related transport costs are found major factors as a obstacle in livelihood development and sustainability of livelihood. Focus should be paid on improving marketing access through networking and supporting mechanism. Special attention in this regard should be given to establishing supportive institutions (especially nonfarm livelihoods) and creating linkages with urban areas as well as international market.

Thus it is important to help poor overcome their constraints and ensure that they are able to participate and benefit from RNF activities.

## 10. Conclusion

Growth of RNF sector is critical for growth and poverty alleviation in South Asia. Growth of RNF sector in-turn also helps growth of agricultural sector. It will also make rural communities more adaptable and resilient to frequent natural disasters, especially in countries like Bangladesh and India that are constantly affected by disasters. Equitable growth of RNF sector will not be automatic or smooth. A lot will depend upon government policies and regulatory authorities to push the growth in right direction.

It is the onus of policy makers to design policies and investments that help local/rural economies to adjust and take advantage of the new situation. Putting roadblocks for medium or large scale firms to enter rural areas is not going to help rural areas much in their growth, it will just isolate them. Production sector policies will play a key role in spurring equitable RNF sector development – which is frequently a missing part in the policy debate. Also important for facilitating such participation are institutional and infrastructure development policies that level the playing field for smaller companies, reduce transaction costs for those in the hinterlands and raise the skills of the poor.

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