

Diversification for Sustainable Livelihood Outcome in India: Macro and Micro Perspectives

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1. INTRODUCTION

Livelihood strategies with the utilisation of the capitals (physical, financial, social, human and natural) achieve an output which is termed as livelihood outcome. A livelihood is sustainable when it can maintain or enhance the different elements which determine living of an individual or group of people. Sustainability of the livelihood is based on this livelihood outcome. In addition, livelihood must be also capable to cope and recover from stress and shocks for sustainability. There are certain factors on which the activities are dependent- natural forces and human forces, the market, state and civil society. There may be number of other sources - single or multiple, from which outcomes of livelihood may arise. In the broad area of livelihood activities like participation in a community projects or labour exchange which help the household to entitle in future social claims are also included. Assets, capabilities, activities and the access to these things are the basic elements affecting livelihood. Sustainable livelihood thus encompasses the multiple elements which influences the living. The vulnerability, inversely affects the sustainability which is measured in terms of the livelihood capitals. With the interaction of these components with each other a self-defined goal or outcome of livelihood is determined.

The common issues in rural India like repeated failure of crop for unfavourable weather, increasing expenditure structure for rise in wages and inputs prices and absence of subsidiary earning opportunity in the villages are pushing the labour to nearby urban centres for liquid money. In post liberalisation period uncertainty in weather and market condition, competition from substitute/ better/cheap product and increasing expenditure structure has relatively made livelihood tougher. Artisans are mostly found in the most depleting state mainly for the open market, poor organisational support and for limited scope to out migrate. Uncertainty in price and climatic behaviour, illiteracy and competition are basic challenges which are leading to population pressure and indebtedness followed by fragmentation. These factors keep the economy bounded by a 'vicious circle' leading to

subsistence earning. At this point livelihood strategy of one section gets into poverty trap and another recovers and attains better living. First group follows a static strategy without any diversification and the second constantly diversifies and reinvests. Static strategy leads to insecurity, sickness, and low work participation ultimately leading to poverty trap and unsustainable livelihood. On the other hand with diversification and reinvestment by credit support, higher security and sustainable livelihood is attained both in rural and urban areas. In between, the vulnerable factor by shocks and stresses also force the less resilient livelihoods to take up coping and adaptive strategies like selling land, livestock, taking loan, migration, weaving in adhi System (through which the variable cost burden is shared and so the output either in cash or kind received is halved). giving livestock and betel nut tree in adhi, mortgaging land etc. These strategies may lead towards unsustainable livelihood if the reinvestment steps are not followed strategically. Coping strategies may be employed systematically in certain periods every year, or special strategies may be employed during periods of severe or unusual crisis.

2. DIVERSIFICATION OF LIVELIHOOD: MACRO PERSPECTIVE

In very broad way the diversification of livelihood in time period can be understood from the changes in the Annual Compound Growth Rate (ACGR) in the value of output of 4 important sectors (Agriculture, Livestock, Fisheries and Forestry). Figures indicate the livestock is the only sector which consistently shows an increasing growth rate. Forestry though has insignificant contribution but with time the value of output is increasing. On analysing the trend of ACGR in value of output and Annual Compound Growth Rate (ACGR) in Income, Employment and Employment Elasticity of agriculture and major allied activities it is found that forestry and fishing is the sector which made positive contribution both in output and income. In the 90's fisheries has undergone a transformation; marine fisheries lost its dominant position to inland fisheries. A large part of the income growth in fisheries during the 90's is also considered to be due to the rapid rise in

its price as compared to similar other items during the referred period.

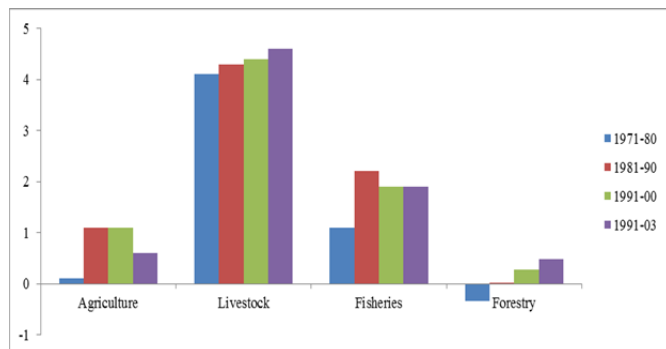


Fig. 1: Contribution of agriculture and allied sectors

In the time period the share of employed persons in agriculture declined in rural India whereas non- agricultural employment increased to refer specifically manufacturing, construction, trade and in services.

3. STRATEGIES FOR DIVERSIFICATION

Within various problems and challenges in livelihoods, diversifications in strategies are essential for sustainable living. Based on the process of diversification it is classified as Horizontal and Vertical diversification. When farmers diversify their agricultural activities to stabilise or increase their income or both it is called horizontal diversification. Vertical diversification refers to the farmers' access to non-farm income which means income generating from non-agricultural sources. (Haque T. 1996). The element of diversification for sustainable livelihood outcome in this paper is studied under the two broad strategies - migration and crop-livestock integration.

3.1 Migration - Remittances as livelihood outcome

From the literature review it is found that migration is accepted for providing the much needed resources for investment but empirical evidence contradicts this view point. Presently there is vigorous debate as to the degree to which remittances are used for rural investment. But it is widely agreed that migration forms a central part of rural people's risk mitigation strategies. Effort is made to understand the role played by migration in livelihood of India both in rural and urban areas through secondary data set.

Table 1: Migration rates (per 1000 persons) All India (Rural and Urban)

Round (year)	Male	Female	Persons
64 th (July 07-June 08)	54(259)	477(456)	261(354)
55 th (July 99-June 2000)	69(257)	426(418)	244(334)
49 th (Jan – June 1993)	65(239)	401(382)	228(307)
43 rd (July 87-June 88)	74(268)	398(396)	232(329)
38 th (Jan –Dec, 1983)	72(270)	351(366)	209(316)

Source: NSS Reports

It indicates that the migration rates increased from 21% in 1983 to 26% in 2007-08 in urban areas. This increase in migration rate is observed to be primarily due to the increase in migration rates for females. Male rate of migration decreased by 2 percentage points and female migration has increased by 13% points in rural areas whereas in urban areas female migration increased by 9% points and male migration decreased by 1%. It is found that household consumer expenditure in both rural and urban areas was the prime use of the remittances with nearly 95% of households in rural areas and 93% of the households in urban areas reporting use of the remittances for the household consumer expenditure purpose. Among the consumer expenditure high proportion of household had reported use on food item. And other important areas spent by the households are health care, education, debt repayment in order for rural household but in urban areas it is savings and investment. In both rural and urban areas the percentage of households reporting out-migration of its members to abroad, have in general shows an increasing trend with the increase in MPCE. But in rural areas the receipt of remittances did not vary much with the increase in MPCE whereas in urban areas it increases with the increase in MPCE.

3.2 Crop – Livestock integration.

Crop livestock integration is another form of strategies to enable the sustainable livelihood. The challenge for rural livelihood is to ensure that poor small farmers can increase productivity of traditional farming system with adoption of effective integrated system which conserve natural resources and can be sustainable in long run. Integration can lead to livelihood diversification which refers to attempt by individuals and households to find new ways to raise incomes and reduce risk which can lead to improve the standard of living.

On intensive observation of the agriculture and allied activities in the context of share of GDP it is found that in time period forestry and logging and fishing shows a totally opposite trend as represented in the figure. Agriculture and livestock remained almost similar with marginal differences.

To understand the scope of diversification in Indian rural economy through crop livestock integration attempt is made to see the trend of livestock's contribution in Indian economy. Livestock always played a significant role to make rural livelihood more resilient to the vulnerabilities. For the sustainability of livelihood it is indispensable that the livelihood is equipped enough to cope the stress and strain imposed by natural, social or other factors.

Considering the contribution of livestock output in total value of agriculture and allied activities, its share is found increasing steadily from 17% to 27% (approx). Central Statistical Organization presents information related to livestock output separately for milk, meat, egg and wool. It indicates that the share of egg, milk and meat group in total livestock output is increasing while that of wool, hair, dung and silkworm has

decreased during the reference period. Changing food habit, rising income of middle class Indian, presence of private players, rising market demand of Indian poultry produce in export market are some of the contributing factors to the growth of the industry (Ministry of Food processing Industry, mofpi.nic.in). In case of the contribution of livestock output in total value of agriculture & allied activities, its share increased from about 16.7 percent in the 1950's to 27.2 percent during 2000-01 to 2005-06

Increase in demand for livestock products along with good performance indicates opportunities for marginal and small farmer who can increase livestock production and benefit from related income. In term of environmental impact the growing number of livestock and the increase in livestock processing can have a negative impact of natural resources unless actions are taken to identify farming practices that are economically and ecologically sustainable. Highly integrated crop livestock system can guarantee more sustainable livelihood by not only increasing subsidiary income and reducing the risk generated in crop production but also can contribute in maintaining the natural resource base.

With the rise of middle class and increased urbanization people prefer to go for non-vegetarian. All over India poultry sector has undergone a paradigm shift as it shifted from backyard activity to major commercial operation. Poultry sector is the fastest growing industries of Indian economy than any other sector contributing about \$230 million to GNP. The organized sector of poultry industry is contributing nearly 70% of total output and rest 30% from unorganized sector (www.assamagribusiness.net.in). The broiler industry is well dominated in southern states in our country with 60-70% of total output coming from these states. The relative importance of poultry in Assam is found highest as compared to other states of India. The average stock of poultry is 720 per 100 households in Assam. Stock of poultry in rural India declined from 193 million in 91-92 to 182 million in 2002-03 (NSS Report No. 493, 59th Round). Share of household in marginal land holding categories in total poultry stock continued to grow from 55% in 91-92 to 63% in 2002-03 in India. Contribution of small rural farmers points out the importance of integration of poultry farming and the allied sector. Presently 100% FDI is permitted in food processing sector. Poultry farming in India has transformed from a mere tool of supplementary income and nutritious food for the family to the major commercial activity generating the required revenue.

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Chambers (1997) has argued that poor people in particular normally have to diversify sources of livelihood in order to survive in a risk-prone and uncertain world. This has led many of them to build up a wide portfolio of activities. Thus, diversification may be important to maintain livelihoods by providing flexibility among sources of income, in case primary activities fail (Berry 1989a). It may also satisfy the need to acquire some cash income to enable purchases of essential goods and services, and to pay school fees, medical/health clinic costs and government taxes.

4. REPORT ON LIVELIHOOD DIVERSIFICATION OF RURAL AND URBAN ASSAM: MICRO PERSPECTIVES.

A study was carried out in Assam for tracking the seasonal 'coping' strategies of rural and urban Assam in 6 villages and 2 cities to reveal the variety of strategies employed for livelihood. Cultivation and income from livestock from output like local liquor, pork, egg, silkworm, chicken always ensured stability in the livelihood. In urban centres- pulling rickshaw, casual worker in construction site or in mandis work, as alternative source of livelihood. The income generated from these sources are used to invest in farming, renovating dwelling structure, purchasing consumer goods like mobile, sound system and as such which helps to fill up the gap of liquid money.

On comparing the average remittances sent by the different household type in month we find self employed sends highest amount (Rs3000) which is followed by regular worker (Rs.2200) and casual labour (1728.57). Among the three categories highest percentage (70%) of casual labour sends remittances followed by regular worker (62%) and self employed (15%). Migration and remittances from migrants have become the major means by which the rural poor gain access to higher economic opportunities. Yet even though migration might assist in maintaining and even improving household incomes, the rural-urban flows of migrants do not necessarily create the basis for long term rural or urban development. Remittances do not find way into investments in infrastructure, market or other forms of economic overhead needed for rural development (UNDP, 2000).

Women coping strategy dominate many of the non -farm activities such as tailoring, weaving, trading these goods in the market, basket making, mat making, pottery etc. The peculiarity of the participation of women in rural Assam in livelihood activity is like livestock maintenance, local liquor preparing and selling, activity related to weaving like bringing thread, preparing design, marketing etc. women takes active role and they have the control over the utilisation of money so

earned. In the villages of Assam, women play a key role on generating sustainable livelihood outcome.

Factors like repeated failure of crop for unfavourable weather, increasing expenditure structure for rise in wages and inputs prices and absence of subsidiary earning opportunity in the villages are pushing the labour to nearby urban centres for liquid money. Migrant labours working in urban areas though earns higher but their poor living condition, health hazards and absence of security in work keeps their livelihood in static state. In post liberalisation period uncertainty in weather and market condition, competition from substitute/ better/cheap product and increasing expenditure structure has relatively made livelihood tougher. Artisans are found in the most depleting state mainly for the open market, poor organisational support and for limited scope to out migrate. Uncertainty in price and climatic behaviour, Illiteracy and Competition are basic challenges which are leading to population pressure and indebtedness followed by fragmentation. These factors keep the economy bounded by a 'vicious circle' leading to subsistence earning. At this point livelihood strategy of one section gets into poverty trap and another recovers and attains better living. First group follows a static strategy without any diversification and the second constantly diversifies and reinvests. Static strategy leads to insecurity, sickness, and low work participation ultimately leading to poverty trap and unsustainable livelihood. On the other hand with diversification and reinvestment by credit support, higher security and sustainable livelihood is attained both in rural and urban areas. In between, the vulnerable factor by shocks and stresses also force the less resilient livelihoods to take up coping and adaptive strategies like selling land, livestock, taking loan, migration, weaving in adhi, giving livestock and betel nut tree in adhi, mortgaging land etc. These strategies make the base of livelihood weaker and lead towards unsustainable livelihood. Diversification in the livelihood in the present scenario has become the key word in Assam for better living and for being more resilient to shocks and stresses.

Women find less opportunity in villages for limited option of diversification. While men migrate as well as take up new employment opportunities women in rural areas find them at disadvantage position. Agricultural labour remains as easy option before them. Therefore agricultural labour in the female workforce is very high. 72.8% in 2004-05 is the percentage of female agricultural labour in India while for male it is much lower at 48.9% (Arjun Sengupta, 2007). With time in urban more women are stepping out for adding their limited household income and to meet the educational and other extra expenditure of children. They generally considered that there is an improvement in their condition. They are trying to get into the changed strategy of living by adopting diversification and facing regular corrupt practices.

5. CONCLUSION

Uncertainty in price, climatic behaviour, illiteracy and competition are basic challenges which are leading to population pressure and indebtedness followed by fragmentation. These factors keep the economy bounded by a 'vicious circle' leading to subsistence earning. At this point livelihood strategy of one section gets into poverty trap and another recovers and attains better living. First group follows a static strategy without any diversification and the second constantly diversifies and reinvests. Static strategy leads to insecurity, sickness, and low work participation ultimately leading to poverty trap and unsustainable livelihood. On the other hand with diversification and reinvestment by credit support, higher security and sustainable livelihood is attained both in rural and urban areas. In between, the vulnerable factor by shocks and stresses also force the less resilient livelihoods to take up coping and adaptive strategies like selling land, livestock, taking loan, migration, weaving in adhi, giving livestock and betel nut tree in adhi, mortgaging land etc. These strategies make the base of livelihood weaker and lead towards unsustainable livelihood. Diversification in the livelihood in the present scenario has become the key word for better living and for being more resilient to shocks and stresses.

Within various problems and challenges in livelihoods, diversification in strategies is essential for sustainable living. Diversification reduces dependence on one source of livelihood and so reduces vulnerability to specific stresses and shocks. Both in rural and urban poor households can diversify their sources of income and can carry out portfolio of activities - formal waged employment, informal trading, and service activities etc. with different family members engaging in. But in this context it is to be noted that engaging in too many activities can mean that households are not able to invest sufficient time or resources in any one activity to make it profitable. Thus with proper balancing and with study of market responses diversifications are to be taken up.

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