

# Periodic Research

## Rural Livelihood Diversification and Household Well-Being: A Study of Kulageri, Bagalkot



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### Abstract

Livelihood diversification is a process by which rural households construct a diverse portfolio of activities and social support capabilities in their struggle for survival and improvement in their standards of living. This study is an attempt to analyse the socioeconomic and demographic factors which determine to livelihood diversification in the study area. The study has been accomplished using primary field based survey data of 63 households of the Kulageri village of the Bagalkot district, Karnataka. Study find out that an individual occupation choice is found to be influenced by several factors, such as level of education, assets of the household, land ownership, closeness to a town, households size, agriculture wage prevailing in the village and infrastructure facilities developed, as well as demand for non agricultural goods. It also expressed that most of the household's mutually exclusive livelihood diversification strategy is On\_ farm+ Non\_ farm out of other six strategies viz. on -farm, off-farm, and non-farm, on -farm plus off -farm, on-farm plus non-farm, off- farm plus non-farm and on-farm plus off-farm plus non-farm. In the end study also reveals the constraints faced by the households in adaptation of livelihood diversifications.

**Keywords:** Livelihood, Diversification, Socioeconomic, Strategy, Constraints.

### Introduction

The term 'livelihood diversification' refers to processes taking place at different levels of the economy, which are usually, but not always directly linked (Start, 2001). Rural people have distinct problems and prospects on livelihood diversification based on demographic, socio-economic and geographical conditions. It is being realized for some time that rural people no longer remain confined to crop production, forest management or livestock-rearing but combine a range of occupations to construct a diverse portfolio of activities (Dercon and Krishanan, 1996; Ellis, 2000;). In fact, livelihood diversification is a process by which rural households construct a diverse portfolio of activities and social support capabilities in their struggle for survival and improvement in their standards of living (Ellis, 1998). Diversification activities make greater contribution to generate cash incomes for poorer households and it is a key strategy by which people try to make ends meet and improve their well-being. Diversification is a continuous adaptive process whereby households add new activities, maintain existing ones or drop others, thereby maintaining diverse and changing livelihood portfolios. Livelihood in rural areas is very erratic and risk hidden. Agricultural and allied activities support livelihood of nearly 70 percentage of India's rural population.

A recent study by Food and Agriculture Organization (FAO) on farming systems and poverty has suggested that diversification is the most important source of poverty reduction for small farmers in South and South-East Asia (FAO/ World Bank, 2001). These diversified livelihoods are facilitated by infrastructural development, emergence of rural towns and improving accessibility to urban areas (Losch, Magrin, & Imbernon, 2013). Whether diversification will provide impetus for improving standards of living in (SSA) is still a subject of much debate, however

However land based livelihood of small and marginal farmers are becoming unsustainable in recent times due to surplus manpower and decrease in arable land. Due to inadequate income from on-farm activities to support family's needs, rural populations are forced to look at alternative means for supplementing their livelihoods. Shrinking farm

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sizes and growing landlessness are by default pushing unskilled farm labour into mainly low-return non-farm sectors (Haggblade, Hazell, & Reardon 2007; Headey & Jayne, 2014). Study accomplished by (Kassie, G.W., 2017) find out the determinants of livelihood diversification in Ethiopia depicted that institutional factors such as secured perception of land ownership and becoming membership in cooperatives have significant influence on the probability of farm households' participation in non-agricultural activities. In India, land-based livelihoods of small and marginal farmers are increasingly becoming unsustainable, since their land is no longer able to meet the requirements of food for the family and of fodder for their cattle (Hiremath, 2007).

One noted contributor to this uncertainty is that much of the existing research on this has taken a broad brush approach to what constitutes "non-agricultural," lumping many activities together rather than engaging in sector-specific or more finely disaggregated analyses of different non-agricultural activities (Dorosh and Thurlow 2016). In one recent analysis that does this for Malawi, Mozambique, Tanzania, Uganda, and Zambia, Dorosh and Thurlow (2016) find that manufacturing (under which the authors include agro-processing), trade, and transport services can be on par with or higher than agriculture in terms of their poverty reduction effectiveness, while construction and government services tend to be lower. Their work highlights that non-agricultural sectors of economies are indeed important for potential poverty reduction. While their analysis points to the importance of manufacturing in the study countries, they are also careful to note that this sector's potential is importantly related to/dependent on strong linkages between farmer-producers and agro-processing, so agricultural sectors should not be neglected either. As a result, rural households are forced to look towards alternative sources of income. (Gautam & Anderson, 2016) assessed the role of livelihood diversification in household well-being in Humla, a remote mountain district in west Nepal. Primary survey based data analyse that well-being was not associated with diversification *per se* but rather on a households' involvement in 'high return sectors' such as trade or salaried job. Because involvement in these remunerative sectors is determined by various financial, social and human capitals, poor households were unable to combat the entry barrier and were prevented from getting access to them. In this way, livelihood diversification was found to have a highly skewed effect leading to inequality of income and well-being. This, in turn, is likely to risk depriving the poor households from exploiting new economic opportunities even in the future.

(Khatun and Chandra, 2016) found that the level of livelihood diversification highly varies across regions and also across different livelihood groups. The importance of agriculture as a source of livelihood is decreasing and that of the non-farm sector is increasing in West Bengal. (Sharma, R. 2017) attempts to understand how the processes of livelihood diversification have affected the well-being

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of households in the state of Jammu and Kashmir. The regression analysis suggests that diversity increases household earnings despite the location. Those residents who have higher education and more tendency to take risk have positive effect on household average earnings, while less number of working members in the household, scheduled caste (SC) and female-headed households have a negative effect on earnings. The study indicates the need to create a favourable environment for dynamic diversification of the rural economy in the state.

For the resource-poor households; livelihood diversification is a survival strategy to cope up with the adverse livelihood shocks and to manage the risky environments. On the other hand, for resource-rich households, livelihood diversification is an attempt to reap the benefits of development. The present study has been conducted in the Kulageri, Bagalkot has identified the determinants and constraints to livelihood diversification among different livelihood groups. The importance of livelihood diversification activities in improving economic condition of rural farmers is studied. Variables determining livelihood diversification activities of selected household are also identified during the study.

## Objectives of the Study

The main objectives of this paper are

1. To analyse the factors determined the livelihood diversification in the study area.
2. To explain critically the problematic and prospective issues related to livelihood diversification strategies on selected household.

## Research Questions

The study intends to answer following research questions:

1. Does Livelihood Diversification translate into improved livelihoods of rural communities?
2. What are the inherent and emerging constraints in relation to livelihood diversification?

## Methodology

The study is based on fieldwork conducted in Kulageri, Bagalkot district, Karnataka, during the month of 20 December 2017 to 10 January 2018. In Kulageri village there are 252 household live in the village, we have purposively selected 25% household from the village that is 63 household with diverse socioeconomic background. General surveys of the villages are done on the basis of available information with local bodies like Development Blocks or local level key-informants such as village head (surpanch) or village school teacher. Census related data collected from the department of the census. semi-structured interviews are conducted with the villagers, local shop's owners, teachers, and with youth. Special emphasis is given to take interviews of specific target group viz. agricultural laborers, landless people, unemployed youth and women. The villagers are interviewed to understand their perceptions towards the present source of livelihoods and their changing source of livelihoods. The scope of the interviews is wide covering different cultural practices and indigenous knowledge related to resource management. The

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household survey schedule is designed to capture the details of socio\_cultural and economic information of the villagers. This includes demographic details, educational status, occupational and income aspects. These aspects can be break down into micro data of landholding patterns, irrigated, and non irrigated field, share cropping pattern, production of crops, source of livelihoods, migration pattern, factors affecting income generating activity, diversity of livelihood portfolios, contribution of diverse family members to household income, family perceptions of wellbeing and people's hopes for the future etc.

## Study Area

Kulageri (Bagalkot) is located at 15.92°N 75.68°E. It has an average elevation of 586 metres (1922 ft). The total area of the village is 373.7 hect. Kulageri is surrounded by Ron Taluka towards South, Bagalkot Taluka towards North , Naragund Taluka towards west , Ramdurg Taluka towards west, Badami Taluka towards east . Ron, Ramdurg , Nargund , Badami, Navalgund are the nearby Cities to Kulageri. It is located 50 kilometers from Bagalkot, 80 kilometers from Hubli, and 589 kilometers from Bangalore, the state capital. The temperature ranges from minimum 23 degrees to 45 degrees during summer and from 15 to 29 degrees in winter. The rainfall of the area is 50 centimeters. (See fig 1.)

As of 2011 Census of India, Kulageri had a population of 1523 with male constituting 52.19% of the population and female 47.80%. Kulageri has an average literacy rate of 47.53%, with 62.98% of the males and 37.02% of females literate. Some 16% of the population is under 6 years of age. Kannada is the major language spoken here.

## Discussion

In this study seven mutually exclusive livelihood diversification strategies are identified. These include on -farm, off-farm, non-farm, on -farm plus off -farm, on-farm plus non-farm, off- farm plus non-farm and on-farm plus off-farm plus non-farm. The independent variables that expected to affect diversification of livelihood strategies of households head in the study area are age, gender, and education level, land size of the household and total income.

## Demographic Characteristics of Household Head

Table.1 summarizes the demographic characteristics of households head. Demographic characteristics of households head such as age, gender, household size are important factors which determine the extent of livelihood diversification in the study area. It is found that 33% of the household head age lies in 60 years above age bucket while average age of household head age is 55. This shows that majority of the households heads are in their old age and economically not active. This age group people are reluctant to venture into non-agricultural activities and not involved in livelihood diversification. Gender is an integral determinant of rural livelihoods. 84% of the households head in the study area are male. They provide majority of agricultural labour and is sole decision maker concerning agricultural activities

Table.1

Demographic Characteristics of Household Head

Characteristics	Total
<b>Total number of household</b>	63
<b>Age of household head (in years)</b>	
Below 30	5
31-40	9
41-50	16
51-60	19
60+	14
Household Head Average age	53
<b>Gender of the household head</b>	
Male (%)	84
Female (%)	16
<b>Gender distribution in the</b>	
Male (%)	52
Female (%)	48
<b>Family Size</b>	
2	1
3	6
4	10
5	14
6	18
7-9	07
10+	1
<b>Average household size</b>	6

Source- Field Survey 2017-18

The role of the Family size is central in demographic analysis, because this unit is usually the locus of joint decisions regarding consumption, production, labor force participation, savings, and capital formation. Household's size has both positive and negative effect on livelihood. A larger household's size has more income generating activities than a smaller household's size. Minimum hired labour is required in larger household's size. However due to limited land holding, large families who solely dependent on agricultural activities are not able to fulfil food security for the entire year. Smaller families have children and old age parents as dependent members who may not contribute in agricultural activities. Majority of families in the study area consists of 4-6 members.

## Socio-economic characteristics of Household Head

Table.2 presents some selected socio-economic characteristics of household 97.3% of households are married showing that majority of the respondents are married and have families to care for.

**Table 2**  
**Socio-Economic Characteristics of Household Head**

Characteristics	Total
Total number of Household	63
<b>Marital status of respondents (%)</b>	
Married	97.3
Unmarried	2.7
<b>Education level of Head (%)</b>	
Never attend school (illiterate)	23.1
Primary education	14.5
Secondary education	11.3
High School	38.4
Higher Secondary	8.2
Undergraduate	3.6
Graduate and above	0.9
<b>Household Head livelihood Strategies</b>	
On-farm	49.4
Off-farm	3.6
Non-farm	16.5
Off-farm + Non-farm	1.4
On-farm +Non-Farm	27.3
On-farm+ Off-Farm+ Non-Farm	1.8
<b>Household Head annual income</b>	
Less than 30,000	8
From 31,000 to 60,000	23
More than 60,000	32
<b>Household Total Land (%)</b>	
Landless	6.7
Less than 2 Acre	16.8
2 to 4 Acre	29.3
4 to 6 Acre	21.6
6 to 8 Acre	14.3
8 to 12 Acre	9.3
More than 12 Acre	2.0
<b>Households expenditure</b>	
Food	13.6
Medical/Health	20.9
Rituals/Function/Marriage	35.5
Education	11.8
Household Essentials	8.2
Transportation	10.0

Source- Field Survey 2017-18

Most of the respondents had one form of formal education or the other with majority 38.4 % having high school education. The level of education of farmers is assumed to influence the level of awareness and ability to adopt innovation. Moreover, 23.1% of the households head no formal education, 14.5% had primary education, 11.3% had secondary education while 8.2% had Higher Secondary education. From the table above, it is

seen that the literacy level of households head are relatively low in the study area. Furthermore, households head engaged in various income generating activities which can be on- farm, off-farm and non- farm activities so as to make ends meet. The type of non-farm livelihood activities engaged by farm households greatly influences their participation in farming activities. Occupationally, 49.4% of the households have farming as their main occupation. 27.3 % have both on-farm and non-farm activities, and 1.8% have all on, off and non-farm activities as their main occupation respectively. The 23 household head annual income is come under category of 31,000 to 60,000. Out of 63 families, 2.0 percent possess 12 acre and above, landless are 6.7 percent, 2-4 acre 30% household hold land in study area. The household expenditure is 35.5 percent shown highest in ritual and functions.

**Table.3 Farmers' Land Sizes and Annual Income Levels (Amount in thousands)**

Farmers' Land Size	Household Annual Income Levels			Total
	Less than 30,000	30,000 to 60,000	More than 60,000	
Landless	5	9	2	16
Less than 2	2	7	2	11
2 to 4 acre	1	3	3	07
4 to 6 acre	0	3	3	06
6 to 8 acre	0	1	5	06
8 to 12 acre	0	0	7	07
More than 12	0	0	10	10
Total	8	23	32	

Source- Field Survey 2017-18

Table.3 summarizes farmers' land sizes, corresponding annual income levels, and number of farmers in each of the land size-income level cross tabulations. It could be seen that the few number of farmers who had relatively higher annual incomes of 60,000 thousand or more had farm sizes ranging from 10 or larger whereas farmers with relatively lower incomes had smaller sizes of farmland, ranging from 2 to 4 acre. This also implies that, among others, those farmers with larger farmlands are able to grow more produce for more income provided there is availability of labour and other necessary farming inputs. Interestingly, interviews with the farmers also revealed that majority of the farmers with larger farmlands actually owned the land outright through inheritance and/or purchase, and were in a better position to invest time and other resources in maintaining the farmlands' quality over longer periods.

### Housing Characteristics

Survey respondents are asked about their housing environment, including access to electricity, source of drinking water, water treatment, toilet facilities, fuel for cooking, house type, usual place of medical treatment, major infrastructure problems, and benefit of government schemes and possession of various household durable goods.

**Table.4 Housing Characteristics**

Housing Characteristics	Total (%)
<b>Electricity</b>	
Yes	98.0
No	2.0
<b>Sources of drinking water</b>	
Personal Tube well	13.0
Govt. Water Tap	87.0
<b>Water Treatment</b>	
Yes	53.6
No	46.4
<b>Toilet Facility</b>	
Yes	77.3
No	22.7
<b>Fuel for cooking</b>	
Fire-wood	35.5
Lpg/natural gas	7.3
Both wood & Gas	57.3
<b>House Type</b>	
Kachha	53.0
Semi-Pacca	16.9
Pacca	30.1
<b>Usual place of medical treatment</b>	
Govt. Hospitals	35.5
Sub-center	63.6
Private hospitals	0.9
<b>Major infrastructure problems</b>	
Road Problem	30.0
Transport & Communication Problem	41.8
Market distance	24.5
Other	3.6
<b>Benefit of any government facility</b>	
Yes	35.5
No	64.5

Source- Field Survey 2017-18

This information is summarized in Table.4 and 5. According to the table, 98 percent of households have electricity. Electricity is much more common in all villages than in some areas (2 percent). A household's source of drinking water is important because potentially fatal diseases including typhoid, cholera, and dysentery are prevalent in unprotected sources. Table shows that overall, 87 percent of households have access to Government Water Tap, 13 percent from personal tube wells.

Modern sanitation facilities are not yet available to large proportions study area. The use of traditional pit latrines is still common in rural areas. The type of cooking fuel used by a household reflects both economic status as well as exposure to varying types of pollutants. Most households (27 percent) use firewood. 60 percent of households use both firewood and gas as their cooking fuel. 43.3 percent respondent tells that road problem as the major infrastructure problems.

**Table.5 Household durable goods**

Household Durable Goods	Total (%)
<b>Household Goods</b>	
TV/Radio	64.5
Refrigerator	12.7
Sewing Machine	31.9
Mobile Phone	86.4
Water pump	37.3
Tractor	30.9
Fan/cooler	96.0
<b>Transport</b>	
Bicycle	63.6
Motorcycle/Scoter	39.0
Car/truck	14.5

Source- Field Survey 2017

Respondents are also asked about their household's ownership of particular durable goods. In addition to providing an indicator of economic status, ownership of these goods provides measures of other aspects of life. Ownership of a radio or television is a measure of access to mass media; ownership of a refrigerator indicates a capacity for more hygienic food storage; and ownership of a bicycle, motorcycle, or car reflects means of transport, which can be important for seeking emergency medical care or taking advantage of employment opportunities. Ownership of a telephone/mobile opens up communication with other users. Information on ownership of these items is presented in Table. 5. 65 percent of households own a radio and a television. Thirteen percent of households own a refrigerator, and only 32 percent have a sewing machine. 86 percent households have mobile phone. Water pumps 37 percent and tractor 30 percent in the study area. Bicycles are the most common type of vehicle owned by households; 63 percent of households have a bicycle. Ownership of motorised transport is rare: only 14 percent of households have cars, and 39 percent households have motorcycles.

### Livestock Keeping

Rearing animals is also another important economic activity of the study area. Every household rears pigs, buffalo, cattle, sheep/goat, for their own earning. These livestock have good market in the villages. In every worship or ritual, marriage of the community pig, chicken, fish are required. Some Self Help Groups in the villages women are rearing and selling livestock's as a profitable enterprise. Table.6 shows livestock owned by sampled households. Goat is kept mainly for sale to extra personal income

**Table 6  
Number of Livestock Owned By Sampled Households**

Livestock	Total	
	Yes	No
Cattle	59.1	40.9
Sheep/goat	70.0	30.0
Pig	10.5	89.5
Buffalo	53.7	46.3
Ox	80.0	20.0

Source- Field Survey 2017-18

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**Pattern of Livelihood Diversification**

Pattern of livelihood diversification shows the various income generating activities of selected households. Some rural households engage in multiple activities and relied on diversified income portfolios. Most household's diversification is just on-farm. A common pattern is for very poor and the comparatively well off to have the most diverse livelihoods, while the middle ranges of income display less diversity (Ellis, 2000). Table 7 below shows the contributions of various livelihood activities of the farm households. Farm income accounted for 65.5 percent of the total households income both on-farm and non-farm income generating activities. Only on-farm accounted for 8.2 percent of the total household's income. This shows that majority of farm households in the study area are more engaged in farming activities and non-farm activities.

**Table.7 Livelihood Diversification Strategies of The Total and Selected Communities**

Livelihoods Diversification Strategy	Total	
	Activities	Numbers
On-Farm only	5	8.2
Off-farm only	1	0.9
Non-farm only	7	10.9
On-farm+ Off-farm	1	0.9
On-farm + Non-Farm	41	65.5
Off-Farm + Non-Farm	5	7.3
On-farm + Off Farm+ Non-farm	4	6.4
Total	63	100.00

Sources: Field Survey 2017-18

From all the households 63 farm-households are interviewed where 28 are engages in farming, 5 in Artisans, 5 in Salary Job, Business 6 and 19 in other income generating activities (table 8)

**Table.8 Sources of income of household head by gender**

Sources of income	Household Head		
	Male	Female	Total
<b>On-farm</b>			
Farming	24	1	25
Vegetables	3	0	03
Livestock	0	3	03
Co-worker	1	1	02
<b>Off-farm</b>			
Agricultural labour	4	2	06
<b>Non-farm</b>			
Salaried job (govt./private)	5	0	05
Wage labour	6	0	06
Remittances (migration)	2	0	02
Business	6	0	06
Artisans			
i.Weaving/Handicraft	1	0	05
ii.Carpenter	1	0	
iii. Driving	3	0	
Total	56	07	63

Source- Field Survey 2017-18

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**Reasons for Livelihood Diversification**

In table.9 result of this analysis reveals that 31 percent of the respondents reported limited agriculture income as their first priority for engaging in livelihood diversification, 20 percent considered available of non-farm opportunities as their second or most important reason, 15 percent reported to live well as their third reason. The finding shows that the main reason why rural people engaged in livelihood diversified activities was to raise household's income portfolio. This is because among the reasons for engaging in livelihood diversification, income had the highest percent as the first, against the other reasons for engaging in livelihood diversification.

**Table.9 Reasons for Livelihood Diversification**

Reasons for diversification (%)	Total
Limited Agricultural income	30.9
Large Family	3.6
Available of non-farm opportunities	20.0
Favourable demand of goods and services	10.0
To live well	15.5
Limited agricultural income and large family	9.1
Limited agricultural income, large family and Available of non-farm opportunities	10.9
Total	100

Source- Field Survey 2017-18

**Problems of Livelihood Diversification**

Agriculture is the main occupation of the study area. But every family does not have sufficient fertile land for agriculture. The village farmers are not using any fertilizer and improved seeds in their farms. They used to age old practices of farming. Irrigation facilities are not found much farm land. The level of infrastructure facilities in the areas including transportation, power supply, and other social amenities are not developed in study area. The productivity of the various crops in the study area is far lower than in other nearby village, and self-sufficiency seems to be the aim of the farmers and fertilizer consumption, use of machinery, as also the percentage of irrigated area is very low.

The average land holding is small and more farmers are small and marginal. When household livelihoods become insecure, villagers reported that they are most likely to adopt coping mechanisms like borrow money, long-distance migrant work, work in nearby villages, diversify economic activity, or liquidate assets (land, house, gold, or livestock). Women more frequently undertook income diversification as a coping strategy, whereas men tended to migrate.

In social situation, social spending, life style pressure (alcoholism and consumerism) has evolved as important factors that drive the households to risk situations and increases vulnerabilities. In economic situation, irregular and uncertain availability of work, pressing cash requirement on day to day basis, low asset holding, uncertain access to credit, absence of asset ownership, decline in work opportunity due to changes in policy, exploitation of community resources by influential groups; fear,

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time consuming and poor relation with formal financial institutions, developmental block etc. contribute in experience of households to perceive these as contributing factors that keeps their livelihood at risk.

Factors like repeated failure of crop for unfavorable weather, increasing expenditure structure for rise in wages and inputs prices and absence of subsidiary earning opportunity in the village 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. Small and marginal farmers have the poor economic base; consequently it has an adverse effect on the diversification in favour of high value crops. Lack of preservation and storage facility for vegetables is another important problem.

### Conclusion

An individual's occupation choice is found to be influenced by several factors, such as level of education, assets of the household, land ownership, closeness to a town, households size, agriculture wage prevailing in the village and infrastructure facilities developed, as well as demand for non agricultural goods.

The main constraints faced by the households in the more diversified area are: poor asset base, lack of credit facilities, lack of awareness and training facilities, fear of taking risk, lack of rural infrastructure, and lack of opportunities in non-farm sector, while the main constraint in less-diversified area are: poor transport facilities, poor asset base, unfavorable agro-climate, lack of credit facilities, lack of awareness and training, and lack of basic infrastructure. The study has made following policy recommendations:

First, since lack of credit facilities and poor access to institutional credit are overwhelmingly acknowledged as the important constraints inhibiting livelihood diversification, the rural financial systems need to be revamped.

Second, education is an effective means of increasing the livelihood diversification strategies as it relaxes the entry barriers to different remunerative non-farm activities, particularly salaried jobs. There is little doubt that rural education in study area, as elsewhere in bagalkot, is under stress and facing a tough challenge from the urban education system. Targeting of education and skill development trainings towards poor households in the rural areas is likely to have a relatively large impact on their ability to diversify livelihood options.

Third, efforts should be made to make remunerative non-farm opportunities accessible to the rural households. This includes the development of rural infrastructure in terms of road, market, electrification, telecommunication, storage facilities, etc. and also institutional innovations to reduce entry costs and barriers to poor livelihood groups.

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