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Impact of diversification on income and employment of self-help groups through micro-credit

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ABSTRACT

Development through credit is the modern face of the growth. Be it the world bank at the International level or Government of the country at the National level all are advocating growth through credit. In this linkage small credit advanced locally have been given a new name micro credit. In India micro-credit programmes are implemented through group structures which is known as self-help groups. SHG's is group of rural poor people who have volunteered to organized themselves into a group for eradication of poverty of members. The present study is confined to Ashpur Deosare and Patti block of Pratapgarh district of Uttar Pradesh, 20 SHG's (total of 1040 members) which comprises of 10 members each were selected from 20 villages of above blocks for the study. These SHG's were linked for financing with the banks and these banks financed for the diversified activities in Agriculture. The credit were divided to the SHG's for the activities like IPNM, IPM, bio activities, Horticulture, Animal Husbandry and Dairy etc. The socio-economic data of these SHG's were collected before and after diversification activities. Socio-economic profile of the SHG's shows that the 50.29 per cent male and 49.71 per cent women were found in selected SHG's which shows that womens were participating equally in poverty eradication programmes. Among SHG's 43. 94 per cent members were found in the age group up to 20 years and 21 to 40 year age were found 18.85 per cent and 37.21 per cent members were in the age group of 41 to 60 years. As far as literacy is concern 13.85 per cent SHGS family members were found illiterate, 80.86 per cent were educated up to intermediate and only 5.29 per cent were found graduates and above. Kisan Credit Card holders among SHG's were 186. The results reports that as diversification adopted by SHG's, the major changes were found in cropping pattern. The area in wheat, paddy and bajara crops were decreased and shifted to vegetables crops. Area in arahar and urad were decreased. However, area in urad and moong were increased. The result also shows that income increased after diversified activities mainly in vegetable crops (132%), pulse crop (49%), milk production (99%), poultry production (109%), goatry (384%) and cereals (7%) likewise employment of SHGS has also increased in vegetables (100%), milk production (50%), poultry (105%) and goatry (105%) in the study area. On the whole income and employment of the SHG's were increased 86.43 per cent and 30.49 per cent, respectively. The study suggests that there is need to educate the people to form the SHG's so that they can utilize the maximum micro-credit to alleviate the poverty.

Key words: Self-help group, Micro-credit, Good grain, Cultivation

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India has been self sufficient in food-grain production but planners, agricultural scientists and agricultural economists are worried about the slow growth rates of

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agricultural production in the recent years. The population has been increasing at 1.2 per cent annually while the average growth rate of total food-grain production is about 0.8 per cent. So, there is no option except to produce more. The changes in area of crops was analyzed for the past four decade to arrive at the nature and direction of area shifts for crop diversification and balance in the enter-crop allocation of existing and additional areas brought under cultivation. There are emerging opportunities for diversification in the fields of organic farming, contract farming and production for export purpose. The main approach of crop diversification in which,

diversification take place through substitution of a crop variety with the other or a crop by new crop or by addition of more crops to the existing cropping systems. In advanced, diversification and other enterprises are added making the form of diversification that is known for sustainable farming. At present level of technology increasing land fragmentation associated with plot diversification. Beside, the emergence of crop diversification decreases the demand for crop insurance policy, as farms can rely on self insurance through diversification. Keeping in view the above study has been undertaken with the following specification of objective to study about the diversification and its components, to assess the impact of diversification activities on income and employment of member in the study area and to study the marketing of products of diversification.

METHODOLOGY

Ashpur deosara and Patti blocks of Pratapgarh district were purposively selected for the present study. These blocks have greater scope for the Self-help-groups and K.C.C. activities as compared to other blocks of the district. Twenty villages, two hundred members were selected for the present study. Survey method was used for data collection pertaining to year 2003-2005. In order to fulfill the objectives of the study, simple, average and percentage were used and data were processed, analysed and presented in the tabular form for interpretation of the results.

ANALYSIS AND DISCUSSION

The findings of the present study as well as relevant discussion have been summarized under following heads:

Diversification and its components:

The strategy-devised under district level to raise agriculture productivity by helping farmers to diversify these crops and increased their awareness for new technologies. To encourage a shift from the traditional paddy-wheat cycle, more remunerative horticultural crops were identified for each area based on the local agro-eco profile, as well as market demand. Where diversification was not called for, yields were increased through intensive farming techniques, farmers were trained to use balanced fertilizers based on scientific soil testing and substitute bio-pesticide in place of chemicals. Also, they were encouraged to take up high yielding seed varieties and organic manure (like nadep compost, cow pat pit, vermicompost).

Agriculture:

Diversification of agricultural activities has been one of the major tasks of its components. Approach has been pursued on intensification of agricultural activities and diversification of crops suitable to local agro-ecological situation, the aims of diversification is enhancing the use of organic farming eco-friendly techniques like IPNM and IPM etc.

Integrated plant nutrient management (IPNM):

The basic purpose of inducting this component has been too popularized and the practice is balanced with use of fertilizers based on soil testing. In general, farmers have been using more and more nitrogenous and phosphoric fertilizers with less emphasis on the use of potash fertilizers and other micro nutrients.

Integrated pest management (IPM):

Excess use of chemical pesticides especially in vegetables paddy and others cash crops have assumed alarming situations. This has led to adverse impact on environment as well as human health. Thus, to manage the excess use of hazardous chemical pesticides concept of IPM for various crops has been popularized through bio pesticides like Trichoderma, buevaria basiyana, B.T.,N.P.V. and others neem based pesticides etc.

Bio-village:

One of the major activities has been to restore soil health through enhance use of organic material in the field. Though in general entire villages farmers have been motivated to adopted organic farming, by NADEP compost, vermicompost, CPP, Green manuring.

Horticulture:

The Horticulture component was plays an important role in the diversification of the agricultural sector. Diversification in horticulture pertains to changes in the prevalent traditional farming system, which can assure better land use, afford sustained productivity and ensure better income realization per unit area and per unit time. In order to bring over all improvement in horticultural crops productivity, different techniques should be involved in its components like nursery raising low tunnel poly houses, tomato crop stacking, cucurbits crops in machan, Hybrid seeds and bio pesticides used.

Animal-husbandry:

The state of U.P. has the largest number of livestock population in India. This component includes activities of artificial insemination, vaccination, castration and breed conservation.

Dairy:

Uttar Pradesh is the largest milk producer state in the country, the state ranks top in milk production with 14.1 million

tons of annual milk production, the country has 172 registerd dairy plant units, out of which 52 are in co-operative sector and 120 in private sector. Handling capacity of co-operative sector is 26.18 lac kg per day and that of private sector is 91.0lac kg per day. Out of the total milk produced in the state, 70-80% is being handled by private sector and 20-30% by co-operative sector. However, the quality of milk supplied through unorganized sector, are observed to be handled in most hygienic conditions, due to various contamination, causing public health problems, including transmission of animal borne diseases.

Participatory management:

Past experience of development schemes indicated a need for people's participation to ensure the success and sustainability of any intervention. Early top down approaches now have given way to peoples participation and what is essentially known as a bottom up approach. This has resulted in acceptance of the programmes as well as developed a sign of ownership among the community. Involvement of the private sector has also become essential as there has been a paradigm shift in the focus of development.

The Table 1 describes the holding position possessed by the SHG's members in the study area before and after diversification it was observed that the total cultivated land, rented land, personal land, irrigated land has been increased after diversification which shows that diversification agriculture has direct impact on economic well being of the SHG's members.

Table 1 : Holding details							
Sr. No.	Particulars	Before diversification	After diversification				
1.	Total cultivated land (ha.)	129.40	137.60				
2.	Land under diversification	129.40	137.60				
	(ha)						
3.	Rented land (ha)	1.70	7.20				
4.	Personal land (ha)	127.70	130.40				
5.	Irrigated land (ha)	127.40	135.85				
6.	Un irrigated land (ha)	2.0	1.75				

The Table 2 explains the livestock details before and after diversification in the study area. The livestock including

cow, buffalo, goat and hen possess by the members which found that their numbers have been increased. The cows number increased from 206 to 252, buffalos from 131 to 218, goats from 34 to 140 and hens from 20 to 80. The increased number in these livestock shows that the diversification activities by members have helped them to uplift their assets.

The Table 3 discussed the area, production and productivity of different crops grown by members in the study area. It was observed that the area in cultivation of paddy, bajra, arhar, urd, wheat potato, has been decreased and this area was occupied by some other crops like horticultural crops (vegetables spices and flowers) and zaid pulses crops. The production in these crops has decreased due to area reduction. Productivity of these crops being grown in the study area by the members showed increased.

Factor affecting increasing production and productivities: Summer ploughing:

Maximum number of members/farmers used summer ploughing in the month of May and June for control of different insect's eggs and larvae to paddy crop.

Soil testing:

After diversification large number of members/farmers adopting soil testing techniques used for balance dose of fertilizers in different crops.

Certified seed:

Seeds play an important role in production of crops. Before diversification 10-20% member/farmers used certified seeds and after diversification, 30-40% member/farmers used certified/foundation/hybrid seed for different crops. Use of quality seeds has increased production up to 20-30%.

Line sowing:

10-15% production increase if line sowing in different crops is being done, as the member have adopted this technique and increased the production. This will help to control the insect and pests also.

Balanced use of fertilizers:

Before diversification farmers used imbalanced fertilizers especially nitrogenous and phosphates fertilizers due to

Table 2: Details of livestock possessed by member								
Sr. No.	Livestock -	Nun	Number		Value (Rs.)		Per unit value (Rs.)	
		B.D.	A.D.	B.D.	A.D.	B.D	A.D.	
1.	Cow	206	252	905500	1976000	4396	7841	
2.	Buffalo	131	218	1222000	2083000	9228.24	9555	
3.	Goat	34	140	34200	149000	1006	1064	
4.	Hen	20	80	2000	8000	100	100	

	e 3 : Cropping patte			Decduce	ion (O)	Deaduativ	rity (Q/ha.)	Productivity (q.	Productivity %
Sr. No.	Crops	BD	Area (ha.) BD AD		Production (Q.) BD AD		AD	/ha.) in District	increase
	Kharif	-	-	-	-	BD -	-	-	-
1.	Paddy	86.24	80.36	2996.50	2940.40	34.74	36.59	30.40	5.32
2.	Bajra	8.56	3.90	136.90	72.95	15.99	18.70	12.60	16.94
3.	Arhar	10.37	8.43	108.79	97.70	10.49	11.58	10.20	10.39
<i>3</i> .	Urd	6.71	-	73.85	-	11.0	-	5.87	
5.	Spoung gourd	1.05	1.46	210	354	200	242.46	NA	21.23
6.	Ridge gourd	0.50	0.61	104	226	208	370.49	NA	78.12
7.	Brinjal	6.55	13.96	1293	3107	197	222.56	NA	12.97
8.	Marigold	0.18	0.65	2.5	12	13.88	18.46	NA	32.99
9.	Okra	0.10	4.26	15	847.5	150.0	198.94	NA	32.62
10.	Chili	0.31	5.63	06	129.50	19.35	23.0	NA	18.86
11.	Bitter gourd	-	3.90	-	1296	-	332.30	NA	-
12.	Cucumber	_	4.10	_	901	_	219.75	NA	_
13.	Aonla	0.50	-	_	15000	_		NA	_
14.	Banana	-	0.63		115000	_	_	NA	_
-	Rabi		0.03		113000			1471	_
1.	Wheat	84.44	73.23	2876	3260	34.05	44.51	22.10	30.71
2.	Potato	28.64	18.67	7150	6240.5	250	334.25	NA	33.70
3.	Cauli flower	4.32	4.94	775	1056	179.39	213.76	NA	19.15
<i>4</i> .	Cabbage	2.20	2.68	410	657	186.36	245.14	NA	31.54
т. 5.	Green pea	0.97	12.54	34	572.30	35.05	45.63	32.80	30.18
6.	Pea	0.48	-	6.0	-	12.20	-	11.20	-
7.	Chickpea	3.45	-	46.60	-	13.5	_	14.30	_
8.	Onion	- -	6.55	-	1254	-	191.45	NA	
9.	Garlic	-	1.90	-	1234		171.43	NA	-
). 10.	Capsicum	_	0.28	-				NA	-
11.	Tomato	3.03	6.40	590	1305	194.17	203.90	NA NA	5.01
-	Zaid	5.05	0.40	370	1303	174.17	203.70	IVA	5.01
1.	Urd	4.75	13.05	56.30	216.85	11.85	16.61	5.87	40.16
2.	Moong	0.60	5.80	5.0	77.35	8.33	13.33	6.0	60
2. 3.	Bottle gourd	-	1.15	J.0 	336	-	292.17	NA	-
3. 4.	Cucumber	-	4.35		1285	-	292.17	NA NA	-
4. 5.		-	0.30	-	45	-	150	NA NA	-
5. 6.	Spoung gourd Ridge gourd	-	0.30	-	335	-	788.88	NA NA	-
	Okra		5.60	- 157	1301			NA NA	- 47.97
7. 8.	Okra Bitter gourd	1.0	1.50	13/	352	157	232.32 233.66	NA NA	47.97

BD= Before Diversification

AD= After Diversification

unawareness and now they adopt the diversification activities they use soil testing for their soils and as per suggestions of the scientist members use balanced doses of fertilizers, micronutrients, green manuring (organic-matter) to increase the soil health.

Table 4 illustrates activities wise impact of income after diversification. The cereals crops, vegetable crops, pulse crops, spice crops, flower crops, fruit crops, milk production,

poultry and goat rearing has certainly increased their income after diversification. The vegetable, spices, flowers, milk production, poultry and goatry activities have increased income more than double after diversification. The overall 86.43per cent income has been increased after adopting diversification by member in the study area.

The Table 5 illustrated the pattern of employment which has been obtained by members from different activities before

Table 4: Activity wise impact of income (in Rs.)						
Sr. No.	Activities	Before diversification	After diversification			
1.	Cereal crops	24,97,972	26,73,530			
2.	Vegetable crops	20,32,750	47,22,730			
3.	Pulse crops	3,54,967	5,30,547			
4.	Spice crops	105830	765057			
5.	Flower crops	2800	80,000			
6.	Fruit crops	-	1,25,000			
7.	Milk production	23,93,380	47,72,400			
8.	Poultry	12,000	25,120			
9.	Goatry	33,955	1,64,380			
	Total income	74,33,654	1,38,58,764			
	Per capita income	37,168.27	69,293.83			
	Per capita income	-	32,125.56			
	increased					
	% income increased	-	86.43			

and after diversification. The table shows that there is substantial increased in employment in the vegetable production which is from 108 mandays to 216.77 man days i.e. 100 per cent increased. This is because of the adoptions of the different scientific technologies which was used as quality/ hybrid seeds and reduce in the area of cereal crops. The spices production increased from 0.21 man day to 9.78 man day which is surprising and this happend because of more remunerative crops and promotion by the government as well as private organisations. The dairy activity has also increased employment after diversification from 0.90 to 1.35 man days. This is due to more availability of credit from banks and veterinary services, provided to the farmers by the governments and NGOs. Goatry, poultry, fruit production activities have also increased the employment after adopting diversification by the SHG members. Overall, the employment has been increased substantially by the SHG members by

Table 5: Impact of diversification activities on employment						
Sr.	Activities	Employment in man days				
No.		Before	After			
		diversification	diversification			
1.	Cereal crops and pulses	191.40	183.39			
2.	Vegetable production	108.00	216.77			
3.	Spices production	0.21	9.78			
4.	Fruit and flower	0.17	0.22			
	production					
5.	Dairy	0.90	1.35			
6.	Goatry	0.22	0.45			
7.	Poultry	0.22	0.45			
	Total days employment	301.12	412.41			
	% employment increased	_	30.49			

adopting diversification in these activities which was 30.49 per cent.

Marketing of product:

Under diversification activities all members have adopted different marketing channels in the study area to market their produce. Channel wise per cent are given below.

Producer-consumer:

37.90% members were found to sale their product through this channel.

Producer-Retailer-Consumer:

46.67% member sold their product through this channel.

Producer-Whole seller-Retailer-Consumer:

Only 15.57% members sold their product using this channel.

About half of the member are using the channel producerretailer-consumer to market their produce.

Problem faced in the marketing of SHG products:

- Indebtedness to traders.
- Heavy commission charges.
- Inadequate finance.
- Price fluctuation.
- Absence of grading.
- High transportation cost.
- Lack of storage facilities.
- No regular payments.
- Lack of market information.
- Seasonal glut.
- Mal practices.
- Absence of co-operative marketing.

Conclusion:

It is concluded from the present study that diversification activities is most profitable activities. Because, it provides regular income facilities of members in adoption of different income generating activities, generate income, employment and upliftment of living standards to the members. The overall 86.43per cent income has been increased member in the study area to adoption of diversification activities, employment has been increased 30.49 per cent and about half of the member are using the channel producer-retailer-consumer to sale market their produce.

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