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## Labour management and benefit sharing practices in collective farming: A study in Palakkad district of Kerala state

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### Abstract

Collective farming aims to bring significant changes among farmwomen through increased agricultural production and productivity. The present study was undertaken to analyse the labour management and benefit sharing practices involved in collective farming. The study was conducted in Palakkad district of Kerala during 2017-2018 by the ex-post-facto research design with the sample size of 90 groups. The result revealed that Farmwomen were engaged in all farming operation and their imputed value was much higher than any other labour. It has significantly reduced their dependency on hired labour. This indicates that collective farming approaches through effective pooling of labour resources and better utilization of family labour were able to address the problem of labour scarcity. Farmwomen were also utilized machine labour which helped them to do various farming operations effectively. Mechanization could help the farmwomen to do very difficult tasks in farming in less of time and with less cost. With the use of machines, farmwomen have got enough spare time to do other activities and at least they get leisure time (take rest) for improving their health conditions and quality of life of the family. It was observed that majority (84.44%) of the groups opt to disburse the entire revenue generated from sale proceeds immediately after realization. The second type of group kept aside a percentage of return for the next season. Only 15.56 per cent of them kept aside funds (5-10%) from current revenue for the next season. This behaviour has implications for cash flow of these collective farming groups. The fund for next cropping season is raised afresh each time. This increases the transaction cost of arranging finances for group farming.

**Keywords:** Collective farming, Labour management, benefit sharing, women collective farming groups

### Introduction

Rural women form the most important productive work force in the economy of majority of the developing nations including India. Rural women often manage complex households and pursue multiple livelihood strategies. Their activities typically include producing agricultural crops, tending animals, processing and preparing food, working for wages in agricultural or other rural enterprises, collecting fuel and water, engaging in trade and marketing, caring for family members and maintaining their homes. Many of these activities are not defined as "economically active employment" in national accounts but they are essential to the wellbeing of rural households. Women have played and continue to play a key role in the conservation of basic life support systems such as land, water, flora and fauna. They have protected the health of the soil through organic recycling and promoted crop security through the maintenance of varietal diversity and genetic resistance.

In Kerala, agricultural lands are being diverted towards residential and commercial development. This, along with fall in agricultural prices, rising wages, labour scarcity, reduction in land holdings and mobilization of men from farm to non-farm works have made farming an unprofitable activity leading to a continuous fall in food production in the state. It is in this context, the collective farming gains its significance. Collective farming is a type of agricultural production in which multiple farmers run their holdings as a joint enterprise. This type of collective is often an agricultural cooperative in which member-owners engage jointly in farming activities. Women involved in collective farming process are emerging as key actors in this attempt to rejuvenate the agrarian economy. They are bringing back land for agricultural production through their collective organization. Collective action by the poor can strengthen property rights (Baland and Platteau, 2003; Von Braun and Meinzen-Dick, 2009) <sup>[4, 11]</sup>, increase their bargaining power in labour markets (Bardhan, 2005) <sup>[6]</sup>, improve access to financial markets (Karlan, 2007) <sup>[8]</sup> and increase investments in public goods (Alesina and Baqir, 1999 and Banerjee and Somanathan 2007) <sup>[2, 5]</sup>.

Slowly but surely, the connection between local livelihoods, local markets and local consumption are being reinvigorated (Mukherjee, 2009) <sup>[9]</sup>. Also grassroots action across the globe demonstrates that the collectiveness of the poor can improve their well-being in ways that individual approaches cannot (Agarwal, 2009) <sup>[11]</sup>.

Kerala State Poverty Eradication Mission or 'Kudumbashree' programme is a Self Help Group based women oriented initiative to fight absolute poverty. It was launched in 1998 by the State Government with the active support of Government of India and NABARD. The lower most tier of Kudumbashree constitutes the SHGs consisting of 10-20 women members selected from the poor families. SHGs under Kudumbashree are known by the name 'Ayalkoottam' (Neighbourhood Groups). Kudumbashree is one of the largest women's movements in Asia with 3.8 million members in 0.2 million SHGs (Anonymous, 2010) <sup>[3]</sup>. Since inception, Kudumbashree has promoted farming and other allied activities for income generation of SHG members. Collective Farming Programme, also called as 'Harithashree' in local language, lends helping hands to those cultivators who are having no land at all. It is an initiative introduced by Kudumbashree to encourage cultivation by neighbourhood groups. It helps to increase agricultural production by bringing fallow and cultivable waste land into agricultural use and has significance as a food security measure. Women enter the programme as cultivators as opposed to agricultural labour and control over the means of production and access to formal credit help in increasing the returns from farming. The programme is being implemented in all districts with the support of local self government.

### Material and methods

The study was conducted in Palakkad district of Kerala during the year 2017-2018. The Palakkad district of Kerala is basically an agrarian economy. Ottappalam, Palakkad, Alathur, Chittoor Mannarkad and Pattambi are the six taluks of Palakkad district. Out of these districts, three taluks *viz.*, Ottappalam, Mannarkad and Pattambi were purposively selected as they came maximum number of women collective farming. From each taluk, five villages were selected for the present study. The Ex-post facto design was employed in the present study. This design was considered appropriate because the phenomenon has already occurred. The method used to select the respondents was random sampling. A total of 90 women collective groups were constitute a sample size for the present study. From the selected villages, 6 groups were selected from each village. The data related to the study were collected from the secretaries of 90 groups through the interview method.

The labour management and benefit sharing practices per acre in collective farming were also studied. Out of the 90 collective farming groups, 32 were cultivating banana, 30 tapioca and 28 were involved in rice cultivation. The human labour management constituted own members, hired labour, family labour and neighbourhood group members. The data related to labour management was collected through multiple responses of the members and quantified by using frequency and percentage. There were three modes of benefit sharing practices followed such as proportionate share of entire amount among the members, keeping some amount as corpus fund for the group and sharing some amount with technology backstopping institutions. Based on the respondents obtained, the benefit sharing was quantified by using frequency and percentage.

## Results and discussion

### Labour management in collective farming per acre

With regard to labour management in banana cultivation per acre which indicated in Table 1 that the farmwomen groups utilized the owned (group) members for different farming operations such as planting, inter-cultivation (including weeding and mulching), land preparation, manure application and fertilizer application were expressed by 100.00, 96.88, 93.75, 87.50, 81.25 per cent, respectively. Farmwomen were engaged in all farming operation and their imputed value was much higher than any other labour. The groups were hired labour for farming operations such as land preparation (81.25%), which was followed by harvesting (59.38%) and intercultivation (40.63%). The probable reason may be due to much involvement of physical works in these operations. The groups also hired labour for farming operations such as fertilizer application (18.75%), manure application (15.63%) and plant protection chemical application (6.25%). The groups utilized family labour more in intercultivation operations which was expressed by 18.75 per cent. About 21.88 per cent of the groups shared labour from neighbourhood group for planting operations. The groups which hired machine labour like tractor, weed cutter etc., for land preparation and intercultivation which were expressed by 78.13 and 15.63 per cent, respectively.

With regard to labour management in tapioca cultivation (Table 1), majority (93.33%) of the groups were utilized owned members for the land preparation. About 76.67 per cent of the groups were utilized owned members in both planting and manure application. This may be due to their increased farming experience. Majority (96.67%) of the groups were involved in both irrigation and harvesting operations by utilizing their owned members. There is a much physical work needed in land preparation of tapioca which involves deep ploughing, ridge and furrow making etc., so the groups were utilized more hired labour in land preparation which was expressed by 43.33 per cent. The groups utilized more family labour and neighbourhood group labour in harvesting which was expressed by 26.67 and 23.33 per cent, respectively. The groups hired machine labour for land preparation and intercultivation which was expressed by 73.33 and 26.67 per cent, respectively.

The percentage of groups utilized owned labour in different farming operations of rice cultivation (Table 2) were in the order of land preparation, nursery bed preparation, machine transplanting, application of manure, fertilizer, inter-cultivation and irrigation with 50.00, 85.71, 39.29, 85.71, 57.14, 92.86 and 71.43 respectively. More than half (53.57%) of the groups utilized owned members for the application of bio fertilizer and plant protection chemicals. One-fourth (25.00%) of the groups utilized owned members for both harvesting and threshing and cleaning operations. It could observe that farmwomen were involved in all farming operations of rice cultivations. The groups utilized hired labour for land preparation, application of manure, fertilizer and bio fertilizer which were expressed by 25.00, 7.14, 21.43 and 17.86 per cent, respectively. About 14.29 per cent of the groups utilized hired labour for application of plant protection chemicals, intercultivation and irrigation operations. About 17.86 per cent of the groups utilized family labour for land preparations, while 10.71 per cent of the groups utilized family labour in both nursery bed preparations and manure application. The groups were depended on hired machine labour in farming operations such as land preparation, transplanting and intercultivation which was expressed by

92.86, 60.71 and 35.71 per cent, respectively. Two-third (75.00%) of the groups had hired combined harvester for the harvesting and threshing operations, whereas only 7.14 of the groups had hired bullock labour for the land preparation. It clearly showed that animal labour was displaced by machine labour. Mechanization could help the farmwomen to do very difficult tasks in farming in less of time and with less cost.

Majority of the farming operations were done by the group members and their imputed value was much higher than the other labour. It has significantly reduced their dependency on hired labour. This indicates that collective farming approaches through effective pooling of labour resources and better

utilization of family labour were able to address the problem of labour scarcity. Farmwomen were also utilized machine labour which helped them to do various farming operations effectively. Mechanization could help the farmwomen to do very difficult tasks in farming in less of time and with less cost. With the use of machines, farmwomen have got enough spare time to do other activities and at least they get leisure time (take rest) for improving their health conditions and quality of life of the family. It is also helpful to improve effective use of agricultural resources. This was in line with the findings of Vijith (2012) and Dipika and Arun (2014) [10, 7].

**Table 1:** Labour management of banana and tapioca collective farming per acre

Sl. No	Banana Practices	Human labour								Machines				(n = 32) Bullock labour			
		Owned		Hired		Family		Neighbour-hood group		Owned		Hired		Owned		Hired	
		F	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%
1	Land preparation	30	93.75	26	81.25	1	3.13	2	6.25	0	0.00	25	78.13	0	0.00	0	0.00
2	Planting	32	100.00	0	0.00	5	15.63	7	21.88	0	0.00	0	0.00	0	0.00	0	0.00
3	Manure application	28	87.50	5	15.63	2	6.25	1	3.13	0	0.00	0	0.00	0	0.00	0	0.00
4	Fertilizer application	26	81.25	6	18.75	3	9.38	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
5	PPC application	4	12.50	2	6.25	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
6	Intercultivation	21	65.63	13	40.63	6	18.75	1	3.13	0	0.00	5	15.63	0	0.00	0	0.00
7	Irrigation	31	96.88	0	0.00	2	6.25	1	3.13	0	0.00	0	0.00	0	0.00	0	0.00
8	Harvesting	25	78.13	19	59.38	3	9.38	3	9.38	0	0.00	0	0.00	0	0.00	0	0.00
	Tapioca																(n = 30)
1	Land preparation	28	93.33	13	43.33	4	13.33	2	6.67	0	0.00	22	73.33	0	0.00	0	0.00
2	Planting	23	76.67	8	26.67	3	10.00	3	10.00	0	0.00	0	0.00	0	0.00	0	0.00
3	Manure application	23	76.67	6	20.00	4	13.33	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
4	Fertilizer application	20	66.67	9	30.00	2	6.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
5	PPC application	2	6.67	4	13.33	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
6	Intercultivation	25	83.33	8	26.67	3	10.00	0	0.00	0	0.00	8	26.67	0	0.00	0	0.00
7	Irrigation	29	96.67	0	0.00	1	3.33	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Harvesting	29	96.67	5	16.67	8	26.67	7	23.33	0	0.00	0	0.00	0	0.00	0	0.00

**Table 2:** Labour management of rice collective farming per acre

Sl. No	Rice Practices	Human labour								Machines				(n = 28) Bullock labour			
		Owned		Hired		Family		Neighbour-hood group		Owned		Hired		Owned		Hired	
		F	%	f	%	f	%	f	%	f	%	f	%	f	%	f	%
1	Land preparation	14	50.00	7	25.00	5	17.86	0	0.00	0	0.00	26	92.86	0	0.00	2	7.14
2	Nursery bed preparation	24	85.71	0	0.00	3	10.71	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
3	Machine transplanting	11	39.29	0	0.00	0	0.00	0	0.00	0	0.00	17	60.71	0	0.00	0	0.00
4	Manure application	24	85.71	2	7.14	3	10.71	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
5	Fertilizer application	16	57.14	6	21.43	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
6	Bio fertilizer application	15	53.57	5	17.86	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	PPC application	15	53.57	4	14.29	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Intercultivation	26	92.86	4	14.29	0	0.00	0	0.00	0	0.00	10	35.71	0	0.00	0	0.00
9	Irrigation	20	71.43	4	14.29	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
10	Harvesting	7	25.00	0	0.00	0	0.00	0	0.00	0	0.00	21	75.00	0	0.00	0	0.00
11	Threshing and cleaning	7	25.00	0	0.00	0	0.00	0	0.00	0	0.00	21	75.00	0	0.00	0	0.00

### Benefit sharing practices in collective farming

From Table 3, it could notice that two major types of sharing practices were involved in collective farming group. In the first system, the group disburses entire realized return to the members proportionately without keeping a common fund. It was observed that majority (84.44%) of the groups opt to disburse the entire revenue generated from sale proceeds immediately after realization. The second type of group kept

aside a percentage of return for the next season. Only 15.56 per cent of them kept aside funds (5-10%) from current revenue for the next season. This behaviour has implications for cash flow of these collective farming groups. The fund for next cropping season is raised afresh each time. This increases the transaction cost of arranging finances for group farming. The above findings were in accordance with the findings of study conducted by Vijith (2012) [10].

**Table 3:** Benefit sharing practices in collective farming (n = 90)

Sl. No.	Mode of sharing	Responses	
		Frequency	Per cent
1	Proportionate share of entire amount among the members	76	84.44
2	Keeping some amount as corpus fund for the group (5-10%)	14	15.56
3	Sharing some amount with technology backstopping institutions	0	0.00

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