



P-ISSN: 2349-8528  
 E-ISSN: 2321-4902  
 IJCS 2019; 7(5): 278-281  
 © 2019 IJCS  
 Received: 13-07-2019  
 Accepted: 15-08-2019

**Smitashree Das**

Dept of Extension Education,  
 College of Agriculture, OUAT,  
 Bhubaneswar, Odisha, India

**BP Mishra**

Dept of Extension Education,  
 College of Agriculture, OUAT,  
 Bhubaneswar, Odisha, India

## Family farming: A step towards income security

**Smitashree Das and BP Mishra**

**Abstract**

The concept of family farming covers various elements. From a sociological perspective, family farming is associated with family values, such as solidarity, continuity and commitment; in economic terms, family farming is identified with specific entrepreneurial skills, business ownership and management, choice and risk behaviour, resilience and individual achievement. Family farming is often more than a professional occupation because it reflects a lifestyle based on beliefs and traditions about living and work. The year 2014 was designated as the International Year of Family Farming at the 66th session of the United Nations General Assembly led by the Food and Agriculture Organization (FAO), it has the objective of raising the profile of family farming by focusing world attention on its role in alleviating hunger and poverty, providing food security and improving livelihoods, while protecting the environment and biodiversity. This study examined in eastern coastal districts of Odisha. The study was explorative in nature, the data was collected through personal interview with 120 numbers of respondents selected through non-probability random sampling procedure, via structured interview schedule prepared after pilot study and pre-testing. The family farm can be a source of employment for others in the community and hence stimulate economic activity beyond the farm gate, with an important stimulus for labour and economic security as well. Family farms continue to present opportunities for rural economic development and revitalization of rural communities throughout the world. The results of this research study revealed that the productivity and income of farming community were increased due to family farming and it also reduces poverty and unemployment. Therefore some agricultural policies should focus more on the sustainable development of family farming approach.

**Keywords:** Family farming, family farms, income security

**Introduction**

Family farming is a means of organizing agricultural, forestry, fisheries, pastoral and aquaculture production, which is managed and operated by a family and predominantly reliant on family labour including both men and women. The United Nations (UN) 2014 International year of Family Farming provided an opportunity to reflect on the status of family based agriculture throughout the world in relation to food security, socio-ecological sustainability and equitable economic development. Recent policy debates at the international and regional levels have seen a shift in how smallholders and family farmers are viewed from being a part of the hunger problem to now being central to its solution. The 2014 International Year Of Family Farming (IYFF) aims to focus on eradicating hunger and poverty, providing food security and nutrition, improving livelihoods, managing natural resources, protecting the environment and achieving sustainable development in rural areas. A family farm is one on which the farm operator makes most of the managerial decisions and the ownership of the means of the production and labour power co-exist in the same production unit.

During the global meeting of farming organizations from five continents during the International Year of Family Farming (IYFF), held in Abu Dhabi on January 21 to 22, 2014, a document was adopted whose first demand insisted on the right of peoples to produce. Family farms constitute over 98% of all farms and it manages 53% of agricultural land in India. Family farms meet 36-114% of the domestic caloric requirements. Family farming is characterized by small farms that are family operated and make no or limited use of non-family hired labour. The notional family farm is characterized by an overlapping between three functional units such as:

- a) the unit of production (i.e., the farm)
- b) the unit of consumption (i.e., the household)
- c) the unit of kinship (i.e., the family)

**Correspondence**

**Smitashree Das**

Dept of Extension Education,  
 College of Agriculture, OUAT,  
 Bhubaneswar, Odisha, India

Family farming is a means of organizing agricultural, forestry, fisheries, pastoral and aquaculture production which is managed and operated by a family and predominantly reliant on family labour, including both men and women. Family farming practice provides an opportunity to reflect on the status of family based agriculture throughout the world in relation to food security, socio-ecological sustainability and equitable economic development.

They not only produce about 80% of world's food but also serve as custodians of about 70-80% of farm land. The state of Food and Agriculture 2014: " Innovation in Family Farming", analysed family farms and their role in ensuring global food security, poverty reduction and income generation. Family farming is a key part of the solution to the hunger problem.

### Methodology

The study was conducted in 4 blocks- Soro, Simulia, Bahanaga and Khaira of Balasore district. The present research project was formulated on the basis of ex-post-facto approach and survey research design. Before actual investigation, efforts were made to conduct a detail survey of all related aspect of status of Family Farming in Odisha. Multi stage random sampling technique was followed to select the sample for the study. The district and block were selected purposively. Proportionate random sampling procedure was a Prior to preparation of the interview schedule. A pilot study was carried out in the blocks and the district head quarter to collect information regarding socio-economic situation, activities undertaken, different location, type and nature of respondents, accessibility to selected villages, etc. Basing on information collected on pilot study, an interview schedule was developed. The schedule was prepared as per the objective set for the study. Close ended questions were mainly asked for obtaining better response. Pre testing of the schedule was done to access reliability and validity of schedule to record data. Establishing rapport with the farmers is very important for collecting accurate information. Few trips to the farmer's field and establishing informal contact with the farmers by the help of VAW/Progressive farmers of the locality helped the investigator in developing friendly relationship with the farmers which in turn facilitated in getting the response of farmers.

### Result and Discussion

#### Income from main product

Income from main product is the quantity of main products from different enterprises were determined and their market

values were calculated to give the total income from the main product. The main product from different enterprises include rice, vegetable, fuel wood, coconut, milk, fish, prawn, meat etc.

The perusal of the data contained in the above table reveals that on an average Rs. 1,56, 600.00/- was obtained from sell of main products by the farmers taking crop + pisciculture. Next in order were Rs. 59, 767.50/-, Rs. 53, 846.66, Rs.44,452.25, Rs. 26, 442.29 and Rs. 18, 100.00 received by the farmers taking pisciculture +plantation, crop + diary +plantation, crop + diary, crop + plantation and crop + goatery respectively.

Market price of various farm products shows that prawn, fish, cashew and coconut have high market demand and fetch good prices in the market. Due to export demand coconut, cashew nut, fish, prawns etc. are considered as rich man's food. Owners of crossbred cows get milk ten times more than the owners of desi cow. Sometimes distress sale and lack of bargaining power of the small and marginal farmers further deteriorates income of the farmers. For the above reasons the gross income from main product is higher for pisciculture + plantation and crop + diary than crop + plantation.

#### Income from by- product

Income from by- product is the subsidiary income obtained from different enterprises. The quantities of by- products from different enterprises were determined and their values were calculated. The by- products are chaffs, straw, cow dung, twigs, dried leaves, coirs, leather etc. The farmers usually don't get any value from the by- products of pisciculture enterprise. By- products of crops enterprise are found to be used as input for other enterprises and vice-versa.

It is observed from the above findings that the frequency distribution of farmers in different classes of values of by-products for different family farming patterns. The average value of by- product in 3 most popular patterns such as crop + diary, crop + plantation and pisciculture + plantation were Rs. 2400/-, Rs. 2200/- and Rs. 512.50/- respectively.

The extra ordinary high value of by-product obtained in case of crop + pisciculture was high due to large acreage of land under possession. The farmers taking crop enterprise usually get more income from by- products due to sale of straws and chaffs. The next enterprises in order of providing by- products are plantation and dairy. Coirs, twigs, are important by-products giving subsidiary income to the farmers. So the value of by- products of a family farming pattern depends largely on nature of the enterprise and size of the enterprise

**Table 1:** Income from main product and by- product from different family farming patterns (n = 120)

Family farming systems	Income from main product (in rupees)			Income from by- product (in rupees)		
	Name of the class (in rupees)	f	%	Name of the class (in rupees)	f	%
Crop+ plantation	Up to 50000	12	19.04	Up to 2000	46	73.02
	50001 to 75000	21	33.33	2001 to 4000	14	22.23
	75001 to 100000	14	22.23	4001 to 6000	-	-
	100001 to 125000	10	25.88	6001 to 8000	1	1.58
	125001 to 150000	3	4.76	8001 to 10000	-	-
	More than 150000	3	4.76	More than 10000	2	3.17
	MEAN	26442.29		MEAN	6200	
Crop+ diary	Up to 50000	2	6.25	Up to 2000	26	81.26
	50001 to 75000	12	37.50	2001 to 4000	5	15.67
	75001 to 100000	7	21.88	4001 to 6000	-	-
	100001 to 125000	6	18.85	6001 to 8000	1	3.12
	125001 to 150000	1	3.12	8001 to 10000	-	-
	More than 150000	4	12.50	More than 10000	-	-
	MEAN	44452.25		MEAN	8400	

Crop+ pisciculture	Up to 50000	-	-	Up to 2000	4	20
	50001 to 75000	2	66.66	2001 to 4000	-	-
	75001 to 100000	-	-	4001 to 6000	10	50
	100001 to 125000	1	33.33	6001 to 8000	2	10
	125001 to 150000	-	-	8001 to 10000	4	20
	More than 150000	-	-	More than 10000	-	-
	MEAN	25660		MEAN	1800	
Pisciculture+ plantation	Up to 50000	-	-	Up to 2000	10	50
	50001 to 75000	-	-	2001 to 4000	-	-
	75001 to 100000	4	20.00	4001 to 6000	2	10
	100001 to 125000	4	20.00	6001 to 8000	1	5
	125001 to 150000	2	10.00	8001 to 10000	2	10
	More than 150000	10	50.00	More than 10000	5	25
	MEAN	159767.50		MEAN	2512.50	
Crop+ diary+ plantation	Up to 50000	-	-	Up to 2000	1	33.33
	50001 to 75000	-	-	2001 to 4000	2	66.67
	75001 to 100000	1	33.33	4001 to 6000	-	-
	100001 to 125000	-	-	6001 to 8000	-	-
	125001 to 150000	--	-	8001 to 10000	-	-
	More than 150000	2	66.67	More than 10000	-	-
	MEAN	153846.6		MEAN	2800	
Crop+ goatery	Up to 50000	-	-	Up to 2000	1	100
	50001 to 75000	1	10.00	2001 to 4000	--	-
	75001 to 100000	-	-	4001 to 6000	-	-
	100001 to 125000	--	-	6001 to 8000	1	100
	125001 to 150000	-	-	8001 to 10000	-	-
	More than 150000	-	-	More than 10000	-	-
	MEAN	18100		MEAN	2000	

### Total value of output

The total value of output of each farmer is calculated by computing the value of main product and by- products and adding those values. The distribution of farmers on various classes for each family farming pattern has been presented in the table- 2.

Among three popular family farming patterns the average value of output was found highest (Rs. 60,280/-) in pisciculture + plantation followed by crop + diary (Rs. 46,852.25/-) and crop + plantation (Rs. 28, 642.29/-).

The findings once again prove the superiority of pisciculture + plantation enterprise over other enterprises in terms of generation gross income for the farm family.

### Profitability of different family farming patterns

The profitability of different family farming patterns was calculated by subtracting the total recurring cost from the gross income. The amount of profit a farmer makes out of the family farming pattern depends to a great extent on the multitude of factors such as personality traits, size of the

enterprise, extent of technology application, managerial efficiency, the nature of enterprise etc. may influence profitability. With this consideration analysis of the average profit made under different family farming patterns is of paramount importance.

The data reveals that highest profit (Rs. 25,245.04/-) was obtained in crop + diary followed by pisciculture (Rs. 20, 124.29/-) and crop + plantation (Rs. 16, 341.91/-).

Crop + diary is the most profitable family farming pattern among different patterns. In rural areas farmers and farm women take much care of their desi and crossbred cows with low investment. The by- products of the crop enterprise are used as feeds of the dairy animals. Although the gross income from pisciculture + plantation is much higher than crop + diary but the total recurring cost in this enterprise is very high which reduces the net income of the enterprise. It can be calculated that concluded that crop + dairy is the most profitable family farming pattern followed by pisciculture + plantation and crop + plantation.

**Table 2:** Total value of output and profitability of different patterns (n = 120)

Family farming patterns	Total value of output (in rupees)			Profitability (in rupees)		
	Name of the class (in rupees)	f	%	Name of the class (in rupees)	f	%
Crop+ plantation	Up to 50000	10	15.87	Up to 2000	27	42.86
	50001 to 75000	18	28.57	2001 to 4000	23	32.52
	75001 to 100000	18	28.57	4001 to 6000	8	12.69
	100001 to 125000	10	15.87	6001 to 8000	2	3.17
	125001 to 150000	3	4.76	8001 to 10000	-	-
	More than 150000	4	6.36	More than 10000	3	4.76
	Mean	68642.29		Mean	36341.91	
Crop+ diary	Up to 50000	1	3.12	Up to 2000	21	65.62
	50001 to 75000	6	18.75	2001 to 4000	4	12.50
	75001 to 100000	11	34.38	4001 to 6000	6	18.75
	100001 to 125000	4	12.50	6001 to 8000	-	-
	125001 to 150000	6	18.75	8001 to 10000	1	3.13
	More than 150000	4	12.50	More than 10000	-	-
	Mean	86852.25		Mean	75245.04	

Crop+ pisciculture	Up to 50000	1	100	Up to 2000	3	15.00
	50001 to 75000	-	-	2001 to 4000	-	-
	75001 to 100000	-	-	4001 to 6000	-	-
	100001 to 125000	1	100	6001 to 8000	1	100
	125001 to 150000	-	-	8001 to 10000	-	-
	More than 150000	-	-	More than 10000	-	-
	Mean	174600		Mean	116600	
Pisciculture+ plantation	Up to 50000	4	20.00	Up to 2000	6	30.00
	50001 to 75000	-	-	2001 to 4000	5	25.00
	75001 to 100000	5	25.00	4001 to 6000	-	-
	100001 to 125000	2	10.00	6001 to 8000	3	15.00
	125001 to 150000	-	-	8001 to 10000	2	10.00
	More than 150000	-	-	More than 10000	4	20.00
	Mean	160280		Mean	60124.29	
Crop+ diary+ plantation	Up to 50000	-	-	Up to 2000	-	-
	50001 to 75000	1	33.33	2001 to 4000	1	33.33
	75001 to 100000	-	-	4001 to 6000	-	-
	100001 to 125000	1	33.33	6001 to 8000	2	66.67
	125001 to 150000	-	-	8001 to 10000	-	-
	More than 150000	-	-	More than 10000	-	-
	Mean	55312.33		Mean	29305	
Crop+ goatery	Up to 50000	1	100	Up to 2000	-	-
	50001 to 75000	-	-	2001 to 4000	1	33.33
	75001 to 100000	-	-	4001 to 6000	-	-
	100001 to 125000	1	100	6001 to 8000	1	33.33
	125001 to 150000	-	-	8001 to 10000	1	33.33
	More than 150000	-	-	More than 10000	-	-
	Mean	20100		Mean	10125	

### Summary and Conclusion

It is concluded from the above data that in Balasore district mainly farmers rely on crop cultivation, pisciculture and cultivating plantation crops. Keeping in view the analysis of collected data, it is observed that, majority of average Rs. 1,56, 600.00/- was obtained from sell of main products by the farmers taking crop + pisciculture, average value of by-product in 3 most popular patterns such as crop + diary, crop + plantation and pisciculture + plantation were Rs. 2400/-, Rs. 2200/- and Rs. 512.50/- respectively, the average value of output was found highest (Rs. 60,280/-) in pisciculture + plantation. The highest profit (Rs. 25,245.04/-) was obtained in crop +diary.

It is inferred that due to high fertile soil and coastal climate provides favourable condition for variety of cultivation of crops and closest to sea provides ambient atmosphere for aquaculture, prawn and crab cultivation along with ample cultivation of plantation crops such as coconut, palm etc which serve as the main source of livelihood and ensure the food and income security for future.

### Reference

1. AFA. Asian Farmers and IYFF: What is it for us during the International Year of Family Farming." Quezon City, Philippines: Asian Farmers' Association for Sustainable Rural Development, 2014, 6(1).
2. Altieri MA, Toledo VM. Natural Resource Management among Small Scale Farmers in Semi-arid Lands: building on traditional knowledge and agroecology. *Annals of Arid Zone*. 2005; 44:365-385.
3. Brandth B. Gender identity in European Family Farming: A Literature Review. 2002; 42:181-200
4. Brookfield H. Family Farms Are Still Around: Time to Invert the Old Agrarian Question. *Geography Compass*. 2008; 10:108-126.
5. Cheryl J, Wachenheim, Lesch W. *Journal of Agricultural & Food Information*. 2002; 2(4):43-60
6. FAO Regional Office for Asia and the Pacific. Outcome Report of the Regional Dialogue on Family Farming: Sustainable Rural Development and Food Security, 21–22 November 2013. Bangkok: FAO, 2013.
7. Garner E, Campos A. Identifying the Family Farm: An informal discussion of the concepts and Definitions. *The state of food and agriculture*, 2014, 14-10
8. Guanziroli C, Buainain A, Sabbato. Family farming knowledge platform. 2013; 5(40):817-843
9. Hill B. The 'myth' of the family farm: Defining the family farm and assessing its importance in the European community. 1993; 4(9):359-370
10. Leisa India. Family Farming: A Way of Life. *Leisa India* 2013; 15(4). Accessed February 9, 2016. .
11. Leisa India. Family Farmers breaking out of poverty. *Leisa India*. 2014; 16(2). Accessed February 9, 2016. .
12. Lipton M. The Family Farm in a Globalizing World: The Role of Crop Science in Alleviating Poverty. 2020 Discussion Washington, DC: International Food Policy Research Institute. 2005, 4.
13. Reyes J, Fuetsch. The future of family farming: Aliterature review on innovative, sustainable and succession-oriented strategies. 2016; 47:117-140
14. Wang LX. Theory and Reality of Agrarian Capitalist: agricultural development in Punjab of India during Green Revolution. *Social Sciences in China*. 2009; 5:189-203 (in Chinese).
15. World Bank. Partnerships in development: Progress in the fight against poverty. Washington, DC: World Bank, 2004.
16. World Bank. World Bank updates poverty estimates for the developing world, 2008." Accessed February 9, 2016.
17. Ye J, Pan L. Concepts and Realities of Family Farming In Asia and The Pacific, 2016.