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Constrains faced by tribal farmers in integrated farming system

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Abstract

The present study on “Constrains Faced by Tribal Farmers in Integrated Farming System” was conducted in the Melghat region of Amravati district of Maharashtra state. The exploratory design of social research was used for the study. Total 107 tribal farmers were selected as sample for study by stratified sampling method. The data were collected by conducting personal interview of each tribal farmers with help of structured interview schedule. Careful analysis, tabulation and classification of the data were done. Frequency and percentage of the data were employed for the interpretation of the results. The findings of the result revealed that, major constraints faced in integrated farming system were found as high cost of poultry feed (95.45%), and lack of knowledge on preparation of poultry feed (90.90%) in agriculture + poultry farming system, In Agriculture + goat farming system majority (90.00%) of the tribal farmers faced constraints of non-availability of superior buck for breeding followed by lack of knowledge on commercial goat farming (86.66%), In agriculture + horticulture (vegetable farming) farming system most (90.00%) of the tribal farmers have experienced the constraints of no availability of good quality vegetable seed followed by inadequate storage facility (80.00%) and In agriculture + dairy farming system majority (88.88%) of the tribal farmers faced constraints of low milk production from the local breed followed by lack of technical knowledge to manage dairy (80.00%) which indicates training on poultry health management and commercial goat farming can make tribal farmer to be skillful in Integrated farming system. It was seen that to make available of low cost of poultry feed; to make available of superior buck for breeding good quality seed for vegetable farming and make available adequate veterinary services at village level such suggestions increase profitability of integrated farming system of tribal farmers.

Keywords: Integrated farming system, tribal farmers, constraints

Introduction

An integrated farming system (IFS) is a sustainable agricultural system that combines different farming practices to reduce the negative effects of intensive farming and preserve the environment. IFS aims to achieve high production levels, acceptable profits, and resource conservation.

Small and marginal farmers are the core of the Indian rural economy constituting 85% of the total farming community. Integrated farming system (IFS) is recognized as a solution to the continuous increase of demand for food production, providing stability to the income and nutritional security particularly for the small and marginal farmers with limited resources. IFS is a mix of farm enterprises such as crop, livestock, aquaculture, poultry, sericulture and agro-forestry to achieve economic and sustained agricultural production through efficient utilization of resources. The principle of IFS model is developed such as wastes generated from one

component becomes an input for other system and hence there is efficient recycling of farm and animal wastes in the integrated system. There is increase in yield per unit area through intensification and diversification of crops. Apart from this IFS helps in controlling insect pests and diseases and weeds through natural cropping system management and there is less use of harmful agro-chemicals for farm production.

IFS development model

The IFS model combines various compatible enterprises such as crops (field crops, horticultural crops), agroforestry (agri-silvi culture, agri-horticulture, agri-pastoral, silvi-pastoral, horti- pastoral), livestock (dairy, pigs, poultry, small ruminants), fishery, mushroom and bee culture in a synergistic way so that the wastes of one process become the input for other processes for optimum farm productivity. In an IFS model, the field crops are grown for food

production. Horticultural and vegetable crops can also provide 2-3 times more energy production than cereal crops and hence ensure nutritional security and income sustainability in the same piece of land. The crop residues after harvesting can be used for animal feed for dairy and goat production. The animal excreta from the animals can also be utilized as organic fertilizer or vermicomposting which in turn improves the soil fertility and thereby, reduces the use of chemical fertilizers. Again, the animal excreta can be dried, composted or liquid composted for the production of biogas and energy for household use.

Methodology

The present study was conducted in Melghat region of Amravati district of Vidarbha region in Maharashtra state. The exploratory design of social research was used for the

study. Total 107 tribal farmers were selected as sample for study by stratified sampling method. In the context of present study, different integrated farming system working and adopting in melghat was identified and study. The data were collected by conducting personal interview of each tribal farmers with help of structured interview schedule. Careful analysis, tabulation and classification of the data were done. Mean, standard deviation, frequency and percentage of the data were employed for the interpretation of the results.

Result

Constraints faced by the tribal farmers in integrated farming system. The constraint is defined as the circumstances or causes which prohibit or restrain the tribal farmers in integrated farming system

Table 1: Constraints faced by tribal farmers in Integrated farming system

Sr. No.	Constraints faced by tribal farmers in IFS (N= 107)	Freq	%	Rank
I	Agriculture + Poultry (N= 22)			
1	High cost of Poultry feed	21	95.45	I
2	Lack of knowledge on preparation of poultry feed	20	90.90	II
3	Lack of credit facilities	19	86.36	III
4	Lack of training on poultry health management	18	81.81	IV
5	Low quality feed	17	77.27	V
6	High mortality rate	15	68.18	VI
II	Agriculture + Goat Farming (N=30)			
1	Non-availability of superior buck for breeding	27	90.00	I
2	Lack of knowledge on commercial goat farming	26	86.66	II
3	Poor market infrastructure for goat and goat products	25	83.33	III
4	Non-availability of proper treatment and diagnosis of disease	23	76.66	IV
5	High mortality rate	20	66.66	V
III	Agriculture + Horticulture (N= 30)			
1	No availability of good quality vegetable seed	27	90.00	I
2	Inadequate storage facility	24	80.00	II
3	Produce is not use for commercial purpose	22	73.33	III
4	High price of insecticide	21	70.00	IV
5	Lack of market information	20	66.66	V
IV	Agriculture + Dairy farming (N=25)			
1	Low milk production from the local breed	22	88.88	I
2	Lack of technical knowledge to manage dairy	20	80.00	II
3	Inaccessibility to organized market	19	76.00	III
4	Inadequate veterinary services	17	68.00	IV
5	High cost of concentrate	15	60.00	V

It is revealed from the Table no. 1 that, majority (95.45%) of the tribal farmers have experienced the constraints in IFS that high cost of poultry feed followed by lack of knowledge on preparation of poultry feed (90.90%), Lack of credit facilities (86.36%), Lack of training on poultry health management (81.81%), Low quality feed (77.27%) and high mortality rate (68.18%) in agriculture + poultry farming system.

In agriculture + goat farming system majority (90.00%) of the tribal farmers faced constraints of non-availability of superior buck for breeding followed by lack of knowledge on commercial goat farming (86.66%), Poor market infrastructure for goat and goat products (83.33%), non-availability of proper treatment and diagnosis of disease

(76.66%) and high mortality rate (66.66%)

In agriculture + horticulture (vegetable farming) farming system most (90.00%) of the tribal farmers have experienced the constraints of no availability of good quality vegetable seed followed by inadequate storage facility (80.00%), Produce is not use for commercial purpose (73.33%), High price of insecticide (70.00%) and lack of market information (66.66%)

In agriculture + dairy farming system majority (88.88%) of the tribal farmers faced constraints of low milk production from the local breed followed by lack of technical knowledge to manage dairy (80.00%), Inaccessibility to organized market (76.00%), Inadequate veterinary services (68.00%) and High cost of concentrate (60.00%)

Table 2: Suggestions given by tribal farmers in adopted Integrated farming system

Sr. No.	Suggestions given by tribal farmers in IFS (N= 107)	Freq.	%	Rank
I	Agriculture + Poultry (N= 22)			
1	To make available of low cost of poultry feed	20	90.90	I
2	Make availability of credit facilities	19	86.36	II
3	Provide training on poultry health management	18	81.81	III
4	Make available transportation, market facilities at village level	15	68.18	IV
II	Agriculture + Goat Farming (N=30)			
1	To make available of superior buck for breeding	25	83.33	I
2	Provide training for commercial goat farming	24	80.00	II
3	To make availability of market facilities for goat	22	73.33	III
4	Make availability of veterinary services in the village	20	66.66	IV
III	Agriculture + Horticulture (N= 30)			
1	Make available of good quality seed for vegetable farming	27	90.00	I
2	Provide storage facility	23	76.66	II
3	Make availability of inputs at village level	21	70.00	III
4	Provide the market and good transportation facilities	20	66.66	IV
IV	Agriculture + Dairy farming (N=25)			
1	Provide technical knowledge to manage dairy	20	80.00	I
2	Accessibility to organized market	18	72.00	II
3	Make available adequate veterinary services at village level	15	60.00	III
4	To make available of low-cost concentrate	14	56.00	IV

It is revealed from the Table no. 2 that, majority (90.90%) of the tribal farmers given suggestions of to make available of low cost of poultry feed followed by make availability of credit facilities (86.36%), provide training on poultry health management (81.81%) and make available transportation, market facilities at village level in agriculture + poultry farming system.

In agriculture + goat farming system majority (83.33%) of the tribal farmers given suggestions of to make available of superior buck for breeding followed by provide training for commercial goat farming (80.00%), To make availability of market facilities for goat (73.33%) and make availability of veterinary services in the village (66.66%)

In agriculture + horticulture (vegetable farming) farming system most (90.00%) of the tribal farmers given suggestions of make available of good quality seed for vegetable farming followed by provide storage facility (76.66%), make availability of inputs at village level (70.00%) and provide the market and good transportation facilities (66.66%)

In agriculture + dairy farming system majority (80.00%) of the tribal farmers given suggestions of provide technical knowledge to manage dairy followed by accessibility to organized market (72.00%), Make available adequate veterinary services at village level (60.00%) and to make available of low-cost concentrate (56.66%)

Conclusion

Training on poultry health management and commercial goat farming can make tribal farmer to be skillful in Integrated farming system. It was seen that most of the tribal farmers not properly adopted integrated farming system due to high cost of poultry feed and lack of credit facilities in agriculture + poultry farming system. In agriculture + goat farming system most of the tribal farmers faced problem of non-availability of superior buck breeding, poor market infrastructure for goat and goat products and non-availability of proper treatment and diagnosis of disease. In agriculture + horticulture farming system tribal farmers faced the problem no availability of good quality vegetable seed, inadequate storage facility and produce is not use for

commercial purpose and in agriculture + dairy farming faced problem of low milk production from the local breed, lack of technical knowledge to manage dairy and inaccessibility to organized market Inadequate veterinary services, so it's needed to make available of low cost of poultry feed and make availability of credit facilities agriculture + poultry farming system. In agriculture + goat farming system to make available of superior buck for breeding and provide training for commercial goat farming and to make availability of market facilities for goat, in agriculture + horticulture farming system make available of good quality seed for vegetable farming, provide storage facility and make availability of inputs at village level and in agriculture + dairy farming provide technical knowledge to manage dairy , accessibility to organized market and make available adequate veterinary services at village level to increases the profitability in integrated farming system of tribal farmers.

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