Impact of Integrated Farming system on Doubling Farmers' Income

ABSTRACT

The present study was undertaken with the main objective impact of integrated farming system on doubling farmers' income. The study was conducted in four district of Konkan region of Maharashtra namely Ratnagiri, Sindhudurg, Raigad and Palghar district. In all 200 respondents were selected by using multi stage sampling techniques. The "Ex-Post-Facto" research design was used for conducting the study. The data were collected through the personal interview. The data collected were processed and statistically analyzed by using statistical technique like frequency, percentage, mean, standard deviation and chi square test. The analysis of data revealed that majority (104.00 per cent) change percent in income was occurred in agriculture + dairy farming system followed by agriculture + horticulture + fishery (85.00 per cent), agriculture + poultry (82.00 per cent),agriculture + horticulture + poultry + dairy (84.00 per cent), agriculture + poultry (82.00 per cent), agriculture + Horticulture +poultry (76.00 per cent)agriculture +poultry + dairy (74.00 per cent) agriculture + horticulture + dairy (73.00 per cent), agriculture + poultry + goat rearing (66.00 per cent), agriculture + horticulture + goat rearing (62.00 per cent), agriculture +poultry + goat rearing + horticulture (60.00 per cent), agriculture + goat rearing (58.00 per cent) and agriculture + dairy + goat rearing (14.00 per cent).

Key words: - Impact, Integrated Farming System, Income

INTRODUCTION:

"In India, agriculture plays a vital role in the Indian economy. Farming is the primary source of income for more than 70.00 per cent of rural households. It employs more than 60.00 percent of the workforce and accounts for over 18.80 percent of the GDP of India, making it a key sector of the economy" (Economic Survey 2021-22). The bulk of India's economy seems to be rural and agricultural in character, reliant on the nation's arable land, with the majority of farmers (86.08%) being small-scale and marginal. Our land resources are limited, but the population is expanding faster than the holding's size.

"Agriculture has been linked to the development of staple food crops throughout the past few decades. The income from the farming system must be added to the agricultural income in order

to increase it. Therefore, many additional jobs related to farming will be acknowledged as a component of agriculture as the process of economic development accelerates. Currently, in addition to farming farmers raise livestock, dairy products, goats, chickens and bees among other things. This type of system, which includes at least one aspect of farming, is known as integrated farming system". [15]During the last few decades, various authors have given definition of IFS as a combination of at least one component of farming plus one component of livestock (Edward 1997, Jayanthi et al. 2000 and Radhamani et al. 2003).The Integrated Farming System (IFS) raises farming revenue, which boosts livestock security. As a result, in the unlikely event that one of the farming systems proves to be less successful, the other farming systems will serve as a safeguard. By stabilizing the intensification of crop and related enterprises, IFS therefore offers a chance to raise economic yield per unit area and per unit time. Profitability, sustainability, a healthy diet, environmental safety, year-round revenue generating, job creation, and fuel solution are further benefits. The affiliated farmers will grow more quickly with these farming systems. Because of this, the integrated agricultural system strategy is thought to be among the most efficient ways to raise the profitability of farming operations. It needs to be planned, designed and put into practice.It is a concept of ecological soundness that leads to sustainable agriculture as well as a reliable means of attaining pretty high productivity with a significant fertilizer economy.

Keeping above fact in view, the present study was designed to analyze the impact of integrated farming system with following specific objective;

1. Impact of integrated farming system on doubling farmers' income.

METHODOLOGY:

The present study was conducted in four district of Konkan region of Maharashtra. "A multistage sampling procedure was adopted for the selection of integrated farming system adopter farmers'. In all 200 respondents were selected for study from the four districts of Konkan region. The "Ex-Post-Facto" research design was used for the proposed study. The data were collected through the personal interview. The data collected were processed and statistically analyzed by using statistical technique like frequency, percentage, mean standard deviation and chi-square". [15]The impact on income was measured by collecting of data of average yield and

average price of different enterprises of the year 2012 and 2022 and then calculated in terms of per cent change as follows,

$$\% \text{ Change in annual IFS income} = \frac{\text{Income of IFS year 2022 - Income of IFS year 2012}}{\text{Income of year IFS 2012}} \times 100.$$

RESULTS AND DISCUSSION:

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

1. Impact of integrated farming system on doubling farmers' income.

An impact of the integrated farming system on doubling farmer's income was measured in terms of per cent change in income and per cent change in employment

1.1 Average Change occurred in income due to IFS

Income generation is operationally defined as the annual income of the respondents obtaining from the different integrated farming systems which was generally expressed in monetary terms. The total income obtained from all the farming system owned by the respondents for the past one year was computed as net annual income of family. To measure the per cent change in income last ten years data of farming was recorded, analyzed and presented in table 1.

Table. 1 Average change occurred in income due to IFS						
Sr. No.	**Farming System (Year 2012)**	**Farming System (Year 2022)**	**Frequency**	**Income during year 2012 (Rs.In Lakha)**	**Income during year 2012 (Rs. In Lakha)**	**Per cent change in income (%)**
1.	Agriculture	Agriculture + Dairy	08	3.12	6.37	104.00
2.	Agriculture + Horticulture	Agriculture + Horticulture + Poultry	69	4.51	7.97	76.00
3.	Agriculture + Horticulture	Agriculture + Horticulture+ Goat Rearing	05	5.17	3.38	62.00
4.	Agriculture + Horticulture	Agriculture + Poultry +Goat Rearing + Horticulture	07	6.17	9.90	60.00
5.	Agriculture+ Dairy	Agriculture + Dairy +Goat	01	3.50	4.01	14.00
6.	Agriculture+Poultry	Agriculture + Horticulture + Poultry +Dairy	29	5.43	10.00	84.00
7.	Agriculture	Agriculture + Poultry+ Dairy	11	3.95	6.89	74.00
8.	Agriculture	Agriculture + Poultry	14	4.43	8.10	82.00
9.	Agriculture + Horticulture	Agriculture + Horticulture + Dairy	40	5.69	9.90	73.00
10	Agriculture	Agriculture + Goat Rearing	03	3.96	6.29	58.00
11.	Agriculture + Horticulture	Agriculture + Horticulture + Fishery	09	3.74	6.95	85.00
12.	Agriculture +Poultry	Agriculture + Poultry +Goat Rearing	04	3.10	5.17	66.00

It was observed from table 1 that, majority (104.00 per cent) change percent in income was occurred in agriculture + dairy farming system followed by agriculture + horticulture + fishery (85.00 per cent), agriculture + poultry (82.00 per cent), agriculture + horticulture + poultry + dairy (84.00 per cent), agriculture + poultry (82.00 per cent), agriculture + Horticulture + poultry (76.00 per cent) agriculture +poultry + dairy (74.00 per cent) agriculture + horticulture + dairy (73.00 per cent), agriculture + poultry + goat rearing (66.00 per cent), agriculture + horticulture + goat rearing (62.00 per cent), agriculture +poultry + goat rearing + horticulture (60.00 per cent), agriculture + goat rearing (58.00 per cent) and agriculture + dairy + goat rearing (14.00 per cent).

Table 2: Distribution of the respondents according to impact of integrated farming system in terms of change in income

Sr. No.	Change in income (%)	Respondent (N=200)	
		Frequency	Percentage
1.	Low (upto 46.57)	20	10.00
2.	Medium (46.58 to 93.09)	157	78.50
3.	High (93.10 and above)	23	11.50
	Total	200	100
Mean = 69.83		**S.D. = 23.26**	

Table2. Indicates that, majority (78.50 per cent) of the respondents were belong to 'medium' category of impact while 11.50 per cent of the respondents were belonged to 'high' category and 10.00 per cent of the respondents were belonged to 'low' category of integrated farming system impact.

Similar findings were supported by Biradar (2008), Mangala (2008), Kumar and Tripathi (2009), Dadabhau (2014), Ramesh (2017) and Neha Kale (2020).

Conclusion:It is concluded from above tablesthat, majority of the respondents were belonged to 'medium to high' category of impact on income generation as respondents were practicing integrated farming system over last ten years. Hence, the hypotheses that, the integrated farming system has differential impact on doubling farmers' income were accepted

IMPLICATION:

The result of the present study revealed that, the Agriculture+ Dairy farming system have made positive impact on more income generation. Hence,the implementation of such farming system needs to be continued and extend in other areas.

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