Original Research Article

Impact Assessment of Integrated Farming System Project on the Socio-Economic Status of the Beneficiary Farmers of Bidar District of Karnataka

Abstract

Integrated farming system (IFS) is recognized as the best solution to the farmers for providing income assurance and nutritional security to the farmers particularly for the small and marginal farmers with limited resources. Looking into the importance of the Integrated farming system, Government of Karnataka has implemented the IFS project to the farming communities of different districts coming under the jurisdictions of the University of Horticultural Sciences, Bagalkot from the financial supports of Rashtriya Krishi Vikas Yojana (RKVY). Hence, the present study at College of Horticulture, Bidar was undertaken as one of the project implemented campus of the University for assessing impact of IFS Phase II on the beneficiary farmers of Bidar district. Initially, this project has created awareness about the IFS project among the selected beneficiaries through training programmes and then distributed the farm inputs like vegetable seeds, field crop seeds, vegetable seedlings, fruit grafts, nutrient specials, bio-fertilizers, and farm implements like battery operated sprayers, seedling planters and cycle weeders. The study found that, before implantation of the project, the farmers in the Bidar districts were generally growing Redgram with intercropping of Greengram/ Blackgram/Jowar/Soyabean and sugarcane crop, after implantation of the IFS project, there was a change in crops cultivation to the horticultural crops. The farmers who had received the benefits of seeds/seedlings and the technical information at free of cost for the cultivation of the horticultural crops, it was observed that, papaya crops growers were realised higher net profits of Rs. 1,10,988 per acre with the B:C ratio of 1.45, followed by the farmers of marigold crop (Rs. 1,01,881/acre), watermelon (Rs. 84459/acre), onion (Rs. 72,938/acre), chilli (Rs. 49,023/ acre) and Brinjal (Rs. 39,801/acre). Further, it was found that, the use of farm machineries like sprayers, farmers reduced the cost and time requirment of labour for spraying of pesticides. Similarly, famers used cycle weeders have opined that, for weeding men and women labours requiremnt was reduced to the tune of 12 to 15 days/ acre for men labours and 8-9 man days/acre for women labour and the use of Vegetable Handy Planter resulted in reduction labour and time requirment in planting of seedlings to the tune of 40 to 50 per cent of time duration. Hence, in overall, the IFS project interventions have benefited the farmers economically for minimizing the cost of production through availing the inputs at free of cost and also helps them for realizing the higher income from adoption of the best technologies given through the university.

Key words: Integrated farming system (IFS), B:C ratio, horticultural crops, cost of production

Introduction:

Agriculture is a crucial sector in India, contributing a substantial share to the country's Gross Domestic Product (GDP), where nearly 60% of the population is dependent on agriculture for

their livelihood (Raghavendra K. J., et.al, 2024).. The dominance of small and marginal farmers with less than 2 ha land holding (86%), coupled with their relatively limited share of total arable land (44%), is a notable characteristic of the agricultural landscape in the country (Government of India (GOI,) 2014).The issue of land fragmentation in Indian agriculture posing significant challenges to the future sustainability, food security, and profitability of farming (Siddeswaran *et al.* 2012).The Indian marginal and small farmers are mostly concentrating on cereal-based monocropping systems. Mono-cropping systems can be vulnerable to various risks such as pests, diseases and adverse weather conditions. A holistic approach that combines sustainable farming practices, climate-resilient technologies, and inclusive policies is essential to address the complex challenges faced by agriculture in India and other Asian countries (Patra and Samal, 2018).

Integrated farming systems (IFS) offer a promising approach to address the challenges faced by small-holder farmers. The synergies among different components of IFS provide a buffer against risks reduction by combining different agricultural enterprises... For example, the by-products of one enterprise can serve as inputs for another, creating a more sustainable and interconnected system.Small-holder farmers often face challenges in generating sufficient income from a single crop. IFS, by incorporating multiple enterprises, offers diverse income streams.Beyond crop cultivation, IFS may include livestock, poultry, aquaculture, or agro forestry components, and providing opportunities for additional income (Paramesh *et al*., 2022). This diversification also creates on-farm employment opportunities. Sustainable agriculture requires practices that are eco-friendly and conserve natural resources.IFS, when managed properly, contribute to environmental sustainability. For instance, agroforestry components can enhance biodiversity, and livestock integration can promote nutrient cycling and reduce the need for external inputs.Despite the benefits, the effective promotion and adoption of IFS have been limited. Awareness campaigns, farmer training programs and policy support are essential for promoting the adoption of IFS.

As part of institutional intervention in creating awareness and promoting IFS, the University of Horticultural Sciences, Bagalkot implemented mega project on IFS funded by Government of Karnataka under Rashtriya Krishi Vikas Yojana(RKVY) in different constituent colleges of the university, among them College of Horticulture, Bidar was one of the implementing centers. Under IFS Phase-II, project was implemented in 10 villages of the three taluk as of Bidar district. Through this project, awareness regarding IFS was created among the selected beneficiaries

through training programmes and distribution of inputs like vegetable seeds, field crop seeds, vegetable seedlings, fruit grafts, nutrient specials, bio-fertilizers and farm implements like battery operated sprayers, seedling planters and cycle weeders. The farmers who have received the interventions from the project were benefited economically by minimizing the cost of production through availing the inputs at free of cost and also realized better income from the best technologies obtained from the university. Hence, the study has been conducted to understand the effectiveness and impacts of the Integrated farming system (IFS) project of UHS, Bagalkot on the socio- economic status of the beneficiary farmers.

Methodology of the study:

In order to address the objectives of the study, the required data was collected from both primary and secondary sources. The secondary data were collected with respect to the list of beneficiary farmers and the quantum of benefits given to farmers under IFS project from scientist in-charge of IFS project, COH, Bidar. i.e. village wise different perennial horticultural crops seedlings, vegetable/flower crops seedlings and Inputs/ Materials distributed to the farmers of Bidar District. Similarly, Primary data with respect to the socio-economic information of the project benefits were gathered from the selected 30 representative beneficiary farmers of the villages of Chinkera, Jalasangi and Chandanahalli of Humnabad taluk of Bidar district. For this a schedule was structured and pre-tested. Accordingly, the primary data has been collected .The parameters considered for the assessment of the impact of IFS project on the farming community were with respect to the change in cropping pattern, change in yield, change in cost of cultivation, change in income, effect on employment generation, survival rate of planting material. The analytical tools employed for the study were descriptive statistics like averages, percentages and graphical analysis and cost of cultivation of the selected horticultural worked out as per formats of Commission for Agricultural Costs and Prices (CACP) (Anju Yadav et. al, 2023, Chandrashekhar Choudhary et.al, 2022) and arrived the gross income, Net income and B:C ratios.

Results and discussions:

Age, Education and land holding information of the beneficiary farmers

Age groups of beneficiary farmers:

The information from Table 1 and Fig.1, Fig.2 and Fig.3 reveals valuable insights into the age distribution, Education status, Land holding size of the sample beneficiary of beneficiary farmers

in the study area. With a focus on the participation of different age groups in agriculture and their receptiveness in adopting new technologies., it was observed that, the age groups ranging from 30 years to below 50 years (specifically 31-40 groups are 30 % and 41-50 age groups are 26.67%) collectively constitute the highest percentage of beneficiary farmers (56.67%). The active participation of middle-aged farmers is promising for the overall development of agriculture. Their willingness to adopt new technologies can contribute to increased efficiency, productivity, and sustainability in farming practices.

Education status of the beneficiary farmers of IFS project:

Majority of sample beneficiary farmers under IFS project of Bidar district have educational backgrounds of PUC (46.67%) and SSLC (33.33%) and 10 per cent each with graduation and illiteracy. The high literacy rate among the farmers, even among those with lower formal education, suggests a positive environment for knowledge dissemination and the adoption of modern farming practices. Leveraging the existing literacy levels can be crucial for the success of agricultural extension and technology adoption programs in the region. The adopters of latent technologies are majorly impacted literacy, Similar kind of observed where reported in the study of Raghavendra K. J., et.al, 2024, indicate that, adopters are more likely to have completed their primary education, whereas adopters are much more likely to have graduated.

Land holdings of the beneficiary farmers of IFS project:

The majority of the sample beneficiary farmers fall into the marginal category, comprising 40.00% of the total. Following closely are small farm size holders, representing 33.00% of the farmers. Large landholding farmers make up 27.00% of the sample. The data indicates that the project has a specific focus on supporting marginal and small farmers, as they constitute the majority of the beneficiary group (combined 73.00%). By targeting these groups, the project aims to contribute to the socio-economic development of farmers who may have limited resources for crop cultivation. This approach aligns with efforts to promote inclusive and sustainable agricultural development.

Table 1. Age, education and land holding information of the beneficiary farmers

Different age groups of beneficiary farmers		
Age of Beneficiaries	**No. of farmers**	**Percentage**
20-30	3	10.00

31-40	9	30.00
41-50	8	26.67
51-60	5	16.67
>60	5	16.67
Total	30	100.00
Education status of sample IFS beneficiary farmers		
Education of Beneficiaries	**No. of farmers**	**Percentage**
Illiterate	3	10.00
SSLC	10	33.33
PUC	14	46.67
Graduate	3	10.00
Total	30	100.00
Land holding size of the sample beneficiary farmers		
Land holding of Beneficiaries	**No. of farmers**	**Percentage**
Marginal farmers	12	40
Small farmers	10	33
Large farmers	8	27
Total	30	100.00

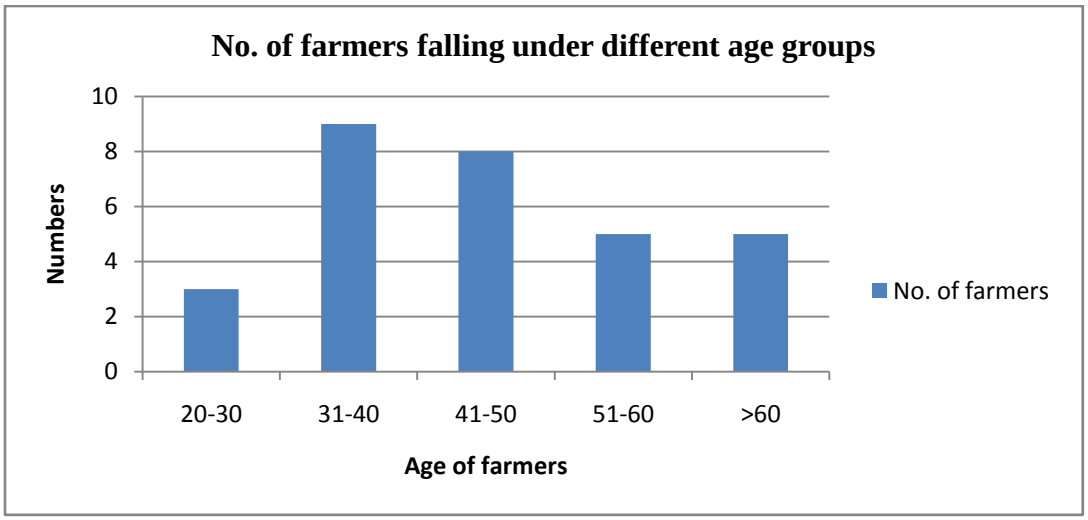

Fig. 1. Beneficiary farmers falling under different age groups

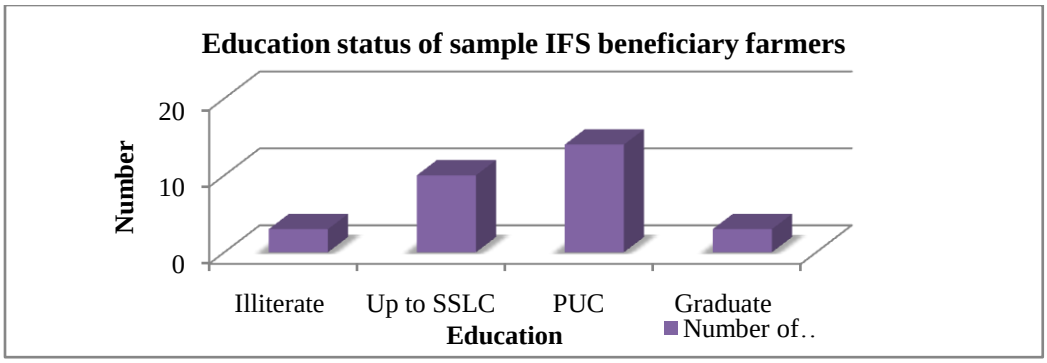

Fig 2. Education status of sample IFS beneficiary farmers

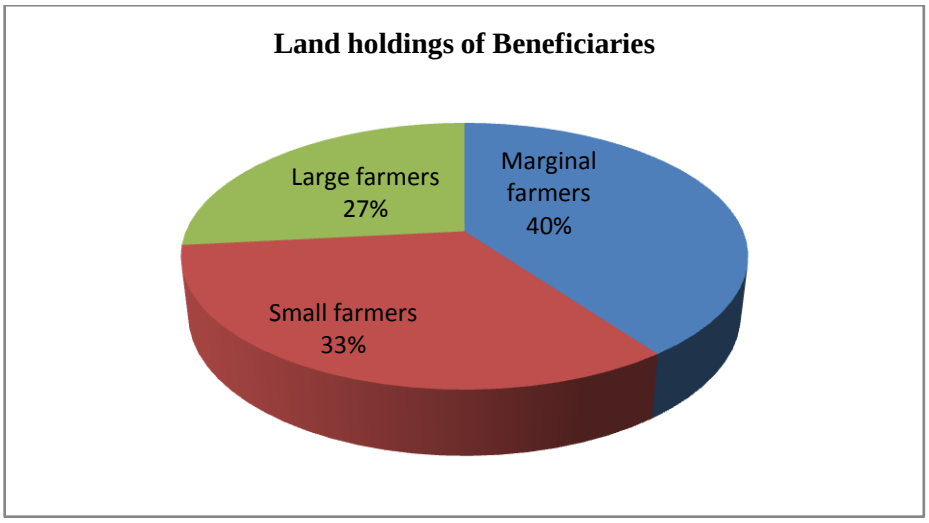

Fig 3. Land holdings of Beneficiaries

Extent of area under irrigation among the beneficiary farmers of IFS project:

The table 2 and fig .4 exhibits the extent of area under irrigation among the beneficiary farmers, it was found that, out of the total area under cultivation by the sample beneficiary farmers, 72.01% is reported to be under irrigation, while the remaining area relies on rainfed cultivation indicating a significant reliance on irrigated agriculture. Further, the majority of the areas of the marginal and small land holdings farmers were irrigated the crops either though open well or bore well and it was cent per cent of the area was under irrigation in the case of marginal farmers and 74.19 per cent of the area under irrigation in the case of small farmers. Similarly, among the large size farmers, 68.15 per cent of the area was cultivated through irrigation which helped them to take up horticulture crops easily from the available water sources.

Table 2. Irrigation status of sample beneficiary farmers under IFS, COH, Bidar

Sl. No.	Land holding of categories	Area (acre)	Irrigated area	Rainfed area
1	Marginal farmers (12)	14 (8.52)	14 (100.00)	0 (100.00)
2	Small farmers (10)	3 (18.87)	23 (74.19)	8 (25.81)
3	Large farmers (8)	119.32 (72.61)	81.32 (68.15)	38 (31.85)
Total		164.32 (100.00)	118.32 (72.01)	46 (27.99)

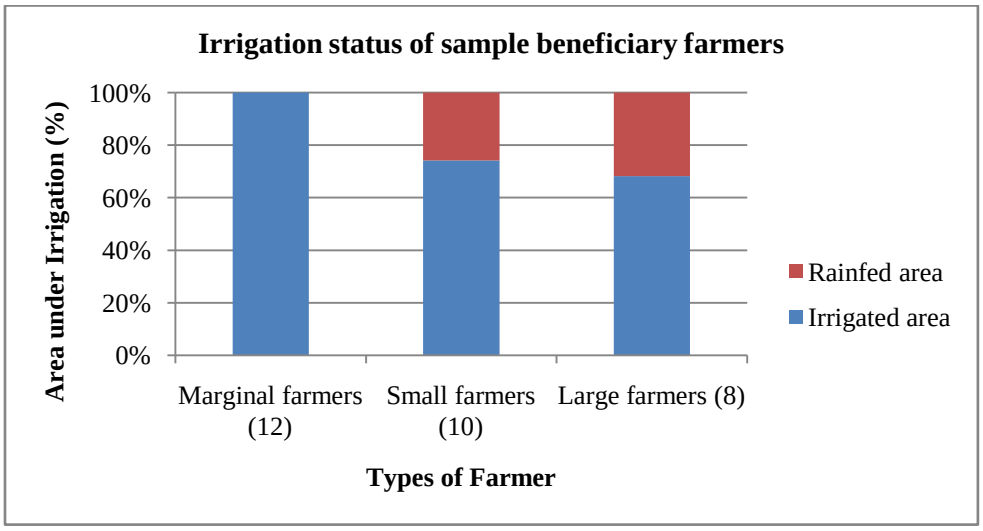

Fig 4. Irrigation status of sample beneficiary farmers under IFS, COH, Bidar

Source and method of irrigation adopted by beneficiary farmers:

The information from Table 3; Fig. 5, and Fig. 6 provides insights into the sources of irrigation available and the methods of irrigation adopted by different land size holding beneficiary farmers. The major source of irrigation available for crop irrigation among the beneficiary farmers was through bore wells, constituting 89.01% and open well irrigation accounted for only 10.99%. The methods of irrigation adopted by the farmers were diverse. Drip irrigation was the most widely adopted method, accounting for 79.72% and flooding method, while less prevalent, still constituted a significant portion at 20.28%. The adoption of drip irrigation, a modern and technology-intensive method, reflects a willingness among the beneficiary farmers to embrace advanced agricultural practices. This can lead to improved water management and increased crop productivity.

The information on the analysis of the source of irrigation among different landholding categories provides insights into the irrigation practices adopted by marginal, small, and large farmers. All farmers across marginal, small, and large categories were found to have access to both sources of irrigation. Bore well irrigation was the major source for large farmers, constituting 93.85% of their irrigation practices. Similarly, for marginal and small farmers, bore well irrigation was significant, representing 78.57% and 78.26%, respectively. With respect to method of irrigation, drip irrigation emerged as the dominant method of irrigation adopted by both marginal and large farmers, with percentages of 78.57% and 93.85%, respectively. In contrast, small farmers showed a higher preference for the flooding method, constituting 69.57% of their irrigation practices. Understanding these variations is essential for tailoring agricultural interventions to meet the specific needs and preferences of different farmer categories.

Table 3. Source and method of irrigation adopted by beneficiary farmers

Sl. No.	Land holding of Beneficiaries	Area (acre)	Source of irrigation		Method of irrigation	
			Bore well	Open well	Flooding	Drip
1	Marginal farmers (12)	14 (11.83)	11 (78.57)	3 (21.43)	3 (21.43)	11 (78.57)
2	Small farmers (10)	23 (19.44)	18 (78.26)	5 (21.74)	16 (69.57)	7 (30.43)
3	Large farmers (8)	81.32 (68.73)	76.32 (93.85)	5 (6.15)	5 (6.15)	76.32 (93.85)
Total		118.32 (100.00)	105.32 (89.01)	13 (10.99)	13 (20.28)	13 (79.72)

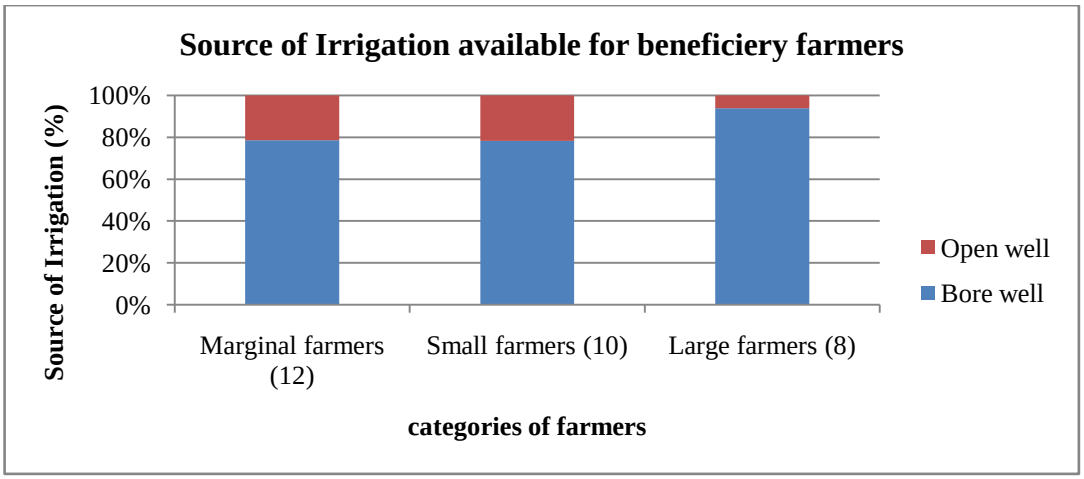

Fig 5. Sources of irrigation available by sample beneficiary farmers

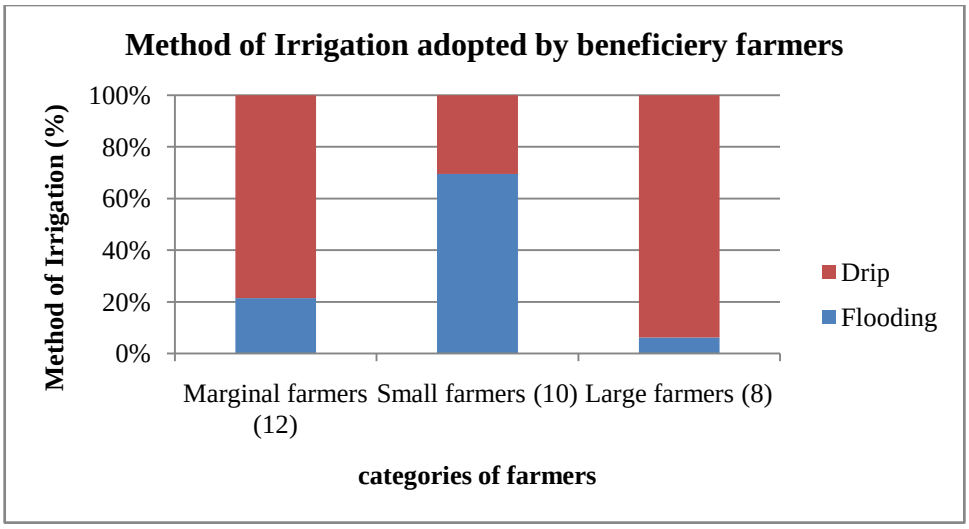

Fig 6. Method of irrigation adopted by sample beneficiary farmers

Cropping pattern adopted by sample farmers:

The information from Table 4 highlights the changes in cropping patterns adopted by sample farmers of the Integrated Farming Systems (IFS) project in selected villages of Bidar district before and after project intervention. Before taking the benefits of the IFS project, the farmers generally followed a cropping pattern involving Redgram intercropping with Greengram, Blackgram, Jowar, Soyabean, etc. Additionally, in areas where water sources for irrigation were available, farmers tended to cultivate sugarcane and, to some extent, perennial horticultural crops.

After being briefed about the IFS project and its benefits, there was a noticeable shift in the cropping pattern among the farmers. They began to take advantage of the opportunities presented by the project, particularly in terms of free supplies of vegetable seedlings or perennial crop seedlings. The shift in cropping patterns involved a move towards cultivating vegetable crops and perennial crops. This suggests that the awareness and benefits provided by the IFS project motivated farmers to diversify their agricultural activities. It was noticed that some farmers, who may not have cultivated crops in degraded land before, started cultivating perennial horticultural crops by investing additional budget in addition to benefits received from the IFS project. This indicates a positive impact on land utilization and productivity. Farmers not only received tangible benefits but also gained technical knowledge from experts. This knowledge likely played a crucial role in the successful cultivation of high-value horticultural crops. The shift in cropping patterns and the adoption of high-value crops indicate economic and agricultural diversification among the

sample farmers. This diversification can contribute to increased income and improved resilience in the face of changing market conditions.

Table 4. crops grown before and after the adoption of IFS intervention

Sl. No.	Crops grown	
	Before intervention of IFS	**After intervention of IFS Project**
1	Redgram + intercrop with Soyabean, Greengram, Blackgram etc	Papaya, Tomato Guava, Mango, onion, lime,
2	Sugarcane	Marigold, papaya, Tomato, Mango, Brinjal, Chilli and Onion
3	Sweet orange	Mango
4	No crop / degraded land	Mango crop

IFS project benefits distributed to beneficiary farmer:

Village wise distribution of different perennial horticultural crops seedlings/grafts, vegetable/flower crops seedlings and inputs/ materials to the farmers of Bidar District under IFS has given in table 5, table 6 and table 7.

Table 5. Village wise different Perennial Horticultural crops seedlings distributed to the farmers of Bidar District under IFS

Sl. No.	Name of the village	Total farmers	No. of seedlings distributed								
			Mango	Coconut	Sapota	Lime	Curry leaf	Drumstick	Cashew	Guava	Papaya
1	Chinakera	54	2030	1340	220	1725	974	400	0	500	0
2	Warawatti	20	525	51	0	0	0	0	0	0	0
3	Jalasangi	49	854	0	157	149	0	0	200	0	1800
4	Sedol	16	1253	0	0	85	0	0	0	0	0
5	Chandanahalli	50	644	0	0	0	0	19	0	0	0
Total		189	5306	1391	377	1959	974	419	200	500	1800

Table 6. Village wise different vegetable/flower crops seedlings distributed to the farmers of Bidar District under IFS

Sl. No.	Name of the village	Total farmers	No. of seedlings distributed				
			Chilli	**Brinjal**	**Tomato**	**Onion**	**Marigold**
1	Chinakera	54	55200	40500	36200	17 kg	8900

2	Warawatti	20	29800	7500	7000	22 kg	3500
3	Jalasangi	49	10200	0	18000	57 kg	6900
4	Sedol	16	18000	9200	8000	12 kg	4300
5	Chandanahalli	50	0	0	0	4 kg	0
Total		189	113200	57200	69200	112 kg	23600

Table 7. Inputs/ Materials distributed to famers under IFS Project of COH, Bidar

Sl. No.	Name of the village	Sample farmers	POP	Kitchen kit	Weeder	Sprayer	Vegetable handy planter
1	Chinakera	54	38	0	8	13	0
2	Warawatti	20	13	0	12	14	0
3	Jalasangi	49	7	123	40	43	0
4	Sedol	16	0	19	10	7	0
5	Chandanahalli	50	0	0	0	0	11
Total		189	58	142	70	77	11

Planting and survival rate of Perennial Horticultural crops seedlings distributed to the sample farmers of Bidar District under IFS:

The data from Table 8 underscores the success of the IFS project in terms of the survival rates of distributed perennial horticultural crops. On an average, there is a high survival rate of perennial crops distributed under the IFS project, with 92.52% survivability. The highest survival rate was observed in papaya crops (95.38%), followed by lime crops (94.36%), guava crops (91.42%), and mango crops (88.93%). This indicates successful establishment and maintenance of the perennial horticultural crops.The careful selection of crops, distribution of quality planting materials, and active involvement of farmers contribute to the positive outcomes observed in the survival rates, highlighting the effectiveness of the project's implementation.

Table 8. Planting and survival rate of Perennial Horticultural crops seedlings distributed to the sample farmers of Bidar District under IFS

Sl. No.	Crops	Seedlings distributed to sample farmers	Survival Number against distributed numbers	Percentage of survival
1	Mango	1220	1085	88.93
2	Guava	350	320	91.42
3	Lime	710	670	94.36
4	Papaya	1800	1716	95.38
			Average	92.52

Economic benefit analysis of the crops cultivated by beneficiary farmers from the IFS project interventions:

The economics of crops cultivated by beneficiary famers was worked out to know the impact of project benefits on the beneficiary farmers. To arrive the same, the cost-benefit analysis was carried out for the crops cultivated by beneficiary farmers before availing IFS project benefits and after availing project benefit. The cost-benefit analysis was worked as per CACP methodology. Accordingly, the result of the same is depicted in table 9.

The information from the results of the cost-benefit analysis for the crops cultivated by beneficiary farmers before availing IFS project benefits indicates the economic performance of different cropping patterns. Beneficiary farmers, prior to availing the IFS project benefits, cultivated Redgram crop intercropping with greengram, blackgram, and soybeanand the net income and B:C ratio were very minimal i.e. Rs. 2163 (B:C ratio: 1.04) net profit/acre in case of Redgram+Greengram and Rs. 1458 (B:C ratio: 1.03) net profit/acre in case of Redgram+Blackgram and was negative net profit in case of Redgram+Soyabean crop i.e. Rs.-8867 (B:C ratio: 0.83). The negative net profit in the case of Redgram + Soybean underscores the potential impact of the project in improving the economic viability of farming practices and promoting sustainable agriculture.

After availing seeds/seedlings and technical advice from the IFS project, farmers obtained higher net profits per acre from various horticultural crops. Highest net profit of Rs. 1,10,988 (B:C ratio: 1.45) per acre from papaya crop followed by marigold crop (Rs. 1,01,881/acre),watermelon (Rs. 84459/acre), onion (Rs. 72,938/acre), chilli (Rs. 49,023/acre), Brinjal (Rs. 39,801/acre). It was found that there was positive shift with respect to income level as compared to the before implementation of IFS project (Swetha et. al., 2018). The higher returns in these crops are also attributed to several factors could be due to higher prices; harvesting time coinciding with marriage and summer seasons likely led to increased demand and better prices and also free availability of seeds/seedlings from the project contributed to lower production costs, enhancing overall profitability. In contrast, tomato cultivation resulted in a negative net profit of Rs. -48,085 per acre. This was attributed to surplus arrivals of tomatoes in the market, leading to lower prices. The positive impact on net profits across various crops suggests that the IFS project has been successful in enhancing the economic outcomes for farmers. The provision of seeds/seedlings and

technical advice appears to have contributed to improved financial returns and economic sustainability of farming practices and improving the overall livelihoods of beneficiary farmers. Because of the adoption of the horticultural based forming system enhanced higher revenues to the famers compare to the non horticulture or traditional crops cultivation. Similar finding were observed in line with studies of MG Kerutagi et. al. 2019.

Table 9. Cost and benefit analysis of crops grown before and after receiving the vegetables/flower crops seedlings under IFS in Bidar District

Before IFS project intervention				
Crop name	**Cost of cultivation**	**Gross Income**	**Net income**	**B: C ratio**
Redgram + Greengram	54836	57000	2163	1.04
Redgram + Soyabean	53367.47	44500	-8867.47	0.83
Redgram + Blackgram	55541.55	57000	1458.45	1.03
After IFS project intervention				
Crop name	**Cost of cultivation**	**Gross Income**	**Net income**	**B: C ratio**
Marigold	198118.55	300000	101881.45	1.51
Watermelon	131541.6	216000	84459	1.64
Muskmelon	95219.71	96000	780.28	1.008
Onion	127061.77	200000	72938	1.57
Chilli	110976.73	160000	49023.28	1.44
Tomato	64335.02	16250	-48085.02	0.25
Brinjal	92198.95	132000	39801.05	1.43
Papaya	249011.22	360000	110988.78	1.45

In addition to seeds/seedlings distributionother farm equipment's/implements like Battery operated sprayer, Vegetable Handy Planter and cycle weeders were distributed to beneficiary farmers and impact assessment opinions of beneficiary farmers on the distribution of these items are listed below

Table 10 : Benefits of Battery operated sprayer distributed under IFS Project, COH, Bidar:

Without Battery operated sprayer	With Battery operated sprayer
1. Earlier farmers were using hand operated knapsack sprayers which were taking more	1. Battery operated sprayer is consuming less labour requirment and is taking less time to

time and requiring more labour i.e. 4-5 hours of time per acre. 2. Its nozel spray finess was not good as compared to Battery operated sprayer 3. Not much compertable to women labour to spray the Plant proection chemical (PPC) as compared Battery operated sprayer	complete the spraying task i.e. 2-2.5 hrs of time per acre. (around Rs.75 to Rs.90 (50%) worth of cost can be minimized) 2. After charging its battery for about 9 hrs. Sprayers can be used for spraring 400 litres of PPC (can able take spray of about 20 to 22 pumps of 18 litre per pump capacity) 3. Its nozel spray finess is good as compared to hand operated sprayers 4. Its working efficincy is better as compared to hand operated sprayers 5. Easy to handle and even it can be used by women labours also for spraying of PPC

Benefits of Vegetable Handy Planter (VPH) distributed under IFS Project:

Following are the benfits obtained by the beneficiary farmers by using Vegetale Handy Planter which were distributed under IFS project, COH, Bidar

1. This techniques is new to the farmers and reduced labour costs
2. Six man days needed to plant the seedlings by manual practice, whereas, VHP is taking four mandays to complete seedlings planting in an acre.
3. 40 to 50 per cent of time is saving to complete the seedling planting work as compared to manual planting of same work.
4. Its perfrming two activities at a time one is creating hole and another is planting and filling of soil simultaneously.
5. Marigold, cocumber and water melon plants are being planted through vegetable handy planter.

Benefits of cycle weeders distributed under IFS Project:

Following are the benfits obtained by the beneficiary farmers by using cycle weeders which were distributed under IFS project, COH, Bidar

1. Use of cycle weeders reducedwomen labours for weeding i.e. 12 to 15 labours were required for weeding in an acre for manual weeding, hence, after carring the

intercultivation works with cycle weeder, the women labour requirment for weeding works was reduced to 8 to 9 no.s which led to minimizes labour cost ofworth of arond Rs. 1200/- to Rs.1500/- (33 %).

2. Cycle weeders was used for performing intercultural operations in vegetables, agricultural crops etc.,. earler intercultural operation were done through bullock power only, now a days due to the introduction of cycle weeder, the task was also beeing carried out though cycle weeders which helps for reduction of the expenses to an extent of up to 50 percent of the actual expenses of the bullock power intercultivation cost. Weeding with this tool reduces drudgery, reduces labour and cost requirement in line sown crops similar kind of results were found in the studies of Naik, R.K. 2018..

Conclusions: IFS project has positively impacted on the farmer-beneficiaries of selected villages of Bidar district. The IFS project has influenced a positive shift in the cropping pattern among farmer-beneficiaries. There is a transition from traditional agricultural crops to the production of high-value horticultural crops. The project also contributed for decrease in cost of cultivation of most of the vegetable and flower crops and also increase in net profits, higher survival rate in perennial horticultural crops and sustainable income could probably realized from the perennial horticultural crops. Further, the inputs distributed under the project were timely helped in realization of higher income, lowering the cost and time saving in farming activities. Hence, It is suggested the Government should implement similar kind of supports to the farming communities for encouraging the farmers to adopt more area under high value horticultural crops for increasing the farm income of the farmers especially the farmers of small and marginal and it is farmers should come forward to adopt such of these IFS technologies for increasing higher economic benefits and self sustainability.

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