

A Comparative Analysis of Livelihood Security among Beneficiaries and Non-Beneficiaries of Integrated Farming System Demonstration

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ABSTRACT

The present study was conducted during 2016-17 in Mandya district of Karnataka state for comparing to the livelihood security among beneficiaries and non-beneficiaries of Integrated Farming System Demonstration (IFSD) The study was carried out purposively in selected 14 villages of Mandya taluk and district. The results revealed that majority of the beneficiaries had higher medium to high level of livelihood security, whereas, majority of the non-beneficiaries had lower level of livelihood security. The results of the study revealed that there is a significant difference in the livelihood security of beneficiaries and non-beneficiaries of IFSD.

Keywords: Livelihood security, IFSD, beneficiaries, non-beneficiaries

AGRICULTURE is the mainstay of our economy, a way of life for millions of farm families. Land is a primary source of livelihood and a critical factor that shapes the livelihood strategies and resultant outcomes. India lives in its villages - this axiom is as true today as it was when the country became independent 68 years ago. Agriculture and allied activities support livelihoods of nearly 70 per cent of India's rural population. In recent years, land-based livelihoods of small and marginal farmers are increasingly becoming unsustainable, since the land has not been able to support the family's food requirements and fodder for their cattle. As a result, rural households are forced to look at alternative means for supplementing their livelihoods. Livelihood is always more than just a matter of finding or making shelter, transacting money and preparing food to put on the table or exchange in the market place. It is equally a matter of the ownership and circulation of information, the management of social relationships, the affirmation of personal significance and group identity and the inter relationship of each of these tasks to the other. All these productive tasks together constitute a livelihood. For an anthropologist, livelihood is an umbrella concept, which suggests that social life is layered and that these layers overlap (both in the way people talk about themselves and the way they should be analyzed). This is an important analytical feature of the notion of livelihoods (Wallman, 1984).

Livelihood is the means for people use to support themselves, to survive, and to prosper. It is an outcome of how and why people organize to transform the environment to meet their needs through technology, labour, power, knowledge, and social relations. Livelihoods are also shaped by the broader economic and political systems within which they operate. In general, almost half of the world's population does not have the socio-economic and political means to realize their economic and social rights. One of the major causes of the poverty is the lack of viable livelihoods in the developing world.

Livelihood is also about creating and embracing new opportunities. While gaining a livelihood, or attempting to do so, people may, at the same time, have to cope with risks and uncertainties, such as erratic rainfall, diminishing resources, pressure on the land, changing life styles and kinship networks, exploitative markets, increasing food prices, inflation and national and international competition. These uncertainties, together with new emerging opportunities, influence how material and social resources are managed and used and on the choices people make.

Integration of various enterprises in a farm ensures recycling of farm wastes and utilizing all the available resources most economically and efficiently. It also aims at working out appropriate combinations of farm enterprises, resources, practices and methods.

Various subsidiary enterprises like crop husbandry, dairying, poultry, apiculture, sericulture, fisheries etc., have to be combined involving farmers in planning, implementation and evaluation of production plans to register a significant impact in terms of improving the standard of living in addition to sustained and stable income to rural poor. Hence, the present study is taken up with an objective to compare the livelihood security of beneficiaries and non-beneficiaries of IFSD.

METHODOLOGY

The study was conducted in 14 villages of Mandya taluk and district in Karnataka state during 2016-17. Out of fourteen villages, ten beneficiary villages (Kattedoddi, B. Yarahalli, Kagehalladoddi, Javaregowdanadoddi, Mariyanadoddi, Mallaiahnadoddi, B. Gowdagere, Hadya, Machalli and Jayapura) and four non-beneficiary villages (Malligere, Gopalapura, Koppa and Gulu) were purposively selected for the study. Sixteen beneficiaries involved in IFSD were selected randomly from each of the ten villages and ten non-beneficiaries were selected randomly from each five villages selected for the study. Thus the total sample constituted 160 IFSD beneficiaries and 40 non-beneficiaries. Data was collected using a pre-tested interview schedule.

In the present study, livelihood security is operationalized as, the ability of the respondents to earn and spend their income on all basic and other development activities which are essential for decent living. Further, it refers to the ability of the beneficiaries and non-beneficiaries to protect their capabilities, assets and activities which are essential for their livelihood. The livelihood security was measured by using scale developed by Mamathalakshmi (2013) with slight modification. The scale consists of eight major dimensions *viz.*, Assets, Living Amenities, Economic Efficiency, Ecological Security, Social Equitability, Transformation over a period of time, Coping strategies against stress and Employment status, comprising of 50 statements. Responses of beneficiaries and non-beneficiaries was collected on five point continuum *viz.*, very great extent, to a great extent, to a moderate extent, to a least extent and to a very least extent by assigning scores of 5, 4, 3, 2, and 1, respectively. Minimum and maximum score a respondent could get

50 and 250, respectively. Based on the cumulated score, the respondents were categorized as low, medium and high level of livelihood security considering mean and half standard deviation. Ex-post facto research design was adopted for the study. The collected data was scored and analyzed using mean, standard deviation, frequency, percentage and t-test.

RESULTS AND DISCUSSION

The results in Table I revealed that 51.88 and 65.00 per cent of beneficiaries and non beneficiaries were of middle aged. It was also noticed that 62.50 per cent of beneficiaries were having medium level of education and 72.50 per cent of non-beneficiaries possessed medium level of education. It is also observed that 67.50 and 75.00 per cent of beneficiaries and non-beneficiaries, respectively, were small farmers. With respect to extension participation, a little over half of the beneficiaries had high (51.25 %) level of extension participation, whereas, 80.00 per cent of the non-beneficiaries had low level of extension participation. Further, Table I revealed that 54.38 per cent of beneficiaries were having high level of risk orientation and 40.00 per cent of non-beneficiaries had low level of risk orientation.

The data in Table II presents the dimension-wise analysis of livelihood security among beneficiaries and non-beneficiaries of IFSD. The results showed that 48.75, 41.25 and 10.00 per cent of beneficiaries are having medium, high and low asset security, respectively. Whereas, 55.00, 27.50 and 17.50 per cent of the non-beneficiaries had low, medium and high asset security, respectively. More number of beneficiaries and non-beneficiaries belong to low level of asset security is due to the respondents living below the poverty line, one must possess assets like land, house, livestock etc. to lead a decent life. Similar findings were reported by Lavanya (2010).

With respect to the living amenities, 70.00 per cent of the beneficiaries had medium level of living amenities followed by high (20.00 %) and low (10.00 %) level of living amenities. Fifty per cent of non-beneficiaries had low, 47.50 per cent had medium and 2.50 per cent had high level of living amenities. The plausible reasons might be that drinking water is crucial for the survival of any living being, fuel is basic thing

TABLE I
Socio-economic characteristics of beneficiaries and non-beneficiaries of IFSD

Particulars	Criteria	Beneficiaries (n ₁ =160)		Non-beneficiaries (n ₂ =40)	
		No.	%	No.	%
Age	Young	24	15.00	7	17.50
	Middle	83	51.88	26	65.00
	Old	53	33.12	7	17.50
Education	Low	56	35.00	10	25.00
	Medium	100	62.50	29	72.50
	High	4	2.50	1	2.50
Land holding	Marginal farmers	52	32.50	10	25.00
	Small farmers	108	67.50	30	75.00
Extension	Low	9	5.63	32	80.00
Participation	Medium	69	43.12	5	12.50
	High	82	51.25	3	7.50
Risk Orientation	Low	12	7.50	16	40.00
	Medium	61	38.12	14	35.00
	High	87	54.38	10	25.00

in preparation of food items and savings is essential to buy required items during unforeseen or crisis situation. The study of Devarajaiah (2010) has favoured the present study findings.

Regarding economic efficiency, 48.75 per cent of the beneficiaries had medium level of economic efficiency, followed by high (39.38 %) and medium (11.87 %) level of economic efficiency. Fifty per cent of the non-beneficiaries had medium level of economic efficiency followed by low (40.00 %) and high (10.00 %) level of economic efficiency. The possible reason might be that even today unemployment is the major cause for poverty and migration. Employment is needed to earn money for living and also savings to meet the requirement of the self and family during emergencies. The study of Anand Rathod (2007) and Devarajaiah (2010) mirrored the present study findings.

In the context of ecological security, 40.00, 30.00 and 30.00 per cent of the beneficiaries had medium, high and low level of ecological security, respectively. Whereas, 45.00, 30.00 and 25.00 per cent of non-beneficiaries had low, medium and high level of ecological security, respectively. Due to uncertainty and unequal distribution of rainfall and dwindling of forest resources and drought situation prevails in the study area. The result of present study were in

consonance with the study of Rupak Goswami and Malay Paul (2012).

Table II also reveals that 40.62 per cent of the beneficiaries had medium level of social equitability, 30.00 per cent had low and 29.38 per cent had high social equitability. Whereas, 60.00 per cent of non-beneficiaries had low, 35.00 per cent medium and five per cent had high level of social equitability. The likely reasons might be that government and private sectors have created many schools primary health care centres, community halls etc. for the benefits of rural people. The finding of the study was consistent with findings of Lavanya (2010).

The results of transformation over a period of time revealed that 40.63 per cent of the beneficiaries had high level of transformation over a period of time. Whereas, 72.50 per cent had of the non-beneficiaries had low level of transformation over a period of time, 15.06 per cent had medium and 12.50 per cent had low level of transformation over a period of time. Opportunities of employment and number of earning members in the family has increased over a period of time. Further, government has taken interest in providing better health services by establishing more hospitals and extending many health coverage programmes to the rural people with a least cost. The

TABLE II
Dimension-wise analysis livelihood security among beneficiaries and non-beneficiaries of IFSD

Particulars	Criteria	Beneficiaries (n ₁ =160)		Non-beneficiaries (n ₂ =40)	
		No.	%	No.	%
Assets	Low	16	10.00	22	55.00
	Medium	78	48.75	11	27.50
	High	66	41.25	7	17.50
Living amenities	Low	16	10.00	20	50.00
	Medium	112	70.00	19	47.50
	High	32	20.00	1	2.50
Economic efficiency	Low	19	11.87	16	40.00
	Medium	78	48.75	20	50.00
	High	63	39.38	4	10.00
Ecological	Low	48	30.00	18	45.00
	Medium	64	40.00	12	30.00
	High	48	30.00	10	25.00
Social equitability	Low	48	30.00	24	60.00
	Medium	65	40.62	14	35.00
	High	47	29.38	2	5.00
Transformation over a period of time	Low	64	40.00	29	72.50
	Medium	31	19.37	6	15.00
	High	65	40.63	5	12.50
Coping strategies against stress	Low	60	37.50	24	60.00
	Medium	36	22.50	11	27.50
	High	64	40.00	5	12.50
Employment status	Low	32	20.00	30	75.00
	Medium	80	50.00	8	20.00
	High	48	30.00	2	5.00

finding of the study is not in the line with the finding of Kale *et al.* (2010).

Regarding the coping strategies against to stress, data results in Table II revealed that 40.00 per cent of beneficiaries had high, 37.50 per cent had low and 22.50 per cent had medium level of coping strategies. Whereas 60.00 per cent had low, 27.50 per cent had medium and 12.50 per cent had high level of coping strategies against stress, respectively. The possible reasons might be that savings gives safety and

confidence to buy required things during crisis and kitchen gardens plays a crucial role in meeting the food and other requirements of the family during stress condition. The findings of the study conducted by Lavanya (2010) supported the results of present study.

In case of employment status, 50.00 per cent of beneficiaries had medium, 30.00 per cent high and 20.00 per cent low level of employment status. Whereas, 75.00 per cent of non-beneficiaries had low level of employment status, 20.00 per cent had medium

TABLE III
Overall livelihood security mean scores among beneficiaries and non-beneficiaries of IFSD
 (n = 200)

Livelihood Security	Beneficiaries (n = 160)		Non-beneficiaries (n = 40)		't' value
	Mean	SD	Mean	SD	
Assets	26.00	2.73	22.65	3.32	5.98**
Living amenities	28.30	3.08	25.0	2.74	7.02**
Economic efficiency	17.10	1.93	15.43	1.91	5.06**
Ecological security	12.10	1.87	11.20	2.31	2.36**
Social equitability	20.40	2.16	17.90	2.80	5.55**
Transformation over a period of time	20.10	2.03	17.65	2.85	5.32**
Coping strategies	24.70	3.04	22.03	3.54	4.45**
Employment status	58.30	4.89	52.03	4.67	9.22**
Overall livelihood security	207.00	16.21	183.88	12.18	10.00**

t(0.01, 178df)= 2.58; **=Significant at 1% level

and 5.00 per cent had high level of employment status. The possible reason might be that because of difference in the type of work done by the men and women the wage differences exists. Government has initiated food for work programme and MGNREGA in order to provide employment opportunities and to create food security for the rural people. The study result was in line with the findings of Savitha *et al.* (2011).

The data in Table III presents the dimension wise livelihood security mean score of beneficiaries and non-beneficiaries of IFSD. It could be seen that the mean livelihood security of the beneficiaries was more in almost all the dimensions. The t-test was applied to compare the mean livelihood security of beneficiaries and non-beneficiaries and the value obtained under different dimensions are, 5.98, 7.02, 5.06, 2.36, 5.55, 5.32, 4.45 and 9.22 for assets, living amenities, economic efficiency, ecological security, social equitability, transformation over a period of time, coping strategies against stress and employment status, respectively. The results indicates that beneficiaries and non-beneficiaries significantly differ with respect to their livelihood security in all the dimensions.

The data on mean livelihood security score of beneficiaries and non-beneficiaries of IFSD is also presented in Table III. It was found that the mean

livelihood security score of beneficiaries is 207.00 while it was 183.88 in the case of non-beneficiaries. The t-value obtained was 10.00 which is significant at one per cent level indicating a significant difference exists between the beneficiaries and non-beneficiaries in respect of their livelihood security. The IFSD beneficiaries had higher income, assets, education, extension participation and risk bearing ability than non-beneficiaries. Hence a significant difference exists between beneficiaries and non-beneficiaries in respect of livelihood security. The findings of the study is supported by Jayashree Datta (2013).

An examination of Table IV indicates the overall livelihood security of the beneficiaries and non-beneficiaries of IFSD. It is noticed that 46.87 per cent of the beneficiaries had medium level of livelihood security followed by high (33.75 %) and low (19.38 %) level of livelihood security. Whereas, 77.50 per cent of non-beneficiaries had low level of livelihood security followed by 15.00 per cent had medium and 7.50 per cent had high level of livelihood security. The results showed that there is large differences in livelihood security among beneficiaries and non-beneficiaries. The reasons quoted for the finding in Table III also holds good. The findings of the study is supported by Jayashree Datta (2013).

TABLE IV
Overall livelihood security of beneficiaries and non-beneficiaries of IFSD
 (n = 200)

Particulars	Criteria	Beneficiaries (n ₁ =160)		Non-beneficiaries (n ₂ =40)	
		N	%	N	%
Livelihood Security	Low	31	19.38	31	77.50
	Medium	75	46.87	6	15.00
	High	54	33.75	3	7.50
Mean = 202.37		SD = 18.03			

The study results revealed that 80.62 per cent of the IFSD beneficiaries had medium to high level of livelihood security as against 77.50 per cent of non-beneficiaries having low level of livelihood security. A significant difference exist between beneficiaries and non-beneficiaries of IFSD in respect of livelihood security. The results implied the need of conducting more number of extension activities to motivate non-beneficiaries to adopt IFS activities for improving their livelihood security.

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