

INTEGRATED FARMING SYSTEM FOR INCREASING FARM YIELD AND INCOME

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ABSTRACT

Integrated farming system approach introduces a change in the farming techniques for maximum production in the cropping pattern and takes care of optimal utilization of resources. It is hardly difficult to meet out the ever increasing requirement for the ever rising population in India, in the present scenario. Unfortunately, In India the food producing enterprises like agriculture and its allied activities namely fishery, animal husbandry, horticulture etc. have been dominated by small and marginal farmers. Hence they are unable to invest more capital for doing intensive farming activities to produce more and meet the requirement. In this situation Integrated farming system plays an imperial role for not only supplement the income of the farmers but also help in increasing the family labour employment. The integrated farming system therefore assumes greater importance for sound management of farm resources to enhance the farm productivity, reduce the environmental degradation, improve the quality of life of resource poor families and maintain sustainability.

KEYWORDS : *Employment, Enterprise, Farming system, Integrated, Income*

I.INTRODUCTION

Integrated Farming System is considered as one of the best option towards intensification of small holder farm income to ensure sustainable livelihood. Integration of the cropping enterprise with other enterprises should be done in such a manner that it ensures recycling of crop residues, optimum resource use, higher employment generation, minimum of risks and uncertainties. A combination when carefully selected and planned by keeping in view the soil and environmental conditions will pay greater dividends [1]. They also envisaged that to mitigate the risks and uncertainties of income from conventional cropping and to reduce the time lag between

investment and returns, it is essential to use integrated farming system approach in production programme that yields regular and evenly distributed income throughout the year. The former group of scientists also reported that the integrated farming system greatly enhanced income of small and marginal farmers, minimized risks on account of crop failure due to uncertainties of rainfall and provided adequate employment opportunities. The authors have reviewed several research papers of various research scholars, experiments conducted at different locations to summaries the various benefits of the IFS for increasing farm yield.

II. DIARY-BASED INTEGRATED FARMING SYSTEM

Integration of a remunerative enterprise like dairy with conventional enterprise like crop husbandry can greatly enhance the net income and thus improve the standard of living of farmers [2]. [3] The author studied an integrated farming system on cropping, dairy, spawn production, biogas and silviculture as components and obtained remarkably higher additional net income, out of the total income obtained from integrating allied agricultural enterprises, 26% was from cropping 45% was from dairy, 7% was from biogas, 8% was from silviculture and 14% was from mushroom production. The additional employment generated through the integrated farming system was 770 man days ha⁻¹ year⁻¹ over conventional cropping system.

III. MIXED FARMING SYSTEM

Mixed farming has been defined as a system of crop and animal husbandry for efficient and effective use of land, labour and capital [4]. [5] The author reported the contribution of different cropping-based enterprises (crop fish, crop, crop-livestock, crop-livestock-fish-based farming) to the total income and better utilization of family labour when mixed farming practices were followed [6] It has been reported that the success of rice + Azolla-cum-fish culture integration involved better utilization of resources. The possible reason may be that in monoculture system, main focus is on external inputs while in integrated system, recycling of nutrients takes place that help in reducing the cost of production for economic yield. [7] The author studied on integrated farming system with cropping, fruit trees and goats as components. The yield of cotton was considerably higher in integrated farming system crop (41%) than in conventional cropping system. The yield increase was mainly due to adoption of recycling of organic wastes, especially goat manure. [8] It has been demonstrated the profitability of the system by integrating livestock into a crop based farming through increased financial benefits and a better use of intermediate farm resources such as manure, draft power, and crop residues.

IV. POND BASED INTEGRATED FARMING SYSTEM

Integrated farming with pond based can play a significant role in increasing manifold production, income, nutrition and employment opportunities of rural populations. [9] The average fish production obtained from integrated pond management was 330.92% higher over the traditional management. The total economic return in terms of gross return and gross margin achieved from integrated pond management was 1297.94 and 1496.53% higher over traditional pond management. The utilization of family labour round the year in pond based integrated production system contributed to improve the production as well as to create employment

opportunity for income generation. [10] It is reported that integration of pond based integration involving crop livestock and fish as major enterprise and mushroom cultivation as minor enterprise increased the income of farmers in Orissa, which thus concluded the adoption of IFS is profitable. [11] The author compared the performance of interdependent supplementary sub-system and observed that supplementary enterprises resulted in income and employment in the order of multi storeyed cropping > olericulture > field crops > pomology > floriculture, while in sub-systems, it was in the order of pisciculture > mushroom > biogas > apiary > poultry > duckery. An overall net return of Rs. 58360/ year was realized from an area of 1.25 ha.

V.CONCLUSION

Integrated farming system is a promising approach for increasing overall productivity and profitability through recycling the farm by products and efficient utilization of available resources. About 95% of nutritional requirement of the system is self sustained through resource recycling. As the number of enterprises are increased, the profit margin also increases. It could further generate employment opportunities to the farming communities round the year and provide a better economic and nutritional security. This can go long way uplift rural life through increased income.

REFERENCES

- [1] P. hrove, and V. Gangolihar, *Indian Journal of Agricultural Economics*, 11, 1995, 317.
- [2] R.H. Patel, and S. Dutta, Integrated Farming System Approach For Sustainable Yield and Economic Efficiency- A Review, *Agric. Rev.*, 25 (3), 2004, 219-224.
- [3] A. Rangaswamy, *Indian Farming*, 44, 1995, 27-29.
- [4] Raheja and Oberai, *Indian Farming*, 3, 1953, 20-21.
- [5] Chaurstylan, Lee, FFTC Book Series No. 16, 1980, 107-118.
- [6] M. Balusamy, P.M. Shanmugham, and R. Baskaran, Mixed farming an ideal farming, *Intensive Agric*, 41 (11-12), 2003, 20-25.
- [7] T. Senthilvel, *Madras Agricultural Journal*, 85, 1998, 65-67.
- [8] D.S. Ngambeki, R.R. Deuson, and P.V. Preckel, Integrating Livestock into Farming Systems in Northern Camerron. *Agricultural Systems*, 38, 319-338.
- [9] M.R. Alam M.A. Ali, M.A. Hossain, Molla MSH, and F. Islam , Integrated approach of pond based farming systems for sustainable production and income generation, *Bangladesh journal of Agicultural Resources*, 34(4), 2009, 577-584.
- [10] A. Dash, P. Anant, S. Singh, B. Banja, P. Sahoo, B.K. Pati, and P. Jayasankar, Empirical proof on benefits of integrated farming system in small holder farms in Orissa. DOI : <http://dx.doi.org/10.12944/CARJ.3.1.09>.
- [11] U.K. Behera, and I.C. Mahapatra, *Indian Journal of Agronomy*, 44, 1999, 431-439.