

GLIMPSE OF AN INTEGRATED FARMING SYSTEM

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ABSTRACT

More than 80% of farmers in India are marginal and small with a farm holding less than 2 ha. Due to power economic conditions, these farmers are unable to invest in high-end agricultural technologies to increase production and meet their daily necessities. Adoption of an integrated farming system by selecting the appropriate combination of agricultural enterprises based on the specific needs and suitability to the specific agro-climatic conditions, and socio-economic situation of the farmer is essential for augmenting the income of a farm, increasing productivity, profitability, sustainability and family labour employment.



INTRODUCTION

Agriculture and allied sector have a vital role in ensuring food security, nutritional security, reducing poverty and sustaining the growth of its burgeoning population in India. More than 80% of farmers in India are marginal and small with a farm holding less than 2 ha. Due to power economic conditions, these farmers are unable to invest in high-end agricultural technologies to increase production and meet their daily necessities. Further, widespread occurrence of side-effects of the green revolution viz; declining factor productivity, unemployment during the off-season, reduction in nutrient status of soil, and declining operational land holdings pose serious challenges to sustainability and profitability of existing farming systems, especially to marginal and small households. To make farming more economically viable, and environmentally safe and to improve sustainability a holistic approach

is requisite to be made. In this situation, an integrated effort must be made to address all emerging livelihood issues. The integrated farming system is a powerful tool in this situation to improve the livelihood of small and marginal farmers on a sustainable basis.

INTEGRATED FARMING SYSTEM

According to Singh and Ratan (2009), an integrated farming system can be defined as an integrated set of elements/ components and activities that farmers perform on their farms under their resources and circumstances to maximize productivity and net farm income on a sustainable basis. The integrated farming system introduces a change in the farming techniques for maximum production in the cropping pattern and takes care of optimal utilization of resources. In the integrated farming system, farm wastes are better recycled for productive purposes. The activities of an integrated farming system are focused on a few selected, interdependent, interrelated and often interlinking production systems based on a few crops, animals and related subsidiary professions. The integrated farming system envisages harnessing the complementarities and synergies among different agricultural sub- systems/enterprises and augmenting the total productivity, sustainability and gainful employment.

WHAT ARE THE GOALS OF AN INTEGRATED FARMING SYSTEM?

Integrated farming systems have the following four primary goals:

1. Maximization of the yield of all component enterprises of the integrated farming system to provide steady and stable income at higher levels.
2. Rejuvenation/amelioration of the system's productivity and achieving agroecological equilibrium.
3. Control the build-up of insect pests, diseases and weed population through crop rotation (diversification) and keep them at a low level of intensity.
4. Reducing the use of chemical fertilizers and other harmful agrochemicals and pesticides to provide pollution-free, healthy produce and environment to the society at large.

OBJECTIVES OF INTEGRATED FARMING SYSTEM

Following are the most important objectives of Integrated farming systems:

- ❖ To integrate different production systems like dairy, poultry, livestock, fishery, horticulture, sericulture, apiculture, etc. with crop production.
- ❖ To increase farm resource use efficiency to increase the farm income and gainful employment opportunities.

- ❖ To promote multi-cropping for crops of economic value to sustain land productivity.
- ❖ To maintain environmental quality and ecological stability.

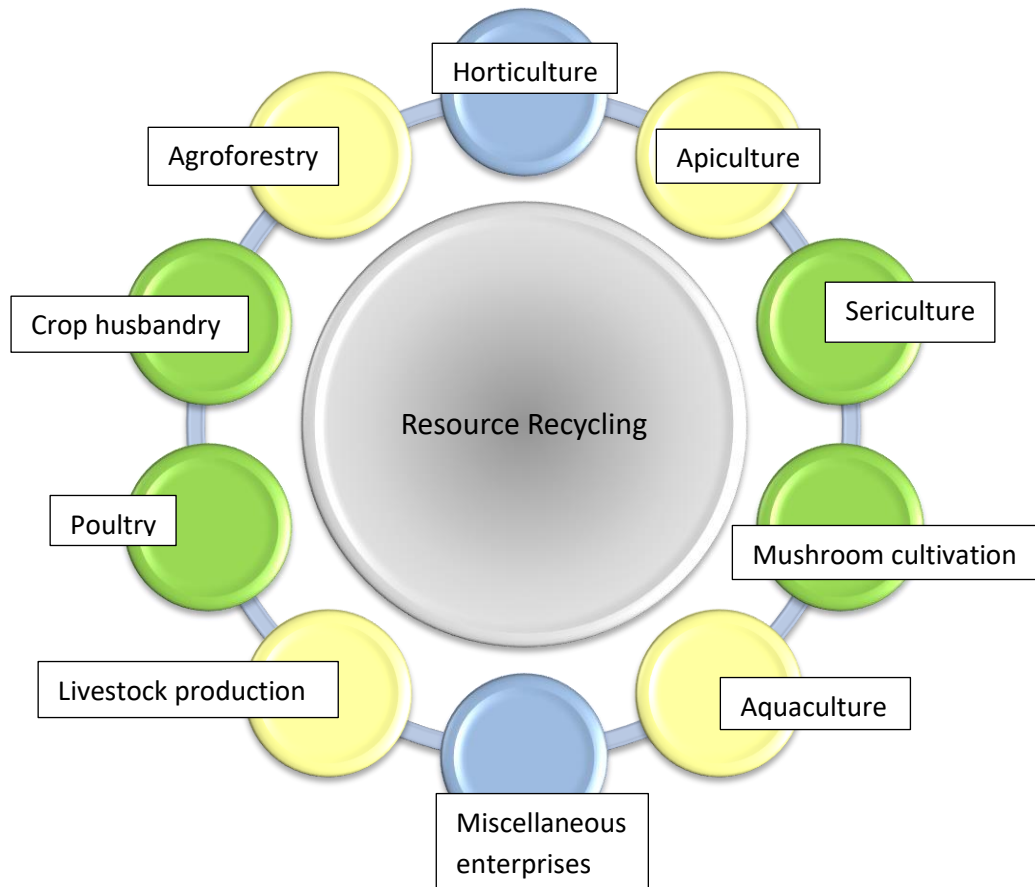


Figure 1 Different components of the Integrated Farming System

COMPONENTS OF INTEGRATED FARMING SYSTEM

Integrated farming systems may have various components as shown in figure 1. While selecting these components, local adaptation, socio-economic condition, geographical region, marketing facilities, transportation etc. need to be considered for an individual farmer, village and region. All the components in integrated farming systems must be interlinked to support each other and maximize the efficient utilization of each product or by-product.

ADVANTAGES OF INTEGRATED FARMING SYSTEM

- ❖ Helps to efficiently recycle and utilize the available resources
- ❖ Maximize the profit
- ❖ Increase employment opportunities
- ❖ Increases farm productivity
- ❖ Increase the environmental safety and sustainability

- ❖ Helps in providing balanced food for farm family
- ❖ Adoption of new technology
- ❖ It is an energy-saving approach
- ❖ Reduce the fodder crisis issues
- ❖ Reduce the fuel and timber availability issues

MAJOR CONSTRAINTS ADOPTION OF INTEGRATED FARMING SYSTEM

- ❖ The complexity of the integrated farming system due to multiple enterprises' adoption
- ❖ The development of an integrated farming system is time-consuming
- ❖ Lack of transport and marketing at the village level
- ❖ Non-availability of improved inputs
- ❖ Requirement of continuous supervision and monitoring
- ❖ Lack of financial support/heavy investment in the initial stage

CONCLUSION

Overall, it can be concluded that the adoption of an integrated farming system by selecting the appropriate combination of agricultural enterprises based on the specific needs and suitability to the specific agro-climatic conditions, and socio-economic situation of the farmer is essential for augmenting the income of a farm, increasing productivity, profitability, sustainability and family labour employment.
