

### Maintain Soil Health

To improve soil fertility and soil organic matter through compost, green manuring and integrated nutrient management.

### Reduce Risk and Uncertainty

To minimize the impact of crop failure, price fluctuation and climatic stress by diversifying income sources.

### Promote Sustainable Agriculture

To conserve natural resources such as soil and water and reduce dependency on external chemical inputs.

### Overall Aim of IFS

The ultimate goal of Integrated Farming System is to create a self-sustaining, economically viable and environmentally sound farming model that provides year-round livelihood security to farmers.

### Advantages of Integrated Farming System

Integrated Farming System offers multiple economic, environmental and social benefits to farmers.

### Higher Total Productivity

By combining crops with livestock, poultry, fishery or horticulture, total farm output per unit area increases compared to mono-cropping.

### Regular and Stable Income

- Different enterprises generate income at different times of the year.
- Milk provides daily income.
- Vegetables provide weekly income.
- Crops provide seasonal income.

This ensures continuous cash flow.

### Improvement in Soil Fertility

Use of farmyard manure, compost and biogas slurry increases soil organic matter and improves soil structure, water holding capacity and nutrient availability.

### Reduction in Input Cost

Recycling of crop residues and animal waste reduces the need for chemical fertilizers and external feed, lowering production costs.

### Risk Management

If one enterprise fails due to drought, pests or price fall, other enterprises support the farmer and reduce overall financial loss.

### Employment Generation

IFS creates year-round employment for family members and reduces migration from rural areas.

### Environmental Sustainability

Efficient use of resources, nutrient recycling and reduced chemical dependency help in conserving soil, water and biodiversity.

Integrated Farming System strengthens both farm income and environmental health, making agriculture more resilient and sustainable.

### IFS MODELS FOR GUJARAT

IFS models should be designed according to agro-climatic conditions of Gujarat.

### Suitable Enterprises in Saurashtra Region

- Groundnut-based cropping system
- Cotton-based cropping system
- Dairy farming
- Goat farming
- Mango orchard
- Vegetable cultivation
- Vermicompost unit

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### INTRODUCTION

#### vWhat is Integrated Farming System?

Integrated Farming System (IFS) is a scientific and holistic approach in which different farm enterprises such as crops, livestock, horticulture, poultry and fisheries are combined and managed together on the same farm. The main objective of IFS is to increase productivity, improve profitability and ensure long-term sustainability through efficient use of available resources.

#### "One Farm – Many Enterprises – Stable Income."

- Integrated Farming System is built on the principle that nothing on the farm should be treated as waste. Every by-product has value when properly utilized. In this approach, the output from one enterprise becomes a useful input for another enterprise within the same farm, creating a continuous cycle of resource use and recycling.
- The IFS approach is recognized as an effective strategy for improving the profitability and sustainability of farming systems. It is especially beneficial for small and marginal farmers, as it helps them maximize returns from limited land resources and create a more secure and productive livelihood.

IFS operates on the following key principles:

- Diversification of enterprises
- Resource recycling and waste minimization
- Optimum utilization of land, water and labour
- Risk reduction through multiple income sources
- Sustainability and environmental protection



### Objectives of Integrated Farming System (IFS)

Integrated Farming System is designed with clear and practical objectives that support both farmers and the environment. The main objectives are:

#### Increase Farm Productivity

To enhance total production per unit area by combining complementary enterprises instead of depending on a single crop.

#### Improve Profitability

To generate higher and regular income through multiple enterprises such as crops, dairy, poultry, fishery and horticulture.

#### Ensure Resource Recycling

To effectively recycle farm residues and by-products within the system, reducing input costs and minimizing waste.

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कोटा, राजस्थान



Integrated Farming System (IFS)  
A Smart Way for Sustainable and Profitable Farming

संकलन

Dr. R. M. Solanki, L. K. Mokariya and S. P. Oza

AICRP-Integrated Farming System Research Farm, Dept. of Agronomy,  
Junagadh Agricultural University, Junagadh, Gujarat.

Component	Area
Field Crops	0.50 ha
Horticulture	0.20 ha
Fodder	0.10 ha
Farm Pond	0.10 ha
Dairy Unit	0.05 ha
Vermicompost	0.05 ha
Component	Area

## Resource Recycling Flow in Integrated Farming System



### Types of Integrated Farming System Models

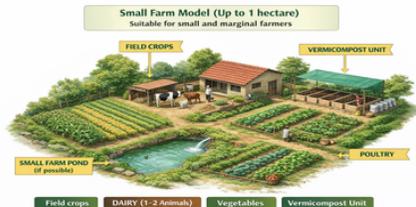
Integrated Farming System models vary depending on farm size, resource availability, climate and farmer preference. The structure of IFS should always be location-specific and need-based.

#### Small Farm Model (Up to 1 hectare)

Possible Components:

- Field crops
- Dairy (1-2 animals)
- Vegetables
- Poultry
- Vermicompost unit
- Small farm pond (if possible)

☛ Focus: Maximum income from limited land with strong recycling.



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### Medium Farm Model (1-2 hectares)

Possible Components:

- Field crops and fodder
- Horticulture crops
- Dairy (2-4 animals)
- Goat farming
- Fish culture
- Biogas unit

☛ Focus: Diversified income and better enterprise balance.

**Medium Farm Model (1-2 hectares)**  
Suitable for farmers with moderate land and water resources

### Large Farm Model (Above 2 hectares)

Possible Components:

- Commercial crop production
- Horticulture orchard
- Dairy or buffalo unit
- Poultry unit
- Fishery
- Agroforestry
- Processing and value addition

☛ Focus: Commercial profitability and value chain integration.

**Large Farm Model (Above 2 hectares)**  
Suitable for progressive farmers with more investment capacity

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### Important Note

IFS models must be designed according to:

- Agro-climatic conditions
- Soil type
- Water availability
- Market demand
- Family labour

There is no single fixed model. Adaptation is the key to success.

### Conclusion and Future Prospects

- Integrated Farming System is an effective approach for improving farm income and ensuring sustainable use of natural resources. By integrating crops with livestock and other enterprises, farmers can utilize available resources more efficiently and reduce dependence on external inputs.
- IFS helps in achieving higher productivity, stable income and improved soil health. The system also reduces production risks and ensures better utilization of land, water and labour. Therefore, Integrated Farming System is considered a suitable approach for small and marginal farmers as well as for sustainable agricultural development.
- Adoption of Integrated Farming System can play an important role in improving farmers' livelihood and strengthening rural economy. Scientific planning and proper management of different enterprises are essential for successful implementation of IFS.

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