

Livestock Production Systems

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Main Livestock Production Systems

1. Extensive System/Free Range System

- Based on natural grazing, browsing and foraging
- Less input needs for this system (inputs like feed, water, shelter and vaccine)



2. Semi-Intensive System

- Practicing in cropping areas
- Facilitate integration for additional income
- Feed based on crop residue and by-products



3. Intensive System

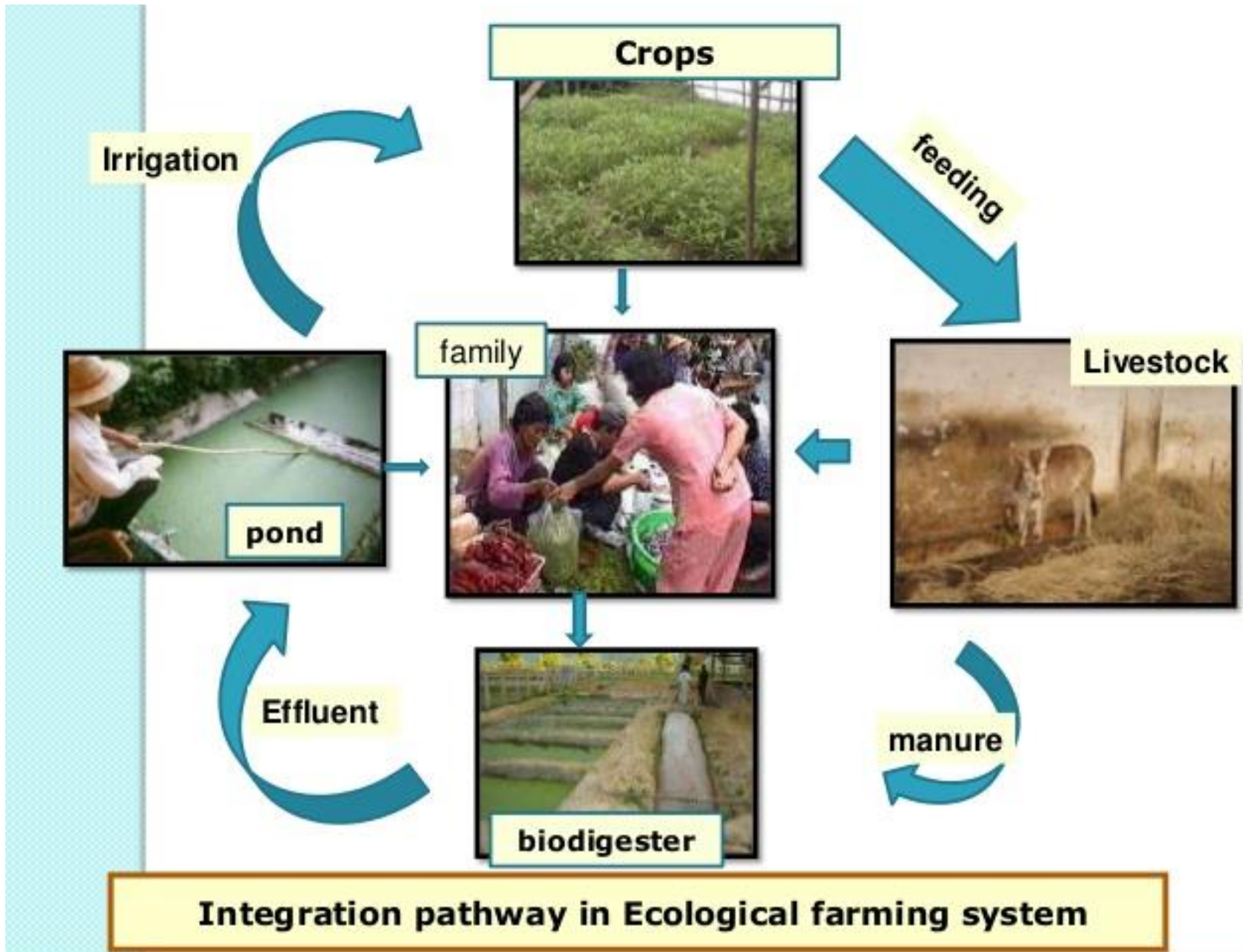
- Pre-urban enterprises
- Profit oriented system
- Well planned management



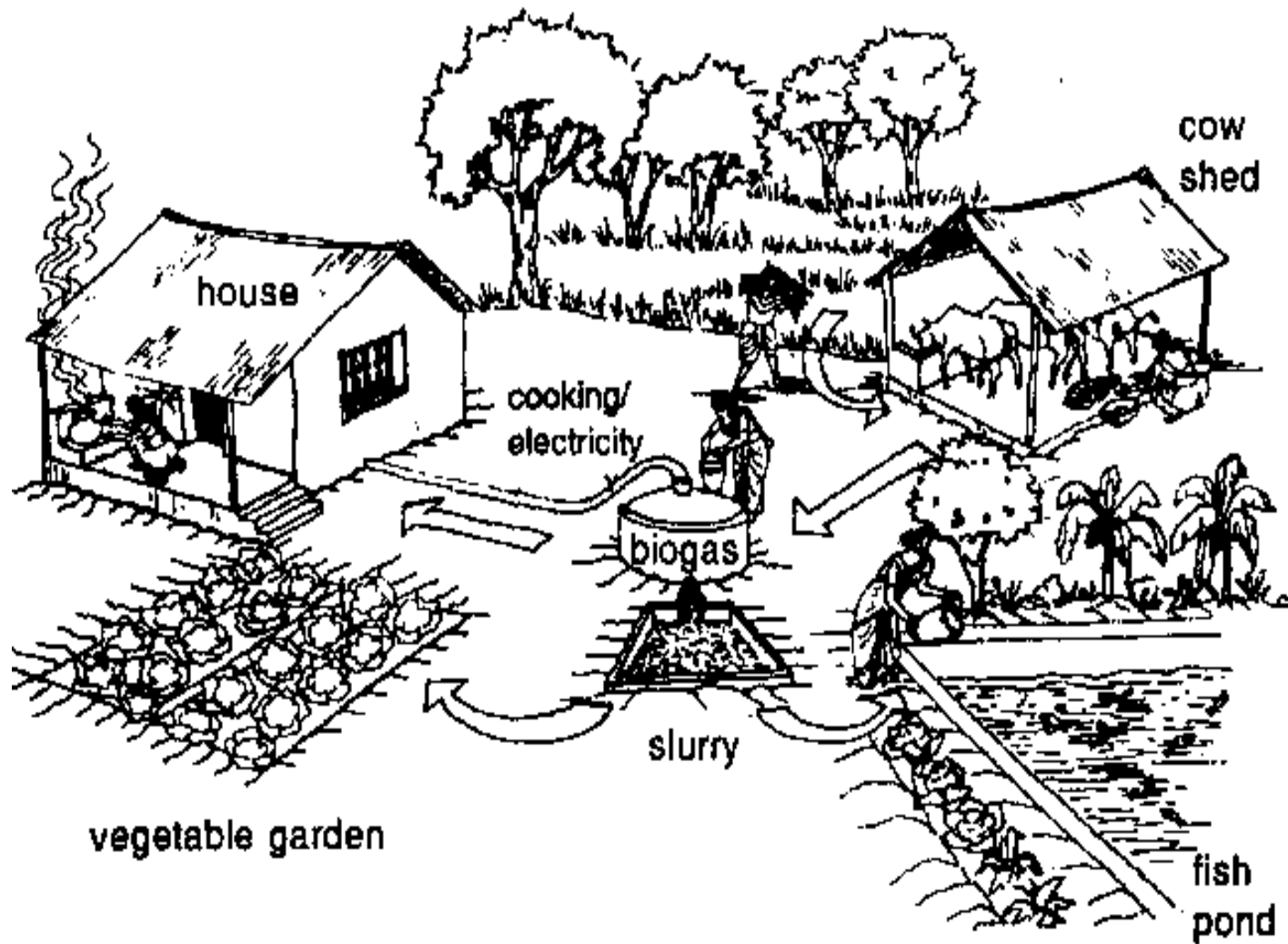
Integration Systems

Integration

- A method of farming in which two or more enterprises(crop, livestock, fish) are combined to get maximum efficiency from resources used,
- Considering their relationship & interaction provided that an output from one enterprise would be an input for another



Integration...



Why is integration of livestock into a cropping system important?

Because,

- Increase subsistence security by diversifying the food generating activities of the farm family
- Transfer nutrients and energy between animals and crops via manure and forage

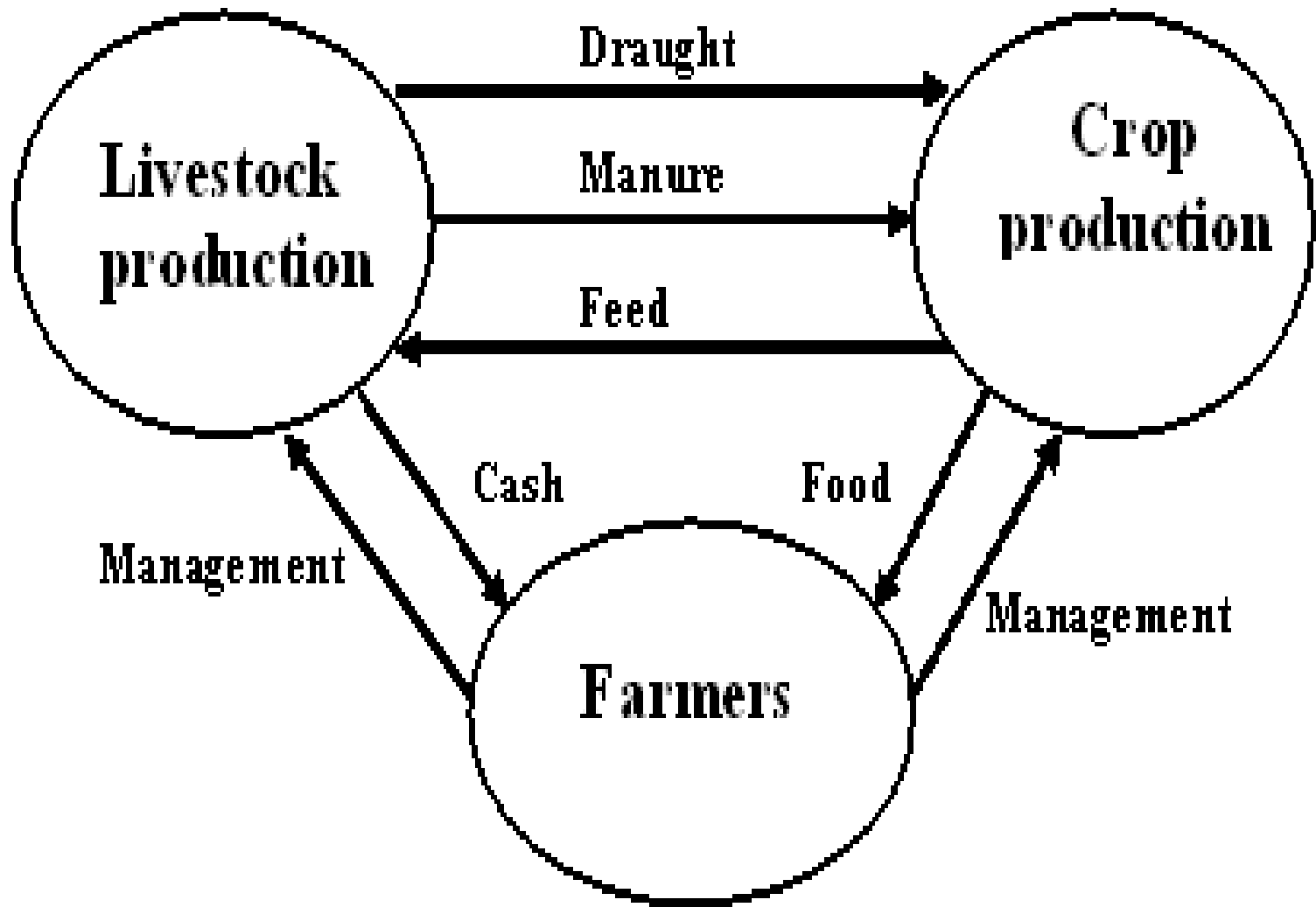
Factors to be considered in integrated farming

- Farmers needs or purpose of rearing
- Climate and environmental factors
- Availability of resources and inputs
- Resources use efficiency
- Limiting factors
 - Pest and diseases
 - Organizational constraints
 - Government policies
 - Local and world marketing
 - Alternative for resources

Different types of integration systems

1. Livestock-Livestock Integration

- Use several species of farm animals
Ex: poultry, ruminants, pigs, fish
- Can have a wide range of feed resources than keeping only one species for feeding
- Cattle and sheep prefer grasses
- Products
Ex: cattle/buffalo – milk, meat, draught
chicken – meat, egg





2. Crop-Livestock Integration

- With field crops, plantation crops (tea, coconut, rubber), Export agricultural crops, other cash crops
- Agro silvo-pastoral system (the practice of combining forestry and grazing of domesticated animals in a mutually beneficial way)
- Kandian Forest Gardens

3. Crop-Livestock-Fish Integration

- Suitable in small holder farming
- Has many ecological and economical advantages

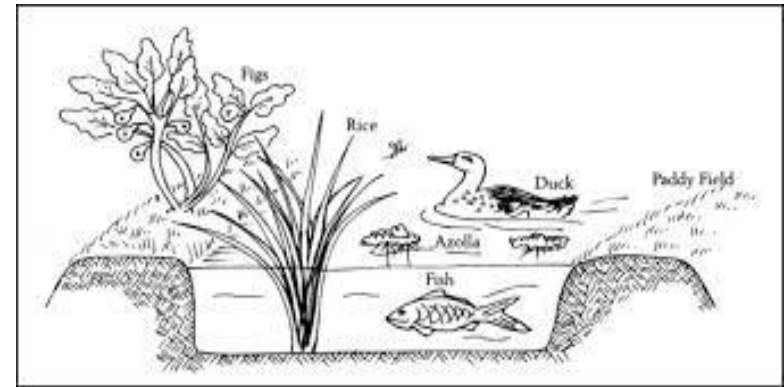
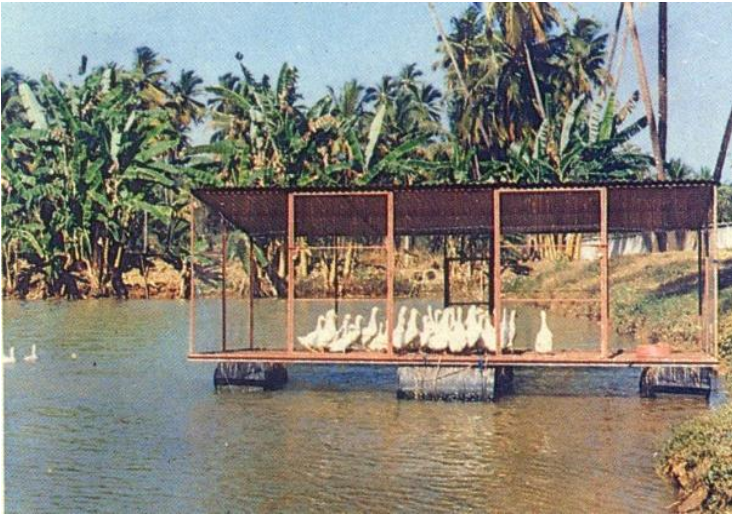
Advantages of Integrated Farming

- Conductive to nature conservation
- Optimize the use of farm resources
- Productive and profitable
- Use micro environment within farm system

Integrated models for small scale farming

- Duck-fish integration
- Cattle/Buffalo-fish integration
- Poultry-fish integration
- Pig-fish integration
- Crop-fish integration

Duck-fish integration



Advantages:

- Increase the production of animal proteins
- Space above the water layer can be utilized

- Feathers are clean & growth is rapid in ducks
- Free from diseases and parasites
- Duck droppings fertilize pond water
- Aerate the surface water layer because of swimming and chasing of ducks
- Ducks consume mosquito larvae, mollusks and weeds which are not easily destroyed by fish