

# Unit III- Rural Development

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## Concept of Rural Development and its Key Issues

### Objectives

After going through this lesson, you shall be able to understand the following concepts.

- Meaning of rural development
- Key Issues involved in rural development

### Introduction

Nearly two-thirds of the people in India live in rural areas. That is, the bulk of our population lives in the rural areas.

However, despite being home to the bulk of the population, development is largely absent from rural India. It is weighed down by serious problems such as extreme poverty, lack of basic infrastructure, low farm productivity and low standard of living. Rural India has failed to keep up with the fast-growing urban India. There exists a great disparity between the two in terms of development.

For example, while cities are literally touching the skies with tall skyscrapers, there are many villages in India which cannot even boast of proper *pucca* houses; while the best of health facilities are available in cities, there are many villages in India which do not have access to a single doctor; while the children living in cities can avail of the excellent educational system in place in cities, there are many villages in India which cannot provide its children with even primary schools. Truly, the urban–rural divide is great!

Can India ever hope to become a developed nation by ignoring the many ills that plague its rural areas? No. Real progress cannot happen as long as a large part of the country remains underdeveloped. This is why rural development is important. Developing rural areas at par with the urban areas is key to the overall development of India.

### Rural Development

Rural development refers to the actions and initiatives taken for the social and economic development of the rural or backward areas. It aims at a continuous rise in the standard of living of the rural poor.

### Key Issues in Rural Development

Rural development involves the following key issues.

**1. Human capital formation:** Quality human capital is missing from rural areas. The reason for this is the absence of basic health and education facilities that are necessary for human capital formation. People in rural areas often have to resort to far-flung places for these facilities. This has the effect of reducing the quality of human capital. Thus, an important part of rural development is production of quality human capital out of the human resources available in rural areas. For this, it is important to invest in such areas as education, technical skills development through on-the-job training and healthcare.

**2. Development of productive resources:** Agriculture is the main occupation of people in rural areas. There is, thus, an excess burden on the agricultural sector. This sector also suffers from low productivity, lack of infrastructure and disguised unemployment. Hence, there is the need to develop productive resources to help generate alternative employment opportunities for the rural people. This would increase the productivity and income of the rural people and also reduce the strain on the agricultural sector. Therefore, creation of alternative sources of income via growth of productive resources is an important part of rural development.

**3. Development of rural infrastructure:** Infrastructure such as banking, credit societies, electricity, means of transport, means of irrigation and facilities for agricultural research are crucial to the development of rural areas. These facilities provide the necessary support to all production activities. Absence of these facilities makes economic growth and social development a difficult task. Thus, infrastructure development is of critical importance in rural development.

**4. Land reforms:** As mentioned before, agriculture is the primary occupation in rural areas. The agricultural sector has several shortcomings such as small land size, presence of intermediaries, dependence on moneylenders, employment of traditional techniques of farming and lack of a marketing system. These shortcomings can be removed through various land reforms and technical reforms.

Land reforms include abolishing intermediaries, consolidating land holdings, imposing land ceiling and regulating rent. These help in increasing the productivity and aggregate volume of farm output. Technical reforms include encouraging the use of HYV seeds, fertilisers and pesticides, providing irrigation facilities and promoting modern techniques of production.

Land reforms and technical reforms together lead to efficient and optimum use of land, thereby resulting in large scale production. This would in turn increase the income and standard of living of the rural people.

**5. Reducing poverty:** Poverty is one of the main causes of rural underdevelopment. While not a problem in itself, poverty does give rise to many interrelated problems such as unemployment, inferior human capital, underdevelopment, backwardness and

inequalities. Poverty alleviation should be integral to government plans and policies. Increasing number of schemes should be launched by the government for the upliftment of the rural poor. Developing income-earning assets is an important step in tackling poverty. Such steps would help generate income, raise the living standards and make the people in rural areas self-sufficient.

**6. Generation of new employment opportunities:** Agriculture, as stated before, is the primary source of income of the rural people. Low productivity and output characterises the agricultural sector. For this reason, the income of farmers remains low. Moreover, as agriculture is a seasonal occupation, there exists a time lag of approximately 5 to 7 months between the cultivation of two crops.

During this time, due to the lack of alternative employment opportunities, farmers remain without any job. Thus, emphasis must be laid on the development of alternative means of income such as cottage industries, fisheries and handicrafts. The greater the employment opportunities, the higher would be the income generated. This increase in income would help reduce the poverty persisting in the rural economy, thereby making the people of rural areas self-sufficient.

## **Rural credit and its Sources**

### **Objective**

In this lesson, you will go through the following topics.

- Concept of Rural Credit
- Classification of Rural Credit
- Sources of Rural Credit in India
- Critical Appraisal of Rural Banking in India

### **Introduction**

Rural poverty is an issue of grave concern. The income of the people in rural areas is barely enough for their sustenance. Consequently, they are unable make any worthwhile savings. Low income and the resultant low rate of savings make it difficult for farmers to invest on their farmlands to increase productivity. The few banks that are present in rural areas prefer to advance credit to farmers with large land holdings. Small and marginal farmers have none but moneylenders to turn to. The inability to increase productivity implies that the total farm output remains low and, thus, the conditions of low income and poverty continue to prevail.

The infusion of credit is essential to counter these conditions. Rural credit is vital for the development of the agricultural sector and the consequent rural economic development. Let us look at some of the points that highlight the **importance of credit in rural development**.

**1. Promotes commercialisation of farming:** The produce of small and marginal farmers is hardly enough for their own subsistence. They are unable to generate sufficient surplus to reinvest on their lands. Influx of funds helps these farmers to upgrade their productivity and, thereby, commercialise their farming. Easy and cheap availability of rural credit enables the farmers to invest in modern techniques of farming, which in turn helps them generate surplus for the market. Consequently, their income increases.

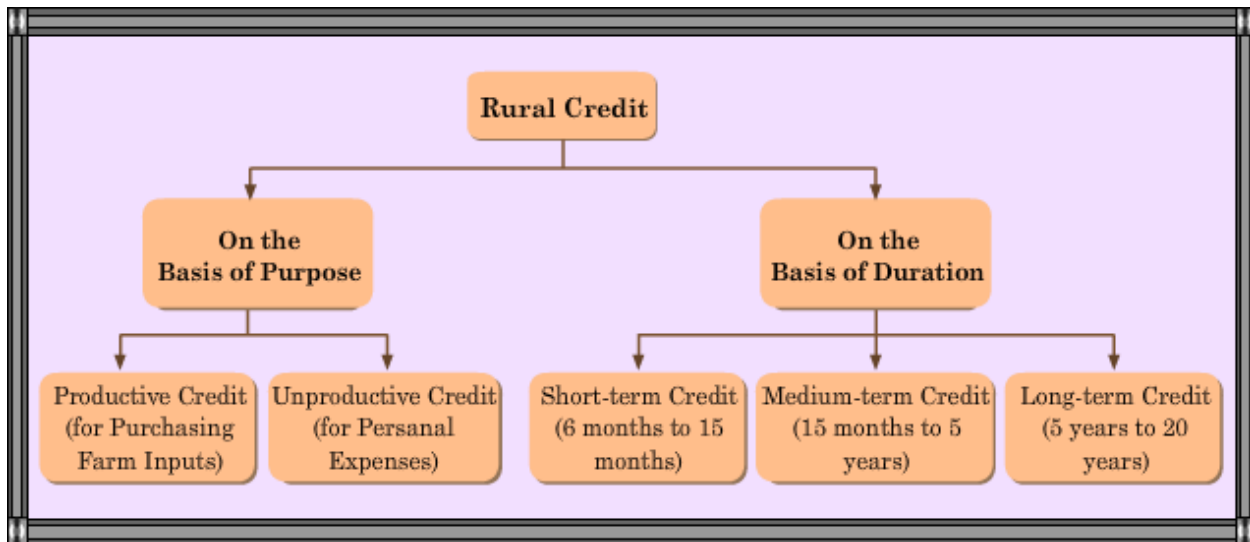
**2. Helps finance farming inputs:** A long gestation period exists between the sowing of seeds and the harvesting of crops. In other words, the time lag between the investment made by farmers on farming inputs and the receipt of income from the sale of their output is very long. As a result, farmers often fail to finance the initial requirements such as seeds, fertilisers and tools. Here, credit plays a crucial role by enabling farmers to meet the initial requirements of farming inputs.

**3. Keeps farmers out of the vicious circle of poverty:** Credit saves farmers from the vicious circle of poverty. Farmers require funds to meet their general and specific needs. These needs can be fulfilled via credit.

**4. Protects farmers against natural calamities and dynamic market environment:** Indian agriculture has always been at the mercy of the vagaries of climate. Farmers are the worst hit in the event of poor rains and crop failure. This pushes them into debt traps, thereby preventing them from undertaking any farming in the subsequent period. In such a scenario, crop insurance and farm credit play a significant role. They cushion the impact of an unfavourable market environment or a natural calamity such as flood, and enable farmers to survive.

### **Classification of Rural Credit**

The following flow diagram illustrates the different types of rural credit.



**1. On the basis of purpose and use:** Rural credit can be classified into the following two categories on the basis of purpose or use.

a. **Productive credit:** This refers to the credit requirements of farmers for purchasing farming inputs necessary for production, such as seeds, fertilisers and machinery.

b. **Unproductive credit:** This refers to the credit requirements of farmers to meet personal expenses such as conducting a marriage and paying for medical treatment.

**2. On the basis of duration of credit:** Rural credit can be classified into the following three categories on the basis of the duration for which credit is advanced.

a. **Short-term credit:** This form of credit is advanced for a short period (typically, ranging between 6 months and 15 months). Farmers use short-term credit to buy farming inputs such as seeds and fertilisers.

b. **Medium-term credit:** This form of credit is advanced for a period ranging between 15 months and 5 years. Farmers use medium-term credit for productive purposes such as purchasing machinery, carrying out land improvements and purchasing farm animals. This form of credit also serves the purpose of enabling farmers to meet certain personal expenses such as conducting a marriage.

c. **Long-term credit:** This form of credit is advanced for a period ranging between 5 years and 20 years. Farmers use long-term credit for productive purposes that require large funds, such as purchasing additional land and purchasing modern machinery like tractors and threshing machines.

## Sources of Rural Credit in India

Sources of rural credit in India can be divided into two broad categories.

a. Non-institutional sources

b. Institutional sources

### **Non-institutional source of credit**

You must have seen Indian films wherein rich landowners, moneylenders and big traders are shown advancing loans to poor farmers. These landowners, moneylenders and traders form the non-institutional sources of credit. At the time of independence, these were the major and popular sources of credit in rural India. They accounted for more than 90% of the total rural credit. Landowners and moneylenders would often exploit poor farmers. They would charge exorbitant rates of interest and even manipulate the accounts. As a result, farmers would get caught in never-ending debt-traps.

Some of the important non-institutional sources of credit are discussed below.

#### ***Moneylenders***

Moneylenders are the most popular sources of credit in rural areas. Rural folk can readily obtain funds from moneylenders for both productive and unproductive purposes. Moneylenders can be either professional or non-professional. Professional moneylenders are those for whom lending money is the sole business. Non-professional moneylenders, on the other hand, are those who engage in money lending activities in addition to their primary occupation (usually farming).

#### ***Traders, landlords and relatives***

Traders, landlords and relatives are some other non-institutional sources of credit. Traders advance credit to farmers by way of purchasing their produce. They force farmers to sell their output at very low prices and, in the process, charge high amounts of commission for themselves.

### **Institutional source of credit**

Non-institutional sources of credit are usually exploitative by nature. To counter this, sources of credit needed to be institutionalised. The first step taken in this direction was the nationalisation of commercial banks in 1969. Since then, rural credit has increasingly been seen as a priority issue and steps have been taken to adopt social banking and a multi-agency approach to cater to the rural credit requirement.

In India, the structure of rural banking is called the multi-agency system. It includes the following institutions.

- a. Cooperative banks and cooperative credit societies
- b. Commercial banks
- c. Regional rural banks
- d. Land development banks

### ***Cooperative banks and cooperative credit societies***

In 1904, the Indian government passed the 'Cooperative Credit Societies Act'. This act marked the beginning of cooperative credit in India. It enables people to voluntarily come together to meet their mutual financial needs as and when required. Cooperative credit societies were formed with the following **broad objectives**.

- i. To eliminate the role of moneylenders as a source of credit
- ii. To provide easy and adequate credit to farmers
- iii. To expand the flow of credit in rural areas

In India, cooperative credit societies work at **three levels**.

i. **Primary agricultural credit societies (PACS)**: These societies work at the village level and deal directly with the rural borrowers.

ii. **Central cooperative banks**: These banks work at the district level. They advance short-term as well as medium-term loans to PACS.

iii. **State cooperative banks**: These banks work at the state level. They, too, advance loans to PACS.

Presently, cooperative credit societies account for 30% of the total rural credit.

Cooperative credit societies have certain **drawbacks** that prevent them from becoming a popular source of credit in rural areas. Some of these limitations are discussed below.

i. **Insufficient financial resources**: Cooperative credit societies do not have sufficient financial resources to cater to the demands of the rural regions.

ii. **Huge overdue amount**: Many cooperative credit societies have huge amount of overdue, which has made them virtually defunct.

iii. **Delay in advancing credit**: Most cooperative credit societies are unable to advance timely credit.

iv. **Inclination towards large farmers:** Cooperative credit societies have mostly benefitted big farmers. These societies have failed to solve the fund problems of small and marginal farmers.

v. **Uneven growth:** Cooperative credit societies have come up unevenly in different parts of the country. Only certain regions seem to have benefitted from this initiative.

### ***Commercial banks***

The entry of commercial banks in the rural sector was necessitated by the failure of cooperative credit societies to meet the rural credit requirement. In 1969, fourteen commercial banks were nationalised for the purpose of advancing credit to rural people. These commercial banks have been directed to advance 40% of their total loan credit to the priority sector, which includes the agricultural sector. The share of commercial banks in rural credit has increased tremendously over time. In 2007-08, they accounted for 68% of the total rural credit.

### ***Regional rural banks (RRBs)***

RRBs were set up to complement commercial banks and cooperative credit societies in satisfying the credit needs of small and marginal farmers. Initially, 5 RRBs were set up in 1975. This number rose to 196 by 2005. However, later, their number declined to 86 as a result of the amalgamation process started by the government. RRBs advance credit only for productive purposes. They account for almost 8–10% of the total agricultural credit. The weaker sections and backward districts have been the major beneficiaries of RRBs.

### ***National Bank for Agricultural and Rural Development (NABARD)***

Established in 1982, NABARD controls and regulates the activities of rural banking institutions. Some of its **functions** are discussed below.

i. **To act as the apex rural credit institute:** NABARD serves as the apex agency for financial institutions that advance credit for various rural developmental activities.

ii. **To take necessary steps for improving the credit delivery system:** NABARD takes appropriate steps or measures to improve the credit delivery system. These measures include monitoring, formulation, restructuring of institutions and training of manpower.

iii. **To coordinate the rural financing activities:** NABARD coordinates the rural financing activities of all credit institutions engaged in developmental work at the grass-roots level.



iv. **To refinance and monitor other financial institutions:** NABARD refinances institutions that are involved in financing the rural sector. In addition, it also monitors and evaluates the projects that it refinances.

### ***Microcredit***

Microcredit refers to the credit and other financial services provided to the poor through self- help groups (SHGs) and non-governmental organisations (NGOs). SHGs play a crucial role in meeting the credit requirements of the rural poor by inculcating in them the habit of saving. The individual savings of many farmers are pooled together to meet the financial requirements of the needy members of SHGs.

The members of these groups are linked with the rural banks. A poor individual, thus, become financially strengthened by being part of an SHG. Further, the financing made through SHGs reduces transaction costs for both lenders and borrowers. Presently, more than 7 lakh SHGs are operating in different rural areas. SHGs are becoming popular among the small and marginal borrowers owing to their informal credit delivery mechanism and minimal legal formalities.

### ***Kisan Credit Card***

Launched in 1997-98, the Kisan Credit Card scheme aims to increase the farmers' accessibility to credit. Under this scheme, credit limits are fixed for farmers based on their operational land holdings, their estimated credit requirements, cropping patterns, etc. A farmer can then use the Kisan Credit Card to withdraw money up to the assigned credit limit. Loans can even be rescheduled in the event of a natural calamity or crop failure. Up to 2008, seven hundred and fifty-seven lakh *Kisan* credit cards had been issued.

### ***The poor women's bank***

In order to promote saving and banking habits among poor women, a scheme called *Kudumbashree* was launched in Kerala in 1995. It is a community-based programme that has poverty reduction as its core objective. Under this scheme, thrift and credit societies have been formed to mobilise savings and credit. This initiation has been quite successful and is acclaimed as the largest informal banking system in Asia.

## **Critical Appraisal of Rural Banking in India**

Over the years rural banking has expanded rapidly. NABARD has made significant progress in the field of rural credit. The share of institutional sources in the total rural credit has increased from just 7% at the time of independence to 70% at present. Rural banking has been successful in inculcating saving and banking habits among rural folk. Readily available credit has helped farmers to increase their level of output.

As a result, India has been able to build buffer stocks of food grains. Facilities like crop

insurance shield farmers against the vagaries of climate and crop failure. Moreover, institutionalisation of credit has achieved its objective of freeing farmers from the debt-traps of moneylenders and other exploitative non-institutional sources of credit.

Nevertheless, institutional credit has its own share of deficiencies. The credit advanced by institutional sources is invariably associated with security or collateral. Consequently, a substantial number of farmers cannot avail of this credit. It is mostly large farmers who have benefitted from institutional credit facilities. Commercial banks have failed to encourage the habit of thrift among farmers.

In addition to this, the leniency shown by the government in collecting repayments has encouraged defaulting among farmers. Almost 50% of rural borrowers have defaulted on their loans. Such high default rate has made most rural banks financially unfeasible. Thus, steps must be taken to improve rural banking. Rather than just being lenders, rural banks should look to build a strong banking relationship with the borrowers.

## **Agricultural Marketing System, Measures Initiated by the Government**

### **Objectives**

In this lesson, you will go through the following topics.

- Meaning and need of agricultural marketing
- Steps/measures taken by the government to improve agricultural marketing
- Alternative channels for agricultural marketing
- Problems of agricultural marketing in India

### **Introduction**

Over the past few years, the Indian agricultural setup has changed significantly. Farmers no longer produce simply for their own consumption. Rather, they produce a surplus to cater to the demands of the market as well. In other words, Indian agriculture is fast getting commercialised. Consequently, farmers have become aware of the importance of post-production work such as storage, packaging and transportation. This is where agricultural marketing becomes significant. Agricultural marketing system consists of activities ranging from harvesting till the final sale of the produce. The following are the activities involved in the agriculture marketing.

- i. Gathering the produce after harvesting
- ii. Processing the produce

- iii. Grading the produce according to different quality norms
- iv. Packaging the produce
- v. Storing the produce for future use
- vi. Selling the produce at attractive prices

In other words, agricultural marketing does not simply refer to farmers' act of bringing their produce to the market for the purpose of sale. Rather, it also includes all those activities that help farmers fetch the maximum price for their produce.

### ***Need for Agricultural Marketing***

The existence of a proper agricultural marketing system has the following advantages.

- i. Agricultural marketing system helps farmers fetch the maximum price for their produce in the market. Often, farmers are ill-informed and unaware of the prevailing market prices. As a result, they incur loss on their sale. Agricultural marketing system aims at safeguarding farmers' interests in this regard.
- ii. The availability of proper storage and transportation facilities encourages farmers to increase their level of output.
- iii. The supply of raw materials from the agricultural sector to the industries becomes smoother and more efficient.
- iv. Agricultural marketing system reduces the role of middlemen in the sale and purchase of agricultural produce. Thus, it helps in reducing the exploitation faced by farmers.

### **Measures Adopted By the Government**

Realising the importance of agricultural marketing, the Indian government has adopted various measures to improve the same. Here are some of those measures.

**1. Organisation of regulated markets:** In regulated markets, the sale and the purchase of farm produce are monitored by a market committee that comprises farmers, government agents, brokers and traders. These markets operate with the basic rationale of protecting farmers from fraudulent practices of intermediaries.

Often, on account of their illiteracy and lack of awareness, farmers are cheated by middlemen through the use of wrong weights and measures, underhand dealings, etc. The market committee aims at protecting farmers from such practices. Some of the *important functions of the market committee* are summarised below.

- i. Prohibiting underhand dealings, unlawful deductions and fraudulent practices of intermediaries
- ii. Infusing greater transparency through the use of proper scales and weights
- iii. Ensuring that farmers receive a fair price in exchange of their produce
- iv. Making farmers aware of the prevailing market conditions and information
- v. Fixing the weighing and brokerage charges

Till 2006, there were 7566 regulated markets in India. Farmers throughout the country have benefitted from these markets. The government has also set up regulated market yards on the outskirts of major towns and cities. Farmers can sell their produce in these markets at a fair price and also use the available storage facilities for their crops.

**2. Infrastructure development:** Lack of proper infrastructure forces farmers to sell their produce right after harvesting, even at unfavourable prices. This impedes agricultural productivity and growth prospects. To counter this, the Indian government has set up cold storages and warehouses all across the country. The central and state warehousing corporations offer storage and warehousing facilities to farmers. This has given farmers the option of selling their produce at the right time and the right price. The availability of these facilities has also motivated farmers to generate greater marketable surplus.

Further, the advancement of the Indian railways and roadways (which offer subsidised transport facilities) has helped farmers to extend their market to urban areas where they are able to earn even higher profits.

**3. Propagation of market information:** Prior to the introduction of the agricultural marketing system, Indian farmers would fall prey to intermediaries and traders. To safeguard the interests of farmers, they had to be made aware of the prevailing market conditions such as current prices, sales and stock updates of farm products. So, these market updates and market forecasts began to be disseminated via the radio, television, newspapers, etc. Special agriculture-based programmes such as *Krishi Darshan* began to be broadcast on Doordarshan and the All India Radio. In 2004, the government initiated the *Kisan* Call Centres to speed up the dissemination of information and to provide round-the-clock solutions to various grievances of farmers. All these facilities have helped farmers sell their produce at a favourable time, so as to get the maximum returns.

**4. MSP policy:** Minimum Support Price (MSP) is the minimum legislated price that farmers can charge in return for selling their produce. This policy enables farmers to sell their produce in the open market at a higher price. MSP insulates farmers in case of price fall as they are assured of selling their produce at the minimum price. Government agencies (such as the Food Corporation of India) purchase the produce from farmers at

MSP and keep it as buffer stock. The purchases are then distributed to the public through the public distribution system and fair price shops at subsidised prices. The buffer stock is also used during emergencies such as low produce and scarcity.

**5. *Setting up of warehousing facilities:*** The availability of warehousing facilities encourages farmers to invest in crops, store their excess produce and sell it later at an attractive price. The central and state warehousing corporations have provided farmers with storage space for storing their excess produce.

**6. *Improvement of transportation facilities:*** With better transportation facilities at their disposal, farmers can sell their produce in urban areas at higher prices. In this way, they are able to enhance their earnings.

### **Alternative Channels For Agricultural Marketing**

To further improve the system of agricultural marketing, the government has developed various alternative channels. It was found that small and marginal farmers, who sold their produce through middlemen, were often exploited because of price differences. The middlemen would buy the farmers' produce at a very low price and sell the same at a higher price in the market.

Alternative marketing channels have, thus, been developed to protect the economic interest of such farmers. Using these channels, small and marginal farmers can sell their produce directly to consumers at a higher price and, thereby, make profits. Some examples of alternative agricultural marketing are *Apni Mandi* in Punjab, Haryana and Rajasthan, *Hadapsar Mandi* in Pune, *Rythu Bazar* in Andhra Pradesh and *Uzhavar Mandi* in Tamil Nadu.

Nowadays, various national and international companies enter into contracts of direct sale with farmers. These companies make advance payments to farmers for supplying their produce at pre-determined rates. These alternative agricultural channels raise a farmer's income and, simultaneously, reduce the price risk for small and marginal farmers.

### **Problems of Agricultural Marketing in India**

Despite various attempts by the government, the system of agricultural marketing in India has only been partly successful. Private traders and middlemen still remain the dominant players in the marketing system. They account for 90% of the marketing activities, while government agencies handle a mere 10%. The following are some of the obstacles in the way of a successful agricultural marketing system.

**1. *Defective weighing techniques and misappropriation of accounts:*** Being illiterate and ignorant, farmers fall prey to defective weighing techniques and misappropriation of accounts.

**2. Ignorance:** Lack of knowledge of market prices and market conditions forces farmers to sell their produce at a lower price.

**3. Lack of proper storage facilities:** Lack of access to proper storage facilities forces farmers to sell their produce at a lower price right after harvesting. Also, improper storage makes the agricultural produce vulnerable to damage due to pests and bad weather. Huge amounts of food grains and other products are wasted every year due to improper storage.

**4. Difficulty in obtaining agricultural credit:** Lack of institutional sources of finance forces farmers to fall back on local moneylenders for obtaining credit. Such credit is subject to various conditions. For example, credit might be advanced to farmers on the condition that they would sell their produce only to the moneylender at whatever price he sets. This results in exploitation of small and marginal farmers.

**5. Lack of transportation facilities:** Farmers are unable to sell their produce in far-off places because of lack of proper roads and transportation facilities. They are forced to sell in local markets at a lower price.

**6. Large number of intermediaries:** Farmers are separated from the actual consumers of their produce by a large number of intermediaries. These intermediaries purchase the produce from farmers at a low price and sell the same at a much higher price. This implies that farmers receive a very small share of the actual return on their produce. Studies indicate that Indian farmers on an average receive less than 60% of the actual price paid by the final consumers for their produce.

## **Agricultural Diversification– Animal Husbandry, Fisheries, Horticulture**

### **Objectives**

In this lesson, you will go through the following topics.

- Meaning of Agricultural Diversification
- Significance of Diversification in Production Activity
- Meaning and Importance of Animal Husbandry
- Meaning and Importance of Fisheries
- Meaning and Importance of Horticulture

## Introduction

Agriculture, which employs the majority of the population in India, is a seasonal occupation. Many farmers remain out of work for certain months in a year due to the seasonal nature of agriculture. As a result, these farmers are unable to ensure a continuous flow of income for themselves. Moreover, agricultural production in India is largely dependent on rains. Poor or late monsoons can hamper the production process and, thereby, affect farmers' income. So, we can say that depending solely on agriculture leads to instability in the income of the rural population. Thus, there is the need to diversify agriculture.

Diversification of agriculture has *two aspects*.

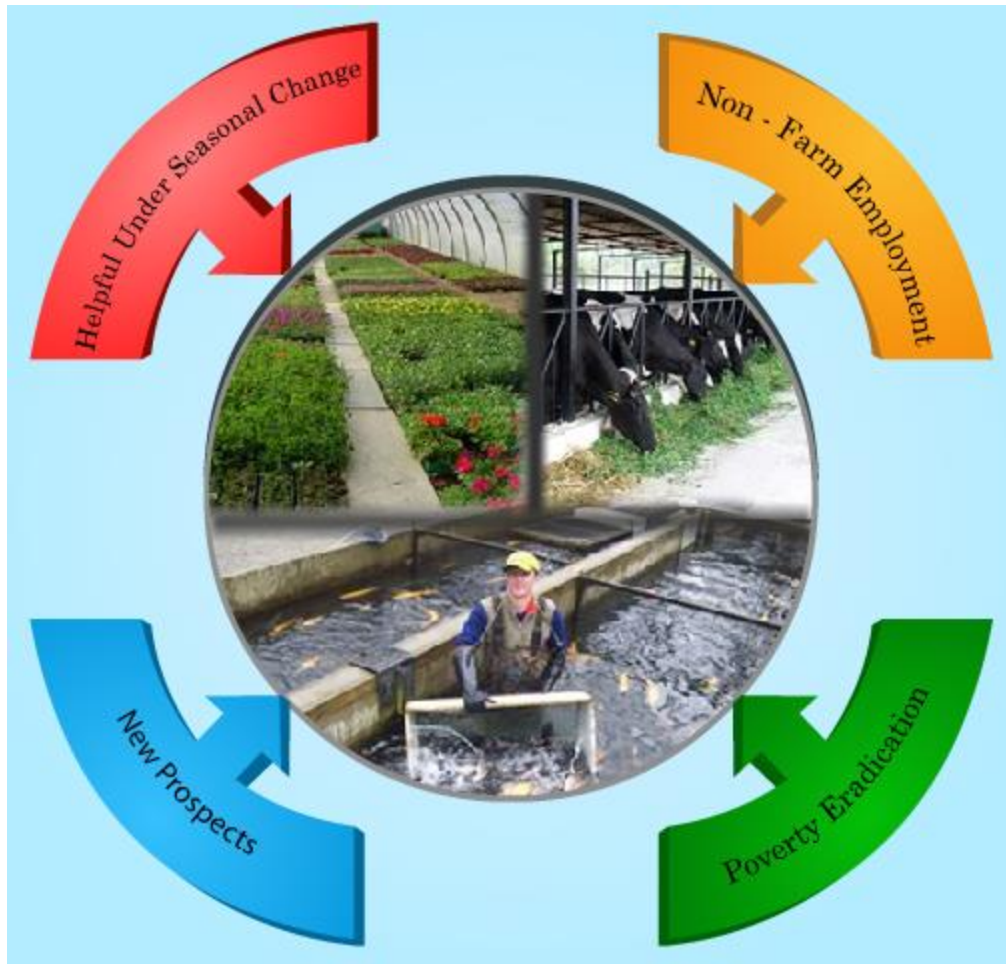
- i. Diversification of crops
- ii. Diversification of production activity

**1. Diversification of crops:** Farmers should be encouraged to grow a variety of crops rather than focus on producing only one crop. Diversification of crops, thus, implies a shift from single-cropping system to multiple-cropping system. Crop diversification can also be understood as a shift from subsistence farming to commercial farming practices. Multiple cropping helps farmers to avoid the risk arising due to fluctuations in market prices. Farmers can grow crops depending upon the prevailing market conditions and, thereby, maximise their gains.

**2. Diversification of production activity.** The rural folk should be encouraged to set up and seek employment in non-farming practices. Diversification of production activity, thus, implies a shift from farming activities to non-farming activities such as agro-processing, food processing, horticulture, fisheries and livestock farming. Such diversification not only raises the standard of living of the rural population, but it also reduces the strain upon the agricultural sector by creating alternative avenues of employment.

## Significance of Diversification in Productive Activity

The given figure provides an overview of the significance of diversifying production activity.



The following is a detailed discussion of the significance of diversifying production activity.

**1. Non-farming employment opportunities:** Indian agriculture is largely dependent on the monsoons. Poor and late monsoons adversely affect the production process. Thus, farmers cannot depend entirely on farming for their sustenance. Diversification of production activity enables farmers to find employment in alternative non-farming avenues and, thereby, sustain themselves.

**2. Helpful during seasonal change:** Agricultural employment opportunities are mostly concentrated in the *kharif* season. Lack of proper irrigation facilities prevents farmers from finding gainful employment during the *rabi* season. Diversification of production activity helps counter this seasonal unemployment in the agricultural sector by generating non-farming employment opportunities.

**3. Creates new prospects:** Agriculture suffers from disguised unemployment. This implies that the number of people employed in the agricultural sector is a lot more than what is actually required. Diversification of production activity solves this problem of overcrowding in the agricultural sector by creating non-farming job opportunities. New



prospects of employment would help divert the excess workforce from farming and, thereby, lessen the burden on the agricultural sector.

**4. Eradicates poverty:** Non-farming production activities provide employment opportunities to the rural people throughout the year. This implies that the people are assured of an income all year round. This goes a long way in raising their standard of living and eradicating poverty from the rural areas.

### **Major Non-Farming Production Activities**

There are three major non-farming activities in India. These are:

- i. Animal husbandry
- ii. Fisheries
- iii. Horticulture

The relative importance of the three activities is discussed below.

### **Importance of animal husbandry**

Animal husbandry is the most important non-farming activity in India. It employs about 70 million small and marginal farmers. It is also known as “livestock farming”. Mixed livestock farming is followed in India. This comprises raising poultry, cattle, goats and sheep.

Forty per cent of livestock farmers in India are involved in raising poultry. It should be noted that the share of livestock farming in employment is comparatively higher in semi-arid and arid areas than in well-irrigated areas. Lack of irrigation facilities in semi-arid and arid regions makes crop farming less feasible. So, farmers in these areas find animal husbandry to be suitable for their sustenance. Thus, livestock farming provides sustainable livelihoods to the people in semi-arid and arid regions where farming cannot be performed well. Another thing to note is that capital investment in livestock farming is comparatively less than that in crop farming.

So, farmers are able to reap greater benefits by incurring lower cost. Livestock farming is an important source of employment for rural women. Many women in rural areas are engaged in this activity. Livestock farming has resulted in increased production of milk, eggs, meat, wool and other animal products. This has enhanced the consumption bundle both qualitatively and nutritionally.

**Operation Flood:** Launched in 1966, Operation Flood is a system of milk cooperatives. Under this system, the milk produce of different farmers is pooled and grouped according to quality and grading. This milk is then processed and sold to urban centres. Such a system benefits farmers as it assures them of a fair return for their product in the

market.

Gujarat has successfully implemented this system and is presently the hub of milk cooperatives in the country. The brand “Amul” is the best-known example of the success of milk cooperatives. Since the implementation of Operation Flood, milk production in India has increased by nearly 4 times.

Despite the fact that livestock farming is the most important source of non-farming employment, it suffers from various **problems**. The produce lacks in quality and is inferior to what is produced in developed countries. Additionally, livestock farming suffers from low productivity due to lack of knowledge and information.

Lack of proper veterinary facilities often leads to animal diseases and deaths. To curb this problem, the government launched a life insurance scheme for farm animals in 2005. The government also launched the National Project for Cattle and Buffalo Breeding. This objective of this programme is genetic improvement of farm animals.

### **Importance of fisheries**

Fisheries are an important source of livelihood in coastal states such as Kerala, Maharashtra, Gujarat and Tamil Nadu. The fishing community in India depends on waterbodies—both inland and marine. Inland sources include rivers, lakes, ponds and streams. Seas and oceans are classified as marine waterbodies. Fishing as a means of livelihood is not a new concept.

Nevertheless, with the population rising continuously, fisheries as a source of employment has become quite popular. In recent years, it has become an important source of income generation for the economically backward population. At present, it employs nearly 14 million people in our country.

Despite the presence of a significant segment of the population in the fisheries sector, it contributes only 1.4% to GDP. Major reasons for this are low per capita earnings, lack of mobility of labour to other sectors, illiteracy and indebtedness. Another problem faced by this sector is overfishing and pollution of waterbodies. State governments have been making efforts to attract funds to this sector and, thereby, boost production.

The fishing community is still one of the backward communities of our country. Due to low income, the people in this community are trapped in a vicious circle of poverty and indebtedness. Thus, there is the need to make easy credit and finance facilities accessible to them through cooperatives and self-help groups.

### **Importance of horticulture**

Horticulture is fast emerging as an important source of livelihood in rural areas. Horticultural crops include fruits, vegetables, and medicinal and aromatic plants and flowers. Presently, India is the second largest producer of fruits and vegetables, which include mangoes, bananas, coconuts, cashew nuts and a variety of spices.

Consequently, the income levels of families engaged in horticultural production have risen considerably. The increase in horticultural production has lowered the vulnerability of small and marginal farmers. Activities such as flower harvesting, nursery maintenance, hybrid-seed production, food processing and propagation of fruits and flowers have provided a gateway of employment opportunities to women. Horticulture generates employment for 19% of the total rural labour force in India.

The term “Golden Revolution” is used to refer to the period between 1991 and 2003. During this period, there was a tremendous increase in the production of various fruits, vegetables, spices and other horticultural products. The growth of the horticultural sector has created a major problem for the country. The bulk of the area under horticulture has expanded at the cost of the area under pulses.

As a result, the production of pulses has reduced considerably. Horticulture suffers from lack of infrastructural facilities such as cold storage, transportation and modern technology. Thus, efforts are required in this area to fully utilise the potential of horticulture.

To conclude, the various non-farming activities are increasingly playing an important role in providing alternative employment opportunities to the rural people and, thereby, raising their standard of living. Nevertheless, efforts must still be made to rectify the various shortcomings and further develop these activities.

## **Role of IT Sector in Economic Development and Growth**

### **Objectives**

After going through this lesson, you shall be able to understand the role of IT sector in rural development.

### **Introduction**

What is meant by the term “information technology”? Information technology (IT) refers to the development and management of computer-based information. We live in the age of information technology. The spread of IT has made human capital all the more important in the process of growth. The role of IT in the economic growth process cannot be neglected. Not only does it lead to the modernisation of a country but it also facilitates the smooth and fast functioning of an economy as a whole.

This sector is not limited to itself. Rather, it provides the basic framework for all other economic sectors (agricultural, industrial, tertiary) to operate efficiently. Besides this, the

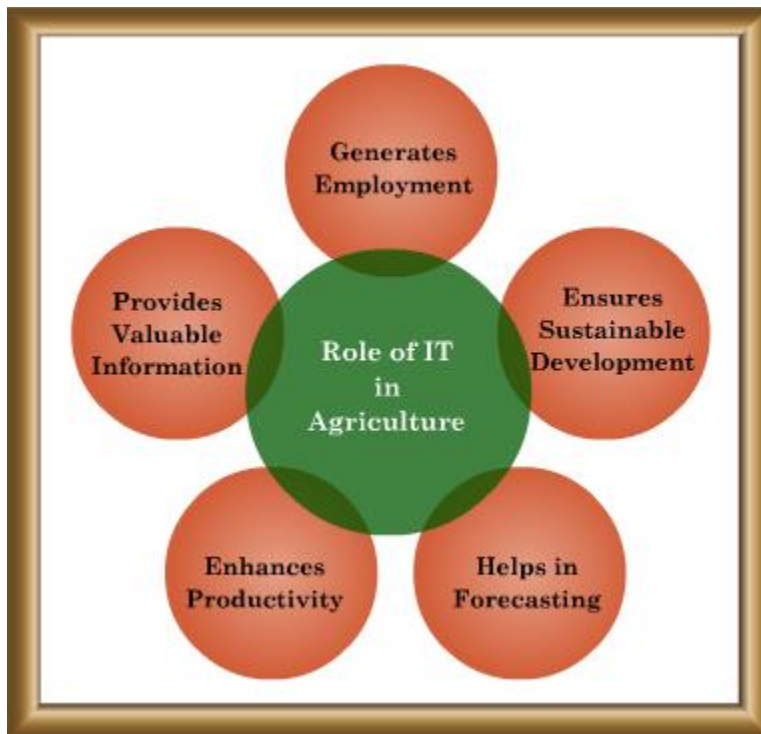
IT sector helps in attracting foreign investment via FDI, MNCs and FIIs, and, thereby, brings in efficiency, competitiveness and transparency in operations. This enables innovations and inventions, which in turn result in the development of cost-efficient and more productive technology.

IT enables us to see the future conditions and accordingly frame policies and corrective measures. The fast movement of goods and services in this age of information technology has shrunk the world into a global village.

Over the past few years, India has seen a revolution in terms of IT. It has transformed the Indian economy into a knowledge economy. The fast economic development of India is in large part due to the IT revolution. Hence, we can say that the key to India's economic growth rests on the advancement of the IT sector.

### **Role of IT in the Agricultural Sector**

IT has a significant role to play in the agricultural sector and in the overall rural development. Let us understand this with the help of the following points.



**1. Sustainable development:** IT enables the storage of data relating to past and future conditions. This data can be used for formulating appropriate policies and adopting various corrective measures to achieve sustainable development and food security.

**2. Forecasting:** IT enables the meteorological department to forecast accurate weather conditions. The predictions of the department can be used to take appropriate corrective

actions. For example, if scarce rains are predicted, then farmers can take suitable preventive measures to avoid crop failure.

**3. Productivity enhancement:** The IT sector has a positive impact on the productivity of the agriculture sector by providing crucial information regarding emerging and modern technologies, weather and soil conditions for the growth of different crops, etc. Such information eases the decision-making process *vis-a-vis* production and productivity.

**4. Valuable information:** The government has launched *Kisan Call Centres that can be used by farmers to access valuable information*. Moreover, websites that provide information regarding modern techniques of production and measures to improve farm productivity and quality of farm inputs have also been introduced.

**5. Employment generation:** The IT sector also helps in generating employment opportunities in the backward rural areas *through the* development of “info kiosks”. These kiosks have computers, scanners, printers along with e-mailing and video conferencing facilities. The knowledge of such services makes the rural people self-sufficient. Consequently, they can earn a good livelihood by rendering these services.

## Organic Farming– Its Benefits and Limitations

### Objectives

After going through this lesson, you shall be able to understand the following concepts:

- Meaning of organic farming
- Benefits of organic farming
- Limitations of organic farming

### Introduction

While visiting big malls and have you ever noticed that certain vegetables and fruits offered by them are labelled as organic? Similarly, cereals such as wheat and rice are also offered in organic varieties. Often, in newspapers and magazines, we see articles on organic food and organic farming. What is this organic farming?

***Organic farming is a system of farming that employs organic inputs for the cultivation of crops.*** Unlike conventional farming, organic farming does not make use of chemical fertilisers and toxic pesticides for crop growth. Instead, it employs organic inputs such as animal manure and compost. This type of farming is practised to produce non-poisonous and chemical-free food for consumers. At the same time, organic farming ensures that the fertility of soil is maintained.

The following are the *major features* of organic farming.

- i. Instead of chemical fertilisers and toxic pesticides, it employs green manure and biological pest-control methods for the cultivation of crops and plantations.
- ii. It uses farm inputs like animal dung and crop residues as nutrients for crops.
- iii. It focuses on maintaining soil fertility and ecological balance.

## **Principles of Organic Farming**

Organic farming is based on the following four broad principles.

1. Principle of Health
2. Principle of Ecology
3. Principle of Fairness
4. Principle of Care

**1. Principle of health:** The farming techniques used in organic farming and the crops produced should be such that the health of one and all is sustained. It is said that the health of human beings is directly linked to the health of the ecosystem. Organic farming protects the ecosystem. A healthy ecosystem enhances the health of human beings. Organic farming is known to produce healthy and nutritious food while simultaneously maintaining the ecosystem.

**2. Principle of ecology:** Organic farming is based on ecology, its processes and cycles. Organic farming techniques should sustain the ecological balance. This implies that organic farming should give due importance to the protection of the environment.

**3. Principle of fairness:** Organic farming should promote equity among human beings. It should provide healthy, nutritious and good quality food for all. Moreover, the use of natural resources should be both socially and ecologically fair. Due importance must be given to the needs of not only the present generation but also the future generations.

**4. Principle of care:** Organic farming must accord the utmost importance to the care of the environment as well as of human beings. For instance, new techniques for enhancing productivity and efficiency must be developed, but it should not be at the cost of the health of the ecosystem and the overall well-being of individuals.

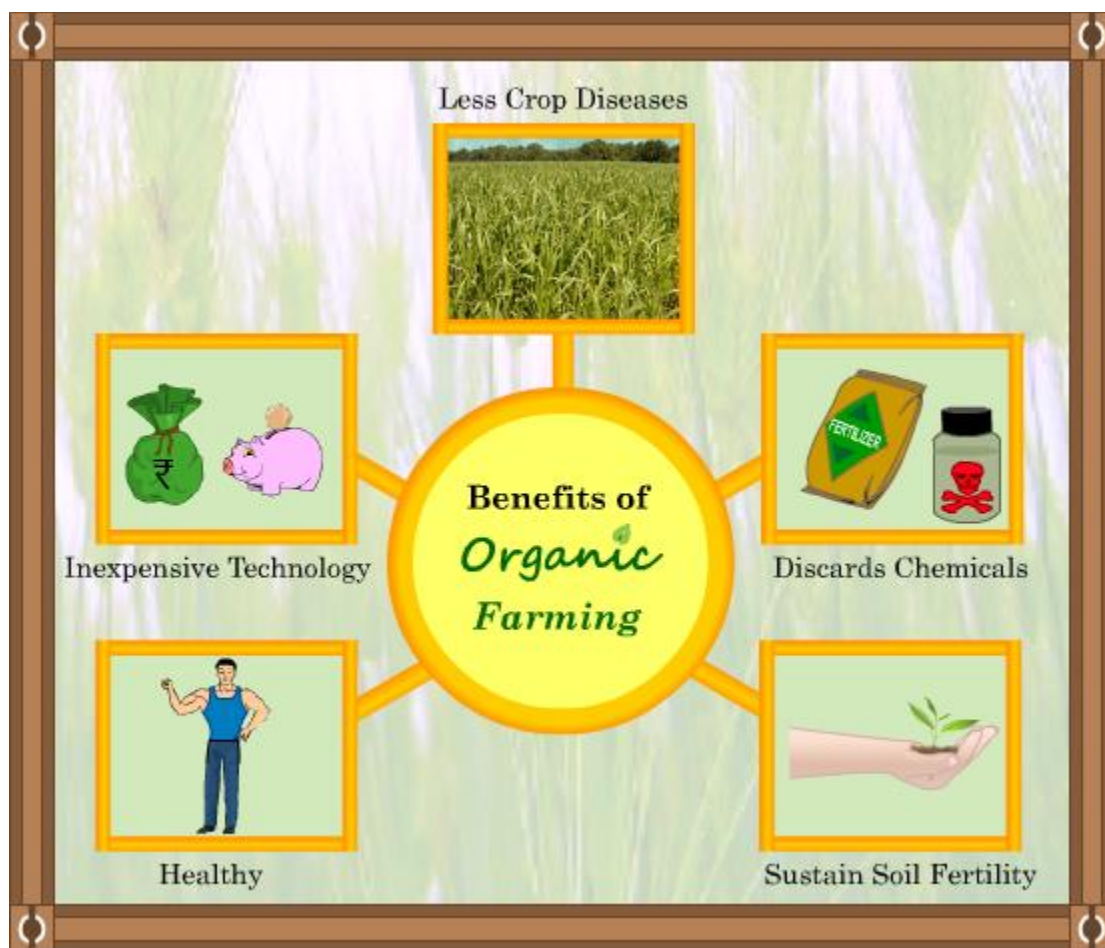
## **Organic Farming and Sustainable Development**

Sustainable development is the process of development that aims at meeting the needs of the present generation without compromising the ability of the future generations to meet their own needs. Traditional farming techniques such as the use of chemical fertilisers and toxic pesticides harm the ecosystem. The harmful chemicals present in fertilisers and pesticides dissolve in water and penetrate the soil, thereby reducing its fertility. These chemicals also harm livestock.

Moreover, the crops grown with the aid of chemical fertilisers and pesticides pose serious health hazards. In contrast, organic farming relies on the use of organic inputs for crop cultivation. This type of farming practice produces toxic-free food for consumers while simultaneously maintaining the fertility of soil. In this way, it helps maintain the ecological balance. In other words, organic farming enables eco-friendly sustainable economic development.

### Benefits of Organic Farming

The given figure provides an overview of the benefits of organic farming.



The following is a detailed discussion of the benefits of organic farming.

**1. Discards the use of chemicals:** Unlike conventional farming, organic farming does not make use of chemicals. The chemicals present in fertilisers and pesticides penetrate into the groundwater and raise its nitrate content. This causes health hazards and also pollutes the environment. So, organic farming, by discarding the use of chemicals, is an environment friendly method of farming.

**2. Sustains soil fertility:** The use of chemical fertilisers and pesticides adversely affects soil fertility. Organic farming discards the use of chemicals and employs organic inputs instead. Therefore, the crops produced by this technique are toxic-free. At the same time, the fertility of soil is maintained.

**3. Healthier food:** Organically grown crops have higher nutritional value than conventionally grown crops. Hence, food crops grown organically are healthier. This is why the demand for organically produced food has risen rapidly despite their higher price.

**4. Inexpensive technology for small and marginal farmers:** Small and marginal farmers constitute the bulk of the farming sector. Organic farming offers these farmers an inexpensive farming technique as it does not involve the use of expensive chemical fertilizers and pesticides.

**5. Less incidence of pests and diseases:** As compared to conventional farms, organic farms are found to have lesser incidence of outbreak of crop diseases and pests.

### ***Organic Farming and India***

India has tremendous potential in organic farming. Research suggests that nearly 70% of the land under cultivation in India is arable. Such type of land requires negligible amount of chemical fertilisers for the cultivation of crops. Such land offers ample opportunities for organic farming. Organic farming involves labour-intensive techniques of production. India is a labour-abundant country.

Hence, India has a comparative advantage in organic farming. Organically produced products have a higher demand not only within the country but also in foreign countries. By producing and exporting organic products, India can generate higher income for itself. If India realises the potential of organic farming, then it can become the largest supplier of organic food in the world.

### **Limitations of Organic Farming**

Despite its benefits, organic farming does have certain shortcomings. In the initial years of organic farming, Indian farmers faced the following disadvantages.

**1. Lesser yield:** Organic farming offers lesser yield than conventional farming. Therefore, the productivity of the former is lower than that of the latter.



**2. *Lacks initiative*:** The popularity of organic farming depends on the awareness and willingness of farmers to adopt this system. Due to lower productivity, farmers lack the initiative to adopt organic farming techniques.

**3. *Inadequate infrastructure*:** Organic farming suffers from lack of infrastructure with respect to its market reach. Thus, the problems of inadequate infrastructure and marketing need to be addressed to promote organic farming.

**4. *Financially infeasible for small farmers*:** As mentioned before, organic farming offers lesser yield than conventional farming. Hence, the former is not financially viable for small and marginal farmers.