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# UNIT 4 GOVERNMENT'S AGRICULTURAL POLICIES

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You are aware that the agricultural and non-agricultural sectors of a country are interdependent and every effort is being made to maintain a balance between them. In this unit you will learn about the Governmental policies which seek to strike such a balance.

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## 4.0 OBJECTIVES

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After going through this unit, you should be able to

- describe the linkage between agriculture and other sectors,
- define types of subsidies and their importance to agriculture, and
- enumerate and appreciate the various programmes organised by different agencies.

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## 4.1 INTRODUCTION

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Agricultural commodities are needed by all sections of people. Everyone needs food to eat which is produced by the agricultural sector. Industries need raw materials like sugarcane, cotton, coffee, tea, jute, etc. produced by the agricultural sector without which they cannot run the industry. Other sectors (they are called tertiary sectors or service sectors) also depend upon the agricultural sector for their business. These include the trading sector, the transport sector, the banking sector, etc., which, to a large extent depend upon the production in the agricultural sector to carry on their business. This is called forward linkage. At the same time the agricultural sector is dependent on other sectors for its survival. This is called backward linkage. The industrial sector provides fertilisers, machinery, etc. to agriculture; transporters carry these products to the farmers' fields. Farmers, in turn, need many non-agricultural products for their consumption. Thus, you see that there is both a forward and backward linkage between the agricultural and other sectors in the country.

Because of such a linkage, the happenings in the agricultural sector will have a great impact on the other sectors of the country. An increase in the prices of agricultural commodities (say food items) would mean that people have to spend more on their food consumption and hence they will be left with less amount of money to spend on other items. This in turn means, the demand for non-agricultural commodities will be affected and hence the industrial sector will suffer because of low demands. Similarly, an increase in the price of inputs used by the agricultural sector will push up the cost of production of agricultural

commodities and hence the price of the agricultural commodity itself will shoot up. So you see there should be a balance between the happenings in the agricultural and non-agricultural sectors. The Government, through its various policies, play's a mojour role in bringing about such a balance. In this unit, we shall try to understand the policies of the Government which will help to strike such a balance. We shall concentrate on how one can derive the maximum benefits from the governmental price subsidies to agricultural inputs, demonstration farms and agricultural extension training programmes.

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## 4.2 PRICE SUBSIDIES FOR AGRICULTURAL INPUTS

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### 4.2.1 What is a Subsidy ?

A subsidy is that component of total money which a buyer need not pay to buy a commodity. In other words, a subsidy reduces the cost of purchase of a commodity. Usually, subsidy is granted by the Government to encourage the purchase of a particular commodity by the users. Hence, the price you pay to buy a commodity without any subsidy on that commodity will be higher than the price you pay for the same with some subsidy. The following illustration should clear the point.

Let us say the price of 1 kg of groundnut seeds in the market is Rs. 11.00. If the Government gives a subsidy of 20 per cent to the farmers, then the actual price paid by the buyer will be :

	Price of the seed	:	Rs.11.00
Less,	Subsidy (of 20 per cent)	:	Rs. 2.20
	Net price paid	:	Rs. 8.80

### 4.2.2 Why a Subsidy?

Subsidies are given usually to help the farmers buy better quality of inputs. Better quality of inputs, when used on the farms, will help increase the production in the agricultural sector. Because a majority of our farmers are small farmers and poor, they cannot afford to buy good quality inputs like improved seeds, fertilisers, plant protection chemicals, etc. at the market prices. It is estimated that about 72 per cent of the farmers in India are small and marginal farmers. Their contribution to the production in the agricultural sector is very important if the total production has to improve. If they keep on using the locally available resources like seeds, manures, etc., the production will be low.

The present improved technology in the agricultural sector is said to be capital intensive i.e. the farmers need more money to adopt the improved technology on their farms. Improved technology in agriculture is usually a mixture of seed-fertiliser-water in proper quantities. All the three are costly inputs which, if bought at market prices, will be beyond the means of small farmers. At the same time, if the farmers do not use these inputs in required quantities, the yields on their farms and in turn, the total agricultural production in the country will be low. Hence, the Government (both State and Central) provides a variety of subsidies to the agricultural inputs to encourage the farmers to use better quality of inputs on their farms. The type and quantity of subsidies given depend upon the needs which arise from time to time.

### 4.2.3 Types of Subsidies

The subsidies given to the agricultural sector come in different forms. However, you should remember that all the subsidies are aimed at helping the farmers get their input requirements at lower prices than what they have to pay for the same in the open market.

To understand the nature of subsidies given to agricultural inputs, a brief history of what happened in the mid-sixties in Indian agriculture should be studied. The high yielding variety (HYV) programme was launched in Indian agriculture with the introduction of Mexican varieties of wheat in 1964-65. These varieties were better than the ones used by the farmers till then: they were dwarf, would yield more than the earlier varieties and also had many other characteristics which were considered favourable. These varieties were also largely acceptable to the Indian farmers. But the main disadvantage faced by the farmers at that time was that they had to buy these seeds from the market. These varieties needed a higher use of chemical fertilisers and the farmers did not have enough money with them to buy these inputs. In fact, seed is the most important input for the growth of a plant. It was

then that the Government of India and many State Governments subsidised the farmers to buy improved varieties of seeds so that they could grow better crops on their farms. Further, chemical fertilisers were subsidised to a large extent so that a proper combination of seeds and fertilisers could be used by the farmers to get a better crop. Later, the scheme was extended to the high yielding varieties of rice and still later to the other crops. Thus the production of food grains in India reached a level of 100 million tonnes for the first time in 1971-72. If the Government had not subsidised these inputs, it is very doubtful if our farmers would have used these inputs at the market rates and whether our production of foodgrains would have touched the levels attained which they have today. Besides, the Government also made sure that sufficient funds were made available to the farmers as loans. This was done by nationalising 14 major commercial banks in July, 1969 and the banks were then made to play a major role in financing the agricultural sector.

**Subsidies on seeds:** The production of quality seeds is a complicated process which needs a firm commitment on the part of all concerned. This is because much of what you produce depends upon the type of seeds you sow. The procedure for producing and distributing quality seeds is as follows.

Scientists in the research stations evolve good quality seeds after a series of trials on the research farms. These seeds which are released for multiplication are known as Breeder seeds. Breeder seeds are in turn multiplied (grown on a large scale) to produce Foundation seeds. Foundation seeds are then distributed to the farmers and private agencies for the purpose of mass production of seed material. The production at the farmers' level is closely watched for quality. The seeds which the farmers produce have to be certified by the certification agencies for their quality. The National Seeds Corporation and the State Seeds Corporations are the certifying agencies. Hence the seeds which can be used by the farmers for growing crops are known as certified seeds. The subsidy which comes into the picture in the case of seeds will mainly be at the breeders level. The research stations are run by the Government (Central and State) and the expenditure is almost entirely borne by the Government. If the farmers had to pay for running these institutions, then they would have to pay such high prices for seeds and that they certainly could not afford. Further, at the farmer's level, the price of certified seeds supplied by the seeds corporations through the Department of Agriculture will be much less when compared to the same bought at open market prices from private traders. The Government spends a huge amount of money on running these organisations which will not be transferred to the farmers. This amount forms a subsidy component on seeds.

**Subsidies on fertilisers :** It is said that in India it is the Government which has pushed up the consumption of fertilisers by our farmers through its policies more than the farmers on their own. If the Government of India had not subsidised the fertiliser sector, our farmers would not have been in a position to use them on their farms and in turn, our agricultural production would not have increased three-fold between 1950 and 1980. Let us try to understand the fertiliser production and distribution system. Huge amounts of petroleum products are required for fertiliser production, which to a large extent have to be imported. Further, we also import huge quantities of fertilisers (about 2.5 million tonnes in 1984-85) to fill the gap between demand and domestic production, thereby further pushing up the amount spent on acquiring fertilisers for our use. All these add up to a very high production bill on fertilisers.

The fertiliser factories have to be located at certain spots where there is a good supply of raw material. The fertilisers are then distributed to different consumption centres which are geographically scattered. The cost of transportation of fertilisers is high as they are bulky. The Government intended to fix a uniform price for fertilisers throughout the country as in the case of postal rates. To ensure uniformity in prices, the Government, through its agencies, has borne a large amount of the transportation costs, which otherwise, would have to be paid by the farmers. Thus, you see, a major portion of fertiliser subsidies come in the form of absorption of import costs and transportation costs. It is estimated that the annual total subsidy on fertilisers is around Rs. 2000 crores. You can now appreciate its magnitude and its contribution to the agricultural sector. It is now easy for you to realise that in the absence of these subsidies, the farmers would have to pay very high prices for fertilisers, and in turn the prices of the agricultural commodities you buy would be very high. Or else the farmers would not buy and use the fertilisers leading to lower agricultural production wherefore you would be again paying high prices for the commodities purchased.

**Subsidies on water (irrigation) and electricity :** These subsidies are usually given by the

State Governments. The water cess (tax) charged on the farmers to irrigate their fields are much lower than the water rates charged for other commercial purposes. In fact, major and medium irrigation projects are taken up by the Governments to provide irrigation water to the farmer's fields. These projects are treated as social utility projects and the costs are almost entirely met by the Government. The water cess charged to the farmers for using this water is just enough to meet the maintenance cost of the projects. Hence, irrigation water in our country is highly subsidised. In the absence of such projects, our farmer's fields would not get sufficient water for irrigation and they would have to depend upon rainfall. Rainfall being erratic, all our agricultural plans would be thrown out of gear.

Nearly 80 per cent of our five lakh villages are supplied with electricity. The cost of supplying electricity is very high. Farmers use electricity for their pumpsets for drawing water to irrigate their fields. The charges on electricity used for irrigation purposes are much lower compared to the electricity charges levied on industries. Similarly, the diesel supplied for pumpsets is also priced at lower rates. In fact, you must have observed that during the drought year 1987-88 a number of subsidies had been announced by the Central and State Governments to ensure regular uninterrupted supply of energy (electricity/diesel) to the farmers' fields. The exact amount of subsidies given can be obtained from the revenue offices in the district/taluk offices of the Government.

**Subsidies on agricultural implements :** Agricultural implements (like ploughs, seed-cum-fertiliser drills, etc.) are also subsidised by the State Governments. This is done to encourage the farmers to take up scientific methods of cultivation. Seed-cum-fertiliser drills, for example, help the farmer sow the seeds with the required spacing, thereby getting better yields. These subsidies are mostly limited to particular crops and varieties in particular areas. However, they also cost the Government a great deal.

**Subsidies on agricultural loans :** Timely and adequate supply of credit is very important to the agricultural sector. Sowing, for example, is to be done during the first rains, or else the crop may fail. So, the farmer should have money to buy the seeds in time and carry out sowing operations. Hence, the Government has taken up a number of steps to ensure that the financial institutions (banks and Co-operatives) provide timely and adequate credit to the farmers.

In the case of agricultural credit, very poor farmers (small and marginal farmers) are entitled to subsidised loans. These come in the form of reduced interest rates to particular categories of farmers. Farmers belonging to backward economic and social classes can get loans at lower rates of interest. The difference between the rate of interest charged to other farmers and that charged to the farmers in these classes forms the subsidy component. Under a special scheme, small farmers could get loan at 4 per cent, while other farmers pay about 12-13 per cent.

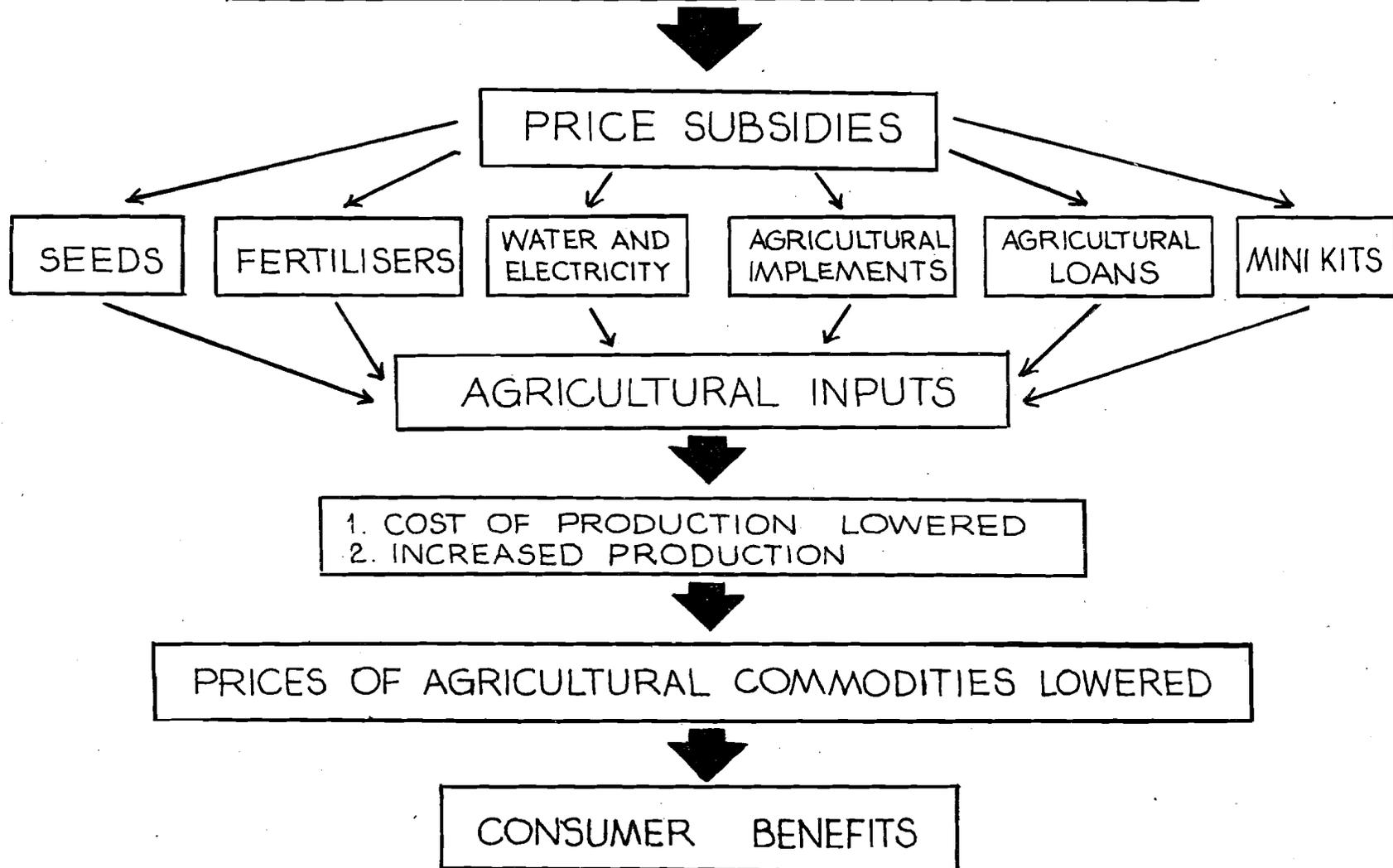
During times of distress like drought, floods, etc. you must have observed that various State Governments either write off the loans borrowed by farmers (from the Co-operatives or banks) or waive off the interest chargeable on loans overdue. This facility is usually not enjoyed by the other sectors. This is done to protect the interest of the farmers during crisis and help them to continue in their agricultural operations. In the absence of such a measure many farmers will sell their lands and livestock at very low prices and migrate to the urban areas in search of a livelihood.

**Mini-kits:** The latest development in the field of subsidies to the agricultural sector is providing 'mini-kits' to the farmers at the beginning of a cropping season. To encourage the farmers to use better quality of inputs, the Government through the Department of Agriculture, provides a package of inputs like seeds, fertilisers and other chemicals to the farmers in required quantities for scientific cultivation. These kits are either given free of cost to the farmers or they are charged very little. For example, to increase the production of rice in the North-eastern states, the Government provides these kits to the farmers. Similarly, you can see that such kits are given to the farmers to encourage production of important crops like pulses, oilseeds, etc.

Now you have understood that the inputs used by the agricultural sector will be subsidised in many ways. The type of subsidy and the amount will depend upon the location of the farmer, (state, zone, etc.) crops grown, importance of the crop and the category to which the farmers belong. Other subsidies are also given to the agricultural sector, though indirectly, which help the farmers. The best examples are those of regulated markets, all weather roads, market information, etc. The cost of these projects, at least in the initial stages, is met by the

FIG. 4-1 LINKAGE OF AGRICULTURAL PRICE SUBSIDIES TO CONSUMER BENEFITS.

SPONSORS: CENTRAL AND STATE GOVERNMENTS







Result demonstration, on the other hand, is a type of demonstration used to convince the farmers about the result of what is being communicated. Yield trials of crops i.e. how much more yield will a particular variety, or a particular brand of fertiliser give, are best demonstrated by this method. This method is particularly used by fertiliser companies, manufacturers of plant protection chemicals like pesticides and insecticides etc. In fact, result demonstrations have been found to be the best methods of communication of any new technology to the farmers. Extension agencies like the Department of Agriculture of the State Governments, Extension Education Units of the Agricultural Universities and other commercial organisations extensively use demonstration as a method of communicating with the farmers. These days even women's programmes use this method to a large extent.

### 4.3.3 How and Where Demonstrations are Held?

For the purpose of demonstrations, farmer's fields are usually selected. This is done because of the conditions prevailing in the farmer's fields. In the research farms, the field conditions are usually controlled. These may be in the form of soil types, irrigation, treatments of fertilizers and other chemicals, labour skills, etc. These conditions usually result in higher yields on these farms. But when the same technology is taken to the farmer's fields, the yields may be entirely different for various reasons, management being one important factor. Hence, demonstrations are usually conducted on farmer's fields. The farmers in the neighbourhood can learn from the experiences of the demonstration farm.

Another important form of demonstration is the 'Field day' (Krishi Mela) organised by the research stations in their respective areas. For example, when the crop has grown to a good stage, the research stations hold a Field day. On this day farmers from the surrounding areas come to see the performance of crops on these farms. At the same time, arrangements will also be made for a direct technical dialogue between the farmers and the scientists. All Agricultural Universities and Institutes of the Indian Council of Agricultural Research (ICAR) hold such Field days.

### 4.3.4 National Demonstration Scheme

Under this scheme, crops are grown on a farmer's fields for the purpose of demonstration under the natural conditions existing in the farmer's fields. The yield levels under this scheme are always compared with the average yields obtained by the farmers in general to estimate the yield gaps (in the country).

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## 4.4 AGRICULTURAL EXTENSION TRAINING PROGRAMMES

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Agricultural extension forms the vital link between the scientists and the farmers. All the State Departments of Agriculture act as extension agencies at the state level. Also, all the Agricultural Universities (there are 25 of them at present) have their own Extension Education Units. The Indian Council of Agricultural Research (ICAR) also has its own Institutes like the Indian Agricultural Research Institute at New Delhi, National Dairy Research Institute at Karnal, Indian Veterinary Research Institute at Izatnagar, etc., which have a wide net work of Extension Units. All these agencies are playing a very active role in transmitting information to the farmers so that they can adopt the new ideas of cultivation.

Besides doing agricultural extension work, these extension agencies also arrange for training the local farmers in various aspects of rural life. The training programmes arranged will be commensurate with the season, crop, area, technology, etc. These training programmes will be arranged at a place and time most convenient for the people whom they are meant for. For example, a training programme may be held at the village Panchayat office during the evening hours, so as to make it convenient for those farmers to attend who will be busy on their farms during the day. Similarly, training programmes for women will be held during the afternoon when most of the women will be free.

### Check Your Progress

5 What are the important types of Demonstration Farms and when are they used?

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6 Write a note on National Demonstration Scheme.

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7 Comment on the utility of Training Programmes.

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**Types of training programmes:** Training programmes will be decided based on the needs of the locality. Some programmes will be held for a few hours, while some other programmes may be held for a few days. Some of the training programmes held by different agricultural extension agencies are listed below.

- 1 Sowing seeds with proper spacings
- 2 Methods of applying fertilizers
- 3 Methods of intercultivation and their efficacy
- 4 Methods of effective harvesting
- 5 Effective use of irrigation water
- 6 Proper use of agricultural implements
- 7 Preparation of different types of manures
- 8 Hygienic preparation and use of food

- 9 Preparation and use of bio-gas
- 10 Use of solar cookers and smokeless chullas

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## 4.5 LET US SUM UP

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All sectors such as agriculture, industry, trade, transport, banking are interlinked. They are dependent on each other. Any change in one sector has its influence on the other. Thus, the Government plays an important role in keeping the balance between agriculture and non-agriculture sectors through its policies. Provision of subsidies is one such policy. Subsidies are given to farmers to buy quality inputs at lower rates for their farming. This reduces the cost of production of food which indirectly helps you since the food price is dependent on the cost of production.

Other facilities available to farmers through various agencies are transfer of knowledge and technology through demonstrations and training programmes.

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## 4.6 GLOSSARY

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- Backward Linkage** : Agricultural sector creating a demand for products of the non-agricultural sector.
- Breeder's Seed** : Good quality seeds developed by the scientists on research farms.
- Certified Seeds** : The seeds certified by the National Seeds Corporations. These seeds are used by the farmers for growing crops.
- Demonstration** : Showing the working of or showing evidence of. It is used to teach the farmers how to do a particular thing or convince them about the results of what is being taught.
- Foundation Seeds** : Seeds distributed to the farmers/private agencies for the purpose of mass production of seed material. Foundation seeds are obtained by growing breeder seeds on a large scale.
- All Weather Roads** : Roads which can be used in all weather conditions.

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## 4.8 ANSWERS TO CHECK YOUR PROGRESS

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- 1 The agricultural sector is linked to all other sectors because all sections of the population require agricultural commodities, i.e., food items. An increase in the prices of the agricultural commodities would mean that people will have to spend more money to buy their food and hence they will be left with less amount of money to spend on other items. This, in turn, would mean that the demand for non-agricultural commodities will be affected and hence other industries will suffer because of the low demand. Similarly, the agriculture sector is dependent on other sectors for its survival. The industrial sector provides fertilisers, helps reach inputs to the farmers fields and the banking sector provides loans to the farmers.
- 2 Subsidies help the farmers to use better quality inputs such as improved seeds, fertilisers, plant protection chemicals, etc. and thus increase the agricultural production. If these subsidies are not given, the cost of agricultural inputs will be very high and the small and marginal farmers, who constitute about 72% of the total farmers, will not be able to buy good quality inputs and hence the production will also be low. Thus the subsidies help in lowering the cost of production of agricultural commodities and increasing its production. This benefits all consumers. Certain types of subsidies such as writing off loans in times of distress like drought and floods help the farmers to continue in their production. In the absence of such subsidies, farmers will sell their lands and livestock at low prices and migrate to urban areas in search of a livelihood, thus affecting the agricultural production in the country.
- 3 The agricultural inputs for which subsidies are given by the Government are: seeds, fertilisers, irrigation, water, electricity, agricultural implements, agricultural loans, minikits.

- 4 The production of good quality seeds is a complicated process and requires a lot of expenditure. The research organisations which evolve good quality seeds after a series of trials are run by the Government. Similarly, organisations like National Seeds Corporation and State Seeds Corporations which are certification agencies for the quality of seeds and supply certified seeds to the farmers at much lower prices, are all run by the Government. The Government spends huge amounts of money on running these organisations and this cost is not transferred to the farmers. Thus the non-transfer of these costs to the farmers is also a subsidy because the farmers would have to pay a huge price for good quality seeds if these subsidies did not exist.
- 5 Demonstration refers to showing the working of or showing the results of a particular method using live examples. Demonstrations have been found to be the best methods of communicating a new technology to the farmers. The two important types of demonstrations are:
  - i) Method Demonstration and ii) Result Demonstration

Method Demonstration is used when you want to teach the farmers how to do a particular thing, for example sowing of seeds by a particular method or by the use of agricultural implements applying fertilisers, harvesting the crop, etc.

Result Demonstration is used where we want to show the results of a particular item such as more yield by using a particular fertiliser, so as to convince the farmers about the utility of a particular item. Yield trials of crops are demonstrated by this method.
- 6 Under the scheme, crops are grown on the farmer's fields for the purposes of demonstration under the farmer's conditions. The yield levels under this scheme are compared to the average yields obtained by the farmers in general so as to estimate the yield gaps.
- 7 The training programmes are organised by the various agricultural extension agencies and form a vital link between the scientists and the farmers. The findings of the research and the benefits are transmitted to the farmers for adoption on their farms through the training programmes. The training programmes are arranged according to the season, crop, area, technology, etc. These training programmes also include training of farmers in various aspects of rural life.

#### **Practical Exercises**

- 1) Collect and record the data on different subsidies and their amount granted by the Government of the state you live in for the inputs used by the agricultural sector (you may visit the office of the block development officer to get this information).
- 2) Visit the nearest Agricultural Research Station/University campus/Agricultural institute on a Field day and record your observations.
- 3) Visit the office of the Department of Agriculture of the town you live in and list down the training programmes it arranged for farmers during 1987-88.