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# UNIT 1 AGRICULTURAL POLICY AND ITS INSTRUMENTS

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## Structure

- 1.0 Objectives
- 1.1 Introduction
- 1.2 Concept of Agricultural Policy
- 1.3 Objectives of Agricultural Policy
- 1.4 Planning and Policy Links
- 1.5 Need for Sectoral Perspective and Integration
  - 1.5.1 Need for Sub-sectors' Policy Integration
  - 1.5.2 Need for the Agricultural Policy Integration with Other Related Policies
- 1.6 Instruments of Agricultural Policy
  - 1.6.1 Input Subsidy
  - 1.6.2 Price Support
  - 1.6.3 Food Subsidy
  - 1.6.4 Direct Payments
  - 1.6.5 Warehouse Receipts
  - 1.6.6 Infrastructure Services
  - 1.6.7 Exchange Rate Management
  - 1.6.8 Agricultural Trade Regulations
  - 1.6.9 Other Instruments
- 1.7 Let Us Sum Up
- 1.8 Key Words
- 1.9 Some Useful Books/References
- 1.10 Answers/Hints to Check Your Progress

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## 1.0 OBJECTIVES

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After going through this unit, you will be able to:

- explain the concept of policy in general and agricultural policy in particular;
- differentiate between policy and planning and explain how the policy is linked to the planning with a view to achieve the stated goals of the policy;
- identify need for sectoral perspective and the integration of various agriculture related policies; and
- describe the main instruments of agricultural policy through which the policy makers attempt to achieve the desired objectives.

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## 1.1 INTRODUCTION

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Since the beginning of planning era in India, agriculture has been undergoing a number of policy changes. In the first decade of planning, India faced severe food crisis and accordingly policy focus was on enhancing the foodgrain production through intensive agricultural programmes in those regions where potential of enhancing agricultural productivity was very high. The Government of India adopted suitable supply-side and demand-side policies to bring out green revolution. Supply side policies comprised land reform, development and diffusion of new farm technologies, price support, institutional credit, public investment in irrigation and other infrastructures, whereas demand-side policies consisted of state intervention in agricultural markets, public procurement of foodgrains and operation of public distribution system.

These policy interventions along with sincere and persistent efforts of agricultural scientists and extension workers, and enthusiasm and dynamism of the farmers in the adoption of modern farm practices have been instrumental in the agricultural development and achieving self-sufficiency in foodgrains. However, Indian agriculture of today is radically different from the green and post-green revolution periods. Apart from experiencing a slow down in the productivity growth and a rise in input costs, farmers face the volatility of the market caused by increasing global integration and changing consumer tastes and preferences. In this changing scenario, policy goals, instruments and sectoral perspective would have also undergone a change.

In this unit, I let you know about what agricultural policy is and how it links to the planning. You will also understand about various sub-sectors of agriculture and need for their integration with a view to maximize the farm income per unit of land, labour and other resources. As the biggest challenges before the policy makers are how to enhance the agricultural productivity and sustain the livelihood of resource-poor farmers and generate productive jobs for the farm workers, I will also discuss various policy instruments used by the government to deal with these challenges.

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## 1.2 CONCEPT OF AGRICULTURAL POLICY

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In order to understand any subject, it is essential to define it first. Therefore, in this section, we will first define the term 'agriculture' and then 'policy' to comprehend the meaning of agricultural policy. Agriculture is made from two Latin words—*ager*, meaning 'a field', and *cultura*, meaning 'cultivation' (Wikipedia). Thus, literal meaning of agriculture is 'tillage or cultivation of soil of a field. However, in practice, the agriculture comprises all activities related to production of food, feed, fiber, fuel and other products through the systematic raising of plants and animals.

The term 'policy' refers to a plan of action to guide decisions and achieve pre-determined goals. It may apply to any public or private sector institution/organization, groups, individuals. Here, we discuss the concept of policy only in context of public (government) policy. It comprises the actions of the government and the intentions that determine those actions.

William Jenkins (1978), defines the term 'policy' as a 'set of interrelated decisions taken by a political actor or group of actors concerning the selection of goals and

the means of achieving them within a specified situation where those decisions should, in principle, be within the power of those actors to achieve’.

Thus, a policy is a plan of action initiated by a political party in government, which undergoes reforms and changes by interested actors. These interested actors may be members of the opposition parties, non-governmental organizations, academic institutions, social service organizations and press media. In India, different ministries of the Central Government frame their own policies and amend them periodically to make them compatible with the changing economic scenario.

After understanding the terms ‘agriculture’ and ‘policy’, now you would be able to comprehend the meaning of agricultural policy. Agricultural policy comprises the national approach to agricultural development and a set of activities to implement it. The policy is implemented with a view to achieve specific objectives related to agriculture or its sub-sectors. The objectives may range from improving farm productivity, profitability and sustainability to employment generation, price stability, crop diversification, food security and managing and regulating the food supply. The government may use various policy instruments to achieve these objectives. For instance, if the government wants to encourage the farmers to produce more foodgrains to achieve the food security, this could be done by subsidizing the farm inputs or through providing the price support.

You should note that ‘agricultural policy’ is a term which is collectively used for a bundle of policies related to the agricultural sector. It may comprise a number of policies, such as land tenure and land reform policy, price policy, trade policy, marketing policy, credit policy, crop insurance policy, water policy, food policy, fertilizer policy, farm power policy, etc. These policies are framed by the government to achieve the specific goals related to the farm sector. As agriculture in India is a state subject, apart from the national agricultural policy, state governments also prepare their own agricultural policies and also regulate the supply of various agricultural products through some rules, acts and regulations. For instance, under state Agriculture Produce Marketing Committee (APMC) Act, private traders and agri-business companies are not allowed to directly purchase farm produce from the farmers. However, the recent policy initiative is to amend this act so that the agri-business companies may directly buy from the farmers.

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### **1.3 OBJECTIVES OF AGRICULTURAL POLICY**

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Objectives of agricultural policy may vary from country to country and region to region. They may also vary across time period. For example, food security was the major policy objective in India during the green and post-green revolution period; today, ecological and economic sustainability of agriculture may be the major policy objective, as earlier policy initiatives have, to a larger extent, encouraged the farmers of agriculturally developed regions to do intensive farming based on purchased inputs such as farm machines, irrigation pumps, fertilizer, pesticides, seeds, etc. The input intensification in agriculture has not only affected the economic viability of the farming via raising the cost of cultivation but also adversely affected environmental and ecological sustainability of the farming.

Broadly, we can identify the following major policy objectives in context of Indian agriculture:

- Price protection for farmers and managing price volatility arising due to greater global integration of Indian agriculture;
- Conservation, management and rational use of land, water and other natural resources to ensure sustainability of agriculture;
- Developing cost-effective and energy-efficient farm technologies;
- Strengthen rural infrastructure to support faster agricultural development;
- Food and nutritional security to meet country's requirement;
- Ensuring economic viability of small and marginal farmers in particular and dry-land farming in general;
- Adequate and timely supply of quality farm inputs;
- Diversification of farming towards high value horticulture and livestock products;
- Generating non-farm rural employment to ease the workforce pressure on agriculture;
- Removing regional imbalances in agricultural development;
- Ensuring greater public private participation in the agricultural development; and
- Ensuring free flows of agricultural products across states and regions.

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## 1.4 PLANNING AND POLICY LINKS

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In this section, I will attempt to establish the link between agricultural planning and policy. You have already studied the concept of agricultural policy in the previous section. In order to know the planning and policy links, you must first know about what planning is. Economic planning may be defined as a conscious and deliberate choice of mobilizing and directing public and private resource by some public authority (say government) for achieving the pre-determined objectives. For example, if the objective of a public authority is to alleviate regional imbalances in the economic development, this can be done by two ways—first by directly making public investment in the economically backward regions and second through encouraging the private entrepreneurs to invest in the backward regions. Private investment can be mobilised through indicative planning, i.e., the planning through market mechanism. The government can give some incentives in the form of tax concessions and subsidies to those entrepreneurs who are willing to invest in the backward regions.

Agricultural planning is the part of overall economic planning. It is prepared and implemented by the government to achieve the well-defined objectives in a given time frame. These objectives may comprise enhancing the total factor productivity in agriculture, raising income and employment on small and marginal holdings, achieving self-sufficiency in food, protection of soil health and fertility, diversification from cereal crops to high value horticulture and livestock products, raising productivity and profitability of dry land and rain-fed farming, reducing regional differences in the level of agricultural development, etc.

Now I will discuss the policy link with planning. While agricultural policy indicates the approach and perspective of the government regarding the development of agriculture, planning is the implementation aspect of it. Plans are made to achieve the policy goals. Policy is actually the ideology of the government related to the particular sector or sub-sector of economy. The ideology and perspective may change overtime due to changing domestic and international scenarios. For example, before the commencement of World Trade Organization (WTO), the Government of India's agricultural policy was more protective. Agricultural imports and exports were restricted through various controls, including prohibitions, licenses, quotas, marketing controls for the sake of domestic food security. The foreign trade in agricultural products was mainly done through public and cooperative sectors. However, in the post-WTO era, there have been significant policy changes. Quantitative restrictions on agricultural imports have been lifted and the market access of foreign agricultural products has improved. Agri-business companies are being encouraged through indicative planning for making investment in agricultural R&D, inputs, marketing, storage, and processing of agricultural products. The APMC Act has been amended by most of the states to enabling them directly purchasing agricultural produce from the farmers, bypassing the regulated *mandies*. At the states level, laws are being amended for the purpose of initiating contract and corporate farming. These post-WTO policy changes in Indian agriculture have link with the changing outlook of agricultural planning. In the current milieu of liberalization, privatization and globalization (LPG), greater emphasis has been laid on public-private partnership in the planning of agricultural development.

The above discussion indicates that policy and planning are highly inter-linked. Sometimes, these two words are inter-changeably used. Sometimes, they are used in combination, such as 'policy planning'. However, these two terms differ in the sense that the first refers to the approach and outlook of the government whereas the later refers to the execution and implementation of that approach. Policy without planning is merely a statement or wishful thinking on the part of the government. It is planning through which the policy perspective of the government is implemented. A policy may have a long term or short outlook of the government and may not be confined to the specific time period. On the contrary, plans are time-bound efforts of the government in terms of physical and financial investments to achieve the policy goals. For instance, in the initial decade of post-independence India, food security was the major goal of the agricultural policy. Accordingly, agricultural planning was made to 'grow more food'. During the planning period upto 60's, India, with the assistance of international institutions/organizations and foreign governments, made huge public investment in setting of agricultural universities, creating surface and ground water irrigation infrastructure, producing chemical fertilizers and High Yielding Variety (HYV), seeds etc., to enhance the food grain production, especially production of wheat and rice. Price support was also used as a policy instrument to encourage farmers to grow more wheat and rice crops.

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### Check Your Progress 1

- Note:** i) Use the space below for writing your answer.  
ii) Compare your answers with the given at the end of this unit.

1) Define the term 'agricultural policy'.

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2) Elucidate two main objectives of agricultural policy in India.

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3) How is policy linked to planning?

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## 1.5 NEED FOR SECTORAL PERSPECTIVE AND INTEGRATION

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In broader sense, agriculture sector comprises crop husbandry, animal husbandry, agro-forestry, sericulture, poultry, fishery and other allied activities. Within the crop husbandry, there are several sub-sectors, such as, food and cash crops, plantation crops, horticulture (fruits and vegetables), etc. In order to maximise the farm income and make optimum utilization of available, land, water, and manpower resources, there is need to have a better integration of various agricultural sectors and sub-sectors in the farm practices. Most of these activities are interlinked and support each other. For example, animal husbandry can play a vital role for the sustainability of the crop sector. Livestock provides not only farm power for cultivation; it also provides manure necessary for maintaining soil fertility and raising crop productivity. Crop residues can be properly used if a farmer is rearing cattle. As dairy products are of high demand due to urbanization, rising per capita income and changing consumption pattern; a proper integration of crop husbandry with animal husbandry is warranted for achieving sustainable income from the agriculture. Similarly, poultry farming can be useful activity for the small and marginal farmers.

We shall discuss the two types of sectoral policy integrations. First is related to the integration of sub-sectors perspective in the overall agricultural policy framework, while second is related to the integration of agricultural policy with the policies of other related sectors.

### 1.5.1 Need for Sub-sectors' Policy Integration

As stated above, agriculture comprises various sectors and sub-sectors. To augment the farmers income and to make efficient use of available resources, there is need to evolve a policy that properly integrate the all related agricultural activities. **Note that the relative importance of these activities may change overtime due to change in the composition of domestic and global demand. For example, in India, demand for horticulture and livestock products has been increasing with a rate faster than that of traditional food and non-food crops. Within the crop sector, the policy**

initiatives may be implemented separately for food crops, feed crops, industrial crops and traditional exports. Generally, national agricultural policy of India accords greater importance to foodgrains and sugarcane crops due to strong political lobby in the favour of these crops. Emerging high value fruits and vegetable crops are yet to get due place in the national agricultural policy and planning. These are the crops that generate more employment and income to the farmers. But these are risky crops and in the absence of adequate marketing infrastructure and institutional arrangement, growers of fruits, vegetables and other cash crops of perishable nature can bear the brunt of price and output volatility. There are enormous post-harvest losses in case of fruits and vegetables crops. The losses are estimated as high as Rs.50,000 crores per annum. Therefore, National Agricultural Policy has to focus not only on the development of the horticulture sub-sector but it should also coordinate with the industrial policy related to agro-processing industry.

In order to acquaint you about the sectoral perspective of agriculture and the need for the integration of sectoral policies, we have shown the trend and composition of agricultural output in Table 1.1.

**Table-1.1: Trend and Composition of Value of Output of Agriculture Sector**

(Rs. Crore at 1993-94 prices)

Year	VOP of Agri. and Allied Sectors	Per cent share of								
		Total Food grains	Total Cereals	Total Pulses	Total Oilseeds	Sugar- cane	Cotton	Fruits and Veg.	Livestock Products	Others*
1990-91	251885	33.06	27.90	5.17	8.44	6.03	2.92	13.55	23.38	12.62
91-92	249048	31.80	27.48	4.33	8.58	6.33	2.91	13.54	24.45	12.39
92-93	261903	31.78	27.29	4.49	8.74	5.52	3.26	14.03	24.40	12.28
93-94	271839	31.20	26.68	4.52	8.86	5.37	2.99	14.13	24.63	12.81
94-95	284975	31.78	27.26	4.52	8.72	6.02	3.19	14.14	24.44	11.72
95-96	284273	29.73	25.75	3.98	8.85	6.17	3.47	14.98	25.34	11.46
96-97	307393	30.41	26.11	4.30	9.04	5.69	3.53	15.76	24.26	11.32
97-98	302400	30.07	26.00	4.07	8.19	5.82	2.74	16.19	25.35	11.64
98-99	323017	29.98	25.59	4.40	8.65	5.62	2.98	16.58	24.73	11.47
99-00	324298	30.27	26.43	3.83	7.23	5.80	2.70	16.69	25.39	11.92
00-01	320920	28.40	25.12	3.28	6.70	6.14	2.27	18.44	26.63	11.43
01-02	338976	29.25	25.53	3.72	7.15	5.70	2.26	17.22	26.75	11.66
02-03	315921	25.54	22.21	3.33	5.79	5.61	2.06	19.19	29.40	12.40
03-04	346538	28.16	24.52	3.65	8.14	4.22	3.03	17.58	27.50	11.36
ACGR (per cent)	2.50*	1.13**	1.34*	-0.14	0.35	1.35**	0.27	5.27*	3.79*	1.94*

Sources: Based on data collected from CSO, Government of India.

\* Include tea, coffee and other drugs and narcotics products, fibres other than cotton, condiments and spices, etc.

\* Significant at five per cent level of probability

\*\* Significant at ten per cent level of probability

It is evident from the Table 1.1 that the crop sector has performed relatively poor when compared to the livestock and the horticulture sectors. The value of output of foodgrains grew only by 1.13 per cent per annum. As a result, their share in the total agricultural income declined from 33.06 per cent in 1990-91 to 28.16 per cent in 2003-04. Cereal production now contributes less than one-fourth of the total value of agricultural output. Apart from cereal crops, three other important crops—pulses, oilseeds and cotton—did not achieve any gain in the value of their outputs. Value of output of sugarcane has increased by a moderate rate of 1.35 per cent per annum. Thus, Indian agriculture is undergoing a significant structural transformation from a cereal led growth to high-value horticulture and dairy products led growth.

The growth of horticulture and livestock products is demand driven. Income elasticity of demand for these products is much higher than that of cereal crops. Mittal (2006) estimated the expenditure elasticity for major food crops in India for the year 1999. The results given in Table 1.2 shows that the elasticity for the two groups, namely, milk, and meat, fish and eggs is greater than one. This indicates that a one per cent increase in the total household expenditure would enhance demand for these products greater than one per cent. For sugar and fruits & vegetables also, it is very high. On the contrary, it is very low for cereals. This implies that the national agricultural policy is required to give greater emphasis on creating enabling institutional framework for the growth of these labour-intensive and high value added sub-sectors.

**Table 1.2: Expenditure Elasticity of Demand for Major Food Groups in India, 1999**

Groups	Rural	Urban	Total
Cereals	0.21	0.09	0.17
Pulses	0.62	0.57	0.59
Fruits & Vegetables	0.75	0.73	0.72
Milk	1.27	1.15	1.19
Edible Oil	0.57	0.53	0.55
Sugar	0.83	0.84	0.82
Meat, Fish and Eggs	1.38	1.26	1.30

*Source: Surbhi Mittal (2006).*

In fact, the Government is realising the necessity to diversify the agricultural economy in particular and rural economy in general for creating additional income and employment opportunities for the rural workers and to check their undesirable exodus to urban areas. Recently, the Government of India has taken some policy initiatives for the development of horticulture, agro-forestry, oilseeds and bio-fuel crops. Launching of National Horticulture Mission, National Bamboo Mission, National Oilseed Mission are prominent among these initiatives. However, political clouts are still in favour of only few crops, namely, wheat, rice and sugarcane. These crops are relatively getting high protection through price support policy, while farmers growing fruits and vegetables do not have such policy support. As these are the products of perishable nature and do not directly qualify for public procurement for food security purpose, the policy support for these products could be through indicative planning, i.e., through incentives to the private sector



for making investment in marketing, transport, storage and processing of these products. Public-private partnership may also be encouraged in infrastructure projects, such as, roads and power.

In this context, it would be relevant to note that the New Agricultural Policy of India envisages the vital role to be played by the private sector in the agricultural development. The policy document states “*private sector participation will be promoted through contract farming and land leasing agreements to allow accelerated technology transfer, capital inflows and assured market for crop production, especially of oilseeds, cotton and horticultural crop*”.

In the above discussion, we have given more emphasis on the two sub-sectors of agriculture. Similarly, policy initiatives related to other sub-sectors need to be integrated with the overall policy framework. For example, let us take the recent corporate sector proposal for leasing-in of about 24 million hectares of cultivable wasteland for growing bio-fuel plants. This move needs to be examined not only from energy policy point of view but also from the view point of livelihood security of small and marginal farmers and landless workers who get fuel and fodder from the wasteland. Indian dairy sector largely depends on these small stakeholders.

### **1.5.2 Need for the Agricultural Policy Integration with Other Related Policies**

The integration of agriculture with land and water management, and with ecosystem conservation is essential for both environmental sustainability and agricultural productivity. Therefore, agricultural policy is required to be properly integrated with the environmental policy, water resource policy and forest policy. It must be integrated with other related policies and the agencies in-charge of them. For example, rural development policy, trade policy, labour policy, credit policy, fiscal policy, transport policy, agro-industry policy must have proper coordination with the agricultural policy.

Another important policy that needs to be coordinated with the agricultural policy is energy policy. Agriculture is the major sector of energy consumption. It could also be the major energy producer. There is immense potential of generating electricity from the agricultural wastes. Sugar industry alone has the potential to generate about 5000 MW through co-generation plants fuelled by bagasse. The industry also has the potential to produce about two billion litres of ethanol from molasses which can be blended with petrol to run automobiles. All petrol fuels sold in Brazil have an ethanol content ranging from 20 per cent to 24 per cent. USA produces ethanol from maize. According to a study by the Federation of Indian Chambers of Commerce and Industry (FICCI), India could save nearly 800 million litres of gasoline annually if the transport sector blends 10 per cent ethanol with gasoline. Another source of energy production from agriculture is cultivation of bio-diesel plants, such as jatropha.

There may be some trade off between energy production and food and feed production. For instance, if ethanol is produced directly from sugarcane juice, as is being practiced in Brazil, less sugar production would be available for human consumption. Similarly, when ethanol is produced from corn, as is being practice in USA, less feed grains would be available for livestock. Therefore, it would be difficult to have a political consensus on making agriculture a major producer of

renewable energy because food is the more basic need that agriculture can provide to feed the hungry people. However, what is generally ignored in such a public discourse is the fact that the problem is not only due to lack of food, but also due to the lack of livelihood opportunities. Hence, the national policy needs to make proper balance between the energy production and crops production.

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### Check Your Progress 2

**Note:** i) Use the space below for writing your answer.

ii) Compare your answers with those given at the end of this unit.

1) Why is it necessary to integrate the various agricultural sub-sectors?

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2) What are the recent policy initiatives taken by the government to diversify the agriculture?

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3) Why do we need integration of agricultural policy with other related policies?

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## 1.6 INSTRUMENTS OF AGRICULTURAL POLICY

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An instrument is defined as something which the manager or actor can change or manipulate in order to produce a desired effect. It may be an economic quantity such as interest rate or it may be a part of the institutional framework such as nationalization of banks. An instrument, therefore, is the means by which the policy objectives are pursued (Singh, 1995). The effectiveness of an instrument in achieving the intended policy objectives may not only be dependent on the change in the instrument itself but also on how the instrument is used in conjunction with other complementary and supplementary instruments.

We can use a number of policy instruments to achieve the policy goals. In case of agriculture, price support for major crops, public procurement of foodgrains, input subsidies on fertilizer, power, and irrigation, and public investments in agricultural infrastructure may be the major policy instruments. These instruments can be complemented with trade policy instruments such as quantitative restrictions on imports and exports, import tariffs, and state trading. Exchange rate manipulation can also be used as an instrument to improve the competitiveness of country's agricultural exports.

Apart from these instruments, amendments in the acts or framing some rules and regulations can also be used as instruments to achieve the policy goals. Note that the instruments are not static in nature. They may vary according to the change in the overall policy outlook of a nation. Sometimes, changes in the rules and regulations of international institutions can compel a nation to make necessary changes in the policy instruments to make them compatible and compliant with the international ones. For example, till recently, quantitative restrictions (QR) were used as an instrument to protect the domestic agriculture from cheap imports. Now, under the WTO regime, these have been lifted by the government. Import tariff is the only instrument that can be used by the country and that with the limited manner as upper limits of tariff are bounded. Now, I will discuss some of the major policy instruments in a bit detail in the following points.

### **1.6.1 Input Subsidy**

One of the most significant instruments of the agricultural policy is subsidy given to farmers on agricultural inputs. Through this subsidy, farmers are encouraged to augment the application of subsidised inputs for raising crop yields and production. The objectives can be to make the farm produce cheaper for domestic consumers and to provide cheap raw materials to agro-industries. Another objective can be to boost up the agricultural export. During the green revolution period, input subsidies were provided to farmers for achieving self-sufficiency in foodgrains. Subsidies on fertilizer, power and irrigation are the major components of total subsidies given to the farm sector.

Now, you should understand how input subsidy as an instrument works to achieve the policy goals. Note that the subsidy given to a farmer per unit of an input is equivalent to a fall in the price of input by the amount of the subsidy. If other things remain the same, a fall in the price of input by the amount of the subsidy would lead to increase the farm production, reduce output price and increase output demand for consumers for final consumption and agri-business companies for further processing. For example, huge input subsidies provided by the US to their farmers indirectly benefit large agri-business companies which get the cheap farm produce for making processed food to be supplied at competitive prices in the domestic as well as global market. Note that if this instrument is used along with output price stability, it would enhance farmers income. On the other hand, if market price of the agricultural product declines due to reduction in input-cost, it would benefit the consumers and agro-processing firms.

It is pertinent to note that the input subsidy as a policy instrument has become questionable on environment, equity, and efficiency grounds. For example, irrigation subsidy promotes excessive use of irrigation and creates water logging and soil salinity problems. In case of fertilizer subsidy, it is observed that its significant portion supports to an inefficient fertilizer industry. In India, a steep rise in agriculture subsidy during 1990s and 2000s has crowded out the real investment in the farm sector, as the resource-striven central and state governments find it difficult to increase public investment in the sector.

**Table 1.3 shows that fertilizer subsidy increased from Rs. 4,562 crores in 1993-94 to Rs.16,127 in 2004-05, registering more than a three-fold rise. Power subsidy went up from Rs.2,400 crores in 1993-94 to Rs.7,354 crores in 2002-03 and irrigation subsidy from Rs.5,872 crores in 1993-94 to Rs.12,990 crores in 2004-05.**

Due to inequitable distribution of these subsidies across regions and farmers, their benefits are availed mainly by the big farmers, especially in the agriculturally developed regions. For instance, a sizable portion of fertilizer subsidy is cornered by the farmers of irrigated regions, as fertilizer consumption in rain-fed regions is very low. An existing flat rate power tariff system in most of the states causes depletion in the ground water table; distorts the cropping pattern; and adversely affects the sustainability of agriculture. It benefits more to the big farmers as they have relatively lower unit-cost due to larger size of farm.

In the case of fertilizers, the subsidy is directly given to the fertilizer factories through a retention price scheme which ensures an 8 per cent margin over costs for the companies. In order to improve efficiency in the delivery mechanism, fertilizer subsidy can be given directly to the farmers, instead of routed through the fertilizer industry. There should be dual prices for the fertilizers—one for the open market and other for the regulated market. Subsidised fertilizers should be sold through cooperative societies. Quota of subsidized fertilizers may be fixed keeping in view the size of operational holdings, net irrigated area, cropping pattern, etc. Those farmers, who want to use fertilizer beyond the allotted quota, can purchase it from the open market. De-regulation of the fertilizer companies would motivate them to improve their competitiveness through using cost-effective new technology and carrying out R&D activities.

**Table 1.3: Agriculture Subsidies in India during 1993-94 to 2004-05**

(Rs.Crores)

Year	Fertilizer	Electricity**	Irrigation##	Others	Total
1993-94	4562	2400	5872	1235	14069
1994-95	5769	2338	6772	1246	16125
1995-96	6735	1977	7931	1034	17677
1996-97	7578	8356	9221	895	26050
1997-98	9918	4937	10318	983	26156
1998-99	11596	3819	11827	1182	28424
1999-2000	13244	4276	11193	3085	31798
2000-01	13800	6056	13465	2686	36007
2001-02	12595	9342	13164	3041	38142
2002-03	11015	7354	15012	3133	36514
2003-04	11847	NA	11142	4018	27007
2004-05	16127	NA	12990	NA	29117

*Source: Official Website of Ministry of Agriculture, accessed on July 25, 2007.*

\*\* Includes all subsidies to Electricity Boards and Corporations. Separate estimates of Electricity subsidy accountable exclusively to agricultural sector are not available.

## The rates for supply of water to farmers are kept low as a matter of policy, resulting in losses to the Government irrigation system. The excess of operating costs over the gross revenue is treated as imputed irrigation subsidy.

NA Not available

## 1.6.2 Price Support

Price support is the widely used instrument in most of the countries, including

India. It can be used to achieve multiple policy goals, including price stabilization and income support. Note that supply of a product is positively associated with its price. Therefore, one of the most effective ways of enhancing the production of a crop (for example wheat) is raising its price. In the previous point, you have learnt that input cost to the farmers can be reduced through input subsidy. Alternatively or simultaneously, the government can fix the minimum support price (MSP) for an agricultural output to ensure reasonable income to farmers. If market price of the price-supported crop is below the MSP, it becomes the responsibility of the government to procure the crop produce from the farmers. If the policy goal is to enhance the farmers income from the agriculture, price ratio of output(s) to input(s) must be greater than one. Profitability in agriculture would increase only when index of output prices grows faster than the index of input prices.

In India, Commission for Agricultural Costs and Prices (CACP) recommends the MSP for various agricultural crops. The MSP policy was initiated with the objectives to provide remunerative prices to the farmers; procure foodgrains for maintaining food security; and provide incentives for diversification of agriculture. In fixing the support prices, the Commission estimates the cost of cultivation that covers all items of expenses, including the imputed value of self-owned inputs. Ten per cent profit margin is added in to cost to decide the price. Sometime, the government sets MSPs more than what is recommended by the Commission. This happens when the farmers lobby has more stakes in the government.

The MSP policy has been quite successful in achieving the food security. However, it has grossly failed in achieving crop-diversification and in providing remunerative price to the farmers. Every year the government announces MSP for 24 major crops, as per the recommendations of CACP. However, announcement of MSP for the crops like coarse cereals, pulses and oilseeds becomes meaningless if the government does not make the provision of their procurement.

It has been observed that the benefits of the MSP policy are mainly availed by the farmers of a few states where procurement of wheat and rice is made. For instance, Food Corporation of India (FCI) procures approximately 95 per cent of wheat from three States Punjab, Haryana and (western) Uttar Pradesh and 85 to 90 percent of rice from five States: Punjab, A.P., Haryana, U.P. and Tamil Nadu. In these MSP beneficiary States, income transfer to large farmers are approximately 10 times those received by marginal farmers (World Bank, 2004).

### 1.6.3 Food Subsidy

Government subsidy on foodgrains to the consumers can also be used as a policy instrument. Although food subsidy is targeted for poor people to ensure their food security, it can also be used to increase the farm income. If issue prices of foodgrains crops are lowered due to heavy food subsidies, it would generate more demand for the foodgrains, indirectly benefiting the growers. Actually, food subsidy in India has three components—consumers subsidy, implicit producers' subsidy, and subsidy pertaining to the maintenance of buffer stock. The amount of consumers subsidy depends on the quantity of foodgrains distributed through the Public Distribution System (PDS) while carrying cost on maintaining the stocks at buffer norm level is the price for food security. The carrying cost in excess of stocks over and above norms may be considered as a kind of implicit producers' subsidy.

The share of producers' subsidy in total food subsidy has drastically increased from 12.8 per cent in 1993-94 to 48.9 per cent in 2001-02, whereas the share of consumers subsidy has decelerated from 56.5 per cent to 29.2 per cent during the same period and subsidy pertaining to maintaining the buffer stock has declined from 30.7 per cent to 21.9 per cent during the period (RBI, 2002). Table 1.4 shows that the economic cost (EC) of wheat to FCI has increased from Rs.852.9 in 2001-02 to Rs.1,070.00 in 2006-07. The ratio of EC to MSP ranges from 1.38 to 1.64.

**Table 1.4: Minimum Support Price (MSP), Economic Cost, and Issue Price of Wheat**

(Rs. per quintal)

Year	MSP	Issue price (BPL)	Economic Cost	Ratio of Economic Cost to MSP
2001-02	620	415	852.9	1.38
2002-03	620	415	884.0	1.43
2003-04	630	415	928.7	1.47
2004-05	640	415	1049.6	1.64
2005-06	650	415	1031.5 RE	1.59
2006-07	750	415	1070.0 BE	1.43

*Source: Compiled from Economic Survey 2006-07, Government of India*

*Note: BE stands for budget estimates and RE for revised estimates.*

### 1.6.4 Direct Payments

Direct payments are given to the farmers to achieve the multi-functionality objective of agriculture. They are designed to maintain the agricultural output within the predefined output quota. Common agricultural policy of European Union (EU) uses this instrument. USA also transfers direct money to the farmers for not to grow crops. These payments are directly transferred from taxpayers to farmers without raising prices to the consumers. The objectives of direct payments to the farmers may be to achieve price stability, protect farm income and conserve the soil. In India, this instrument is not generally used.

### 1.6.5 Warehouse Receipts

The system of warehouse receipts (WR) is used as a specific instrument of support to market organization in various countries, including India. Commercial banks refinanced crops through warehouse receipts. The Intervention Agency used a system of bills of exchange; whereby the farmers, public warehouse, buyer and bank acted as participants in the transaction.

### 1.6.6 Infrastructure Services

State investments in irrigation, land improvement, soil and water conservation, roads, electricity, water and pasture land improvement are the major elements of infrastructure services. In addition, general services provided to producers either free or at subsidized costs include research, training and extension services, inspection services, and pest and disease control services.

### 1.6.7 Exchange Rate Management

Exchange rate manipulation can be applied as an instrument to achieve the policy goals. In most developing countries, appreciation of domestic currency *vis-à-vis* other foreign currencies may have negative impact on agriculture whereas depreciation of currency would have positive impact. Devaluation of currency makes the domestic goods, including agricultural products, cheaper in the international market and thereby improves the export competitiveness. On the other hand, it makes the import costlier and thus reduces the flow of imported goods in the domestic market. However, effectiveness of these instruments largely depends on the elasticity of imports and exports with reference to the change in the value of domestic currency in terms of foreign currencies.

### 1.6.8 Agricultural Trade Regulations

Trade regulations comprise quotas, import duties, and export subsidies, applied to imports or exports to increase or decrease amounts traded internationally and thus increase or reduce domestic prices. Till recently, Government of India had quantitative restriction (QRs) on agriculture imports. This was done to protect the farmers from the onslaught on cheap agricultural imports. Exports were also regulated to ensure adequate supply in the domestic markets. However, in the post-WTO period, QRs on agricultural products have been lifted.

### 1.6.9 Other Instruments

Agricultural policy goals can also be achieved through bringing various acts, rules and regulations. Land Reform Act was enacted for making reform in the land tenure system and for equitable distribution of land. The act was intended to achieve economic, social and political objectives. For example, political objective was to change the rural power structure. The economic objectives were to reduce poverty and increase agricultural productivity. Operations *Barga* in West Bengal is one of the successful cases of land reform in India.

The Essential Commodities Act empowers the central and state governments to impose restrictions on the storage and movement of commodities, such as cereals, pulses, and edible oils. The APMC Act restricts the direct entry of private traders and agri-business companies in purchasing, storing and marketing of agricultural produces.

Another policy instrument that needs discussion here is institutional credit to the farm sector. During the late 60s, banks were nationalized so that more credit facilities could be extended to the farm sector. Agriculture was kept in the priority sector for the purpose of disbursement of bank credit. No need to emphasize that access to institutional credit is one of the most vital determinants of agricultural development. Modern farm practices, which are mainly based on the external inputs, would be possible only when farmers have adequate credit facilities.

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#### Check Your Progress 3

- Note:** i) Use the space below for writing your answer.  
ii) Compare your answers with those given at the end of this unit.

1) List out any four instruments of the agricultural policy.

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2) Give your arguments for and against input subsidies.

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3) Depreciation of Indian currency in terms of foreign currencies improves competitiveness of Indian agriculture in global market. Give your comments.

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4) Tick mark on the appropriate answer.

- 1. Objectives of agricultural policy may change overtime. True/False
- 2. Policy without planning is merely a wishful thinking on the part of the government. True/False
- 3. Input subsidies without price support benefit consumers not farmers. True/False
- 4. Direct payments are made to the farmers to enhance agricultural production. True/False
- 5. QRs have not been lifted on agricultural imports in India. True/False
- 6. The APMC Act restricts the direct entry of private traders and companies in agricultural markets. True/False

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## 1.7 LET US SUM UP

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Agricultural policy comprises the national approach to the agricultural development and a set of activities to implement it. The national agricultural policy broadly consists of a bundle of policies framed by the government to achieve the specific goals related to agriculture.

The concepts of 'policy' and 'planning' are highly inter-linked. The first refers to the approach of the government whereas the later refers to the execution and implementation of that approach. Policy without planning is merely a wishful



thinking; it is planning through which the policy outlook of the government is implemented.

To augment the farmers income and to make efficient use of available resources, there is need to have a better integration of various agricultural sectors and sub-sectors in the farm practices. Most of these activities are interlinked and support each other. The integration of agriculture with land and water management, and with ecosystem conservation is essential for both environmental sustainability and agricultural productivity. Therefore, agricultural policy is required to be integrated with the environmental policy, water resource policy and forest policy. It must also be integrated with other related policies, such as, rural development policy, trade policy, labour policy, credit policy, fiscal policy, transport policy, agro-industry policy and energy policy.

A number of policy instruments may be used to achieve the policy goals. Price support, public procurement of foodgrains, input subsidies on fertilizer, power, and irrigation, and public investments in agricultural infrastructure are the major instruments. These instruments can be complemented and supplemented with trade policy instruments such as quantitative restrictions on imports and exports, custom duties, and state trading. Exchange rate manipulation may also be used as an instrument to improve the competitiveness of country's agricultural exports. Further, amendments in the acts, rules and regulations can be made to achieve the goals.

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## 1.8 KEY WORDS

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- Agricultural Subsidy** : It refers to direct or indirect payment by a government to the agricultural sector to achieve specific objectives.
- Exchange Rate** : It is the rate at which domestic currency is converted into foreign currency.
- Planning** : It may be defined as a conscious and deliberate choice of mobilizing and directing public and private resource by some public authority for achieving the pre-determined objectives.
- Policy Instrument** : It is a tool through which intended policy goals are achieved.
- Policy** : It refers to a plan of action to guide decisions and achieve pre-determined goals.
- Price Support** : It can be used to achieve multiple policy goals, including price stabilization and income support.

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## 1.9 SOME USEFUL BOOKS/REFERENCES

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## 1.10 ANSWERS/HINTS TO CHECK YOUR PROGRESS

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### Check Your Progress 1

- 1) Agricultural policy comprises the approaches to agricultural development and a set of activities to implement it.
- 2) Price protection for Farmers and conservation, management and rational use of natural resources.
- 3) Agriculture policy indicates the approach and prespective of the government regarding the development of agriculture, planning is the implementation aspect of it.

### Check Your Progress 2

- 1) Agriculture comprises various sectors and sub-sector. To augment the farmers income and to make efficient use of available resources, there is need to evolve a policy that properly integrate the all related agricultural activities.

- 2) Government has initiated a number of policy action such as National Horticultural Mission, National Bamboo Mission, National Oilseed Mission, etc.
- 3) The integration of agriculture with land and water management, etc. with ecosystem conservation is essential for both environmental sustainability and agricultural productivity. For detail go through 1.5.2

### Check Your Progress 3

- 1) Input subsidy, price support, food subsidy, and direct payments.
- 2) You should discuss the merits and demerits of input subsidies. Also point out the equity, ecology and economic issues related to inputs subsidies.
- 3) Study more about the exchange rate system, devaluation and depreciation of currencies and their effects on imports and exports of goods and then make your comments.
- 4) Answer of objective-type question :
  1. True    2. True    3. True    4. False    5. False
  6. True