M.A. (ECONOMICS) PART--II **PAPER ECO-302**

SEMESTER-III

Evolution and Structure of Indian Economy

SECTION-B

LESSON NO :

Department of Distance Education
Punjabi University, Patiala

M.A. (ECONOMICS) PART - II **PAPER–ECO-302**

SEMESTER-III **EVOLUTION AND STRUCTURE OF INDIAN ECONOMY**

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AGRARIAN REFORMS AND AGRICULTURAL POLICY

Structure

1. INTRODUCTION

Countries with lower rate of economic growth are in general characterised by a large proportion of its population depending for its subsidence on agriculture. Therefore, among the actions intended to release forces which may initiate or accelerate the process of economic growth, agrarian reforms usually receive priority. About 70 percent of the population is living in rural areas; and about 53 percent of the rural

population depends on agriculture.

A lot of technical changes have occurred in agriculture at national and international level. The change in mode of production has led to changes in relations of production. But Indian agriculture is still not competitive in the global market. It cannot compete in quality, though with respect to quantity we have achieved a relatively higher stage.

To increase the productivity in agricultural, and improve the relations in agricultural production at economic and social level, there is need to do something concrete. The present lesson deals with the reforms which have been introduced to increase production, and productivity in agriculture. Along with the land reforms, other steps have also been taken by the government for overall improvement and comprehensive development in this subsistence sector of the economy.

2. OBJECTIVES OF THE LESSON

After going through this lesson you will be able to :

(i) Analyse the agrarian reforms introduced by the government to make agriculture more competitive;

(ii) know about the wider scope of agrarian reforms including the land and other institutional reforms along with the technological reforms; and

(iii) hightlight the impact of agricultural policy on economic development.

3. CONCEPT OF AGRARIAN REFORMS

Agrarian reforms is a much wider concept. It not only includes land reforms, but other concerned problems and aspects related with agriculture also'. It includes the establishment and strengthening of essential governmental cooperatives or commercial agencies or services relating to agricultural credit supply, marketing extension and research. Sometimes the term is used as synonymous to land reforms. But 'agrarian reforms, "which of course include land reforms, are a part of an integrated programme of measures designed to eliminate obstacles to economic and social development arising out of existing defects in the agrarian structure; Land reforms when discussed in narrow sense, are concerned with those reforms related with land ownership and land holdings. But in broader sense the term is used to mean all those measures necessary to raise agricultural productivity which include reforms relating to fixation of rent on land, abolition of intermediaries, credit and marketing arrangements etc. A sound agriculture policy includes all these agrarian reforms. In order to implement agrarian

reforms effectively, an effective agricultural policy is needed. A detailed discussion is done on agricultural policy in the later section of this lesson.

4. AGRARIAN STRUCTURE ON THE EVE OF INDEPENDENCE

(i) The existence of large proportion of land under tenancy system;
(ii) Insecurity of tenure among small cultivators;
(iii) Existence of large number of intermediates between the state and the cultivator due to existing land tenurial system;
(iv) A high rate of rent which left least incentive to cultivators to produce more, particularly in share cropping;
(v) Low yield per hectare and prevalence of poverty among the rural farmers and the cultivators;
(vi) Insecurity and lack of will to work hard and hence no incentive to invest in land for its improvement;
(vii) Institutional barriers to cultivation because of the existence of caste system and inhibition to work among high castes;
(viii) Traditional among lending system leading to severe independence;
(ix) Agriculture, in general, was taken just a way of life and not as on occupation land.
(x) Low production and productivity in land.

According to Danial Thorner, there were three classes existing in rural economy,
during that period. The owner, cultivators, and the agricultural labourers. The
cultivators and the agricultural labourers were exploited by the owners of land
by one way or the other.

5. NEED OF AGRARIAN REFORMS

Amit Bhaduri is of the opinion that the semi feudal and feudal relations of production were proving as a barrier to economic development. Thus, the need was felt for overall agrarian reforms which include land and institutional reforms. These agrarian reforms are needed due to the following reason :-

(i) to abolish the system of intermediaries;
(ii) to confer the ownership right on the cultivating tenants in land under their possession;
(iii) to consolidate the holding with a view to making easier application of modern inputs;

(iv) to impose ceiling and floor limit on agricultural land holdings so that cultivation is done in most economic manner and;

(v) to improve the terms and conditions on which land is held for cultivation by the actual tiller with a view to ending exploitation.

In order to fulfil all the above stated points, land reforms, as one of the steps/measures of overall agrarian reforms were introduced during 1951-52.

6. OBJECTIVES AND TARGETS OF AGRARIAN REFORMS

A stated earlier there was less than maximum capacity utilisation of agricultural resources on the one hand, and on the other, large scale inequality was existing at rural level, so for the ownership rights are concerned.

Thus, the objectives of agrarian reforms are two folds :

One, these aim at more rational use of scarce land resources, by introducing land reforms;

Two, these aim at redistributing agricultural land in favour of the less previledged classes to improve their lot.

Thus, the objectives of agrarian reforms target at achieving,

(a) Social justice and

(b) Economic Efficiency.

Social justice means equality so that all the cultivators should get fair treatment without any exploitation. And economic efficiency is related with organisational changes which may help increasing agricultural out put/production and productivity. As mentioned earlier, during the British period, conditions of tenancy were not conductive to increase and improve agricultural production. So the main emphasis was to provide security of tenure, fixation of rent and conferment of ownership rights which may provide congenial atmosphere in which they feel sure of reaping the benefit of their labour.

7. IMPORTANCE OF AGRARIAN REFORMS

In order to ensure the desired objectives of providing social justice and increasing efficiency, restructuring of the agrarian structure was necessary. The fifth plan draft well explains the importance of agrarian reforms that, "the objectives of land policy have been to remove such motivational and other impediments in agricultural production as arise from agrarian structure inherited from the past and also to eliminate all elements of exploitation and social injustice within the agrarian system so

1. Draft fifth five year plan, 1974-76 vol. II p. 42

as to ensure equality of tenurial system and opportunity to all sections of rural population".[1]

Production and distribution are two aspects of the economy which determine its growth and development. A right type of agrarian structure helps to achieve development with social justice which is our national goal. Agrarian reforms have many fold significance as follows :

7.1 PROMOTION OF ECONOMIC INCENTIVE

Optimum utilization of land and more and more investment in land is possible only when there is security of tenure and the cultivator is granted ownership right on his holding. Also when there is certainty that his produce will not be snached by the land lord, he will use more inputs to increase production. Agrarian reforms by ensuring fixity of land rent and better tenurial relations, guarantee that the rewards of one's labour will not be grabbed by others. The two basic pre-requisites of increasing agricultural production viz. Increasing use of modern inputs and hard work are prompted by affective implementation of agrarian reforms.

7.2 INCREASE IN EMPLOYMENT OPPORTUNITIES

In the initial stages of economic development agriculture must absorb the ever increasing labour force. In the later stage of economic development industrial sector also comes for the rescue that by paying slightly higher wages this ever increasing surplus labour can be diverted to industrial sector. But this process happens only for a limited time. In the early stages it is not capable of employing all the surplus labour in agriculture. Thus it is economic necessity of the developing countries to maximise the achievable level of agricultural production, while farmers using hired labour extend their operation where marginal productivity is equal to marginal wage, the owner cultivators, depending upon their own family labour, may like to achieve maximum production, i.e. where marginal productivity is zero. This is particularly true in labour surplus, less developed countries where alternative employment opportunities are lacking.

7.3 REMOVAL OF POVERTY

Land and agrarian reforms are helpful for removal of poverty in developing countries both directly as well as indirectly. Tenants, share croppers and small farmers are direct beneficiaries of these measures. With consolidation of fragmented holdings at one place and imposition of ceiling and floor limit on the farm size, use of modern machinery becomes

possible. It directly leads to increase in agricultural production which results in shift in their economic and social status. Increase in agricultural production leads to economic development by supply of inputs to the agro-based industries and in general increase in income of the rural poor.

Theoretically, increase in agricultural production in general and food grains in particular, in desirable to reduce increasing number of people below poverty line. This objective is fulfilled when the agrarian reforms are properly implemented.

7.4 TO ACHIEVE SOCIAL JUSTICE

Agrarian reforms are desirable to achieve social justice. The land policy that changes tenurial relations in favour of the actual tiller means that the cultivator and the small farmer is assured of getting the fruits of his labour. Thus these reforms check exploitation of man by man. It results in equality in distribution of income and wealth.

7.5 TO ACHIEVE PLANNED ECONOMIC GROWTH

A rational agrarian system which ensures the fruits of one's hard labour is also conductive to achieving planned targets. Providing security to tenure, fixation of rents and conferment of ownership right along with assured market for the product at reasonably good prices, all help to systematic process of planning. All these agrarian policies lead to achieve the set objectives of economic efficiency and 'growth with social justice'.

8. SCOPE OF AGRARIAN REFORMS :-

Indian National Congress Resolution, 1935 stated that, "there is only one fundamental method of improving village life—namely the introduction of a system of peasant proprietorship under which the tiller of the soil is himself the owner of it and pays revenues direct to the government without the intervention of any zamindar or taluqdar". Further the All India Congress committee, 1948, recommended. That, "all intermediaries between the tiller and the state should be replaced by non-profit making agencies such as co-operatives."

Prof. Zahir Ahmed is right when he says that, "Land and agricultural reforms policy should include not only the redistribution of property rights in land but also measures such as the improvement of conditions of tenancy, agricultural credit, co-operative organisation, marketing and advisory services".

This in it self explains the scope of Agrarian reforms, as follows:

(i) Land Reforms

(ii) Institutional Reforms.

8.1 LAND REFORMS

As explained earlier, Land reforms aim at :-

(a) abolition of intermediaries

(b) tenancy reforms which include:

  (i) regulation of rent

  (ii) security of tenure and

  (iii) conferment of ownership rights on tenants.

(c) ceiling on land holdings;

(d) consolidation of holdings and prevention of further subdivision and fragmentation and

(e) organisation of co-operatives farms.

A detailed discussion of these land reforms has already been done in the earlier lessons.

8.2 INSTITUTIONAL REFORMS/TECHNOLOGICAL REFORMS

Institutional and Technological reforms include all those reforms related with agricultural productivity, its produce, marketing, storage, and warehousing facilities, minimum support prices, insurance against failure of crop, agricultural credit and finance, irrigation works, agricultural taxation and agricultural labour etc. there are some institutional reforms, new techniques like HYV seeds, pesticides, insecticides, Machinery etc. are technical reforms.

9.AGRICULTURAL POLICY

We have just mentioned the scope of agrarian reforms which embraces land reforms and the institutional reforms. In order to have effective implementation of agrarian reforms a sound and an effective agrarian policy is recommended. In other words agrarian policy is meant for implementing agrarian reforms.

9.1 PRINCIPLES GOVERNING AGRICULTURAL POLICY

The Congress Agrarian Committee with J.C. Kumarappa as it chairman made adetailed survey of agrarian relations prevailing in the country and made some recommendations in the report submitted in 1949. The most important recommendation was related with the principles of the policy. The main principles which govern The Agrarian policy of the country are;

* the Agrarian economy should provide an opportunity for the development of the farmer;

* there should be no scope of exploitation of one class by an other;

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1. Quoted in Agriculture Economics:- R.K. Lekhi and Joginder Singh P-113

* there should be maximum efficiency in production;
* the scheme of reforms should be within the realm of practicability[1].

These principles suggest that there should be overall development of the agrarian economy, where no one will exploit the other community on the bases of 'haves' and 'have nots'. The objectives of agrarian reforms, viz. maximum increase in efficiency, productivity and the production will be achieved. So that the rural society becomes the 'egalitarian' society.

9.2 PRINCIPLES/GUIDELINES FOR LAND REFORMS

The Congress Agrarian committee (1949) suggested following principles for the land reforms :

* **Abolition of Intermidiaries :** In the agrarian economy of India there is no place for intermidiaries. It further stated that land must belong to the tiller subject of certain conditions. This implies that all intermidiaries between the state and the tiller would be abolished.
* **Land to the actual tiller :** Only those who put in physical labour and participate in actual operations would be deemed to cultivate personally.
* **Prohibition of sub-letting :** Sub letting of land should be prohibited except in few exceptional cases, or where one is unable to cultivate it personally. e.g. in case of widows, minors, and other disabled persons.
* **Ceiling on the Size of Holding :** A maximum ceiling on the holding should be there, which any one owner can have. The surplus land from the big land-lords will be acquired and distributed among the land less farmers.
* Consolidation Sub-division beyond a certain (minimum) limit not allowed. Rather the scattered holdings were consolidated to make them more economic holdings.

All the above stated principles for land reforms suggested by the Congress Agrarian Committee were carried on as a matter of policy. The recommendations of Kumarappa Committee became the basis of the government policy regarding agrarian reforms

9.3 ELEMENTS OF AGRARIAN POLICY :

In addition to the land reforms there are other elements of agricultural policy. These are related with the following aspects.

9.3.1 Irrigation :

Provision and extension of irrigation facilities through major and medium

irrigation project, is being done. In this connection a large number of irrigation projects have been launched since the begining of the era of Planning in India. An Accelerated Irrigated Benefit Programme (AIBP) was launched during 1996-97 to provide loans and other benefits to the states to help them complete their projects in pipeline.

9.3.2 Marketing :

In order to improve system of marketing regular markets are to be established. In these markets additional improvements with regard to the introduction of standard weights and measures, grading and standardisation of farm output, providing information regarding market prices etc. are also needed. In this regard co-operative market structure is also recommended.

9.3.3 Storage and warehousing :

Though India is producing sufficient quantum of food grains and other agricultural produce. But in order to meet the uncertainty of crop failure or any other shortage, government needs storage and warehousing facilities to build up buffer stocks. It will save the farmers from distress sales at throw away prices during surplus crops and will check the practice of cheating the retailers and other consumers, by the 'Arhtyas' by charging high prices during shortages.

9.3.4 Improvement in Economic Conditions of rural Masses :

Rural community is cheated both during surplus crop as well as during the shortage/crop failure. In order to some the village poor save policy measures are there. These are :-

(i) enforcement of minimum wages, for agricultural workers/labours;
(ii) abolition of bonded labour;
(iii) grant of agricultural land of landless labourers;
(iv) scheme for expanding rural employment programmes; and
(v) initiating agro-business activities etc.

Small Farmer's Agri-business Consortium (SFAC) was set up in 1994 to generate agro-business activities for expanding employment opportunities.

All these steps will help raising the level of income of rural masses and there by improving their economic condition.

9.3.5 Agricultural Research and Development and Training :

Agricultural research and developments programmes are technology development oriented. These aim at;

* improved varieties of seeds;
* safe storage techniques, so that there is minimum wastage;
* new and less harmful pesticides, insecticides and their safe methods to use;
* new plant varieties and new diversity in plants;
* methods to ensure optimum utilisation of natural resources viz. soil, water, sunlight etc. so that it may lead to increase in total productivity and production;

Various research institutes the most important being. The Indian Council of Agricultural Research (ICRA), agricultural universities and project directorates are doing research in the above mentioned fields. They are performing triple function of research, education/training and extension programmes.

9.3.6 Widespread Spread of Green Revolution :

In the first round new agricultural strategy was implemented in Northern-region of India. An effort is being made to extend it to other parts also. Green revolution is the net result of new agricultural strategy, which has resulted in all round development of agriculture, especially agricultural produce and productivity. In order to carry these benefits all over India, specific agrarian reforms are needed. National Watershed Development Programme for Rainfed Agriculture is one such programme, which was introduced during 1986-87. This lays emphasis on land and water management through introduction of optimal cropping system, dryland horticulture, fodder production, and farm forestry etc. Now the emphasis has shifted to the rainfed areas. During the Tenth plan about 15 million hectares of such land will be brought under this programme.

9.3.7 Diversification in Agriculture :

This is a major policy plank of agricultural policy. During late sixties and the early seventies new agricultural strategy/policy laid emphasis on production of wheat and paddy. Some times 'green revolution' was being confused with the 'wheat paddy revolution' But now as suggested by Johl Committee (1986) also this traditional cropping pattern needs shift.

National Pulses Development Programme and the National oil seed Development programmes were launched during mid eighties with the objective of increasing production of pulses and oil seeds. Since the existing cropping pattern is leading to various environmental and natural

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1. Quoted in Mishra and Puri in Agricultural Finance and Marketing.

resource depletion problems, diversification is emphasised and implemented as one of the points of agrarian policy.

9.3.8 Crop Insurance :

Agriculture has remained as a way of life which is gamble in rains. Though a large number of irrigation works and projects have been launched and most of them completed, still changes of crop failure are very frequent. Above all, in case there is over production, and there is glut of that produce in the market, then there is sudden crash down in the prices. In order to meet these types of uncertainties more and more crops are being brought into the crop insurance coverage. National Agricultural Insurance Scheme (NAIS) was introduced in 1999-2000 to extend the number of insured farmers of crops. The scheme envisages coverage of all the food crops, oilseeds and annual horticultural/ Commercial crops, in respect of which yield data are available for adequate number of years..

9.3.9 Boosting Agricultural Exports :

A number of policy changes have been introduced to make agricultural exports more viable. These are :

* removal of large number of quantitative restrictions;
* setting up of Export Oriented units in floriculture sector;
* liberalising import of capital goods, plant and machinery for establishing food processing units;
* emphasising research programmes which may help in quality crops, so that they become competitive in the international market.

9.3.10 Agricultural Credit Policy :

Agricultural credit is the backbone of the poor farmer. So it has become the Agricultural credit thrust area of the agricultural policy.

The most important move to free the rural poor farmer from the clutches of the money lenders was expansion of the institutional credit to agricultural. In 1975 The govt. established an institution Regional Rural Banks-RRBs, to meet the requirements of rural credit. This was followed by setting up of National Bank of Agricultural and Rural Development (NABARD) in 1982.

According to an estimate given by world Bank[1] there are more than 30,000 commercial bank branches, 14,000 regional rural banks and about 1,00,000 rural credit co-operatives. The institutional sources which provide loans to rural agriculturist comprise, cooperatives, Scheduled Commercial Banks and Regional Rural Banks. The Primary Agricultural Credit Societies provide mainly short and medium term loans.

Besides this a number of schemes are launched from time to time to provide maximum credit and loan facilities to the agricultural sector.

9.3.11 Strengthening Rural Infrastructure :

Rural Infrastructure Development Fund (RIDF) was established in 1995-96, under which loans are given for various rural infrastructural projects like irrigation, rural roads, rural bridges, watershed development progammes etc. During the first and second five year plans greater emphasis was on expanding irrigation facilities by developing major and medium irrigation projects. Later on Community Development Programmes were initiated for overall development of rural economy. After the third five year plan other minor irrigation programmes were started. The emphasis of agricultural policy shifted from institutional reforms to technological reforms.

From the above discussion we can, precisely, say that in agricultural policy some important policy measures introduced in rural sector in India during the period of planning are related with :-

* Land reforms
* technological measures, emphsising extensive policy for intensive cultivation;
* involving people participation in planning, like community development programmes and panchayati raj;
* institutional credit;
* procurement and support prices;
* input subsidies to agriculture;
* food security, with the help of public distribution system (PDS);
* rural employment and poverty alleviation programmes like Small Farmers Development Agency (SFDA), Marginal and Agricultural Labour (MFALA) Development Agency etc.;
* agricultural marketing;
* irrigation works/projects;
* crop insurance i.e. National Agricultural Insurance Scheme (NAIS)
* warehousing and storage facilities.

9.4 NATIONAL AGRICULTURAL POLICY (NAP)

Agricultural policy is generally designed in such a way, so that it may help increasing production and productivity, there by, raising the level of income and general standard of living of the farmers within a definite and

* **Note :** Most of this part of the lesson has been taken from Indian Economy- Ruddar Datt and K.P.M Sundhavous, with Thanks. (p-533 ed. 2005)

given set up. Along with the institutional and technological reforms other policy initiatives have already been tried. Here we will study the recent developments in national agricultural policy after 1990's i.e. the agricultural policy of 1993 and of 2000.

9.4.1 National Agricultural Policy Resolution, 1993

9.4.1.1 Objective :

The main objectives of this policy were as under :

* to facilitate all round development of agricultural marketing, storage, irrigation, credit, processing, units etc.
* to make provisions for infrastructural development through increased volume of public investment;
* to motivate farmers to adopt agriculture as an occupation and not as a way of life.
* to achieve 3.5 percent annual growth rate in agriculture.

9.4.1.2 Features

In order to raise agricultural productivity and production to ensure food security, and to achieve value addition to agricultural output through better processing, and marketing, keeping in view the quality of the product, certain measures/steps were taken in this policy. These steps were related with the following aspects.

(i) Raising Capital Formation :

As the investible resources are being diverted from agriculture to industry and other sectors, the new policy, introduced measures to rechennalise the resources for investment in agriculture. To create better environment for investment favourable prices for agricultural products are being tried along with encouraging agricultural exports. The thrust is to make agriculture a rising sector; raising public investment is another step towards this direction.

(ii) Improvement in agricultural Marketing :

This is supported by establishing more agro-processing units in rural areas.

(iii) Encouraging Agro-exports :

The policy has made all attempts to have comparative natural advantage in agricultural exports. The country is not only self sufficient in food grains but it is producing surpluses also. Besides, we have an edge over fruits, vegetables, flowers, poultry etc. also.

(iv) Credit Facilities :

In order to enhance flow of credit to the agricultural sector cooperative

credit societies were encouraged.

(v) Ensuring Remunerative Prices :

Agriculture price commission makes sure that the minimum prices of agriculture produce may not fall below a certain minimum limit.

Other than these measure, some aspects related with storage, land reforms, crop insurance, etc. were also dealt with this policy. By introducing a favorable price and trade regime, the policy has created a suitable environment for the development of this sector. It was proposed in the policy to accord the status of industry to agriculture.

9.4.2 National Agricultural Policy (NAP) Document 2000* :

The Government of India announced the policy on July 28, 2000. For overall development of agricultural development, to strengthen the rural infrastructure, and more specifically to check the migration to urban areas and abroad due to liberalisation and globalisation the policy formulated some strong points.

9.4.2.1 Objective of the NAP, 2000 :

The national agricultural policy aims at achieving the following objectives

(i) to have growth rate of over 4 percent per annum in the agricultural sector;

(ii) attaining growth, that is based on efficient use of resources and conserves our soil, water and bio-diversity;

(iii) to attain growth with equity i.e. widespread growth across regions and farmers;

(iv) to have growth that is demand driven and caters to domestic markets and to maximise benefits from export of agricultural products in the face of challenges from economic liberalisation and globalisation;

(v) to have growth which is sustainable technologically environmentally, and economically.

All the above listed objectives are directing towards having sustainable growth with widespread social justice and overall development of the rural community.

9.4.2.2 Main Features of NAP, 2000:

The need of the new policy was felt due to relatively poor growth of agriculture during the phase of 90's. This had affected adversely the economic activities attached with agriculture.

The main features of NAP 2000 are as follows :

(i) Sustainable Agriculture :

The natural resources of the economy are to be used in such a way that it may promote sustainable development of agriculture.

For this purpose following measures are suggested :-

* ever increasing population pressure on land will be tried to minimise, and use of agricultural land for non agricultural purposes will be discouraged. Rather the untilised waste land will be brought under cultivation and afforestation.
* Intensive agriculture is being encouraged through multi cropping and inter cropping.
* A long-term prospective plan will be proposed for sustainable rainfed agriculture.
* Rational use of surface and ground water is emphasised to contain the receding ground water table.
* Involvement of farmers and landless labourers will sought in the development activities.

(ii) Food and Nutrition Security :

In order to have food security, increase in productivity and production of food grains is the basic condition. Special efforts will be made towards this direction to meet the growing demand for food grains on one hand and other types of processed food on the other. This needs introduction of diversification in agriculture i.e. horticulture, floriculture, other than allied activities of poultry, dairying, animal husbandry etc.

(iii) Generation and Transfer of Technology :

Large scale use of technology is being suggested in various types of agricultural activities. For example application of bio-technology, remote sensing technologies pre and post harvest technology etc. But this technology will be environmentally non-degrading, economically viable and socially acceptable. This use of technology may not displace agriculture labour.

(iv) Incentives for Agriculture :

All efforts will be made to make terms of trade between agriculture and industry, positive and favourable to agriculture. It can be kept favourable to agriculture when prices of inputs to be used in agriculture are low and prices of output or the agricultural production are high. In order to protect the interests of farmers continuous monitoring of international prices will be undertaken and appropriate tariff protection will be provided. Similarly the tax mechanism will be regulated, reviewed and

rationalised in the interest of the rural poors.

(v) Investment in Agriculture :

During the decade of 1990's Public investment has been comparatively less in agriculture. Whereever it has been done, it has created regional imbalances. Now Public investment for accelerating development and infrastructure will be stepped up. Besides, private investment in agriculture will also be encouraged.

(vi) Institutional Structure :

The policy has again emphasised the need to implement land reforms policies related with institutional structure. These land, reforms are related with consolidation of holdings, redistribution of surplus land, acquired through ceiling on holdings, among the land less farmers and tenancy reforms. It is suggested that these institutional reforms are to be implemented nation wide on the pattern of North India.

(vii) Risk Management :

In order to cover the risk of crop failure or any uncertainty, Agriculture Insurance Scheme is there covering all farmers and all crops.

9.4.2.3 Evaluation of NAP 2000 :

Thus the new National Agricultural Policy of 2000 has a wider coverage and it has tried to protect the interests of the farmers. Some of the scholars have termed this policy as 'Rainbow Revolution'.

But it has been criticised on the following grounds :

(i) The policy is only indicative. It does not specify in quantitative terms the targets to be achieved.

(ii) The policy does not have any special package for the states which have lagged behind with respect to agricultural development and in other related facilities.

(iii) The policy talks about encouraging private investment in tubewells, agricultural equipments etc. But large chunk of the farmers are small who mostly depend upon public investment in agriculture like irrigation works etc. In poor areas/states/regions only public investment will serve the purpose of the small farmers.

(iv) The idea of contract farming is very dangerous for poor small farmers. It is not less than the introduction of capitalist farming relations. It will result in contraction in employment rather than creating employment, as propagated by some big corporate agencies.

(v) Role of state is very negligible for implementing the recommendations made in NAP. External private agencies and bodies are given more role to play in their implementation.

Though there are some problems, as stated by Wolf Ladejinsky. He points out some of the difficulties in the way of successful implementation of these policy measures, especially the land reforms, like paucity of land records, prevalence of very small size of holdings, lack of peasant initiative his inability to comprehend the complex laws.. etc. Planning commission has attributed poor performance of agrarian reforms and policy with ever increasing political interference on one side and indifferent attitude of bureaucracy on the other.

Thus, if we want to achieve the socio-economic goals attached along with agrarian reforms these unwanted hurdles should be tried to overcome. And the reforms should be implemented in true spirit. Ladezinsky has rightly pointed out that there is no need of passing fresh laws while the existing ones, cannot be implemented.

10. SUMMING UP :

In this lesson, we have tried to explain all the aspects of Agrarian Reforms. Some times the term 'land reforms' is confused with Agrarian Reforms. But, as explained, the later is a much wider term. Agriculture policy takes into account various dimensions of measures related with agricultural development. Other than land reforms, it covers marketing, storage and warehousing, pricing, irrigation, crop diversification, credit and financing etc.

All these aspects are covered in National Agricultural Policy of 2000. But the policy is termed as indicative only. It has been criticised on various grounds. But thee is always a scope of improvement. If implemented in a modified form, it can bring fruits and can really be taken as rainbow revolution.

11. QUESTIONS :

11.1 Short Answer type questions :

(i) Explain the concept of Agrarian Reforms.

(ii) Bring out the objectives of Agrarian Reforms.

(iii) What do you know about the scope of Agrarian Reforms.

11.2 Long Answer Type questions :

(i) Discuss in detail the National Agricultural Policy 2000. On what grounds it has been criticised.

(ii) Explain the need and importance of Agrarian Reforms in an economy like India. How it is conducive to economic development ?

12. BOOKS FOR FURTHER READING

(i)	P.C. Joshi	:	Land Reforms in India
(ii)	Datt & Sundharan	:	Indian Economy (latest edition)
(iii)	Mishra & Puri	:	Indian Economy (latest edition)
(iv)	A.K. Lekhi & Joginder Singh	:	Agricultural Economics
(v)	Lehmann David	:	Reforms and Agrarian Reformism. Faber & Faber, London 1974.

NEW AGRICULTURE STRATEGY IN INDIA

'Green Revolution' can be described as the large-scale adoption of new agricultural strategy alongwith technology and the rise in agricultural production. This new agricultural strategy which was introduced in the mid sixties means the application of cost-reducing or yield increasing innovations which can be classified into two categories : (i) bio-chemical innovations and (ii) mechanical innovations. Further these innovations are not found in India alone, rather they have been widely spread in other tropical countries and have been transferred from the developed countries. High yielding varieties of wheat, commonly known as Mexican varieties have been introduced from Mexico, which is a striking example of a deficit country becoming self-sufficient, and even achieving exportable surplus.

History of New Agriculture Strategy

Although, the application of new agricultural strategy is said to have taken place in the mid-sixties, yet its history dates back to 1961. Economists like Hanumantha Rao assert that "High-yielding varieties of seeds in case of wheat, rice and bajra were introduced in Indian agriculture in a big way, in the period, beginning from 1965-66".

If we analyse the approach to agricultural development in India during the first three plans, we would find the co-existence of often two goals :-

(i) the economic aim of achieving maximum increases in agricultural output to support rapid industrialisation; and

(ii) the social objective of reducing disparities in rural life.

In fact, one of the most difficult economic dilemmas of choice had existed right from the beginning of planned era of India. This dilemma arose from the obvious economic advantages of concentrating scarce inputs of improved seeds, fertilizers, pesticides, and equipment in irrigated areas of the country where they could be expected to bring greatest return in output. In fact the selection of the first community projects in 1951-52 were to be guided by this consideration, when they were to be allocated only to districts with assured irrigation. However, almost immediately,

serious social objection was raised to the practice of "picking out the best and most favourable sports" for intensive development while the largest part of the rural area was economically backward. Therefore, the principle of selective development was abandoned immediately and the planning commission announced a programme for rapid development and all India coverage under the National Extension Service and community Development Programme with special attention to backward and less favoured regions, was stated.

The social goal of reducing disparties also influenced the selection of methods of agricultural development. The planners gave only secondary importance to the introduction of costly modern inputs as means of increasing agricultural productivity. Instead they devised agricultural development programmes based on intensive cultivation of land and improving condition of living in rural areas through community projects, land reforms, consolidation of holding etc. In fact the planner's strategy for agricultural development was based on the capacity of the Community Programme to mobilize more than 60 million peasant cultivator's participation of capital projects, some institutional changes were also promised. The highest priority was assigned to rapid implementation of land reforms, including security of tenure, lower rents, transfer of ownership rights, tenants and redistribution of land. Meanwhile state level village cooperatives were created to provide cheap credit facilities and agricultural marketing facilities for inputs and output particularly to facilities and agricultural marketing facilities for inputs and output particularly to the small farmers. But these institutional reforms, particularly those relating to tenancy and land could not enforced because of large owners who had majority in legislatures and thus could assert their voice.

Except for the first five year plan agricultural growth always fell short of expectation. Actually, as early as 1958, lagging growth rates in the agricultural sector became a serious limiting factor on the overall rate of economic advance. By the middle of the Third Plan, four years of relatively production (1960-61 through 1963-64) convinced the planning commission that continuation of shortfall in agriculture would jeopardize the entire programme of industrial development in 1964, therefore, the planners announced a "fresh consideration of the assumptions, methods, and techniques as well as the machinery of planning and plan implementation in the field of agriculture". As a result of this reappraisal,

two major departures from previous policy were intimitated :-
(i) development efforts were subsequently to be concentrated in the 20 per cent to 25 percent of the cultivated area where supplies of assured water created" four prospects of achieving rapid increases in production : and
(ii) within these areas there was to be a "systematic efforts to extend the application to science and technology", including the "adoption of better implements and more scientific method" to raise yields. In October, 1965, therefore the new-policy now put into practice when 114 districts (out of 325) were selected for an I.A.A.P. (Intensive Agricultural Areas Programme); In fact the model for the new approach already existed that 15 districts taken up under the pilot of I.A.D.P. (Intensive Agricultural District Programme) during 1961. I.A.D.P. has emphasised the necessity of providing the cultivator with a complete package of practices in order to increase yield. This included credit, modern inputs, price incentives, marketing facilities and technical advice-that is why it is called ingredients of new agricultural strategy. With the introduction of wheat which stood at 12.3 million tons in 1964-95 rose about 26.5 million tons in 1971-72. Although this increase could partly be attributed to an extension of the area, yet yield also rose from 9.13 quintals per hectare to 13.82 quintals per hectare. Maize and bajra were other crops whose productivity per hectare and total production registered an increase. But in case of other high yielding variety crops viz jowar and rice, the yield was stagnant till recently. Hanumantha Rao in his book entitled "Technological change and Distribution of Gains in Indian Agriculture" asserts that "increase of rice and kharif cereals in general, the Green Revolution does not appear to have contributed to their growth to any significant extent." Pulses are the other crops in whose case no increase in production has occurred. In fact most of economist have termed the "Green Revolution" as the "Wheat Revolution."

Assessment of Success and Failure of New Agricultural Strategy

The main feature of new agriculture strategy was to apply concentrated scientific efforts to increase agricultural production in limited areas which had assured irrigation. This intensive programme of agriculture development in the selected areas has certain advantages as well as disadvantages.

Advantages :

(1) The advocates of new strategy consider intensive approach as the only

alternative to achieve self-sufficiency in food in the shortest possible time. Because keeping in view the resources at our disposal the intensive approach in agricultural development is a shortcut to increase agricultural production.

(2) Scarcity of agricultural resources in well known. Therefore the choice is either to have a thin layer of the inputs spread over the whole country or to apply concentrated doses in selected and promising areas. According to the advocates of the new strategy, the latter choice is more rational as it ensures maximum production in the short period.

According to Dr. Hanumantha Rao new agricultural strategy has reduced the importance of traditional factors like land and labour. Capital and knowledge have rather contributed more to increase in agricultural production. Thus the increased importance of man made factors i.e. capital and knowledge has brought the aim of food self-sufficiency within sight.

(3) Realization of better results in the selected areas of new agricultural strategy, demonstration effect on the other farmers is also there. In fact an important feature of new agricultural strategy is to establish some demonstration farms to show their results to the adjoining farmers so that they are induced to adopt the new technology. In this way the spread effect of the programme raised the overall level of productivity in Indian agriculture.

(4) The new agriculture strategy has also some healthy secondary and tertiary effects; for example the increase in agricultural production by making raw materials available can encourage the agro-based industries. By stabilising prices of major wage good i.e. foodgrains, it induced industrialization. Increased agricultural production also reduces our dependence on imports of foodgrains, thereby releasing our scarce foreign exchange to some other important uses in the economy. Increased agricultural production by increasing income will also create markets for industrial goods.

(5) The development of new agricultural strategy will also reduce the fluctuation in output. By concentrating in areas having assured irrigation, total agricultural production may not fall even in worst affected years. In other words, the programme of high yielding varieties might act as an insurance against the failures of monsoons. According to Professor Hanumantha Rao, the new agricultural strategy (by stepping up the rabi production) has also reduced the seasonal fluctuations of output.

(6) The development of short duration high yielding varieties has greatly enhanced the scope of the double and multiple cropping. Assured irrigation which is the pre-requisite of new agricultural technology has also made it possible to raise more than one crop in a year, thereby increasing the production from the same unit of land. Application of chemical fertilizers has also made the practice of fallow land a thing of the past. Thus, cropping intensity has greatly increased in the wake of new agricultural technology.

(7) The increased income consequent upon the increased production has not only raised the consumption level of farmers, its effect on savings and investment is also encouraging. In a study conducted by the Punjab Agricultural University, it has been found to be progressive ones. The same conclusion has been arrived at in a separate study conducted by Dr. G.S. Bhalla in Haryana. Further the rate of increase in savings and investment is also higher in case of progressive farmers than in case of non-progressive farmers.

Advantages :

No doubt, the new agricultural technology has nearly solved the food problem in India and has also stepped up the rate of savings and investment in the economy, but it has also given birth to a number of other problems which need urgent attention. Following are some of such problems due to which the adoption of high yielding varieties is criticised.

(1) Green Revolution and Pattern of Family Expenditure

It is not denying the fact that the increase in income due to high yielding varieties has stepped up the rate of savings and investment in the rural sector, but it is also true that the consumption pattern of the rural people has undergone a change which is detrimental to their health. It has been brought out by many empirical studies that whereas the proportion of family expenditure on socio-religious ceremonies (i.e. unproductive purposes) has increased, the proportion of consumption expenditure has declined. Liquor is that item which has experienced the greatest increase in its consumption. Thus consumption expenditure for unproductive purposes has greatly increased in the wake of Green Revolution.

(2) Green Revolution and Cropping Pattern

So far high yielding varieties have been developed for only a limited number of crops viz. wheat, jawar and bajra. A large number of other crops particularly pulses lie outside its purview. Further, wheat is

perhaps the only crop which has shown any promising results. This accompanied with ever increasing wheat has shown any promising results. This accompanied with ever increasing wheat prices for public procurement has greatly changed the cropping pattern in faver of wheat. Thus this is one of the important factors responsible for reduction in area under pulse and other grains.

Prof. C.H. Hanumantha Rao in his book "Technological Change and Distribution of Gains in Indian Agriculture" has shown that the growth rate in output of foodgrains as well as of agricultural output as a whole lessened in 1961-71 than in 1951-61. Whereas in the pre-Green Revolution decade, 70 percent of the increase in production was due to increase in productivity per acre, in the post-green revolution period this percentage was only 33 percent. Dr. Hanumantha Rao lays the responsibility of slow growth in productivity on the slow growth of perennial irrigation.

(3) Green Revolution and Fluctuations in Output

Another factor which has been brought into notice by Hanumantha Rao is the impact of Green Revolution on the fluctuations in output. So far as the technological change has raised the importance of rabi cultivation, seasonal fluctuation in output has been greatly reduced. But so far as annual fluctuation are concerned they were more in the post green revolution period than in the pre-green revolution period. Apart from the non-technological factors such as the increasing significance of yield as a component of growth the addition of marginal lands and the incidence of two drought years of unusual intensity (i.e. 1965-66 and 1966-67) the increasing use of modern inputs like fertilizers under conditions of unstable irrigation could be an important factor responsible for this increase in fluctuations. The performance of bajra provides an excellent example of continues increase in yield because of the fact that high yielding variety of bajra is cultivated under unirrigated conditions.

(4) Green Revolution of Inter-Regional Disparities

Green revolution seems to have accentuated the disparities both in the personal income distribution and regional income distribution. So far as adoption of new technology is found to have concentrated in the irrigated areas of Punjab, Haryana and Western U.P. These areas are primarily wheat growing areas under assure irrigation. Naturally, the stage of agricultural development in these states is far ahead of other states. Whereas, the farmers of these developed states have started using even

harvestor combine, the farmers of the less developed are still operating their farms mostly by human labour. They are not even able to afford animal labour for such arduous jobs as ploughing and planting of fields. Thus, the gains of green revolution seems to been concentrating only in the limited areas in the country, thereby greatly increasing the inter-regional dispararies.

(5) Green Revolution and Distribution of Income

Although, there exists conflicting evidence about the impact of green revolution on the farm income distribution, yet there is a little doubt that the income of have's (who own resources has greatly increased as compared with the income of have nots (who do not own resources). Those who assert that everybody has gained from the green revolution cannot deny this fact that the small farmers and agricultural labourers with poor resource base have lost the battle to the large farmers. The income gap has therefore, widened in the post-green revolution period. Further, the disparity in the distribution of income is likely to increase with the progressive spread of green revolution. To correct this disparity the following measures are suggested :

(a) adoption of policy measure aimed at raising the production levels of small farmers like cheaper credit facilities for those farms, subsidisation of seed and irrigation fertilizer, etc;

(b) a progressive system of taxation of rural incomes in the form of a progressive tax;

(c) a comprehensive scheme of income transfer of welfare payment to the small farmers, possibly financed out of tax revenues of large farms;

(d) an effective implementation of laws pertaining to land ceiling to reduce the disparities in the sources of such disparity in income.

(6) Green Revolution and Labour Displacement

A number of studies have been conducted to examine the impact of green revolution on the employment of labour. Following Uma K. Srivastva, Robert W. Crown and Earl O. Heady we can divide the technological innovations introduced under the green revaluation in two categories :

(a) biological innovations and

(b) mechanical innovations,

The term biological innovations refers to the use of inputs which increase productivity e.g. fertilizers, improved seeds, insecticides, pesticides, etc. In the second category fall those innovation which involve the use of machines which will clearly be at the cost of human labour. Thus,

whereas biological innovations enhance the use of human labour, technological on the human labour use will depend on interaction of these two opposing forces. Although the evidence which exists so far, has disproved the myth of labour displacement yet over a long period, such displacement cannot be ruled out. According to Earl O. Heady and others, "Since mechanisation may dampen the increase in labour employment, resulting from the expanding factors of seed-fertilizers, the policies that encourage premature mechanisation in labour surplus economies such as India's do not seem conductive to solving the problems of growing unemployment" M.H. Billings and Arjan Singh in their study, have revealed that by 1983-84 the labour displacement will be of the order of 17.4 percent if" (a) nearly 100 percent of wheat is mechanically threshed, (b) 100 percent of corn magnetically shelled, (c) 20 percent of the gross cropped area is tilled by tractors, (d) 50 percent of wheat is mechanically reaped, and (e) pumpsets feed 60 percent of irrigated areas and irrigated areas are largely irrigated. Billings and Singh further reveal that whereas tractors and pumpsets would be responsible for 55 percent of such labour displacement, threshers and reapers would also cause about 37 percent of this displacement.

Thus, it has been rightly warned that in the labour surplus economies, the indiscriminate use of such labour saving machinery will be greatly explosive, both socially and politically.

(7) Green Revolution and the Growth of Capitalist Farming in Indian Agriculture

The new technology which is composed of high doses of fertilizers, water, insecticides and pesticides besides improved seeds naturally requires heavy investment, which may be beyond the capacity of a large number of small and medium farmers. It is only the big farmers who are making investments in the installation of tubewells, pumping sets and other agricultural machinery. The growth of big farmers has also helped the growth of capitalistic relations in Indian agriculture by making the employment of hired labour more popular. Thus in the wake of green revolution, capitalistic farming in India has been greatly enhanced.

Francine R. Franknel in her book entitled, "India's Green Revolution, Economic Gains and Political Costs" has observed that "..... the introduction of modern technology under the intensive areas and the high-yielding varieties programmes has not only speeded up the process of economic polarization in the rural areas, but it has also contributed to

increasing social antagonism between landlords and tenants, and landlords and labourers.

Ashoka Rudra, A Majid and Talib conducted a study of the big farmers in the Punjab so as to analyse the growth of capitalist farming. They have defined the capitalist farmers as those who have at least 20 acres of land. The study which was published in the Economic and Political Weekly revealed that land owned by such farmers increased by about 9.5 percent between 1955-58 and 1967-98. According to them, it is this group of farmers who are to make investment in the form of tractors, tubewells, pumping sets and other equipment. Similarly, these farmers are in a position to incur capital expenditure on buildings, improvement of land and other repair of their buildings.

Francie Frankel who undertook a study on the impact of new agricultural technology on the economic gains and political costs has concluded that:

(a) Overwhelming majority of the cultivators having uneconomic holdings of 2-3 acres have managed to increase per acre yield from the application of small doses of fertilizers, but aggregate gains in output have been insufficient to create capital surpluses for investment in land development.

(b) In cases where small farmers also lease in some land, the resumption of such land by the landlords has further deteriorated the lot of small farmer cum tenants. Large farmers who used to lease out their land to the small farmers before the Green revolution have started cultivating the land themselves partly because of higher profitability and partly to evade the tenancy laws.

(c) Only a small minority of cultivators with holdings of ten acres or more have been in a position to mobilise surplus capital for investment in land development (especially minor irrigation) as an essential precondition for the efficient utilization of modern inputs. Moreover, this class has further concentrated its gains by increased profits to buy more land, by making improvements on land already under cultivation and by purchasing more inputs.

(d) Farmers with 20 acre of land or more have made the greatest absolute and relative gains, not only by mechanising farm operations to take up double of multiple cropping, but also by diversifying their cropping pattern get profitable commercial crops.

(8) Green Revolution and Social Tensions

Regarding the impact of Green Revolution on the generation of social

tensions, no conclusive evidence exists. Yet, this apprehended that the disparity in the distribution of economic gains is likely to give rise to social unrest in the rural economy. According to Francine Franknel, the traditional norms of rural society are breaking. Low caste agricultural labourers are agitating over the deterioration in their lot. "It is doubtful that low casts agricultural labourers or share croppers will long remain satisfied with their client status either in the economic or political life." In fact, some critics have already started saying 'Green Revolution' as 'Red Revolution'.

(9) Side tracking the need for Institutional Reforms

Green revolution and the resulting increase in productivity has set aside the importance of land reforms which are so urgently required in India agriculture. In a study conducted by Minhas and Srinavasan, it has been found that the application of fertilizers yield more net returns in the owned lands than lands cultivated on crop sharing basis. Their main conclusion is that tenancy cultivation poses itself a big obstruction in the way of fertilizers use. Profit maximisation criterion, therefore, suggests that the cost of fertilizers be borne by the owners are not by the tenants or the share croppers. Minhas and Srinavasan conclude that, "it is probably needless to stress that the optimum level of fertilizers use (and the profits per unit of investment) of tenants are lower than for owners. In the long run share cropping can obstruct the process of intensification of current input use for short of levels, which would be desirable from the point of view of extracting maximum output from the limited amount of available land."

Some recent studies have shown that the landlords started paying for the inputs to the tenants. In other words, cost sharing of inputs is fast becoming a new norm in Indian agriculture, thus side tracking the need for institutional reforms. It must, however, be noted that cost-sharing device has rather enhanced the bargaining position of the landlords and they are demanding a greater share in the total produce.

To conclude, one can say that the new agricultural strategy is not all pervasive. It has improved the prospects of production of limited number of crops viz. wheat, bajra, and to some extent maize. Recently, rice also seems to be coming within its ambit. A large number of crops like pulses and cash crops still lie outside its purview. The new strategy had led to a number of problems like regional disparities, inequality in the personal income distributing and social tensions. It has also not made a proper

use of our scarce resources. As shown by Dr. V.K.R.V. Rao, infact much more can be achieved by having a judicious combination of existing factors of production that is being achieved presently. It however, goes to the credit of new strategy that it has nearly solved our food problem. The foreign experts who used to remark 15 years earlier that India would strave in 1980, are now stunned with the progress India has achieved in the field of agriculture.

LESSON NO. : 2.3 **Dr.Manisha**

PRODUCTION STRUCTURE IN INDIAN AGRICULTURE

2.3.1 INTRODUCTION

Production is transformation of inputs into output. It is a function of land, use, cropping pattern and planning etc. During the course of any development programme of national resources, land utilization occupies a special attention. At any particular time, it is determined by temperate moisture, topography, soil and physical structure. Obviously, land has the characteristic of its fixity in supply and scarcity. Therefore, land use pattern is directly concerned with the problem arising in the process of deciding upon and carrying out into action the optimum use. In a dynamic world, certain modifications can occur in the existing pattern of land utilization. It deals with the process of putting various types of land to the optimum use. In brief, a close look of the present land use pattern and its trends will go a long way to recommend the scope of systematic and planned shift in the pattern .

2.3.2 Objectives of the lesson

In this lesson we will discuss the shifts in cropping pattern, land use pattern, optimal land use pattern and cropping pattern and their production trend.

2.3.3 Land-Use Pattern Before Independence: Classification of land is a process

which assigns each tract of land in an area to its proper class in a system of classes. The classes in the system are defined in terms of the qualities or characteristics with which the classification is concerned. In India the classification of land has had its roots in agricultural statistics. The collection of such statistics in 19th century when in view of the famines and local shortages of food that were then confronting the country and also with a view to furthering the economic exploitation of the country's resources, it became necessary to know how the available land was utilised. Till 1950, land was classified into the following five broad classes:

1. Area under forests;
2. Area not available for cultivation;
3. Uncultivated lands excluding current fallows;
4. Area under current fallows; and
5. Net area sown.

This classification continued almost intact all these years, the definitional changes made in one or two states being minor; later on, it was realised that the above classification afforded only a broad outline of land utilisation in the country ; and did not give a very clear picture of the actual area under different categories of land use. Moreover, the dates given in respect of different States of India were also not comparable in certain cases due to lack of uniformity in the methods of classification. The Government of India, therefore, appointed a committee on the co-ordination of Agricultural Statistics in India to work out the details of the annual and periodical inquiries to be organised in pursuance of the recommendations of the committee. In March, 1950, the following classification of areas for each district of the country was given.

(i) Forests;
(ii) Barren and uncultivable lands;
(iii) Land put to non-agricultural uses;
(iv) Permanent pastures and other grazing lands;
(v) Culturable wastes;
(vi) Miscellaneous tree crops and groves not included in the net area sown;
(vii) Current fallows;
(viii) Other fallows; and
(ix) Net area sown

According to the General Survey of India, the total geographical area of the country was 80.63 crore acres but the land utilisation statistics, i.e. the distribution of land among its important uses like cultivation, grazing, forestry, settlement, etc., was available for 72.61 crores acres only, i.e. about 90 per cent of the total area, the rest being of mountains, hills and other inaccessible tracts. In short, till 1946-47 main trends were as follows:

(i) The net area sown did not increase appreciably except in Uttar Pradesh. The area growing more than one crop increased by about 2 per cent and the total

cropped area, therefore, showed some increase, which however, lagged far behind the rapidly increasing population.

(ii) Irrigated area increased by about 10 per cent mainly through the extension of canals. The area irrigated from minor irrigation works remained almost static over this long period. It indicates that the new construction at best kept pace with those works which were going out of use for want of repairs or otherwise, e.g. through the extension of canal irrigation.

(iii) The area under current fallow remained at the level of 1919-20 till the early forties and thereafter it showed some increase, particularly in the cotton growing tracts, possibly because of a sudden decline in the cotton area which was left partly fallow. Hyderabad was the only State which showed a continuous increase in fallows. In the opinion of special committee set up by the Hyderabad Government the apparent increase in the area under fallows was some what an exaggeration.

Self check exercise

Q1. In how many classes land was classified before 1947?

Q2. Through extension of canals how much irrigated area is increased?

2.3.4 LAND-USE PLANNING

Generally, land use planning is simply the process of deciding the suitability of land for various uses on the basis of agro-economic social and climatic conditions including, such wings as what crops to grow, in what quantity and in what order. But such a system should be flexible and adjustable to developments in technology such as the evolution of drought or disease resistant crops, labour saving devices, etc.,

There are a number of ways in which the various steps in planning might be taken up. In any case, it is necessary at times to proceed from one step to another and then back to the first as adjustments in one phase are required by adjustments in another. The main steps may be summarised as follows.

1. Develop farm management information to show the highest alternative use for the different types and grades of land and water resources, and the size and organization of operating units in which such use or combination of uses can be carried out.
2. Develop the information as to present land use and type and size of existing operating units, mapped in place.
3. Interpret soil survey information into types (farming, grazing etc.) and grades of these types, showing the potential crop yield or other productivity of such grades, and map this classification material in total detail.
4. Develop detailed map information showing tenure and ownership class, land tax status, public facilities, local government's financial conditions, and other pertinent data showing the institutional and social pattern which has developed from the present utilisation of the land resources and farm operating units carrying on such use.
5. Delimit major areas of 'homogeneity of characteristics' by association and

comparison of all the detailed map data, and compile the statistical analysis, for such areas, from the sources from which the maps were developed.

6. By bringing together the analysis of information and the ideas of individuals, groups, and agencies involved, the adjustment procedures and measures which will best fit in the needs of area are developed.
7. For areas where adjustments are indicated, prepare a quantitative summation on types and degrees of such changes. For example the land classification map may show an area consisting largely on such grades of farm land.

Self check exercise

Q3. What do you understand by land use planning?

Q4. How many steps are involved in land use planning?

2.3.5 DETERMINANTS OF CROPPING PATTERN

The cropping pattern in any country is determined by a number of factors like natural, economic, historical etc. In addition to this, Govt. policy can also affect changes in the cropping pattern. In our country, factors responsible for cropping pattern are under stated :-

1. **Natural Factors:** Natural factors are the most important determinants of cropping pattern. These factors pertain to the physical characteristics and the natural endowments of a region. For instance, in the areas having adequate rainfall, rice is grown while in the areas having low rainfall, choice will naturally fall upon to produce jowar and bajra. Similarly, the soil of the Indo-Gangetic plains is suitable for the growth of rice and wheat.
2. **Economic Factors:** Economic factors are playing the significant role in determining the cropping pattern in a country. The following are some of the economic factors influencing the cropping pattern in India;
   - **(a) Price and income aspect**: Movement of price of agricultural products arc having some correlation with the changes in cropping pattern. A remunerative and steady price of a particular crop will provide a better incentive to the producer to produce that crop and unremunerative price will induce the fanner to change the cropping pattern. In India, fixed procurement price of wheat and rice and other controls imposed by the Government induced the farmers to shift to cash crops like sugarcane. Again, the unremunerative prices of jute prevailing in Assam and other adjoining states also led to shift in the production of food crops. Similarly, income maximisation aspect is also playing crucial role in determining the cropping pattern in the country. Relative profitability per acre is also having considerable influence on the cropping pattern of the country.
   - **(b) Farm Size:** A good relationship also exists between farm size and cropping pattern. In a small farm, farmers are very much interested to produce foodgrains for household consumption. After meeting their own

food requirements small farmers may go for cash crops in order to maximise their money income. On the contrary, in a big farm farmers like to follow that cropping pattern which maximise their income.

(c) **Tenure:** Land tenure system, prevailing in the country, greatly influences the cropping pattern.

(d) **Availability of farm inputs:** Cropping pattern is also depending upon the farm inputs available viz., seeds fertiliser, controlled and assured water supply through irrigation etc. and among these irrigation is the most important.

3. **Tenancy System:** Some particular crops are grown due to historical reasons. If the land is divided into a number of small plots with ownership vested in numerous small and marginal fanners, the tendency will be to grow food crops. Contrary to it, if the ownership is vested in landowners, the tendency will be to produce more non-food crops.

4. **Technical Factors:** The cropping pattern also influenced by the technical factors such as nature and capacity of irrigation facilities available in a region, availability of improved seeds, chemical fertiliser etc. With the development of irrigation facilities, the entire method of cultivation being followed from the traditional period is bound to change. With this, new crop rotation system and better crops can be followed, In India, due to the extension of irrigation facilities, the cultivation of sugarcane, tobacco, oilseeds etc. have increased substantially. Moreover, with the availability of irrigation facilities, even double or triple cropping is also successfully done. Again, in the absence of irrigation facilities in some other parts of the country, the concept of "dry land farming" is also gaining its importance in recent years.

5. **Social Factors:** The prevalent social environment also influences the cropping pattern. For instance, in the pre-independence period, fanners were illiterate and had narrow out look. They were bound to traditional culture and the same cropping pattern was continued by the successive generations. But after independence due to social awareness, farmers became more and more responsible to price changes. The new techniques of production have changed the outlook of the cultivators.

6. **Production & Market Risk:** The fluctuations in yield and price of the product have significant effect on choice of crop enterprises. A crop which is prone to high risks is generally not preferred by the farmers.

7. **Irrigation Facilities and Soil:** Irrigation facilities and type of soil in a particular region affects the cropping pattern. A farmer cannot grow a crop ignoring climate, soil and irrigation facilities.

8. **Size of the Farm:** The farm size in India is the smallest than that in most tropical countries. Thus, our cropping pattern is also different from those

countries. In a way, cropping pattern on small farms is more in favour of food grain crops while the large farmers prefer commercial crops.

9. **Government Policy:** Cropping pattern may also be influenced by government policy undertaken in the form of administrative and legislative measure. Supply of inputs by the government, intensive scheme for various crops, various government campaign like grow more food or any legislative provision by the government, transportation and marketing provision also help to finalise the cropping pattern in the country.
   (a) Like U.S.A., U.A.E. and other countries, the NCAER suggests to introduce legislative compulsion for structuring a desired cropping pattern in different regions of the country.
   (b) Government may appoint District Planning Officers who introduce crop planning in every season considering various seasonal changes and changes in other factors such as yields, prices, demand etc.
   (c) An Agricultural Mechanisation corporation may also be set up for supplying various inputs on loans.
   (d) The Government should also provide adequate transport and marketing facilities and also make provision for consolidation of holdings.
10. **Pest and Diseases:** Generally, fanner tries to grow only those crops which are ecologically practicable mid they are not subject to pests and diseases in the region. Therefore, certain crops subject to serious pests and diseases in a specific area are normally discouraged.
11. **Provision of Infra-structure:** Another factor responsible for choice of cropping pattern of a region is the availability of infra-structure like transport and communication facilities, credit facilities etc. It is seen that these facilities are commonly available in towns and adjoining to these towns, thus they intend to cash crops as they give highest returns.
!2. **Influence of Technology:** Cropping pattern is also influenced by the latest and modern techniques of production. Since the inception of green revolution, cropping pattern has radically been changed. In a sense, high-yielding varieties of seeds, irrigation, chemical fertilisers and mechanization has provided a base for multiple cropping.
13. **Export and Import Possibilities:** The choice of cropping pattern largely depends upon the comparative advantage of these crops. The products which can be imported at cheap rates are discouraged in the cropping pattern. On the other hand, the possibility of export increases the scope of such crops.

Self check exercise

Q5. Explain the determinants of cropping pattern.

Q6. Write a short note on economic factors effecting cropping pattern.

2.3.6 CHANGE IN LAND UTILIZATION PATTERN

Now let us see the change in land use pattern in India from 1950-51 to 2001-02. Total geographical area of the country is 328.73 million hectares according to professional survey by surveyor general of India. But according to village papers prepared by the revenue staff, reporting area came out to 304.92 in 2001-02.

1. **Area under forests:** It includes actually forested class or administered as forests under any legal enactment dealing with forests whether state owned or private. Therefore, the figures presented here do not tally with those of forest department because certain lands though no wooded are taken as forest by the Forest Department while these are not treated as such by the Director of land records. The area under forests has increased from 54.05 million hectares in 1960-61 to 68.86 million hectares in 2001-02 accounting for 22.6 percent of the total geographical area. Therefore, there has been increase in the area under forests over tine but it is still less than the requirements to have ecological balance, since the effective area under forests is only about 12 per cent of the geographical area.
2. **Land put to non-agricultural Uses:** It includes
   (a) barren & uncultivable land and
   (b) land put to non agricultural uses.

   The first category includes absolutely barren and unculturable land like mountains, deserts etc. which cannot be brought under plough except at exorbitant cost. The (b) category includes land covered by buildings, roads, canals and railways or other appropriated for non-agricultural uses.

   As compared to 35.91 million hectares of barren land in 1960-61, it was only 19.03 million hectares in 2001-02. Therefore, overtime some such land have been put under forests. Due to increasing pressure of population, urbanisation and industrialization, the land put to non-agricultural uses has constantly been increasing. It was 5.0 million hectares in 1960~61and has gone up to 7.4 million hectares in 2001-02.
3. **Other uncultivated land excluding fallow lands:** This category of land classification includes land available for cultivation either not taken up for cultivation or abandoned later on for one reason or the other and includes.
   (a) Permanent pastures and other grazing land.
   (b) Land under miscellaneous trees and groves
   (c) Culturable waste.

   The land under all these sub categories is decreasing over time mainly due to more area being brought under cultivation.
4. **Fallow lands:** It denotes cultivable land which after abandonment remains uncultivated over long period called old fallow and those kept uncultivated during the current year are called current fallows. The current fallow land was 11.64 million hectare in 1960-61, 14.83 million hectares in 1980-81 and 14.36

million hectares in 1997-98 of which nearly 60% is current fallow. Regarding fallow land other than current fallows was 11.18 million hectares in 1960-61 which declined to 9.76 million hectares in 2001-02.

5. **Net area sown:** The area under cultivation of various crops was 133.20 million hectares in 1960-61 which increased to 140 million hectares in 1980-81 and 142.22 million hectares in 2001-02 accounting for about 46.65 per cent of the total geographical area.
6. **Gross Cropped Area:** The gross cropped area includes total area covered under crops during the year. In case different crops are raised on the same land during the year, the same area is counted more than once. The gross cropped increased faster than the net area sown because area sown more than once has increased from 19.57 million hectares in 1960-61 to 48.74 million hectares in 2001-02. However gross cropped area was 165.79 million hectares in 1960-61 which rose to 190.76 million hectares in 2001-02.
7. **Net Area Irrigated:** The net area irrigated has shown marked increase overtime touching a level of 54.57 million hectares in 2001-02 against 24.66 million hectares in 1960-61.
8. **Gross Irrigated Area in 1960-61:** gross irrigated area was 27.98 million hectares which rose to 49.78 million hectares in 1980-81 and further 72.78 million hectares in 2001-02.

2.3.7 OPTIMAL LAND-USE PATTERN

In order to attain optimal land-use pattern, the following suggestions are made:

1. The cropping pattern may be in agreement with the soil and water requirements of the area. Crops standing longer on the land and needing more water could be easily substituted by leguminous crops, lucerne, pulses, Oilseeds, which arc ready within shorter span.
2. The areas like West Bengal, Bihar, Orissa, Eastern U.P., Assam and the eastern coastal regions, which practice mono-culture, should resort to multi-cropping practices due to irrigation facilities in the area. In area producing jute, efforts should be made for double cropping and particularly introducing high value, crops.
3. In the irrigation command areas of North and South India, water consuming crops like paddy and sugarcane; Cotton, Wheat, Vegetable crops & Fruit could be planted.
4. Dry farming should be undertaken in low rainfall area with proper conservation of moisture, and reducing loss of moisture by evaporation through deep ploughing, and harrowing. Crops like millets, pulses, oilseeds and forage crops may be raised. In these regions, drought-resistant varieties may be cultivated. Sunflower is another crop which can be successfully adopted.
5. Hill slopes in Northern part of the country may be developed with the cultivation of temperate fruits like peach, plum, apricot, apple, walnut, pears as they are

in great demand. In southern parts, vegetables like pea, cabbage, cauliflower, etc. may be grown. .

6. In arid and semi-arid regions, growing fuel trees may be planted along road, railway lines and along the canal banks, and pastures raised for live-stock fanning could be a useful vocation for the local people.
7. The hilly areas may also be utilised for mixed fanning and raising of sheep and goat herds. Water harvest technology could be appropriate for this region.

Self check exercise

Q7. Write a note on change in land utilisation pattern.

Q8. What are the suggestions for optimal land use pattern?

2.3.8 Cropping pattern and production trends

Cropping pattern refers to the proportion of area under different crops at a point of time. A change in the cropping pattern means a change in the proportion of area under different crops. Cropping pattern in India is determined by natural factors like climate, soil conditions and rainfall etc. Although, the impact of green revolution is uneven yet it has led to new pattern. At the beginning of the century, more than 98.83 per cent of land was put under food crops and about 17 per cent under non food crops. But, by 1950-51, area under food crops had declined to 74 per cent and that of non food crops it had increased by 26 per cent. This shift in foodgrains to non-foodgrains was mainly due to the higher profitability of non-foodgrains.

Area under Foodgrains and Non-Foodgrains

A brief description of the area under different crops has been presented in the table 13.1

Table 2.3.1 Allocation of Area under Foodgrains and Non-foodgrains

(million Hectares)

Year	Foodgrains	Oilseeds	Sugercane	Cotton
1980-81	126.7	17.6	2.7	7.8
1990-91	127.8	24.1	3.7	7.4
2000-01	121.0	22.8	4.3	8.6
2010-11	126.7	27.2	4.9	11.2
2016-17	128.0	26.2	4.4	10.8

Source: Economic Survey 2017-18

Table 13.1 reveals that in 1950, 5176.7 percent area was put under foodgrains only 23.3 percent was under non-foodgrains. In 1970-71, the area

under foodgrains declined to 75.4 per cent while the area under non-foodgrains went up to 24.6 per cent. Further, the area under foodgrains declined to 64.9 per cent in 1.995-96 and that of non-food crops it went up to 35.1. per cent. Further in 2001-02, area under foodgrains was 60.3 per cent while it was 39.7 per cent for non-foodgrains. This shift in the allocation of area from food crops to non-food crops reflect a change from subsistence cropping to commercial cropping. No doubt, the area under non-food crops as a proportion to total cropped area is increasing, but still there is dominance of food crops over non-food crops in the present cropping pattern of India.

I. Rice: Rice is the main kharif crop of the country. It is transplanted in June and July and matures between September and November. Due to high water requirements; it is grown in the high rainfall areas. Moreover, if it has to depend barely on rainfall, it requires not less than 30cm. rainfall per month. In India, only 9 per cent of the area enjoys 30 cm rainfall per month in the months of July and August. In view of this the states like Assam, West Bengal, Coastal Andhra Pradesh, Karnataka, Tamilnadu, Kerala receive rainfall to the extent of 10 to 20cm. per month for four to eight consecutive months. In these areas with supplemented irrigation facilities 2 to 3 crops are taken and are known as multi crop season belt

Table 12.2 Production Trends of Rice

Year	Area (million hectares)	Production (million Tonnes)	Yield (kg. Per hectare)
1950-51	30.8	20.6	668
1960-61	34.1	34.6	1013
1970-71	37.6	42.2	1123
1980-81	40.1	53.6	1336
1990-91	42.7	74.3	1740
1995-96	42.8	77.0	1797
1998-99	44.8	86.1	1921
1999-00	45.2	89.7	1986
2000-01	44.7	87.7	1961
2001-02	44.6	83.1	2086
2006-07	43.7	91.1	2084
2010-11	42.9	96.0	22.39
2016-17	43.2	110-15	2550

Source: Economic Survey

The area, yield and production trend in respect of rice has been given in table 18.2. Rice is the most important food grain crop in India. In 1950-51, it was grown on 30.8 million hectares which in 1980-81 increased to 40.1 million hectares and to 42.7 million hectares in 1990-91. During 2001 -02, it rose to 44.6 million hectares. Thus it accounted for 30 percent of the total area. It reflects that area under rice has been going up, the rate of

increase was fast in the early period and has slowed in the later period.

The total production of rice which was 20.6 million tonnes in 1950-51 increased to 34.6 million tonnes in 1960-61 and further to 42.2 million tonnes in 1970-71. Again, in 1980-81, production has increased to 53.6 million tonnes and 74.3 million tonnes in 1999-00 and is expected to reach to the level of83.1 million tonnes in 2001-02, As regards the yield, it has increased from 668 kg. per hectare in 1950-51 to 1123 kg. per hectare in 1970-71 and 1740 kg. per hectare in 1990-91. In 2001-02, it is expected to rise to 2086 kg. per hectare.

In view of increasing production of rice the following measures may be undertaken: (i) to increase the area under HYV. Emphasis needs to be given to develop hybrid rice varieties, (ii) to increase the stress on export of rice, (iii) to take intensive steps to raise the yield of uplands rice with the aid of package practices.

II Wheat: Wheat is the staple food crop of India. Warm and cold climate is required at the time of its sowing. Hot climate is needed for its ripening. The wheat region is responsible for 70 per cent of the area and 76 per cent of the production. It includes Punjab, Uttar Pradesh, Madhya Pradesh, Haryana, flanked by Rajas than and Gujarat in the West region and West Bengal and Bihar in east region. This area enjoys extensive irrigation system ranging from 93 per cent in Punjab to 51 per cent in Bihar. Table 18.3 highlights the trends of area, yield and production, for wheat. Wheat was grown on only 9.8 million hectares in 1950-51. After the Green Revolution, it has consistently improved its position. In 1980-81 the area under wheat was 24.2 million hectares which in 1990-91 steadily increased to the extent of 25.0 million hectares in 1995-96 and further to 27.5 million hectares in 1999-2000 but marginally declined to 25.1 million hectares in 2000-01 and further 25.9 million hectares in 2001-02. The

Table 12.3 Production Trends of Wheat

Year	Area (million hectares)	Production (million Tonnes)	Yield (kg/ha)
1950-51	9.8	6.5	663
1960-61	12.9	11.0	851
1970-71	18.2	23.8	1307
1980-81	22.3	36.3	1630
1990-91	24.2	5.1	2281
1995-96	25.0	62.1	2438
1997-98	26.7	66.3	2485
1998-99	27.5	71.3	2590
1909-00	27.5	76.4	2778
2000-01	25.7	69.7	2708
2001-02	25.9	71.8	2770
2006-07	28.2	73.7	2617
2010-11	29.1	86.9	2989
2016-17	30.6	98.38	3216

Source : Economic Survey

expected to reach to 71.8 million tonnes in 2000-01. Considering the yield per hectare, it has increased from 663 kg. per hectare in 1950-51 to 1307 kg. per hectare in 1970-71 and to 1630 kg. per hectare in 1980-81. Further , in 1990-91, it was recorded to be 2281 kg. per hectare and is expected to increase to the level of 2770 kg. per hectare in 2001-02.

III Coarse Cereals: The coarse cereals include maize, Jowar, bajra etc. These crops are generally sown in June-July and harvested in September-October. The coarse cereals are important in areas where irrigation facilities are not well developed, for example Rajasthan, Gujarat, Bihar, Madhya Pradesh, U P. The area under coarse cereals has declined overtime. It was 44.96 million tonnes in 1960-61 which declined to 31.49 million tonnes in 1995-96. It has decreased in 2001-02 to 25.0 million tonnes. The detailed information of production of coarse cereals has been given in table 18.4

Table 12.4 Production Trends of Coarse Cereals

Year	Area (million hectares)	Production (million Tonnes)	Yield (kg/ha)
1950-51	37.67	15.38	433
1960-61	44.96	23.74	528
1970-71	45.95	30.55	665
1980-81	41.78	29.02	695
1990-91	36.32	32.70	900
1995-96	31.49	29.62	941
1998-99	29.34	31.30	1068
1999-00	29.46	30.30	1034
2000-01	25.3	26.30	1010
2001-02	25.0	29.70	1225
2006-07	28.44	32.92	1158
2010-11	28.3	43.4	1531
2016-17	24.8	44.2	1784

Source : As above

The total production has increased from 15.38 million tonnes in 1950-51 to 32.70 million tonnes in 1990-91. However, in 1995-96 it has slided down to 29.62 million tonnes which again in 2000-01 jumped to the level of 31.3 million tonnes but declined in the following year. The yield per hectare has increased from 4.33 kg. per hectare in 1950-51 to 1003 kg. per hectare in 1997-98. During 1998-1999, it rose to 1068 kg per hectare which again increased to 1205 kg per hectare in 2001-02. Thus, it is clear from the above analysis mat the increase in production is mainly due to increase in yield. Because these are mostly rain fed crops, yield is a gamble of monsoons. Since coarse cereals are less profitable as compared to wheat and rice under irrigated

conditions, so with the increase in area under irrigation, the area under coarse cereals is being shifted to rice and wheat crops.

IV Oilseeds: The nine important oilseed crops include groundnut, rape seed & mustard, sesame, casterseed, linseed, soyabean, sunflower and sunflower. Heavy expenditure has to be incurred by the country for import of edible oils. Table 18.5 brings out the trends of area, production and yield of oil seeds. The area under oilseeds was 10.73 million hectares in 1950-51 increased to 24.15 million hectares in 1990-91. The area under this crop has marginally declined to 22.90 million hectares during 2001-02.

The production has increased from 5.16 million tonnes in 1950-51 to 18.61 million tonnes in 1990-91 which further declined to 20.50 million tonnes in 2001-02. The yield per hectare has increased from 481 kg. per hectare in 1950-51 to 579 kg. per hectare in 1970-71 but in 1980-81 reduced to 532 kg. per hectare. It increased to 770 kg. per hectare 1990-91 and increased to 944 kg. per hectare in 1998-99 but decreased to 75 2.

Table 12.5 Production Trends of Oilseeds

Year	Area (million hectares)	Production (million tonnes)	Yield (kg/ha)
1950-51	10.73	5.16	481
1960-61	13.77	6.98	507
1970-71	16.64	9.63	579
1980-81	17.60	9.37	532
1990-91	24.15	18.61	771
1995-96	26.05	22.10	851
1998-99	26.10	24.70	944
1999-00	23.20	20.70	853
2000-01	22.80	18.40	757
2001-02	22.90	20.50	856
2006-07	25.99	23.26	895
2010-11	27.2	32.5	1193
2016-17	26.2	32.10	1225

(Source : As above)

V. Pulses: Pulses deserve the special attention on the food front in the country. The area under pulses has varied between 20.3 aid 24.7 million hectares and production between 10.6«and 14.3 million tonnes. Generally, these are grown in the minted conditions. But due to their poor returns to the cultivators in comparison to the competing crops, the pulses in the country are grown on poor soils. The area under pulses increased from 19.1 million hectares in 1950-51 to 23.6 million hectares in 1960-61. However, in 1970-71 it declined to 22. 6 million hectares and again to

22.5 million hectares in 1980-81. But in 1990-91, the area under pulses once again increased to 24.7 million hectares.

Recently, it has gone down to 21.7 million hectares in 2000-01. Regarding the production of pulses, it was recorded to be 18.7 million tonnes in 1960-61 as against 8.4 million tonnes in 1950-51. Thereafter, it remained at low ebb. for two consecutive decades, i.e. 11.8 million tonnes in 1970-71 and 10.6 million tonnes in 1980-81. In 1990-91, the production of pulses was 14.3 million tonnes and is expected to be 14.9 million tonnes in 1999-00. But the production of pulses declines to 13.2 million tonnes in 2001-02. The yield per hectare of pulses was 441 kg. per hectare in 1950-51 which in 1960-61 increased to 539 kg. per hectare in 1960-61. In 1970-71, it has reduced to 524 kg. per hectare and further to 634 kg. per. hectare in 1999-00. In 2000-01 it, declined to 504 kg. per hectare but again increased to 609 kg per hectare in 2001-02.

VI. Cotton: Cotton is sown from mid April to mid May and picking starts in the month of September. It occupies an area of about 9 million hectares. The state of Maharashtra alone occupies 36 per cent of the total area under cotton in the country. Gujarat shares 21 per cent, Karnataka 13 per cent and Madhya Pradesh 10 per cent of the total cotton growing area. These four states taken together account for 80 per cent area under cotton. Moreover, most of the cotton growing areas in the country are under the high to medium rainfall zone. The area under cotton has increased to 7.6 million hectares in 1970-71 from 5.9 million hectares in 1950-51. However, in 1990-91, it has declined to 7.4 million hectares from 7.8 million hectares in 1980-81 and further in 1998-99 it touched 8.9 million hectares. It declined to 8.5 million hectares in 2000-01. Regarding the production of cotton it was recorded to be 5.6 million bales (1 bale = 170 kg of cotton limit)in 1960-61 as against 3.0 million bales in 1950-51. Moreover, in 1990-91, it was 9.8 million bales and 18.9 million bales in 1995-96. In 2000-01, it is expected to decline to 10.1 million bales due to decline in area and yield. The yield per hectare of cotton was 88 kg in 1950-51 which in 1960-61 increased to 125 kg. In 1995-96, it was 242kg. The decline in cotton yield is due to severe attack of pests.

VII. Sugarcane: Unlike other crops, sugarcane is an annual crop. It is grown mostly in the states of Uttar Pradesh, Bihar, Punjab, Haryana, Karnataka, Tamilnadu, Andhra Pradesh. The state of Uttar Pradesh alone shares more than 50 percent area under sugarcane. The area under sugarcane increased from 1.7 million hectares in 1950-51 to 2.6 million hectares in 1970-71 and again to 3.7 million hectares in 1990-91. In 1995-96, it reached to the level of 4.1 million hectares, and in 1999-0) it may fall to 4.2 million hectares but again marginally rose to 4.4 million hectares in 2001-02. The production of sugarcane which was 57.1 million tonnes in 1950-51 increased to 126.4 million tonnes in 1970-71. It has again increased to 241.0 million tonnes in 1990-91 and is expected to be 299.2 million tonnes in 2000-01. In terms of yield per hectare of sugarcane it was 33 tonnes in 1950-51 which in 1980-81 reached to 58 tonnes per hectare and was recorded to be 71 tonnes per hectare in 1999-2000 but declined to 67 tonnes per hectare in 2001-02.

Self check exercise

Q9. What are the production trends of wheat?

Q10. Which type of production trends we can find in case of oilseeds?

2.2.9 FUTURE OF CROPPING PATTERN

With the advent of new agricultural strategy and green revolution, extensive cropping pattern is giving a way to intensive cropping. It has provided an ample opportunity to the Indian farmers to raise manifold production. This is totally possible by making easy availability of chemical fertilisers, plant protection, and improved techniques of production, assured irrigation with appropriate price policy.

With the rapid increase in population, size of holding has been decreased and expected to decline continuously in future also. This is a serious challenge for every body in years to come. Therefore, following factors are greatly responsible for the present form of cropping pattern and land use pattern.

1. Comparative advantage of crops.
2. Increased irrigation potential.
3. Increased uses of fertilisers and pesticides.
4. Better crop varieties mid quality of seeds.
5. Higher level of production technology for major cereals, cotton and sugarcane, etc.

Besides, the production trends and the cropping pattern of our country would be influenced by the following decisions of the Government of India.

1. A steady growth of food grain production to meet the growing needs and a substantial increase in pulse production to improve the nutritional quality of the diet of the people.
2. To aim at self sufficiency in oilseed production to eliminate import of edible oils.
3. To increase production of export oriented crops like tea, coffee, tobacco, cashew nut, spices, jute, cotton, sugarcane, flowers, basmati rice, durum wheat, fruits and vegetables.
4. Efforts may be made to use land in optimum way. This can be only possible when, such crops are grown towards which land is more responsive.
5. Various facilities like irrigation, crop insurance, subsidies for input, marketing:, finance demonstration of the profitability of different crops, and storage may be provided to the cultivators. The future changes of cropping pattern require basic conditions to be fulfilled as:
   (i) Output of all existing crops should be increased so as to meet the consumption needs of the people.
   (ii) There should be a shift towards high value crops, which in turn will obviously add to the total value of output thus commercial crops may be preferred.
   (iii) Efforts should be made to shift the area from coarse foodgrains to superior quality of foodgrains such as basmati rice.

(iv) The production of those crops should be encouraged which have foreign demand.

(v) Land use plans for plain and hilly areas, salt affected, water logged lands and dry area may be properly drawn.

(vi) Research on soil fertility, water use dry fanning may continuously be done.

(vii) Necessary provision of financial help may be made available.

2.3.10 SUMMARY

In this lesson we have discussed the change in cropping pattern. In any economy there are so many natural resources which are necessary for the development of any economy. During the course of any development programme of national resources, land utilization occupies a special attention. At any particular time, it is determined by temperate moisture, topography, soil and physical structure. Land is a free gift of nature and it is fixed in supply therefore it should be utilised in an optimal manner. Therefore in this lesson we have discussed various ways of optimal land use and production trends of different crops.

2.3.11 GLOSSARY

Barren	:	The land where nothing can be produced.
Planning	:	A strategy, made to achieve some goal.
Trend	:	Tendency to rise or fall.
Pattern	:	Prototype or style.

2.3.12 SHORT ANSWER TYPE QUESTIONS

1. What do you mean by cropping pattern?
2. What are the suggestions for optimal land use?
3. What is land planning?
4. Write a short note on production trends of rice.
5. Is there any change in cropping pattern after green revolution?

2.3.13 LONG ANSWER TYPE QUESTIONS

1. What do you mean by Land-use pattern? Give its classification.
2. Explain the changes in Land use Pattern after the introduction of economic planning in the country. Also suggest the optimal land use pattern.
3. What is meant by Cropping Pattern? Explain its various determinants.
4. Explain the Cropping Pattern of major crops along with their respective production trends.
5. Explain the future of Cropping Pattern in India.

2.3.14 SELECTED REFERENCES

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TERMS OF TRADE BETWEEN AGRICULTURE AND INDUSTRY

Introduction

The objective of this lesson is to know about the term, "Terms of Trade" between the two main sectors of the Indian economy i.e. the agriculture and industry. After becoming familiar with the concept, we will see the relationship between terms of trade and economic development. Different views are to be discussed to know this relationship. There is interdependence of both these basic sectors. The main purpose here is to know, how these two sectors affect and are affected by each other during the process of economic growth and development. Agriculture sector, generally known as the subsistence sector feed the industrial the modern sector. Thus, there is movement of resources from one sector of the economy to the other. What is the impact of this type of movement, will be discussed in the last section of the lesson.

All this is being discussed in context of the Indian economy. Firstly, it deals with the changes in relative prices of agriculture and industry and secondly, it explains the difference in distribution of income between various sectors and classes. It also explains transfer of resources from one sector to the other. This movement of intersectoral terms of trade ultimately affects the pattern of growth and level of economic development in the economy.

We know that economic development is the process of continuous reallocation of resources from one sector of the economy to the other. Because in the initial stages of development these economies lack financial reasources.

Primarily there are two sector in the economy, viz, the agriculture and the industrial sector. Agriculture sector is regarded as the subsistence sector while industrial sector is relatively modern. General impression is, that during the process of development, in the initial stages, resources are diverted from subsistence sector to the modern sector.

Now the question arises which sector should finance the other and secondly, to what extent? Various views have been expressed to answer these question.

W.A. Lewis is of the opinion that in agriculture sector there exists surplus labour. By providing a little highter wages this surplus labours can be attracted towards industrial sector for its expansion. The savings generated through employment of this labour, can be reinvested, leading to more

employment of surplus labour from the subsistence sector, more savings and so on.

Ranis and Fei explain the terms of trade start chaging in favour of agriculture as industrialisation goes ahead. This situation starts only after the surplus labour in agriculture is exhaused. Jorgonson says that these terms of trade start operating in favour of agriculture as soon as the modern sector expands by shifting labour and capital from agriculture to the modern industrial capitalist sector. Marxian mode of Primitive Accumulation explains that capital is accumlated in manufacturing sector by transfer of resources from agriculture. The idea is supported by Preobranzhensky. Some of the economists suggests that terms of trade against agriculture in the initial stages through price control or heavy taxation on agriculture, will help in diverting savings from the rural sector to the modern industrial sector, which is more productive. Some times, it is done consciously by the state intervention. As in the Russian economy collectivisation of agriculture was carried out to extract from the peasantry their whole 'surplus output' at a lower price for the rapid expansion of industrial sector. In other words the terms of trade were kept against agriculture, firstly, by fixing high delivery quotas which left a limited volume of products in kind for home consumption secondly, by fixing high prices for manufacturing commodities and thirdly, by fixing low prices for agricultural products. Thus supluses were extracted from agriculture for the development of industry. Japan economy also experienced the same route like that of Scissors' of crisis during 1971 to 1927-28 of Russian economy. In Japan, during the initial stage, terms of trade were statistically steady. But later on to accelerate the development process, these were turned against agriculture through heavy land taxes, to finance industrial expansion.

Raj Krishna theorises that there is a critical minimum rate of growth of agricultural output which must be ensured if industrial development is to continue smoothly. Terms of trade must be so manipulated that this critical minimum is not hit. How does agriculture help industrial sector for the development?

Growth process is generally initiated by the agricultural sector through the following measures :

(a) By providing cheap food grains, so that the workers employed in industrial sector donot demand for higher wages.

(b) By providing cheap raw material, like sugar-cane, cotton, jute silk etc., so that initial cost of production in industrial sector is not high.

(c) By providing cheap labour which can be employed in modern industrial sector by giving them slightly higher wages.

(d) By providing additional sources in the form of saving to be invested in industry. Marginal propensity to save is relatively less among rural poors. But even then if their surpluses are extracted by one way or the other, these can be fruitfully utilised in industry.

(e) It has to provide foreign exchange for import for machinery earned by exporting foods grains abroad. Here Rostein and Rodan's theory of big-push applies in agriculture.

Briefly, it can be said that agriculture helps industry by providing capital and labour via factor contribution, in the form of raw material and wages goods, production contribution and market contribution. How does industry help agriculture? Once the process of economic development has been initiated, industry starts helping the agriculture during the later stages in the following ways.

(a) by providing market for the agricultural products;
(b) by providing modern agricultural inputs;
(c) by reducing extra pressure of population on land and providing intellectual environment for the rural masses and
(d) by providing consumption goods for mass consumption.

Thus, there is interdependence of the two sectors in the process of development. They exchange goods and services at certain prices which are different in both the sectors at different points of time.

The ratio of exchange between goods and services from one sector to the other is termed as terms of trade, between agriculture and industry. These terms of trade turn against the sector whose prives are relatively low. A relative increase in the prices of industrial products as conpared with those of the agricultural products will trun the terms of trade in favour of industrial sector and against the agricultural sector.

However, the terms of trade can not be kept against agriculture for a long time, after the development process has been initiated. At a later stage, in the process of development, these have to be changed in favour of agriculture if the latter is not to act as limiting factor for the development of the industrial sector.

After a certain stage of development industrial sector starts depending upon its own accumulated funds for capital and reduces dependence on agricultural sector for raw material and cheap labour etc. On the other hand dependence of agricultural sector on the industrial sector for modern inputs increases. Under these circumstances a situation favourable to the growth of agricultural sector has to be created. This is what exactly happened in India, that in the initial stages of planning, government followed a negative price policy for

agricultural products and the terms of trade remained against this sector till 1963. It was, however, later on, that prices of agricultural commodities were decontrolled and their support prices were raised deliberately. On the other hand subsidy on fertilizers and agricultural machinery was raised.

Terms of Trade between Agriculture and Industry - Indian Experience

Indian economy is facing the problem of lack of adequate funds for economic development. Among the various ways to mobilise savings, there is general agreement that surpluses can be diverted from the large agricultural sector for the development of modern industrial sector.

But the question is that how much capacity this agriculture has to finance industry ?

To answer this question we will have to go in historical background of the economy. We know that just after independence, India lost a very rich land producing food grains, Jute etc. Agriculture was shattered. The main consideration of our planners was to rehabilitate the economy. It was difficult to initiate the process of industrialisation because is created shortage of raw material for industry and supply of food gains for consumption in general.

Indian experience shows that during the process of economic development under plans, from 1950-51 to 1963-64 terms of trade were against agriculture. These were in favour of industry largely because the first plan was an overall plan prices of agricultural commodities were brought down. Some controls were imposed by the government to bring down the prices of food grains. But after this period this movement of terms of trade shifted in favour of agriculture; mainly because priority was given for the development of this sector. Indian economy was facing the problem of shortage of food grains. We had to seek foreign assistance in the form of P.L. 480/665 agreement (which was 'conditional' or the 'tied' assistance that was the period when new agricultural strategy was being introduced, resulting in green revolution. Agricultural prices were raised consciously. The implication of this favourable terms of trade for agriculture, which lasted upto the period of 1974-75; was that these enabled the cultivators to obtain much higher remuneration and enhanced income. Since productivity was also increasing, the benefits were all the greater. Consequently, the farmers were able to undertake large investments in agriculture, thus accelerating the process of adoption of new technology on a wider scale. It also led to some inflationary pressure on the economy.

Since mid-seventies the terms of trade have been again against agriculture. This is mainly due to increase in industrial production and prices. Despite the terms of trade moving against agriculture ever since mid-seventies the agriculture income seems to have recorded an increase because of the

achievement of much higher growth in yield level. The adverse terms of trade have been much compensated by the adoption of new technology. This has in turn resulted in rising prices of good grains, though at a lower rate, thereby, counteracting inflationary pressure. Simultaneously, investment in agriculture has been maintained at a fairly high level because of increased income rising out of higher yields in agriculture.

The adjoining table I elaborates the picture clearly. We have divided the whole period from 1952-53 to 1986-87 into three sub-periods or phases. The first period form 1952-76 to 1986-87 on the basis of the direction of movement of the terms of trade. Index Pa./Pi is calculated by having the ratio of prices received for commodities sold by agriculture, to the prices paid for the commodities purchased by agriculture. Here pi is price of industrial goods, Pa, the price of agricultural goods. This series does not take into consideration the income terms of trade i.e. outer terms multiplied by market surplus.

R. Thamarajakshi (1972) Dalip S. Swami and Ashok Gulati (1970) along with A.S. Kahlon and D.S. Tyagi (1983) are of the view that the overall trend of prices has been unfavourable for the agricultural sector, barring a brief period when terms of trade were more conductive to agricultural growth. Particularly, since the peak of the early 1970s, they argue that relative price conditions have been continuously and progressively adverse, implying the worsening economic state of the rural population in general and creating disincentives for investment in agriculture."

This trend behaviour of intersectoral terms of trade can be planned by the behaviour of unit cost also which effects productivity. At rise in prices of agricultural commodities tend to attect, both cost of row material and wages of the industrial workers. Ashok Mitra suggests that the shift in terms of trade in favour of agriculture leads to both falling real wages and a profit squeeze in industry.

Table-1
Indices of Prices Received, Prices Paid and The Terms of Trade in India (1970-71=100)

Years	Price Received for Commodities sold (Rs.) (Pa) (2)	Price Paid for Commodities (Pi) (3)	Terms of Trade (Col 2/3 Pa/Pi × 100)
1952-53	48.3	53.0	91.1
-	-	-	-
1960-61	49.1	62.1	79.1
1961-62	51.5	63.9	80.6
1962-63	52.8	66.3	79.6
1963-64	58.6	77.6	72.9
Average	40.3	58.5	84.9
1964-65	67.2	71.5	94.9
1965-66	77.7	75.5	102.9
1966-67	93.7	83.0	112.9
1967-68	100.2	86.7	115.6
1968-69	92.7	88.2	105.1
1969-70	96.1	94.4	101.8
1970-71	100.5	100.5	100.0
Base Period			
1971-72	102.5	105.1	97.5
1972-73	116.9	112.9	103.5
1973-74	145.0	132.3	109.6
1974-75	166.8	166.9	99.9
Average	105.4	101.5	105.9
1975-76	142.4	160.3	84.8
1976-77	157.0	173.2	90.7
1977-78	164.6	181.6	90.8
1978-79	157.1	183.9	85.4
1979-80	185.4	209.3	88.6
1980-81	213.6	244.8	97.3
1981-82	224.2	270.5	82.9
1982-83	237.2	279.9	84.7
1983-84	260.4	302.6	86.1
Average	193.6	233.8	86.8

Source : *Vol. 16, No. 4 p, D.S. Tyagi Domestic Terms of Trade of their Effect*

on Supply and Demand for the Agricultural Sector : Review of Agriculture E.P.W. March 1987 in Social Scientist. Inersectoral Terms of Trade, Agriculture Growth and Pattern of Demand, April 1988.

Table-2

Index Number of Wholesale Prices of Agriculture Commodities Relative to Manufactured Commodities (Base : 1981-82=100)

Years	(1) General Index of Wholesale Prices	(2) Price Index of Agricultural Products*	(3) Price Index of Industrial Products	(4) Agriculture Price Index as percent of Manufacturing (col 2 col 3)
2005-06	104.5	102.4	103.4	100.9
2006-07	111.4	108.2	112.5	103.9
2007-08	116.6	113.4	121.5	107.1
2008-09	126.0	120.4	133.5	110.9
2009-10	130.8	123.1	151.0	122.7
2010-11	143.3	130.1	176.6	135.7
2011-12	156.1	139.5	190.4	136.5
2012-13	167.6	147.1	209.6	142.5
2013-14	177.6	151.5	233.0	153.8
2014-15	177.6	155.1	243.9	157.2
2015-16	181.2	153.4	252.3	164.5
2016-17	183.2	157.4	265.0	168.4

Economic Survey- 2017-18

Note : * Composite index of the Sub-groups food articles and non-food articles.
** Annual average April December, 1999 (Provisional)

Source : Economic Surveys of different years.

Table-2 explains the pattern of change which has taken place after 80's. Taking 1981-82 as base period the index number Pa/Pi shows that terms of trade have turned in favour of agriculture; and it continues to be the same upto the period of the end of ninetees.

But as we know marginal propensity to consume in agriculture is higher, to avoid unproductive use of surpluses generated by agriculture, K.N. Raj (1972) suggests that agriculture income and wealth tax should be imposed. But there was general criticism of this thinking. Later on terms of trade were consciously shifted against agriculture by increasing cost of production indirectly, i.e. by increasing electricity charges, charges of irrigation, prices of fertiliser, insecticides etc. on one side and fixing the low procurement price of agricultural commodities on the other. This increases the cost of agriculture and ultimately turned terms of trade against it after mid seventies.

Impact of Intersectoral Terms of Trade

(a) When terms of trade are in favour of agriculture vis-à-vis industry then it will have over all impact in the following manner :

(i) The agriculture sector gets inputs from industry at a cheaper rate. Lower cost of production will increase the profitability of agricultural sector.

(ii) From the point of view of consumption, rural masses will get consumption goods also at relatively cheaper rates. This will increase revenue of industrial sector.

(iii) This will discourage savings leading to capital formation. Because marginal propensity to save is relatively low in rural areas. Though the surplus extracted by imposing income tax but politically it does not seem to be viable.

(iv) Higher agricultural prices will affect the exports of agricultural products adversely. It will affect foreign exchange earnings, which is meant for the use of importing machinery for industrial sector. Recent studies reveal that middle farmers who are not sellers at the marginal will be affected more than large farmers with greater surplus output. Ashok Mitra suggested that the small and the marginal farmers who are not buyers of even food gains are adversely affected by rise in prices.

(b) When terms of trade are in favour of industry, then it would mean reduction in the cost of production due to lower wages and cost of raw materials supplied by the agricultural sector.

Income distribution also shifts in favour of those who have high propensity to save. It helps in accumulation of capital or the capital formation.

Form the above discussion, we can safely conclude the agricultural sector has to suffer during the process of growth. But since this situation cannot be prolonged, suggestions have been given to manipulate prices and price policies for both agricultural and industrial sector, so that a general balance in the economy is maintained. The agricultural support and procurement prices, announced by the government of India suring 1990-91 were to the tune of these suggestions.

To avoid social and political criticism Kahlon and Tyagi suggested that, "price manipulation should be attempted only when the adverse terms of trade have persisted for quite some time. Rather, they emphasise on increasing productivity especially in agriculture. Help should be taken for providing more marketing facilities in the form of irrigation, easy supply to technological inputs and other marketing facilities etc. It will not only increase productivity but the profitability in agricultural sector also.

Summing up : In this lesson, we have learnt that, terms of trade between agriculture and industry explain the ratio of exchange between goods and services from one, subsistance sector, to the other, modern sector. It explains their mutual interdependence during the process of economic development relationship of relative prices and income distribution is discussed over here. The resources in the form of labour, savings food grains, raw material and foreign exchange are shifted form agriculture for the development of industry. Historically, it has been justified that the modern industrial sector will develop at the cost of subsistance agriculture sector. But this phenomenon cannot be prolonged. It will have to be taken into consideration that the latter is not having unlimited capacity to feed the industrial sector. Deliberate efforts will have to be taken to increase the prices of agriculture sector to make its terms favourable.

Indian economy has experienced three phases in these terms of trade since 1951-52. Initially terms of trade were not in favour of agriculture and this situation remained up to the period of mid-sixties. Then due to concious efforts of agriculture price commission and other committees these were shifted in favour of agriculture. Since mid-seventies this movement has again been against agriculture mainly due to increase in industrial production and prices. This type of situation has many adverse affects, in the form of unequal exchange between the two sectors. Not only the small farmers have suffered, but the position of marginal and relatively big farmers also has started deteriorating (Though some of the economists deny it).

It is suggested in the end that government should formulate a balance price policy so that none of the sectors gets affected adversely during the process of economic development. Since both these sectors and mutually interdependent.

NATURE AND EXTENT OF INDUSTRIALISATION

Structure

1. Introduction

During early fifties government of India initiated the process of industrialisation as a conscious effort for sustainable economic development. During the second five year plan heavy industry strategy was adopted to increase production of iron and steel along with heavy engineering and machine building industries. This strategy continued with small variations in the successive five year plans.

Over the period of time industrial base has widened multiple times and India has attained the ability to produce broad range of industrial products. Pattern and nature has changed with the passage of time.

2. Objective:

After going through this lesson you will come to know about the following aspects :

- The prevailing situation of industrial sector on the eve of planning;
- with the help of change in the strategy of planning in the successive plans, India continued to give priority to industrialisation; and
- over the period of time how nature and extent of industrialisation has changed many folds both qualitatively as well as quantitatively.

3. Nature of Industrialisation : Industrialisation is the pre-requisit of any economy to grow. An economy is said to be industrailised when, "it has acquired the ability to design, fabricate and erect its own plants without foreign assistance....." (Jawaharlal Nehru). According to World Development Indications of World Bank (2002) about 58 percent of active population is still engaged in agriculture, in India, and its contribution in national income is 26 percent; whereas industry contributes 24 or 25 percent. As compared to this in other developed economics like UK, USA, Japan etc. only 2 to 5 percent of active population is engaged in agriculture and its contribution to national income is also very less i.e. from 1 to 7 percent. So if any economy is interested to have sustainable growth and to compete at the global level it will have to invest in manufacturing sector and build a strong industrial base.

In order to have a close look on nature and extent of industrialisation we will have to have some knowledge about the situation on the inception of planning.

3.1 Nature of Industrialisation on the eve of planning :

India inherited the economy from Britishers which was an underdeveloped economy with following other features :

- lop-sided pattern of industry,
- low capital intensity, and
- structural imbalance in the economy.

(i) Lop-sided pattern of industry was reflected in the fact that the foreign, firms and other big industrialists were very large in number which were at the top. And at the same time there were very large number of indigenous small size firms i.e. concentration was very high at the top and at the bottom. This had created a gap in the society. The medium entrepreneurs were almost absent, i.e. the medium size factories did not develop at the that time.

(ii) Capital per worker employed in India was verv low. Because of low level of wages, percapita income of workers was also low which resulted in low purchasing power and hence small size of domestic market. Even in the heavy and basic goods industries, like iron and steel capital employed was very low as compared to the developed nations at that time.

(iii) Structural imbalance in the economy was also there. This was reflected by existence of consumer goods industries in larger number as compared to the producer and capital goods industries. Using Hoffman criteria of industrial

classification into consumer goods and capital goods industries to know the stage of development of an economy with respect to their ratio, India was in the second stage of development where ratio of consumer goods industries to the capital goods industries was 2.5 : 1. This forced the government to invest more in capital and producer goods industries to correct the imbalance between domestic demand and supply. It was due to these reasons/features and this particular nature of industrialisation, that special emphasis was given on this aspect during the five year plans.

3.2 Nature of Industrialisation during Five Year Plans :

When India initiated its path of planned economic development there was a general consensus that the country's economic backwardness was due to its very low level of industrialisation. The government, the business community and the general public, all were of this strong opinion that, "India must manufacture in the country the industrial products for which the country had been relying on imports under British rule."

The nature and extent of industrialisation has undergone many ups and downs during the era of planning. Isher Judge Ahluwalia, in her book on **Industrial growth in India: Stagnation since mid-sixties**, has studied this phenomenon by dividing the planning period into differnet phases. These phases are as follows :

- 1950-51 to mid-sixties (1965-66)
- 1965-66 to 1980
- 1980 to 1990-91
- Industrialisation during eighth plan and after:

(i) The first period starting from first five year plan upto the third five plan, there was all round development of industry. Just for building up strong industrial base, emphasis was more on creating basic infrastructure which may facilitate industrial production.

Industrial growth rate during the three five year plans was much below the target, but overall situation was not as bad. The targeted rate of growth during the plans was 7 percent, 10.5 percent and 10.75 percent respectively, while the actual rate of growth was 6 percent, 7.25 percent and 9 percent during the same period.

This phase was characterised as the period of '**Slow but steady growth**'. The strategy of industrial development adopted during this period was basically the heavy industrial strategy oriented. To increase production of iron and steel and of heavy engineering and machine building industries; and for the expansion of capacity and modernisation heavy investment (27 percent of the total investment during second plan) was done, which included investment in village and small scale industries of about rupees 265 crores. During the period of early sixties i.e. the third

five year plan, it was aimed to achieve self-sufficiency in producers goods industries; and minimise external assistance. Thus, to hasten the process of industrial and technological change, maximum investment was done in power and transport. Though the target rate of growth during the second five plan, 10.5, and third five year plan. 10.75 was never achieved but the performance was reasonably good. The country was able to build a strong industrial base during this phase which was the phase of steady growth.

(ii) Phase of Deceleration and Retrogression (1965-66 to 1980):

After building a strong industrial base the strategy of the.economy was for, export promotion and import substitution. Thus total investment of Rs. 3050 crores was proposed to be made by public sector in industries which included 'investment of Rs. 190 cr. in village and small scale industries during 1969-74. Most of this investment was in the core sector, i.e., iron and steel, non ferrous metals, fertilisers, petroleum and petro-chemicals coal and iron ore etc.

During the fifth five year plan objective of the economic policy was, 'Self-reliance and growth with social justice'. Keeping priority of investment in core sector (like that of fourth five year plan) emphasis was given on the development of industries which ensure a rapid diversification and growth of export. This was also to ensure export promotional activities. 124 items were reserved for small scale industries for the development of this sector specifically.

About 26 percent of the total out lay of public sector investment (Rs. 10,135 crores) was provided for this period for the development of organised industry and mining.

But this phase showed a sharp deceleration in industrial growth. The annual compound growth rate of industrial production declined from 9.0 percent in 1960-65 to 4.1 percent during the period of 1965-76. This period is also known as the period of 'stagflation' by K..N. Raj. This means that there was stagnation in industrial production on one side and very high rate of inflation on the other. With slight rise in growth rate, during the 1974-79 i.e. 6.1 percent the economy experienced negative growth rate (i.e. 1.6) in 1979-80.

The main causes of this type of situation were :

* wars with China (1962) and Pakistan (in 1965 and 1971);
* droughts; one during 1965-67 and the other during 1971-73;
* inadequate monsoons, leading to failure of agricultural production;
* lack of real investment in industry;
* demand and supply constraints. Demand constraints were due to high rate of inflation which had resulted unequal distribution of income favouring small number of rich community. And supply constraints were due to infrastructural

bottle necks and oil crisis of 1973.

N.P. Policy constraint on the part of the planners and policy makers. Because, to boost up industrial growth some bold policy initiatives were taken by the government, such as, relaxing restrictions on private sector, monopolistic undertakings and foreign concerns which were interested to invest in India. But all these steps were in direct' contradiction of the objectives of economic policy and planning that is growth with equality and social justice.

Because of all these above listed reasons industry experienced a very low level of growth especially during the last year of the fifth five year plan.

(iii) Third phase (1980 to 1990-91)

This phase is known as the period of recovery followed by sharp industrial growth. To maximise capacity utilisation on one side and remove regional disparities on the other most of the investment was done in the production of wage goods and articles of mass consumption.

During the period of sixth plan (1980-85) emphasis was on structural diversification, modernisation and self reliance. For this purpose, import of modern technology was permitted along with the development of indigenous know-how encouraging research and development. It was envisaged that it will help introduction modern technique in plants and at the same time expenditure on R&D will help achieving goal of self reliance. It was suggested to increase export of engineering goods and industrial products to earn extra foreign exchange.

The objective of seventh plan (1985-90) was to achieve growth with social justice and improvement in productivity. In order to achieve these objectives the strategy adopted in industrial sector was, as explained, earlier, to invest in industries which produce commodities meant for large section of population. Upgradation of technology was also suggested to increase industrial productivity. More investment was to be done in industries which have firstly, large domestic market, secondly, which have export potential and the growth potentials also.

Though total outlay during the seventh plan increased slightly as compared to the sixth plan (i.e. from rupees 22,200 crores it increased to rupees 22,460 crores) the share in total budget outlay declined sharply from 22.8 percent during sixth plan it came down to 12.5 percent during the seventh plan. In spite of this fact, increase in annual compound growth rate was witnessed. It was 6.4 percent during 1980-85 which increased to 8.5 percent during 1985-90. These data clearly indicate that from the stage of near stagnation, in fifties, upto the period of mid-sixties, industry experienced decline in annual growth rate. Due to the internal and external crisis industry faced the situation of deceleration and retrogression up to the period

of 1980. After that due to the change in the overall strategy of planning as a whole and with special emphasis on industrial growth, rise in the growth rate of industrial production was clear when it increased from 4.5 percent (average) during the second phase, to more than 7 percent during the third phase. Liberal attitude towards import of technology and foreign capital along with relaxation in restrictions of MRTP Act and licensing policy were the contributing factors towards this direction,

(iv) Industrialisation during eighth plan and after :

This was the period when economy as a whole was passing through the crisis. Its impact was clear on industry when this sector had to face the situation of **retrogression**. But this was a short phase. Just after that it was followed by recovery and growth. This was the time when new economic policy was being implemented in India under which major structural changes were introduced in industrial sector. Not only the area of operation of public sector was redefined, other regulations and restrictions were also relaxed and some of them were even abolished. Most of the reserved areas, under the exclusive monopoly of public sector, were thrown open for the operatiion of private sector. The stabilisation reforms related with fiscal and monetary policy and financial sector reforms had direct impact on industry. Indian industry had to face direct competition in the global market. Some of the industries were unable to compete with foreigners due to the reduction in import duty. Dumping by foreigners also created problems for many industries. This resulted slow down, with slight variations in growth rate, up to the period of 2000-01. Slow down was more prominant in industries related with infrastructural growth such as crude oil, steel, coal, cement etc.

Decline in both demand for and supply of industrial products had further aggravated the situation. On the external front, export growth has been sluggish since 1996-97. Industry had to face problems on the side of financial aspect also as the banks providing loan to the industries became over autious in lending due to its incidence of non-performing assets. Moreover relatively higher costs of borrowing were also discouraging investment.

But in the recent years recoverty is observed in industrial sector. Our exports are also increasing and industry has started competing in the global market. Compound annual growth rate during the period of 1992-97 was 7.3 (with base 1993-94 = 100) percent which declined to 5.0 percent during the period of 1997-2002.

Briefly, we can say that after the completion of about 55 years of industrialisation, India has become the tenth most industrialised country in the world when its production has increased about five times. "Rapid strides in industrialisation have been accompanied by a corresponding growth in technological and managerial skills for efficient operations of most sophisticated industries and also for planning

designing and construction of such industries. India has attained self sufficiency in almost all consumer goods industries. India can now sustain the future growth of vital sectors of the economy primarily through domestic efforts and only with marginal imports." (Dutt and Sundharam P.650)

4. Extent of industrialisation

When we study the extent of industrialisation we not only mean the growth in industrial sector, but its contribution in other related aspects also. Such as its share in GDP, industrialisation and its share in total employment and its annual growth rate, employment in public and private sector, etc.

Now we will discuss all these aspects in detail.

4.1 Growth rate or the extent of industrial production

As discussed earlier industry has passed through different phases. During the first phase annual compound growth rate showed consistent rise in industrial production when it increased from 5.7 percent in 1951-55 to 7.2 percent in 1955-60 and lastly to the peak of 9.0 per cent during 1960-65. On an average there was steady growth of about 8 percent during the period of 1951 to 1965. This was the phase when India had initiated the process of overall economic development with emphasis on heavy industry strategy. By this time we were able to build a strong industrial base. During the second five year plan the most significant achievement was the establishment of three steel plants in public sector, one at Rorkela in Orissa, second at Bhilai in Madhya Pradesh and the third at Durgapur in West Bengal. By investing in various directions i.e. in basic and heavy industries (iron and steel, coal and lignite, railways locamatives and coaches, ship building, heavy electricals etc. to other infrastructural sectors, roads, transport, telecommunication automobiles etc. India diversified the industrial sector very successfully. In respect of small scale and village industries also a substantial progress was made. For example 60 industrial estates were developed in which about 1000 small factories were established.

After that, India has experienced fluctuations in the growth rate of industrial production. Table-I shows growth rate of industrial production since 1951-55 upto the period of 2002-03. From the stage of stagnation during mid sixties, when average growth rate of industrial production was 5.5 percent (1961-70) industry started growing during the eighties. During the period of 1980-90 sharp increase in industrial production was observed when it grew at the rate of percent per annum. After that again there is slight decline during eighth and ninth plan. The year 2001-02 was characterised by a slow down in world output. India also witnessed a weak industrial growth of 2.7 percent during this period. This slow down was broad based and almost in all industry groups. But after that sharp increase in IIP is due to the contribution made by manufacturing sector (7.2 percent during 2003-04) while mining and electrictity grew by 5.1 and 5.0 percent during this period.

Table-I
Annual growth rate in Industrial Production

Phases	Year	Growth Rate (Base 1970 = 100)	
I	1951-55	5.7	→ Slow but steady growth
	1955-60	7.2	
	1960-65	9.0	
II	1965-76	4.1	→ Deceleration and retrogression
	1974-79	6.1	
	1979-80	(-) 1.6	
		(Base 1980 - 100)	
III	1980-85	6.4	→ Industrial Recovery followed by sharp industrial growth.
	1985-90	8.5	
	1990-91	8.3	
IV	1991-92	0.6	→ Retrogression
	1992-93	2.3	
	1993-94	6.0	→ Recovery and growth.
	1994-95	9.4	
	1995-96	12.1	

Table-2
IIP based Growth Rates in Pre Reform decode and Post-Reform Period

Year	Growth Rate
1980-81 to 1991-92	7.8
1997-98 to 2001-02	7.4
2002-03 to 2006-07	5.0
2007-08 to 2011-12	8.2
2012-13 to 2016-17	6.9

* data from 2007-08 to 2016-17 is based on the prices of base year 2004-05

Source : CSO in Economic Survey 2005-06, P.136
* (April - Novembers)

4.2 Industrialisation and its share in gross domestic product

According to the new classification industrial sector includes manufacturing, construction, electricity, gas and water supply. Earlier mining and quarrying was also included in this secondary sector but now it is included in primary, the agriculture sector. On the basis of 1993-94 prices, GSO data reveals that industry contributes about 24 to 25 percent share in GDP. When compared with 1950's its share has almost doubled over the period of time. But with respect to overall importance, this sector contributes only one fourth. During the period of 1950-51 its share towards GDP was only 13.29 percent which increased to 16.61 percent during 1960-61, the perido of third five year plan. This increase was due to the fact of adoption of heavy industry strategy and heavy investment in capital goods industry.

Table 3 reveals the trend of GDP at factor cost by industry.

Table-3

Annual Growth Rates of Real GDP at Factor cost by Industry of origin

Year	**Manufacturing, construction, electricity gas and water supply (At 2004-05 price)Percent**
1990-91	6.9
1995-16	12.0
2000-01	6.5
2005-06	10.7
2010-11	7.4

Note: * are quick estimates, ** are advanced estimates.

Source: CSO, compiled from Economic Survey 2004-05 P.S-5.

4.3 Share in Employment

Annual growth rate of employment in secondary sector has increased from 2.90 percent during 1983-94 to 3.14 percent during the later round of NSSO i.e. 1994-2000. Table 4a reveals share of employment in industry on the basis of current daily status (CDS) when compared with 1983 to 1999-2000 then there is marginal increase in this share, from 12.63 percent in 1983 to 13.13 percent in 1999-00. Here construction is not included in this category of industry. Table-4b shows discrete rate of contribution in employment by, mining and quarring, manufacturing, electricity, gas and water supply and construction. In the NSSO round of 1999-2000 construction has doubled its share in employment i.e. from 2.2 percent in 1983 it has increased to 4.4 percent in 1999-2000. Table 4c shows annual growth rate of employment in different sectors of industry during the period of 1983 to 1993-94 and from 1993-94 to 1999-2000. This annual growth rate has declined in case of mining and quarrying and also in electricity gas and water supply where as in other two sectors of manufacturing and construction sharp increase was observed. Table IV reveals annual growth rate of industry in comparison to other sectors of the economy i.e. agriculture sector and the tertiary or the service sector.

Table-4 Employment in Industry

(a) Share of Employment in Industry (percent) C.D.S. Basis

Period	Share
1983	12.63
1987-88	13.17
1993-94	12.34
1999-2000	13.13

Source: NSSO-Different Rounds

Industries included are Mining and Quarrying, Manufacturing, electricity, gas and water suply

(b)

Sector	1983	1993-94	1992-2000 2000
Share of Mining & quarrying	0.73	0.80	0.67
Share of Manufacturing	11.56	11.08	12.11
Share of Elrctrucity, gas & Water Supply	0.34	0.45	0.34
Construction	2.2	3.1	4.4

(c) Annual Growth Rate of employment in Major Sectors of Industry (Percent)

Sector	1983 to 1993-94	1993-94 to 1999-2000
Mining & Quarrying	3.68	-1.91
Manufacturing	2.26	2.58
Electricity, gas and Water Supply	5.31	-3.55
Construction	4.18	5.21

Table- 5

Sectoral Employment Growth [Current Daily Status (CDS)]

Annual Growth Rate (%)

Sector	1983 to 1987-88	1987-88 to 1993-94	1983 to 1993-94	1993-94 1999-2000
1. Agriculture	1.77	2.57	2.23	0.02
2. Industry				
* Mining and Quarrying	7.35	1.00	3.68	-1.91
* Manufacturing	3.64	1.23	2.26	2.58
* Electricity, Gas and Water Supply	2.87	7.19	5.31	3.55
* Construction	12.08	-1.38	4.18	5.21
3. Service				
* Trade, hotels and resaurant	4.89	2.99	3.80	5.72
* Transport, Storage & Communication	3.21	3.46	3.35	5.53
* Financial, Insurance, Real Estate and Business Services	4.72	4.50	4.60	5.40
* Community, Social Services and Personal Services	3.57	4.06	3.85	-2.08
All Sectors	2.89	2.50	2.67	1.07

NSS0 - Different Rounds. Taken from Economic Survey 2004-05 P.210

Table-6

Employment in Public/Private Sector Industry (lakh)

Industry	1991		1995		2000		2005		2010		2012	
	Pub.	Pvt.	Pub.	Pvt.	Pub.	Pvt.	Pub.	Pvt.	Pub.	Pvt.	Pub.	Pvt.
1) Mining & Quarrying	9.99	1.00	10.16	1.03	9.24	0.81	10.14	0.79	11.03	1.61	10.8	1.4
2) Manufacturing	18.52	44.81	17.58	47.06	15.31	50.85	11.30	44.89	10.68	51.84	10.7	55.3
3) Electricity, Gas & Water Supply	9.05	0.40	9.35	0.40	9.46	0.41	8.60	0.49	8.35	0.64	8.2	0.6

Source: Economic Survey of different Years

There is overall decline in employment, as well as in the annual growth rate of employment in the economy in pre-reforms period of 1983 to 1993-94 and post-reform period of 1993-94 to 1999-2000. But in case of industry construction activity and the manufacturing sector has shown increase in employment.

On the basis of ownership of private vis-a-vis public sector the data given in Table V reveals the true picture of industrial sector. Employment in public sector was increasing in the major sectors of industry during the period of 1981 to 1991, i.e. in mining and quarrying, manufacturing and electricity, gas and water supply. But after the implementation of new economic reforms role of public sector has been relegated to second position. Hence the capacity of public sector to provide employment also decreased over the period of time. It is evident from the Table V that employment in manufacturing industry was 15.02 lakh in 1981 in public sector, which had increased to 18.52 lakh in 1991. But in 2000 it declined to 15.31 lakh and further to 14.30 lakh in 14.30 lakh in 2001. On the other hand employment by private sector in manufactory sector is much higher during all these periods as compared to public sector. But so far as the electricity, gas and water supply is concerned public sector is showing consistent improvement in provision of employment irrespective of new industrial policy, or change in structural reforms. The least important sector, in providing employment is mining and quarrying, in case of both public and private sector.

Briefly, we can say that so far as growth of Industrial production is concerned it has passed through different phases. The first phase was marked as the phase of growth, though slow but it was steady. After the completion of third five year plan India as whole had to face crisis not only in industry but in other sectors also. Economy picked up after eighties and thereafter, barring two or three years there is consistent increase in the rate of growth in the industrial sector. When we take the aspect of employment most of the employment is generated in

manufacturing industry. Annual growth rate in electricity, gas and water supply was negative to the extent of 3.55 percent. According the contribution of these sectors in providing employment in public and private sector is reflected.

5. Summary

In this lesson we have discussed nature and extent of industrialisation in India. On the eve of planning, what we inherited from the Britishers was, lop sided development of economy in general and industry in particular. Capital intensity was also very low. There was general structural imbalance in the industry. But after independence during the era of planning, concreate steps for industrial development were taken; and by following the heavy industry strategy solid base was build for self sustained industrial growth. The process of industrialisation has generated sufficient growth potentials in terms of increase in output and employment. Its contribution to GDP has also increased many folds. Industrial sector has been diversified and now it covers broad range of commodities. There are great export potentials of the industry particularly the manufacturing and engineering industries. Construction sector is gaining importance day by day so for as employment component is concerned.

6.1 Short Answer Type Questions

(i) What do you mean by lop-sided development of industry ?

(ii) Explain main features of slow but steady growth in industry

(iii) Which sector is gaining importance in employment generation in industry?

(iv) What was rate of growth of industry during third phase of industrialisation?

6.2 Long Answer Type Questions

(i) Discuss in detail Nature of Industrialisation during the period of planning.

(ii) Bring about changes in employment in industry since the period of 1981.

Suggested Reading Material

1.	Isher J. Ahluwalia	:	Industrial Growth in India : Stagnation Since Mid. Sixties (1984)
2.	Planning Commission	:	Tenth Five Year Plan, 2002-07
3.	G. Rosen	:	Industrial Change in India
4.	Ruddar Dutt and K.P.M. Sundharam	:	Indian Economy latest edition,2006

Existing Production Structure of Industry

Structure

1. Objectives :

After going through this lesson you will be able to -

- understand the prevailing situation of industrial structure on the eve of planning;
- analyse the need for change in the strategy of planning in successive plans giving priority to industrialisation;
- examine that how over the period of time nature and extent of industrialisation has changed manifold both qualitatively as well as quantitatively.

2. Introduction:

During 1951-52 when economic planning was adopted by the Indian Goverment, it was not clear about the model to be adopted for overall development. Some of the thinkers were in favour of Gandhian Philosophy of investment in small scale industires, while others were in favour of heavy industry strategy propounded by Nehru. Anyhow, govt of India initiated the process of industrialisation as a conscious effort for sustainable economic development giving greater priority to the industrial

sector. Over the period of time there have been changes in the industrial production, production mix/line, nature of commodities produced etc; which has transformed the whole industrial scenario.

In this lesson, we will try to identify the changes in industrial structure since 1950's up to the present phase.

In order to have a close look on nature and extent of industrialisation we will have to have some knowledge about the situation on the inception of planning.

3. Structure of Industry :

There are various ways to define structure of industries or the industrial structure. A brief account of industrial structure was given in earlier lessons also. Here briefly, we can say that there are following ways to define industrial structure :

- on the basis of size and scale industries are small, medium and large :
- on the basis of ownership, there are industries owned by private companies and industries in public sector i.e. public enterprises.

  But these are the traditional ways to define industrial structure. I.J. Ahluwalia has defined industrial structure on the basis of nature of commodity and its use. This is a more acceptable and reliable method to define industrial structure.
- on the basis of nature of commodities and its use, there are two types of industries : one is - input based industries and the other use based industries : Input - based industries are agro-based industries, metal based industries and chemical based industries. Use-based industries are basic goods industries, intermediates, capital goods industries and the consumer goods industries.

  Over the period of time there has been structural change or structural transformation of industries. This transformation is explained with the help of the above said classification of industries.

(A) Self-Check Exercise

a. What do you understand by Structure of Industry ?

b. How will you explain use-based industries ?

4. Structural Transformation :

By industrial transformation we mean that with the passage of time importance or the priority of one type of industry changes over the other. For example, in the beginning basic goods industries were growing at an average annual growth rate of more than 8 percent but during late eighties capital goods got importance and about 15.7 percent average annual growth rate was observed during 1985-90. Similarly intermediate goods were never as important as compared to the consumer goods industries. On the other hand, when we take the share of employment in different industries, here also we find variations in manufacturing industries, service industries and ago-based industries.

Hence we can say that structural transformation explains shift from one type of industry to the other over the period of time according to the requirement (and sometimes some compulsion) of the economy.

5. Industrialisation on the Eve of Planning :

India inherited from Britishers an economy which was underdeveloped with the following features :

- lop-sided pattern of industry
- low capital industry
- structural imbalances in the economy.

i) Lop-sided pattern of industry was reflected in the fact that the foreign firms and other big industrialists were very large in number which were at the top. And at the same time there were very large number of indigenous small size firms i.e. concentration was very high at the top and at the bottom. This had created a gap in the society. The medium entrepreneurs were almost absent, i.e the medium size factories did not develop at that time.

ii) Capital per worker employed in India was very low. Because of low level of wages, per capita income of workers was also low which resulted in low purchasing power and hence small size of domestic market. Even in the heavy and basic goods industries, capital employed was very low (like in iron and steel) as compared to the developed nations of that time.

iii) Structural imbalance in the economy was also there. This was reflected by the existence of consumer goods industries in larger number as compared to the producer and capital goods industries. Using Hoffman criteria of industrial classification into consumer goods and capital goods industries to know the stage of development of an economy with respect to their ratio, India was in the second stage of development where ratio of consumer goods industries to the capital goods industries was 2.5 : 1. This forced the government to invest more in capital and producer goods industries to correct the imbalance between domestic demand and supply.

It was due to these reasons/features and this particular nature of industrialisation, that special emphasis was given on this aspect during the five year plans.

6. Industrialisation during Planning :

When India initiated its path of planned economic development there was a general consensus that the country's economic backwardness was due to its very low level of industrialisation. The government, the business community and the general public, all were of this strong opinion that, “India must manufacture in the country the industrial products for which the country had been relying on imports under British rule.”

The nature and extent of industrialisation has undergone many ups and

downs during the era of planning. Isher Judge Ahluwalia, in her book **Industrial growth in India: Stagnation since mid-sixties,** has studied this phenomenon by dividing the planning period into different phases. These phases are as follows :

- 1950-51 to mid-sixties (1965-66)
- 1965-66 to 1980
- 1980 to 1990-91
- Industrialisation during and after new Industrial Policy (1991) and Economic Reforms..

6.1 Slow but Steady Growth :

The first period starting from first five year plan upto the third five plan, there was all round development of industry. Just for building up strong industrial base, emphasis was more on creating basic infrastructure which may facilitate industrial production.

Industrial growth rate during the three five year plans was much below the target, but overall situation was not as bad. The targeted rate of growth during the plans was 7 percent, 10.5 percent and 10.75 percent respectively, while the actual rate of growth was 6 percent, 7.25 percent and 9 percent during the same period.

This phase was characterised as the period of **'Slow but steady growth'**.

The strategy of industrial development adopted during this period was basically the heavy industry strategy. To increase production of iron and steel and of heavy engineering and machine building industries; and for the expansion of capacity and modernisation heavy investment (27 percent of the total investment during second plan) was done, which included investment in village and small scale industries of about rupees 265 crores. During the period of early sixties i.e. the third five year plan, it was aimed to achieve self-sufficiency in producer goods industries; and minimise external assistance. Thus, to hasten the process of industrial and technological change, maximum investment was done in power and transport. Though the target rate of growth during the second five plan (10.5) and third five year plan (10.75) was never achieved but the performance was reasonably good. The country was able to build a strong industrial base during this phase which was the phase of steady growth.

6.2 Phase of Deceleration and Retrogression (1965-66 to 1980) :

After building a strong industrial base the strategy of the economy was for export promotion and import substitution. Thus total investment of Rs. 3050 crores was proposed to be made by public sector in industries which included 'investment of Rs. 190 crores in village and small scale industries during 1969-74. Most of this investment was in the core sector, i.e., iron and steel, non ferrous metals, fertilisers, petroleum and petro-chemicals, coal and iron ore etc.

During the fifth five year plan objective of the economic policy was, 'Self-reliance and growth with social justice'. Keeping priority of investment in core sector (like that of fourth five year plan) emphasis was given on the development of

industries which ensure a rapid diversification and growth of export. This was also to ensure export promotional activities. 124 items were reserved for small scale industries for the development of this sector specifically.

About 26 percent of the total out lay of public sector investment (Rs. 10,135 crores) was provided for this period for the development of organised industry and mining.

But this phase showed a sharp deceleration in industrial growth. The annual compound growth rate of industrial production declined from 9.0 percent in 1960-65 to 4.1 percent during the period of 1965-76. This period is also known as the period of 'stagflation' by K.N. Raj. This means that there was stagnation in industrial production on one side and very high rate of inflation on the other. With slight rise in growth rate, during 1974-79 i.e. 6.1 percent the economy experienced negative growth rate (i.e. 1.6) in 1979-80.

The main causes of this type of situation were :

- wars with China (1962) and Pakistan (in 1965 and 1971);
- droughts; one during 1965-67 and the other during 1971-73;
- inadequate monsoons, leading to failure of agricultural production;
- lack of real investment in industry;
- demand and supply constraints. Demand constraints were due to high rate of inflation which had resulted in unequal distribution of income favouring small number of rich community. And supply constraints were due to infrastructural bottlenecks and oil crisis of 1973.
- Policy constraint on the part of the planners and policy makers. Because, to boost up industrial growth some bold policy initiatives were taken by the government, such as, relaxing restrictions on private sector, monopolistic undertakings and foreign concerns which were interested to invest in India. But all these steps were in direct contradiction of the objectives of economic policy and planning that is growth with equality and social justice.

Because of all these above listed reasons industry experienced a very low level of growth especially during the last year of the fifth five year plan.

6.3 Third phase (1980 to 1990-91)

This phase is known as the period of recovery followed by sharp industrial growth. To maximise capacity utilisation on one side and remove regional disparities on the other most of the investment was done in the production of wage goods and articles of mass consumption.

During the period of sixth plan (1980-85) emphasis was on structural diversification, modernisation and self reliance. For this purpose, import of modern technology was permitted along with the development of indigenous know-how encouraging research and development. It was envisaged that it will help introduction of modern technique in plants and at the same time expenditure on

R&D will help achieving goal of self reliance. It was suggested to increase export of engineering goods and industrial products to earn extra foreign exchange.

The objective of seventh plan (1985-90) was to achieve growth with social justice and improvement in productivity. In order to achieve these objectives the strategy adopted in industrial sector was, as explained, earlier, to invest in industries which produce commodities meant for large section of population. Upgradation of technology was also suggested to increase industrial productivity. More investment was to be done in industries which have firstly, large domestic market and secondly, which have export potential and the growth potentials also.

Though total outlay during the seventh plan increased slightly as compared to the sixth plan (i.e. from rupees 22,200 crores it increased to rupees 22460 crores) the share in total budget outlay declined sharply from 22.8 percent during sixth plan to 12.5 percent during the seventh plan. In spite of this fact, increase in annual compound growth rate was witnessed. It was 6.4 percent during 1980-85 which increased to 8.5 percent during 1985-90. These data clearly indicate that from the stage of near stagnation in fifties, upto the period of mid-sixties, industry experienced decline in annual growth rate. Due to the internal and external crisis industry faced the situation of deceleration and retrogression up to the period of 1980. After that due to the change in the overall strategy of planning as a whole and with special emphasis on industrial growth, rise in the growth rate of industrial production was clear when it increased from 4.5 percent (average) during the second phase, to more than 7.3 percent during the third phase. Liberal attitude towards import of technology and foreign capital along with relaxation in restrictions of MRTP Act and licensing policy were the contributing factors towards this direction.

6.4 Industrialisation during eighth plan and after new Industrial Policy and Economic Reforms :

This was the period when economy as a whole was passing through a crisis. Its impact was clear on industry when this sector had to face the situation of **retrogression**. But this was a short phase. Just after that it was followed by recovery and growth. This was the time when new economic policy was being implemented in India under which major structural changes were introduced in industrial sector. Not only the area of operation of public sector was redefined, other regulations and restrictions were also relaxed and some of them were even abolished. Most of the reserved areas, under the exclusive monopoly of public sector, were thrown open for the operation of private sector. The stabilisation reforms related with fiscal and monetary policy and financial sector reforms had direct impact on industry. Indian industry had to face direct competition in the global market. Some of the industries were unable to compete with foreigners due to the reduction in import duty. Dumping by foreigners also created problems for many industries. This resulted in

a slow down, with slight variations in growth rate, up to the period of 2000-01. Slow down was more prominent in industries related with infrastructural growth such as crude oil, steel, coal, cement etc.

Decline in both demand for and supply of industrial products had further aggravated the situation. On the external front, export growth has been sluggish since 1996-97. Industry had to face problems on the side of financial aspect also as the banks providing loan to the industries became over coutious in lending due to its incidence of non performing assets. Moreover relatively higher costs of borrowing were also discouraging investment.

But in the recent years recovery is observed in industrial sector. Our exports are also increasing and industry has started competing in the global market. Compound annual growth rate during the period of 1992-97 was 7.3 (with base 1993-94 = 100) percent which declined to 5.0 percent during the period of 1997-2002. After that there is consistent rise in IIP (table-1) and table -2.

Briefly, we can say that after the completion of about 55 years of industrialisation, India has become the tenth most industrialised country in the world when its production has increased about five times. “Rapid strides in industrialisation have been accompanied by a corresponding growth in technological and managerial skills for efficient operations of most sophisticated industries and also for planning designing and construction of such industries. India has attained self sufficiency in almost all consumer goods industries. India can now sustain the future growth of vital sectors of the economy primarily through domestic efforts and only with marginal imports.

B. Self Check Exercise

(a) Explain briefly the main features of the phase of 'Slow but Steady Growth' of industries.

(b) What were the causes of deceleration in Industrial Sector during and after mid 1960's.

Table - 1

IIP-based Growth Rates (Use-based) in Pre-Refrom Decode and Post Reform Period

Use Based or Functional Classification	1980-81 to 1991-92	Eighth Plan 1992-93 to 1996-97	Ninth Plan 1997-98 to 2001-02	Tenth Plan 2002-03 to 2006-07	Eleven Plan 2007-08 to 2011-12(Based Year 2004-05=100)	Twelth Plan 2012-13 to 2016-17(Based Year 2004-05 =100
1.Basic Goods	7.4	6.8	4.1	6.6	5.4	3.9
2.Capital Goods	9.4	8.9	4.7	14.4	14.3	-3.7
3.Intermediate Goods	4.9	8.5	5.8	6.2	4.0	2.2
4.Consumer Goods	6.0	6.6	5.5	9.6	7.8	-0.1
General Index (IIP)	7.8	7.4	5.0	8.2	6.9	1.4

Simple average of the annual Growth rates

Source : Puri & Misra (2018) Indian Economy Himalaya Publishing House Pt. 334

IIP based Growth Rates from 2012-13 to 2016-17 (Base Year 2011-12)

Year	Growth Rate 2011-12=100
2012-13	3.3
2013-14	3.3
2014-15	4.0
2015-16	3.3
2016-17	4.6

Table - 2

Growth Rates of Industrial Production by use-based classification

(Base 1993-94 = 100)

S.No.	Sector	Weight	1990-00	2000-01	2001-02	2002-03	2003-04	2004-05*	2005-06*
1.	Basic goods	35.5	5.5	3.7	2.6	4.9	5.4	6.0	6.0
2.	Capital goods	9.3	6.9	1.8	3.4	10.5	13.6	13.8	15.7
3.	Interm-mediate goods	26.5	8.8	4.7	1.5	3.9	6.4	6.9	2.2
4.	Consumer goods of which	28.7	5.7	8.0	6.0	7.1	7.1	11.4	12.2
	Durables	5.4	14.1	14.5	11.5	6.3	11.6	15.3	13.6
	Non-Durables	23.3	3.2	5.8	4.1	12.0	5.8	10.0	11.7
	IIP (Index of Industrial Production)	100.0	6.7	5.0	2.7	5.7	7.0	8.6	7.8

Note : * figures are for April to December Source :Economic Survey 2005-06 P-134

7. Growth rate or the extent of industrial production during Plans.

As discussed earlier industry has passed through different phases. During the first phase annual compound growth rate showed consistent rise in industrial production when it increased from 5.7 percent in 1951-55 to 7.2 percent in 1955-60 and lastly to the peak of 9.0 per cent during 1960-65. On an average there was steady growth of about 8 percent during the period of 1951 to 1965. This was the phase when India had initiated the process of over all economic development with emphasis on heavy industry strategy. By this time we were able to build a strong industrial base. During the second five year plan the most significant achievement was the establishment of three steel plants in public sector, one at Rourkela in Orissa, second at Bhilai in Madhya Pradesh and the third at Durgapur in West Bengal. By investing in various directions i.e. in basic and heavy industries (iron and steel, coal and lignite, railways locamatives and coaches, ship building, heavy electricals etc.) to other infrastructural sectors, roads, transport, telecommunication automobiles etc. India diversified the industrial sector very successfully. In respect of small scale and village industries also a substantial

progress was made. For example 60 industrial estates were developed in which about 1000 small factories were established.

After that, India has experienced fluctuations in the growth rate of industrial production. Table-3 shows growth rate of industrial production since 1951-55 upto the period of 2005-06. From the stage of stagnation during mid sixties, when average growth rate of industrial production was 5.5 percent (1961-70) industry started growing during the eighties. During the period of 1980-90 sharp increase in industrial production was observed when it grew at the rate of 8 percent per annum. After that again there is slight decline during eighth and ninth plan. The year 2001-02 was characterised by a slow down in world output. India also witnessed a weak industrial growth of 2.7 percent during this period. This slow down was broad based and almost in all industry groups. But after that sharp increase in IIP is due to the contribution made by manufacturing sector (7.4 percent during 2003-04 and 9.2 percent during 2004-05) while mining and quarrying by 5.2 and electrictiy at 5.1 percent during 2003-04 and at 6.4 percent during 2004-05 .

Table-3

Annual growth rate in Industrial Production

Phases	Year	Growth Rate (Base 1970 = 100)	
I	1951-55	5.7	
II	1955-60	7.2	Slow but steady growth
	1960-65	9.0 →	
	1965-76	4.1	
	1974-79	6.1	Deceleration and retrogression
	1979-80	(-) 1.6 →	
		(Base 1980 = 100)	
III	1980-85	6.4	Industrial Recovery followed
	1985-90	8.5	by sharp industrial growth.
	1990-91	8.3 →	
IV	1991-92	0.6	Retrogression
	1992-93	2.3 →	
	1993-94	6.0	
	1994-95	9.4	Recovery and growth.
	1995-96	12.1 →	

Table:3

IIP based Growth Rates from 2012-13 to 2016-17 (Base Year 2011-12)

Year	Grwoth Rate
2012-13	3.3
2013-14	3.3
2014-15	4.0
2015-16	3.2
2016-17	4.6

Year	Growth Rate (Base 1993-94 = 100)
1992-97	7.3
1997-98	6.7
1998-99	4.1
1999-00	6.7
2000-01	5.0
2001-02	2.7
2002-03	5.7
2003-04	7.0
2004-05*	8.6
2005-06*	7.8
2012-13	3.3
2016-17	4.6

Source : *Economic Survey 2003-04, 2005-06 and Planning Commission, Tenth Five Year Plan (2002-07) Vol.-II*

**Figures are for April to December*

"The target growth rate during the Tenth Plan (2002-07) was put at 10 percent consistent with an overall GDP growth rate of 8 percent. Not withstanding a distinct improvement in the manufacturing growth in the last two years, over all industrial growth so far remained well short of the target". Decelaration in the growth of mining and electricity sector are expected to add pressure on manufacturing sector.

With respect to the use-based classification major contribution for the last four years has been by the capital goods sector and the consumer durables. (see table-3) Intermediate goods sector has witnessed decline in growth rate; from 8.8 percent during 1999-00 to 6.9 percent 20004-05 and further to 2.2 percent during 2005-06. But within the manufacturing sector large variables are observed across various segments. This manufacturing growth was reasonably broad-based and high growth sectors were either technology intensives or with a large export potential.

The sectors where there has been perceptible slow down were - machinery and equipment, basic chemical and chemical products, paper and paper products, metal

products including machinery and equipment and wool, silk and other man-made fibre textiles.

8.Industrialisation and its share in gross domestic product

According to the new classification industrial sector includes manufacturing, construction, electricity, gas and water supply. Earlier mining and quarrying was also included in this secondary sector but now it is included in primary, the agriculture sector. On the basis of 1993-94 prices, CSO data reveals that industry contributes about 24 to 25 percent share in GDP. When compared with 1950's its share has almost doubled over the period of time. But with respect to overall importance, this sector contributes only one fourth. During the period of 1950-51 its share towards GDP was only 13.29 percent which increased to 16.61 percent during 1960-61, the period of third five year plan. This increase was due to the fact of adoption of heavy industry strategy and heavy investment in capital goods industry. Table-4 reveals the trend of GDP at factor cost by industry.

Table-4

GDP at factor cost by industry of origin (at 1993-94 Prices)

(Percentage Share)

Year	Manufacturing, construction, electricity gas and water supply
1950-51	13.29
1955-56	14.96
1960-61	16.61
1965-66	20.22
1970-71	19.91
1975-76	19.81
1980-81	21.59
1985-86	22.51
1990-91	24.49
1995-96	25.47
2000-01	24.90
2001-02	24.37
2002-03*	24.89
2003-04**	24.58

Note: * are quick estimates, ** are advanced estimates.

Source: CSO, compiled from Economic Survey 2005-06 P-S-5.

4.3 Structural Change in Share of Employment in Industries

Annual growth rate of employment in secondary sector has increased from 2.90 percent during 1983-94 to 3.14 percent during the later round of NSSO i.e. 1994-2000. Table-5 reveals share of employment in industry on the basis of current daily status (CDS) when compared with 1983 to 1999-2000 then there is marginal increase in this share, from 12.63 percent in 1983 to 13.13 percent in 1999-00. Here construction is not included in this category of industry.

Table-6 shows discrete rate of contribution in employment by mining and quarrying, manufacturing, electricity, gas and water supply and construction. In the NSSO round of 1999-2000 construction has doubled its share in employment i.e. from 2.2 percent in 1983 it has increased to 4.4 percent in 1999-2000.

Table-7 shows annual growth rate of employment in different sectors of industry during the period of 1983 to 1993-94 and from 1993-94 to 1999-2000. This annual growth rate has declined in case of mining and quarrying and also in electricity, gas and water supply whereas in other two sectors of manufacturing and construction sharp increase was observed. Table IV reveals annual growth rate of industry in comparison to other sectors of the economy i.e. agriculture sector and the tertiary or the service sector.

Table-5

Share of Employment in Industry (percent) CDS Basis

Period	Share
1983	12.63
1987-88	13.17
1993-94	12.34
1999-2000	13.13

Source: NSSO-Different Rounds

Industries included are Mining and Quarrying, Manufacturing, electricity, gas and water suply.

Table-6

Industry wise Share of Employment

Sectors	1983	1993-94	1999-2000
Share of Mining & quarrying	0.73	0.80	0.67
Share of Manufacturing	11.56	11.08	12.11
Share of Electricity, gas & Water Supply	0.34	0.45	0.34
Construction	2.2	3.1	4.4

Table-7

Annual Growth Rate of employment in Major Sectors of Industry (Percent)

Sector	1983 to 1993-94	1993-94 to 1999-2000
Mining & Quarrying	3.68	-1.91
Manufacturing	2.26	2.58
Electricity, gas and Water Supply	5.31	-3.55
Construction	4.18	5.21

Table-8

Employment in Public/Private Sector Industry (in lakhs)

Industry	1981		1991		2001	
	Pub.	Pvt.	Pub.	Pvt.	Pub.	Pvt.
1. Mining & Quarrying	8.18	1.30	9.99	1.00	8.75	0.79
2. Manufacturing	15.02	45.45.	18.52	44.81	14.30	0.13
3. Electricity, Gas& Water Supply	6.83	0.35	9.05	0.40	9.35	0.52

There is overall decline in employment, as well as in the annual growth rate of employment in the economy in pre-reforms period of 1983 to 1993-94 and post-reform period of 1993-94 to 1999-2000. But in case of industry construction activity and the manufacturing sector has shown increase in employment.

On the basis of ownership of private vis a vis public sector the data given in table- 8 reveals the true picture of industrial sector. Employment in public sector was increasing in all the major sectors of industry during the period of 1981 to 1991, i.e. in mining and quarrying, manufacturing and electricity, gas and water supply. But after the implementation of new economic reforms role of public sector has been relegated to second position. Hence the capacity of public sector to provide employment also decreased over the period of time. It is evident from the table 8 that employment in manufacturing industry was 15.02 lakh in 1981 in public sector, which had increased to 18.52 lakh in 1991. But in 2000 it declined to 15.31 lakh and further to 14.30 lakh. On the other hand employment by private sector in manufacturing sector is much higher during all these periods as compared to public sector. But so far as the electricity, gas and water supply is concerned public sector is showing consistent improvement in provision of employment irrespective of new industrial policy, or change in structural reforms. The least important sector, in providing employment is mining and quarrying,

in case of both public and private sector.

Briefly, we can say that so far as growth of industrial production is concerned it has passed through different phases. The first phase was marked as the phase of growth, though slow but it was steady. After the completion of third five year plan India as, whole had to face crisis not only in industry but in other sectors also. Economy picked up after eighties and thereafter, barring two or three years there is consistent increase in the rate of growth in the industrial sector. When we take the aspect of employment most of the employment is generated in manufacturing industry. Annual growth rate in electricity, gas and water supply was negative to the extent of 3.55 percent. Accordingly the contribution of these sectors in providing employment in public and private sector is reflected.

10. Summary

In this lesson we have discussed nature and extent of industrialisation in India. On the eve of planning, what we inherited from the Britishers was, lop sided development of economy in general and industry in particular. Capital intensity was also very low. There was general structural imbalance in the industry. But after independence during the era of planning, concrete steps for industrial development were taken; and by following the heavy industry strategy solid base was built for self sustained industrial growth. The process of industrialisation has generated sufficient growth potentials in terms of increase in output and employment. Its contribution to GDP has also increased many fold. Industrial sector has been diversified and now it covers a broad range of commodities. There are great export potentials of the industry particularly the manufacturing and engineering industries. Construction sector is gaining importance day by day so far as employment component is concerned.

11. Questions

11.1 Short Answer Type Questions

(i) What do you mean by lop-sided development of industry ?

(ii) Explain main features of slow but steady growth in industry.

(iii) Which sector is gaining importance in employment generation in industry ?

(iv) What was rate of growth of industry during third phase of industrialisation?

11.2 Long Answer Type Questions

(i) Discuss in detail nature of industrialisation during the period of planning.

(ii) Trace the changes in employment in industry since 1981.

12. Suggested Reading Material

1. Isher J. Ahluwalia : Industrial Growth in India : Stagnation Since Mid-Sixties (1984)
2. Planning Commission : Tenth Five Year Plan, 2002-07
3. G. Rosen : Industrial Change in India
4. Ruddar Datt and K.P.M. Sundharam : Indian Economy 54th ed.2006 and (latest editions)

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PROBLEMS OF SMALL SCALE INDUSTRIES IN INDIA

The small scale enterprises play a great and vital role in India's national economy. It makes a significant contribution in terms of the numbers employed and the volume of net product. Despite the development of large scale industries, the small scale industries have a place of their own in the economy and their prospects in the future are full of promise. They have the advantage of being based on the country's natural resources and the inherited skills of its people. Some of them have come into existence as ancillaries of large scale industries. Though their role is subordinate, their contribution is not insignificant.

MEANING AND COVERAGE

The small scale industrial enterprises are of so varied a nature as makes it very difficult to find a definition which will apply to all of them. They vary in the levels of investment, number of labourers employed, techniques used, scale of production and form of organisation. Various terms such as "cottage industries", "small industries", "handicraft" and "village industries" have been used to describe them. They are called small because they make use of only small amounts of resources and carry on production on a small scale. They are generally labour-intensive.

It has been found necessary to evolve a definition for the industries described as small industries, not as such for their own sake, but for certain other obvious reason such as to facilitate analysis, to lay down policies for them and to enable them to make use of facilities and concessions provided by the government and other agencies. In defining them, different criteria have been used by different countries. Germany and Japan defined them in terms of the number of persons employed. In India, these industries have been differently defined at different times in terms of different criteria.

To begin with, the term small scale industry was applied to all production enterprises outside the jurisdiction of factory legislation, i.e. mechanised and manual units with less than 10 and 20 workers respectively. The increasing use of machinery in small scale production, however, made it

necessary for the government to lay down a more precise definition. From 1953, small scale industry came to be regarded as consisting of all undertakings with a capital upto Rs.1 lakh. In 1956, the dual criteria of the number of persons employed and investment in fixed assets was employed. A unit employing less than 50 persons, if using power, and less than 100 persons, if not using power, and with capital assets not exceeding 5 lakh rupees, came to be known as a small unit.

The criterion of the number of persons employed was discarded in 1960, and the size of industries came to be delimited in terms of the capital investment alone. In 1966, the amount of capital investment was raised from 5 lakh rupees to 7.5 lakh rupees. It may be useful to remember that the old definition in terms of the number of persons employed still holds good for the purpose of labour legislation.

Capital investment has been defined as the investment in plant and machinery. The investment in land and factory buildings is specifically excluded. In 1974, in view of the rise in prices, the Small Scale Industries Board raised the limit of capital investment to 10 lakh rupees in case of small units and 1.5 lakh rupees for ancillary units. Industrial units with an investment of up to Rs.1 lakh came to form a separate class called "tiny sector".

The government announced a new package for the small scale and village industries with the objective of promoting and strengthening the small sector. The new policy was presented in the Lok Sabha by the Minister of State for Industries, Mr. P.K. Thungan. In the policy statement the first step was to revise the limit to small scale and cottage industries. The investment limit in plants and machinery of small scale industries, ancillary units have been fixed at Rs.60 lakh Rs.75 lakh and Rs.85 lakhs respectively. The limit for tiny sector has been raised from the present Rs.2 lakh to Rs.5 lakh, irrespective of location of the unit. During 1997, on the recommendation of Abid Hussain Committee, the govt. has raised the investment limit for small units and ancillaries from Rs.*75* lakhs to Rs.3 crore, and that for tiny units from Rs.5 lakhs to Rs. 25 lakhs. Since 2000, the investment limit for a small scale industrial undertaking is Rs. 1 crore. For an ancillary unit also the limit is the same. However, in plant and machinery the investment limit has been raised from Rs. 1 crore to Rs. 5 crore in respect of 69 items reserved for manufacture in the small scale sector and for all items in the drugs and pharmaceuticals sector. For tiny enterprise the investment ceiling is Rs. 25 lakhs while for a

small scale service business enterprise the investment ceiling is Rs. 10 lakhs.

The distinction between the small units and the large ones, is that the latter fall with in the purview of the licensing system. The small scale units may or may not register themselves. But registration is necessary if they are to become eligible to enjoy the facilities and concessions, granted to the small industries by the government.

Generally the small scale and cottage industries are taken to form a single group, but sometimes, a distinction is made between them on the basis of their characteristics.

Cottage industries are characterised by the following features :

(i) They are the result of the enterprise of individuals who make use of their own resources and carry on work with or without the assistance of their family members. They may provide part time or whole time occupation.

(ii) They employ small amounts of capital and make use of simple tools and techniques.

(iii) They utilise local resources and skills.

(iv) They mostly cater to the needs of a local market.

Small scale industries, on the other hand, have the following features :

(i) Their organisers make use of the capital of other people and carry on work with the help of wage-labour.

(ii) They make use of power-driven machinery and modern methods of production.

(iii) They work on a permanent basis and their output is generally more than in the case of cottage industries.

(iv) They produce goods for widely spread markets through channels of distribution more well-organised than in the case of cottage industries.

Coverage

The concept of “small scale industry” or the “decentralised sector industry” comprises today the heterogeneous elements, such as :

(i) Domestic industries and handicrafts which include semi-natural and small commodity manufacturers.

(ii) The capitalist domestic labour establishments which include the entrepreneurship.

(iii) The capitalist small scale mechanised industry.

Besides these three main classes, there are numerous intermediate forms as well.

The distinction between domestic and non-domestic industries is that whereas the former used the labour of family members, the latter utilises independent producers. Hired labour constitutes only a small proportion. To distinguish the domestic industry from the non-domestic it can be said broadly that a worker, placed in the former produces both for the market and for his personal requirements, uses the family as the source of labour and carries on production at home. In the case of non-domestic industries, on the other hand, production is for the market, hired labour is engaged and separate premises are used for carrying on production. The food, textile, wood work, furniture making and tanning have continued to dominate the structure of India's small scale production. The industries producing building materials, glass and ceramics, metallurgy and metal products, also occupy an important place in the small scale sector. The explanation lies in the huge army of rural artisans carrying on their traditional craft. The dominant position of the above small scale industries is likely to be affected somewhat by the emigration of rural artisans to the new oil rich sheikhdoms of Abu Dhabi, Kuwait, Dubai etc. in the Persian Gulf area. Over all the position occupied by the chemical, general and electrical engineering, printing industries etc, are not of much significance from the employment angle in India, stands in contrast with the position of the industries in Japan, Britain and Germany.

The process of industrialisation was responsible for sounding the death knell of a large number of traditional small scale industries as they could not withstand the competition from the products of the organised large scale industries. But some of the old industries were able to survive by adapting themselves to large scale production by organising themselves into preparatory shops or finishing shops of big undertakings. Some of them also took to the use of modern power-driven tools or to raw material drawn from large scale factories. A classic example is that of the textile group of industries, cotton silk and woollen. The handlooms have been replaced by powerlooms. The tailoring industry has been able not only to survive but even to do well by giving up hand stitching and taking to the sewing machine. The garments industry, as a result of the expanded export possibilities, has in recent years experienced a phenomenal growth of 1600 percent. The hosiery group of industries, as ancillaries to the

modern textile industry (as they make use of cotton and woollen yarn provided by the textile mills) have been doing extremely well on the basis of exports to Eastern countries including Russia.

Similarly manual rice-pounding, oilseed crushing with wooden 'kohlus' and making of earthenware with the potter's wheel have been gradually disappearing. Their place is being taken by mechanised trades. Oilman's 'kohlu' has yielded to power driven expellers, hand pounding of rice to rice-milling, earthenware to metal utensils, copper, bronze and brass, and now aluminium and stainless steel.

The government program of reviving the production of khadi and stimulating village industries has increased the ancillary character of small scale production. The government measures aimed to provide the farmers with additional earning in the off-season also help to establish their ancillary character. Hand spinning is an apt example.

The shortage of many commodities in the market has in recent years afforded scope for a large number of new cottage and small scale industries. Small entrepreneurs have been pioneering the manufacturers of such commodities as stainless steel, kitchenware, fountain pens, electric switches, matches, soaps etc.

The overall costs are high in small industries and they cannot compete with modern industries of mass production. But they enjoy a number of advantages over the latter such as direct contact with consumer's less cost of organisation, capacity to adjust themselves to changes in fashion and design, etc. Moreover, in countries like India, the sociological argument of providing employment near at home secures the future of the small scale industries. Though many of them might change, taking to the production of altogether new products. Their equipment and organisation might also change. But with the increase in large scale production there is a likehood of the scope of the small scale industry also widening equally, if not more.

SIGNIFICANCE

1.Role in Development

The fears most expressed that, with the advent of modern large scale industry, the day of cottage and small scale industries were numbered, has long been dispelled. It is now clear that with their rich past and advances made by them in recent years, they have a place of their own in the country's economy. Faced as India is at present, with an acute shortage of the capital resources and technical know-how considered essential for the development of modern industry and with an overflowing

reservoir of surplus labour supply due to a fast growing population, prospects for rapid industrialisation are far from bright. As cottage and small scale industries are capital light and require only small amounts of it, and as they also do not require very highly advanced technical expertise, they are considered to be eminently suited for promoting the economic development of the country. Even in case of highly industrialised countries like Japan and Germany, the role of the cottage and small scale industries, both ancillary and independent, has been long recognised.

It may, however, be pointed out that the cottage and small industries cannot be a substitute for large scale industries. The latter obviously enjoys advantage of scale and therefore, of higher productivity as compared to the former. But properly integerated in a system, permitting each to operate in its own sphere of advantage, they can help the economy of a country to grow faster and on sound lines than if dependent on one or the other.

It is the realisation of above fact that has made the Indian planner assign the cottage and small scale industries an important role, side by side with the large industry. Though due to the need to concentrate on the development to the basic and heavy industries in the earlier plans, enough funds could not be spared to be spent on them. Every subsequent plan made larger and larger allocations for the small scale industries. These industries, looked upon as suppliers of wage goods, have been given an important role since the second plan laid down the heavy industries based strategy of development. The sixth plan drawn up by the Janata Government upgraded their placing in the national economy. In fact, it had been realised even at the time of the Fifth plan that the small industries could help in meeting the worsening problem of poverty acute shortage of basic necessities and for raising the export earnings. The Janata Government assigned them a key role in the removal of unemployment.

Thus at different stages of India's economic development, the small industries have been assigned significant, varying tasks. They have become a part of country's strategy to secure economic development with social justice.

2.Potential for Employment

The cottage and small scale industries are labour-intensive, i.e. labour-capital investment ratio in their case is high. A given amount of capital invested in them will provide more employment, at least in the short

period, than the same amount invested in large scale industries. This is important in case of an under-developed country like India which suffers from a high degree of under employment, unemployment and seasonal unemployment and where capital is' not forthcoming to industrialise on an extensive scale. The way out for such a country is to concentrate on the development of the small scale industries which require less capital for investment in them than the large scale industries. But their potential for generating employment, however, is very high.

Apart from the fact that the small scale industries require only small amounts of capital for investment in them it is pointed out that they possess certain special features which make them eminently suited for a country like India. These industries can be set up everywhere and anywhere in the country. They can be set up at the very doorsteps of the workers most of whom live in the villages. They do away with the need to move the workers to centres of large industries which are mostly in towns. The need for providing housing facilities to them is obviated as work is available in their own villages. These workers can combine the work in agriculture with that in the industries. As the work in them can be so arranged as to fit in with the rest period in agriculture, the seasonal unemployment can be considerably reduced, if not eliminated.

It is alleged that employment output ratio in the small industries is lower than in the large industries. But it cannot be denied that both the employment capacity and the capital output ratio of the small industries is much higher than of the large industries. This fact is also supported by the evidence from the "Annual Survey of Industries, India 1975". The Survey revealed that the small industries constituting 76 percent of the registered factories had 6.5 percent of the total fixed capital, but accounted for one-third of the total employment and one- fourth of the total output. In case of the tiny sector, the position was still more favourable with 2 percent of the total fixed capital, it accounted for 14 percent of the total employment and 8 percent of the total output.

It can be safely concluded that in a country like India with abundant labour and scarce capital, the problem of unemployment, under employment and seasonal unemployment can only be tackled by having cottage and small scale industries. The relief can be quick and in a short period as the period of gestation in their case is minimal as compared to large scale industries.

The potential of small scale industries for employment is very large. As

pointed out earlier, the handloom industry alone is providing employment to 90 lakh persons. This exceeds the total number of persons employed in the large industries.

3.Capital Formation

The spreading of small scale industries in the rural areas would help to increase the incomes and encourage the habits of thrift and investment among the villagers. Moreover, the villagers mostly use their own capital or borrow from relatives in running the small enterprises. This capital, available only in small quantities, would have remained idle if not used in small industries.

The argument that small industries affect saving and capital formation adversely is erroneous. Although labour productivity in these industries may be low, their total production is large because of the large number of workers employed in them. Moreover, with the adoption of the modern method of production, the labour productivity is bound to increase. The high labour productivity in small industries in West Germany, Japan and other industrially advanced countries prove that this is also likely to be the result in India also. If the facilities, accessible today only to large scale industries, are made available to small industries also, inefficient employment is bound to become efficient employment tomorrow. Earnings will increase and the consumption levels will rise. But since the workers will get employment close to where they live, expenditure on housing etc. will be avoided, leaving behind surpluses.

Further, with higher incomes and consequently higher consumption, the health and efficiency of the rural workers will also improve. This will mean an increase in human capital, which is not less important than savings and capital formation. It will indirectly lead to the same result - more capital formation.

4.Low Cost of Production

Since small industries produce largely for the local market distribution costs tend to be low. The price paid by the consumer come to be lower than the price they would be entailed to pay for a similar product manufactured by a large scale industry. Certain technological developments like electric motors etc. also tend to reduce the cost of production in the case of small industries. On other hand, there are certain costs which must be incurred by large scale industries e.g. cost of providing housing, community centers and other welfare activities or labour. This adds to their costs of production.

The small scale industries enjoy another great advantage. They are able to avoid social costs in the form of air and water pollution, which are a concomitant of large scale industry. If the social costs are also taken into account, the cost in large scale industry will come to be much higher.

5.Equitable Distribution of Income and Wealth

The cottage and small scale industries have the additional advantage that they secure a more even and equitable distribution of income and wealth. On the other hand, the large scale industries in the capitalist economies tend to promote monopolistic trends and bring about more unequal distribution of incomes and wealth leading to their concentration in a few hands only. They involve exploitation of the workers and consumers and lead to the creation of vested interests which hamper equitable distribution and attainment to social justice.

There is more equitable distribution of incomes in case of small scale industries because in their case a large proportion of income generated gets distributed among workers. The distribution is also among a very large number of people who are spread over the whole of country. Regional disparities in income are reduced. Not only are the incomes spread over a large number of people, they are also distributed among those who have generated them.

Some critics argue that the productivity of small scale industries being low, the incomes distributed will be comparatively small. But the argument is not applicable to conditions prevailing in India as the choice for the majority of people is between no job and a job at low rates of wages.

The argument that the workers in the small industries are exploited as they are not organised also does not hold ground, because trade unions can be organised and anti-exploitation laws enacted. The small scale industries do not have monopolistic tendencies and also promote competition. They help the workers to acquire self-confidence by affording them economic security.

6. Utilisation of Undeveloped Resources

Such resources as hoarded wealth, family labour, artisans skills, etc. cannot be used in large scale industries because they lie scattered throughout the country. They can be put to use with the help of small scale industries and the development of the country. These industries also provide opportunities to small entrepreneurs to take risk, experiment with innovation and get going. Their talent would otherwise remain idle or waste.

7. Promotion of Dispersion or Decentralisation of Industries and

Regional Development

Whatever large scale industries have developed in this country so far have shown tendency to centralise themselves in the large towns. This has resulted in over concentration of population in small areas leading to the evils of overcrowding, pollution of air, ill-health and inefficiency of workers. Besides being a health hazard, centralisation is a security risk because, in the event of war, industries thus concentrated, become easy targets for enemy.

It is therefore, of utmost importance to scatter the industries all over the country. This can be best achieved with the help of small scale enterprises. In addition to making use of local resources, decentralisation can help remove regional imbalances. While large scale industries have an urban bias, the small scale industries cater to rural areas. As the latter also do not require elaborate infrastructure for their setting up and successful operation they can be established in different parts of the country. By providing employment, they can minimise regional and social conflicts.

8.Anti-Inflationary

A developing country like India in the early stages of industrialisation has to concentrate on the development of the basic and heavy industries rather than the consumer industries. The heavy industries usually have a long period of gestation and the income generated by payments to labour help to increase prices because of the dearth of consumer goods. The evils of inflation can be kept under check, if cottage and small scale industries are present to add to the volume of consumer goods. Prices could, then, be kept under control.

9.Balance of payments

The small scale industries do not require much foreign exchange for their establishment. To the extent that they *economise* on the expenditure of foreign exchange, they cause no extra burden on the balance of payments. They also add to the foreign exchange kitty of the country through export of their products, some of which are highly favoured by buyers abroad. Readymade handloom clothing items provide a good example.

10.Political and Social Benefits

An underdeveloped country, deprived of the opportunity to develop large scale industry due to scarcity of capital and technical know-how etc. would lack the economic base which is necessary for its social and political stability and security. The small scale industries can help it. All the traits of character such as self-reliance, self-confidence, will to achieve, etc.

which make for a healthy nation can come to be built around the productive activities performed in these industries.

A nation can also avoid the evils which accompany large scale industry. It can save its people from the mechanical and monotonous life associated with big industrial cities.

The small scale industries can also help to preserve the inherited skill of its artisans which would otherwise be lost.

PROBLEMS

The cottage and small scale industries in India suffer from serious handicaps. They cannot be expected to play their proper role in the economic development of the country unless the perplexing problems, with which they are confronted, are solved to make them operate smoothly and successfully. Some of the problems which hamper and retard their progress are :

(i) Supply of Raw Materials

The raw materials are not available to these industries in the required quantities. The quality of the raw materials made available is not upto the mark. The small entrepreneurs are not able to compete against large factories which are able to effect bulk purchases because of their far superior purchasing power. They are mostly left to buy from retail markets and have to pay higher prices and even then be content with the inferior and adulterated raw materials at a time when actually needed by them, this makes them default in fulfilling their contracts for the supply of their products on the appointed date.

The difficulties posed by the non-availability of adequate quantities of raw materials of proper quality and grade place the cottage and small scale industries at a great disadvantage in comparison with the large scale industries. They fail to produce goods in the requisite quantities or of good quality. They are also not in a position to produce goods at cheap costs, as they have to buy the raw materials at high prices.

As these industries need the raw materials in small quantities, they have come to depend upon small traders and middle men who take full advantage of their position to exploit them. The co-operatives were once expected to solve the problem, but they have not been able to do so to any large extent so far.

(ii) Lack of Financial Facilities

A second difficulty which is faced by the entrepreneurs of the small scale industries is with regard to the availability of finance and credit. Until

recently, they had depended on the traditional money-lender. Besides proving to be expensive, the finance raised from the money lenders put these entrepreneurs under many irksome constraints. They were forced to buy the raw materials at high prices and sell the finished products at prices less than those which they could get in the open market.

Prior to the nationalisation of the banks in 1969, the small producers seldom raised loans from the commercial banks. The cooperative societies mainly concerned themselves with the agriculturists and their needs. The result was that most of these industries generally found themselves starved of finance. This affected their productive activities adversely. The position has certainly improved somewhat since nationalisation of the banks and industries are now having more and more dealings with the banks. But even now, there are complaints that the position is far from satisfactory. The loans raised from the financial institution specifically set up for their benefit, have also not been able to meet their requirements in sufficient measure, finance is still the crying need of the cottage and small-scale industries.

(iii) Antiquated and Inferior Methods of Production

Most of the cottage and small scale industries are still making use of the antiquated tools and methods of production. This renders their competitive power vis-a-vis large scale industry, to be much less. This is to be ascribed to the fact that most of the people engaged in these industries are illiterate. Most of them lack the ability and the training to appreciate and adopt new methods of production. They also do not have the means to buy the improved type of the equipment.

If small scale industries in countries like Japan, West Germany, United Kingdom etc. are progressing, it is because they have always been enthusiastic and ever ready to take to the latest ,equipment and up to date technology evolved as a result. of heavy expenditure on research and experimentation.

It is only in recent years, that the value of adopting improved equipment and technology has been realised in India, but even, as yet, it cannot be said that much advance has been made in this direction. If these industries have to play their proper role in the economic development, their equipment and techniques must come to be revolutionised and they should be integrated with the large scale industry.

(iv) Lack of Proper Marketing Facilities

The absence of proper and adequate marketing facilities also places the small producers at a handicap. For want of such facilities, they are

compelled to sell their output to the money lenders who advance them money for the purchase of raw materials etc. Very often, the prices paid to them are un-renumerative than what they would have got if they had been free to sell in the open market. Moreover they do not get the right price as they lack their capacity to hold back their stocks because of their financial needs and have to part with their goods immediately after production. They cannot afford to wait for better prices. There is little gap between production and sale.

Lack of organised marketing facilities also forces them to act both as producers and sellers. A lot of time is wasted in searching for buyers for their products. This time could be better utilised for increasing production. Thus, they get caught in a vicious circus. Lack of proper marketing facilities leads to low prices and waste of time. This, in. turn, leads to less production.

Only lip service has been paid in India of cooperative marketing which has contributed significantly to the success of small scale industries in advanced countries like Japan. There is no reason why cooperative marketing cannot succeed in India if a sincere and wholehearted effort is made to make it a success. These industries would benefit substantially in realising better prices for their output.

(v) Competition from Large Scale Industries

The competition from large scale industries is another difficulty which the small scale industries find very difficult to cope with. The former have with them highly sophisticated and modern technology and make use the latest equipment. They are run on principles of advanced management. They have access to the economies of large scale production. They are, therefore, in a position to produce at low costs and outsell the products of small industries. The result of this competition has been that most of the traditional handicrafts have already perished. Those which have survived have done so because of some special advantages like secured market. But they are fighting a losing battle against their adversaries. Those categories of handicrafts which have been able to withstand this competition have been able to do so as a result of adapting themselves to the new conditions by taking to the use of modern raw materials, improved equipment and technology. They find it difficult to plough their lonely furrow and' can feel secure only by integrating themselves with the large scale industries.

Cosmetic measures like reserving certain lines of production for small

scale producers, or restricting the large producers to producing only certain percentage of the total output, or payment of subsidies or official patronage, may prove effective temporarily, but they cannot be used to provide support to the small industries for a long time. Controls bring in corruption. Dependence on sheltered existence cannot sustain these industries for long. They have to acquire the capability to stand on their own strength to withstand the competition from the products of large industries, both domestic and foreign. They can do so by being in possession of all domestic advantages which at present are available only to large scale industries. A structural reorganisation of these industries is the only remedy. The small scale industries also face certain other difficulties which stand in the way of the marketability of their products. The local and other taxes add to the costs of their products. Lack of a uniform tax policy for the country as a whole has meant division of India into areas of high and low taxation and adversely affects the movement and sale of their products in different areas vis-a-vis the products of large scale industries.

The small industries also suffer from the difficulties of lack of transport facilities, lack of arrangements for research for the improvement of their products. They also suffer from a shortage of motive power. In short, these industries are riddled with problems and difficulties at all stage of their activities. This accounts for their products being less in quantity and poor in quality.

But as compared to all other difficulties the one presented by the inefficient human factor due to illiteracy, ignorance and conservation, is the biggest hurdle which prevent the small industries from attaining their rightful place in the country's industrial structure.

MEASURES FOR THE DEVELOPMENT OF SMALL SCALE INDUSTRIES

Since most of the difficulties which are being experienced by the small industries are closely linked together, only a comprehensive programme and an integrated approach can provide satisfactory solution to them. The problems of the small scale industries have been looked into by a number of expert groups and committees since 1950. Some of their valuable suggestion to bring about improvements in the performance of these industries are as follows :

(I) Selection of the Right Type of Industries

It has been advocated that only those cottage and small scale industries be selected for development which have a chance of further growth and which can manage to stand on their own in the long run. Such industries

can be of the following types :

(i) Which require for the manufacture of their products, traditional skill and hard work like artistic handicrafts, gold and silver ornaments, ivory products etc.

(ii) Which produce goods for use in some industry, e.g. "manufacture" of machines, vegetable oil, pressed cotton, etc.

(iii) Which produce goods which cater to special needs such as manufacture of artificial limbs, etc.

(iv) Which supply goods of a particular design.

(v) The products of which meet a small local and irregular demand.

(vi) The products which involve such operations as assembling, mixing and finishing like footwear etc.

(vii) The products which gain weight in the course of production such as wooden and metal furniture, bricks, etc.

Only industries falling in the above categories deserve to be selected and promoted by undertaking appropriate steps.

(II) Promotion of Industrial Cooperatives

The problems faced by the producers are of various types. Being men of small means and widely scattered, they are unable to tackle them individually. But if they are organised into industrial cooperatives, their problems regarding supply of raw materials, finance, equipment, marketing can be overcome to a large extent.

The state governments have been trying to promote. industrial cooperatives for quite a long time now. But unfortunately, the official initiative in this direction has met only with qualified success. The cause of industrial cooperatives can be served better if the urge to have them comes from the producers themselves. Too much dependence on the Government is neither desirable nor really helpful.

(III) Adoption of Better Methods of Production and Improved Implements

As seen already, the cottage and small scale industries have suffered due to their sticking to old and traditional methods of production and antiquated implements. For their progress, it is necessary that they should modernise their methods of production and make use of better types of implements. It will be certainly helpful if research institutions which evolve suitable technology are established. Demonstrations should be arranged to carry conviction with the producers regarding the practical application of the new methods and improved implements. The latter should also be made

available to them at cheap rates and on hire purchase basis. Suitable arrangements should also be made for their repair. So far as possible, the implements as well as the. new methods of production should be improved versions of the existing ones. Only the implements and methods which have been thoroughly tested should be passed on to them. Any failures will only harden their hostile attitudes and make them more pessimistic about their future.

(IV) Introduction of Goods and Designs of Better Quality

The unsavory reputation of our producers in the small scale industries for producing goods of low quality be resorting to adultration and for indulging in fraudulent practices and misrepresentation need to be checked. It is necessary that they should be encouraged to produce goods of superior quality and new designs which find favour with the customers. This is the only way to popularise their goods with the public at home and abroad. The government can help by ensuring standardisation of products. It can help by guaranteeing the goods and by insisting that only those goods will be sold in the market which are issued a certificate of quality. Production of adulterated and sub-standard goods should be treated as a legal offence attracting punishment.

(V) Facilities for Industrial Education and Training

Adequate facilities for industrial education and training should be made available to those producers who are in the industry and also those persons who are eager to join it. It is only then that the people will be able to take advantage of scientific knowledge and techniques of production. A comprehensive plan for the spread of education, general and technical, among the craftsmen and the imparting of training to small entrepreneurs in managerial and technical skills would help to give a boost to these industries. But above everything else, there is need to inculcate necessary motivation and pride for their occupation in the minds of the small producers to better their lot economically. They must also know that it is only through self-help and not as a result of outside assistance that they can make their due contribution to their own and the country's economic progress. The improvement and upgrading of the small producers themselves is the key to the solution of all the problems faced by them at present.

(VI) Provision of Finance

As seen earlier, the small scale industries find it difficult to meet their needs for finance. The existing capital market is mainly geared to the needs of large scale industry. Moreover, small producers lack adequate

security acceptable to money market, this comes in their way to borrow. Money lenders still continue to be the main source of finance both in the rural and urban areas. The rates of interest charged by them are heavy. Recently the situation has taken a turn for the better as the State Industrial Finance Corporation and the Commercial Banks have started meeting the needs of small scale producers. Much more important is the credit guarantee for Guarantee Scheme of the Reserve Bank of India under which the Bank credit organises financial help to small scale industries.

(VII) Provision of Marketing Facilities

Adequate marketing facilities alone can enable the small scale industries to sustain themselves. No doubt, production of good quality and standardised goods of new designs will help their marketing, but the following step will certainly prove useful :

(i) Properly framed rules and conditions should be laid down to ensure that the producers of good quality goods should get a ready market and fair prices for their goods.

(ii) Export potential of good quality goods should be explored in order to tap foreign markets.

(iii) The domestic markets should be surveyed to find out the trend in demand so that the pattern of production is to confirm to the market.

(iv) For some time at least, the Government should buy a certain percentage of its requirements from the producers.

(v) To help the producers, cooperative marketing should be encouraged, but taking care to avoid too much of the movement.

(VIII) Demarcation of Spheres of Large and Small Scale Industries

Products which can best be produced by the small sector should be reserved for it in order to avoid competition from large scale industries. In case of goods in which competition between the two sectors does exist, a ceiling on the production of large industry be imposed, if the product is ultimately meant to be reserved for the small sector. However, where the advantages lie with the large sector, the units in the small sector should be gradually closed and the workers absorbed elsewhere. Where the small industries produce ancillary goods for large industries, smooth functioning of both should be ensured by drawing up joint programmes of production. The idea behind demarcation is not to isolate the two sectors

from each other but to integrate them so that both play their role effectively.

In the end, the caution may be repeated that only a comprehensive and an integrated programme of measure will be effective to pull the small scale industries out of the morass they find themselves in.

GOVERNMENT POLICY AND MEASURES

The attitude of the British Government towards cottage and small scale industries was one of the lip sympathy only. But in independent India, the Government policy underwent a welcome change. With each successive Five Year Plan, the role assigned to these industries came to be enlarged and the allocations of funds for their development increased. Specific measures have been taken to encourage their development.

While the Central Government formulates the policy and coordinates the programmes and provisions of technical assistance training, services providing economic information etc. the States have a basic constitutional responsibility for the development of small industries. The latter have set up Directorate of industries and other supporting financial marketing and statistical agencies. They have also appointed special Development Commissioners.

The new principles underlying the Government policy may be summed up as :

(i) Levying a cess on the products to the corresponding large scale industries to assist cottage and small scale industries.

(ii) Affording temporary protection to such industries by reserving the spheres of production or through payment of subsidy. In pursuit of this principle, a certain percentage of certain lines of production like 'Saris' was reserved for handloom (60% for mills and 40%, for handlooms). A cess was levied on mill-made cloth and discount in price permitted. In case of oil crushing industry a certain percentage of production was reserved for cottage industry.

(iii) Disallowing further extension of large scale industry particularly the processing industries except when undertaken in the public or cooperative sectors.

(iv) Giving of financial assistance by the Government for holding exhibitions, opening sales depots and the emporia for promoting the products of small industries.

The government has also established a large number of boards and other organisations to he1p the small industries in various

ways. They have been vested with large powers and initiative. Adequate funds have been placed at their disposal to function effectively. Some of them are :

(a) The Cottage Industries Board has been set up with a view to developing cottage industries.

(b) The All-India Handicrafts Board looks after improving and developing production handicrafts and promoting sales at home and abroad.

(c) The All-India Handloom Board which lays special emphasis on the organising of cooperative among weavers and the marketing of handloom products.

(d) The Central Marketing Organisation which has been set up at Chennai has been given financial assistance for the setting up of common facilities for dying, finishing and processing, for supply of improved implements, for marketing and sales depots etc.

(e) The Khadi and Village Industries Board which is chiefly meant for the development of Village Industries.

(f) A Board for small Industries has been also set up in 1954.

(g) The Central Small Industries organisation which undertakes programmes of technical assistance known as Industries Extension Services. It has set up a number of small industries Institutes and training centres.

(h) The Inventions Promotion Board gives financial assistance and awards to promote inventions by artisans.

The State Governments have set up "industrial estates" to encourage the starting of small industries outside the towns, semi-urban and rural areas. Focal points have also been declared where assistance is provided for setting up small industries."

New Package for Small Industries

In the New Industrial Policy announced on 24th July 1991, it was decided that "government will provide enhanced support to the small scale sector so that it flourishes in an environment of economic efficiency and continuous upgradation.

A package for small and tiny sectors of industry was announced separately later on, 6th August, 1991. "The policy statement says that it meant to impart more vitality and growth impetus to the sector to enable it to contribute its might fully to the economy; particularly in terms of growth

of output, employment and exports. The sector has been substantially delicenced in order to debureacuratise and debureacratise the sector with a view to removing all fetters on its growth potential reposing greater faith in small and young entrepreneurs.

The main highlights of the package are :

(i) Revision of investment limits in plants and machinery for small-scale and ancillary units.

(ii) Investment limit for tiny units raised from Rs.2 lakhs to Rs.5 lakhs.

(iii) Separate package for tiny sector.

(iv) Scope of National Equity Fund Scheme widened, to cover projects upto Rs.10 lakhs for equity support upto 15 percent.

(v) Single Window loan scheme enlarged to cover projects up to 20 lakhs.

(vi) Greater financial support to small scale industries through commercial banks, adequate flow of credit on a normative basis, special monitoring agency to oversee the credit needs of the SSI sector.

(vii) Better marketing facilities.

(viii) New deal for the handicrafts and handloom sector, scheme for training and design development and for production and marketing assistance will be encouraged.

(ix) Equity participation up to 24 percent to promote modernisation arid technical upgradation in the SSI.

All these steps are being implemented from immediate effect to encourage and develop small scale industries. We are to see to what extent and with what zeal these are honestly implemented and in the end to what extent they help to achieve our objectives.

Recent initiatives and measures taken by the govt. include the enactment of the Micro, Small and Medium Enterprises Development (SMED) Act, 2006. It provides the first ever legal framework for recognition of the concept of enterprises and integrating the three tiers of these enterprises, viz. micro, small and medium. A package for poromotion of micro and small enterprises has been approved to address most of the concerns in areas such as credit, infrastructure, technology and marketing.

There has been a gradual relaxation of reservation policy, and the number of items reserved for the small scale sector was 239 on January 22, 2007.

SUGGESTED READINGS

1. Ruddar Datt and Sundharam : Indian Economy
2. Misra and Puri : Indian Economy
3. Economic Survey : 2006-07, 2007-08.

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INDUSTRIAL POLICY IN INDIA SINCE INDEPENDENCE

In common usage the term industry refers to manufacturing activity, which if broadly interpreted may include the operations of the extractive sector also, but not cultivation and services. Thus, Industrialisation refers to the development of manufacturing and extractive industries. Most under-development countries to today look upon industrialisation as the panacea for solving problems of economic backwardness and poverty. And it cannot be again said that a policy of carefully lanned industrialisation could help to solve these problems as has happened in the case of the advanced countries of today. As such industrial policy becomes a vital component of the development plans of most of the developing countries, India is not an exception.

Need for Industrialisation

The need for industrialisation in India arises both from the general backwardness of the economy as well as from the desire to solve certain specific problems such as that of unemployment and low productivity of labour and capital. It is not the intention here to trace the decay of early Indian handicrafts or the evolution of modern industry in the country. Suffice it to say that on the morrow of independence India was still a predominantly agricultural country and such little growth of modern industry industry as had taken place, was neither balanced nor wide spread, though the railways had perhaps spread a veneer of modernisation across Indian sub continent. Whatever little industrialisation had taken place it was under the stress of the two world jogged along a bit by the spirit of the Swadeshi movement. But it was considerably atrophied when the country was partitioned on the eve of the independence. Thus, the stark poverty and the staggering dimension of development effort needed to pull the country out of the morass, were justification enough for a concerted and planned attempt to industrialise it.

Another dimension of industrialisation of India is that it requires creation of institutional arrangements to encourage new methods of production

and investment in technical and managerial skills and in social overhead capital so vital for enabling directly productive investment to become possible. But social overhead investment usually has a long gestation lag and lower profitability which scare away private enterprise and makes state intervention a necessary condition of rapid industrial development of the under developed economy such as that of India. Thus, a long-term and consistent industrial policy is vital for the process of industrial development.Independence of India was accompanied by the country's partition and widespread industrial unrest. There was also what came to be known, as a "crisis of confidence" between the Government and the entrepreneurial class and yet a widespread desire to harness the resources of the nation for long-range industrial development. Thus, the first industrial policy resolution was formulated by the Union Government in the form of resolution in April 1948, which laid down government's industrial policy for the next then years. However, government passed a revised industrial policy resolution in 1956, on the eve of the country's Second Five Year Plan, two yeas ahead of the stipulated time.

Industrial Policy Resolution 1948 :

The purpose of the IPR was to increase national and per capita income through rapid industrialisation. The main objectives of the Industrial Policy Resoultion (IPR) 1948 were defined as follows :

(a) to promote a just and equitable social order;
(b) to promote rapid rise in the standard of living of the people;
(c) to accelerate production to meet the needs of growing populations;
(d) to provide increasing opportunities for employment.

The First Five Year Plan of the country endorsed the above resolution and also laid down that private enterprise should have a social purpose. It may also be noted at this stage that the constitution, which came into force from January 26, 1950, laid down certain Directive Principles for the guidance of the state. Among these the economic clauses relevant to our subject enjoined the state to ensure that : (i) ownership of material resources of the community are so distributed as best to subserve common good and the (ii) operation of the system shall not result in concentration of wealth and means of production.It is obvious that these objectives could not be achieved by striping to the traditional policy of laissez-faire which the pre-independence Government of India had adopted. The state now for the first time assumes an active role in

promotion of industrial development and economic well-being, equity and social justice to all its citizens without any distinction of caste, creed or religion. The large-scale industrial sector of economy was divided into four categories according to the pattern, ownership and control envisaged for its development. Category 'A' consisted of industries which may be described as "strategic" because they were considered vital for the security of the country. These industries were manufactures of arms and ammunition, the production and control of atomic power and the ownership and management of railway transport system. These industries were proposed to be exclusive monopoly of the state. Further in any emergency the government would always have to power to take over any industry vital for national defence.

Category 'B' consisted of the following six industries in which, the resolution said "the state will be exclusively responsible which were the national interest, the state itself finds it necessary to secure the cooperation of private enterprise, subject to such control and regulations as the Central Government may prescribe.

(1) Coal; (2) Iron and Steel; (3) Aircraft manufacture; (4) Ship-building; (5) Manufacture of telephone, telegraph and wireless apparatus excluding radio receiving sets; and (6) Mineral oils.

However, the resolutions provided that without prejudice to the State's inherent right to acquire any industrial undertaking the existing undertakings in these fields may be allowed to develop for a period of ten years during which they will be allowed all facilities for efficient working and reasonable expansion."

The third category 'C' consisted of 107 industries which were to be under "Central regulation and control" in as much as "their location must be governed by economic factors of all "India Import" or "they required considerable investment and a high degree of technical skill".

"The rest of the industrial field will normally be open to private enterprise individual as well as cooperative. The state still also progressively participate in the field; nor will it hesitate to intervene whenever the progress of a industry under private enterprise is unsatisfactory."

In addition to classifying various industries as above and describing the respective role of the state and the private industry and their inner-relationship the Industrial Policy Resolution 1948 made a few other points. First, the resolution emphasizes the importance of the cottage

and small-scale industries in India's economy. "offering, as they do, scope of individual, village or co-operative enterprises and means for rehabilitation displaced persons", and the desirability of decentralizing large industries wherever conditions permit.

Secondly, resolution indicated government's industries of designing "tariff policy so as to prevent unfair foreign competition and to promote the utilization of India's resources without imposing unjustifiable burdens on the consumer." Thirdly, the resolution recognized India's need for foreign capital and enterprise particularly as regards industrial technique and knowledge but considered it necessary to regulate the conditions of its participations in the national interest and called for suitable legislation empowering government to scrutinize individual cases of participation, to ensure control in the hands of Indians except in very exceptional cases, and to ensure the training of Indian personnel to replace foreign experts. Finally, the resolution enunciated a policy of social justice, fair working conditions and equitable remuneration which should provide for profit-sharing "after making provision for payment of fair wages to labour, fair return on capital employed in the industry and reasonable reserves for the maintenance and expansion of the undertaking."

Evaluation :

The policy resolution had a mixed reaction in the country. Those with 'leftist' leanings welcomed state initiative in industrialisation as well as proposals to regulate private industry. The business community regretted that the area of private enterprise has been restricted. They also felt that the talk of controlling private enterprise and the threat of take-over would inhibit private enterprise considereably. More criticism in the same strain 'was made by industrialists when a few years later in 1951 the government passed the Industries (Development and Regulation) Act 1951 which has been the main instrument of implementing industrial policy, with its licensing and capital issues control. However, eight years after the 1948 industrial policy resolution and at the beginning of the second Five Year Plan the Central Government thought it proper to reconsier and revise the industrial policy in the light of the experience gained. Thus a new Industrial policy Resolution was presented in April 1956.

Industrial Policy Resoultion, 1956 :

Since adopting socialist pattern has already been declared as an objective of economic policy it was naturally reflected in the structure of policy which assigns dominant and leading role to the public sector.

Objectives :

The basic objectives of the policy were defined as :

(i) To accelerate the rate of economic growth and to speed up the industrialization of the country;

(ii) To reduce the disparities in the income and wealth;

(iii) To prevent the growth of monopolies and concentration of economic power in few hands;

(iv) To develop heavy and machine building industries in the country; and

(v) To enlarge the scope of public sector enterprise as well as the cooperative sector.

The 1956 Industrial Policy Resolution classified Industries into three categories in order to specify the roles respectively of the state and the private sector. The first category consists of 17 industries which may be described as defence industries, basic and key industries, minerals and transport and communications industries. These included Arms and Ammunitions, Atomic Energy, Iron and Steel Heavy machinery and Electricals, Coal, Mineral oil, Mining of Iron-ore, chrome-ore, manganese-ore gypsum, sulpher, diamond and gold, Mining and processing of copper, lead, zinc, tin etc. Minerals connected with production and use of atomic energy, Aircraft, Air and Railway transport, Shipbuilding, Electricity (generation and distribution). Telephone/Telegraph/wireless equipment. Industries in this group were to be the exclusive responsibility of the state, but it could take the help of the private sector if and when the interest of the country requires it.

The second category consisted of 12 industries. They include minerals (except minor minerals) not included in the first category, Aluminum and others non ferrous metals not included in the first category. Basic and Intermediate chemicals and products required by the chemical industries, Anti-biotics and essential drugs, Fertilizers, Road and Sea Transport, Synthetic rubber, Carbonisation of Coal, chemical pulp. In these industries the state would progressively take initiative to set up new units through private enterprises the state would co-exist side by side the state and may even supplement state enterprise. Thus it was a sort of mixed sector.

The rest of the large-scale industries were left to the initiative of private enterprises subject to the social control by the state with a view to ensure conformity to the objective and social purpose of a planned economy. The new policy was more clear in its classification of industries and in its perspective on policy. It guaranteed a more assured place to private enterprise and limited direct state investment and intervention to basic and key industries and provision of infrastructure which would help to promote new enterprise. The new IPR also emphasized the establishment of an appropriate financial institution for meeting the various types of the need of modern industry. It once again emphasized the important role of cottage and small scale industries as well. It was the need for harmonious labour management relations, need for equity in payment of wages and sharing of benefits and of joint consultations between them in many matters of management, all of which have remained pious sentiments. The new policy also took note of the widening inter-regional disparities and emphasized the need for regional balance in the development of the vast and diverse country.

Evaluation :

There is no doubt that the new IPR was more comprehensive and it took note of the many sidedness of the process of industrialization. The then World Bank President Eugene R. Black described it as a Magnacarta for the private sector, which by now, had begun to appreciate that the state has a responsibility and an inevitable role to play in the economic development of country and that the task of industrial development was too much stupendous a task for private enterprise to accomplish on its own. In the country at lare there was a better appreciation of roles and relationship between the public and the private sectors. In a way the new IPR 1956 articulated the emerging consensus on Industrial policy, with in the country though there were some discordant voices.

Industries (Development and Regulation) Act 1951

As said earlier, the government enacted the Industries (Development Regulation) Act, 1951 which became the main instrument for regulating the private sector and implementing the industrial policy. The main instrument employed under the Act was licensing system, which had been created and used during second world war to ensure adequate flow of resources for war production industries. However, it was continued to be used to regulate Industrial production in accordance with priorities fixed in the plans. The act listed a number of industries in its scheduled

and provided five types of licenses for (i) new undertaking; (ii) substantial expansion; (iii) production of new articles; (iv) changes in location-either part or whole of unit; (v) carrying on business. Through these licenses it was thought that industrial production would grow according to planned priorities and location of industries would also be regulated in the interest of balanced regional development. The instrument for inplementing the licensing policy was the Licensing Committee. The Act provided for compulsory registration of undertakings in scheduled industries. Further, the Act gave government wide powers to order investigation of any under taking where ever it had reason to believe that the resources were being misused or in efficiently used or wherever it felt an enquiry was needed in public interest. The government also acquired the power to take over the management and control of any undertaking, in the public interest. Simultaneously the government also insisted capital Issues Control and regulated imports of capital goods. Development Councils were created for scheduled industries. They consisted of efficiency or productivity and better service to the consumers. Government was authorized to levy access of Scheduled Industries and the fund so raised to be used

(i) to promote scientific research,
(ii) to improve design and quality and
(iii) to train workers, besides meeting the expenses of the councils themselves.

Central Advisory Councils were also constituted, representing all concerned interests to advise the government on general principle to be followed regarding grant of licenses.

Evaluation : The working of the licensing system left much to be desired. There were many complaints of concentration of economic power, of growing inequlities of income and wealth and of interregional disparities. In 1960 a committee headed by Professor P.C. Mahalonobis and appointed to study recent trends in the distribution of income and wealth and to ascertain the extent of concentration of the means of production due to determining its extent in the absence of a full-dress inquiry in the system of ownership and control of the corporate sector. On its suggestion a Monopolies Inquiry Commission was appointed in 1964 to inquire into the extent of concentration of economic power, the factors responsible for it, the social and economic consequences following from such concentration and to suggest remedial measures.

ommendations of Dr. Hazari committed report were :

Firstly, the Planning Commission should distinguish between conclusive targets and indicative targets and also specify major priority areas, for which the target should be conclusive and all complementary assistance should be given to licenses in these priority areas.

Secondly, before entering into foreign collaboration or importing technology, every effort should be made to explore the possibilities of indigenous technology capacity and capability. To this end more effective use should be made of the expertise available with the Director General of Trade and Development.

Thirdly, region-wise allocation of productive capacity should be indicated at the beginning of the plan and revised bi-annually. Similarly, reservation in respect of small-scale industries should be made and specified at the beginning of the plan period.

Fourthly, Dr. Hazari suggested that no capital goods licenses should be given to large industrial houses identified by the Monopolies Inquiry Commission. Nor should the public financial institutions show any undue favour to these large industrial houses.

Fifthly, fiscal and other concessions and subsidies should be given only to industries assigned priority in the plans and these should be related to large output, to lower costs (i.e. increased productivity) and to higher profits.

Sixthly, import substitution policy should be based on a thorough analysis of comparative costs and benefits and imports should be liberalized in the interests of diversification.

Finally, the defaulters who fail to utilize the licenses sanctioned in their favour within a specified time limit should be penalised by cancellation of their licenses and forfeiture of their feasibility records, both of which should be transferred to an alternative entrepreneur/agency for implementation.

The committee found that while government laid dows production targets for different industries it said nothing about phasing of these targets. Therefore most of the licenses were given away in first two years of the plan. Getting a license was the first hurdle, failure to obtain foreign collaboration import licenses etc. could render a license instruction. If found it difficult to say whether these licenses were sanctioned strictly, in accordance with government policy because of ambiguities in that policy itself-e.g. Government did not specify which industries were to be developed in small scale sector or the cooperative sector. The IPR was

also ambiguous about the role and relationship between the large-scale, medium-scale and small scale industries. Hence licensing had a very restricted and in effective scope in the matter. Nor did the government specify backward areas or the industries to be located there, not did indicate any criterion by which the committee could determine these. Thus the licensing committee could not ensure regional dispersion of industries. Nor was the licensing in a position to ensure the effectiveness of import substitution policies. It was found that in many cases there was inadequate scrutiny of the applications for such licenses to ascertain whether import of the product was justified in terms of the priorities to plans. Nor was any attempt made to relate productive capacity to demand. Committee also found that many foreign collaborating agreements were entered into without adequate justification.

Dutt Committee made many significant recommdendations. Why licensing system it has worked in the past could not ensure the development of industries according to ? it is obvious that licensing has a verysmall role in preventing concentration of economic power. Therefore, it is suggested that licensing is an instrument of industrial planning and development should be limited to the "Core Sector of the plan and that its working should be coordinated with other instruments of policy and planning e.g. fiscal, technical and other forms of assistance, important licensing and coordination with capital Goods Committee, Foreign Agreement committee etc. There should also be close coordination between financial institution and the ministries concerned with industrial development. Thus it implies that if allied plan decision have to be rational it should be based on previously workout detiled plan of development of the particular industry and its inter-industry relationships. The plan must formulate detailed projects with appropriate techno-financial locational polices. The Committee also recommended that large industrial houses and foreign companies/collaboration should be confined to the "core sector" industries only. (The large industrial houses was defined by the Committee as one with capital assets exceeding Rs. 35 crores-including the project proposal under consideration if sanctioned).

The committee further recommended that where most of the cost of the new project was to be met by public financial institution that project should be in the public sector or wherever considered advisable in the "Joint Sector" so that public financial institution may not be exploited for private industrial empire building. As a result of these several inquiries

and the changing economic relations of Government has been reviewing its industrial policy from time to time and announced some changes ever since February, 1970, with a view to liberalise it and to remove impediments in the path of industrial progress.
The changes may be summarised as follow :
The limit to investment of new undertaking and expansion of old requiring license, has been raised to under rupees one crore if they don't require foreign exchange. While licensing was liberalised for productive capacity requiring investment more than rupees one crores and under rupees five crores. A number of industries were also rescheduled; Basic, strategic and critical Industries constitute the "core sector" and provided all inputs on priority basis.
Policy state that industries in the "core sector" & those requiring an investment of more that Rs. 2 crores were opened to large industrial houses and foreign concerns (subject to the reservation made in favour of the public sector in the IPR, 1956). But Monopolies and Restrictive Trade Prectices Commission was to screen application from the specified large industrial houses as well as those which were likely to attract the MRTP Act after the including of the scheme in order to prevent further concnetration of production. Government had also specified reservation in favour of small scale industries sector & also announced schemes of special assistance to cooperative sector units and for industries to be located in backward districts which had been identified. A joint sector idea covering major projects in the "core sector" and projects requiring heavy investment was also mooted but it has remained a non starter so far.
When after the 1977 elections a new Janta Party Government was installed at the Centre it made some more innovations in industrial policy, the most important of which was the creation of District Industries Centre and plans to establish a few nucleus plants in each backward district. But the Government was much too shortlived to implement its own policy.

1980 Industrial Policy :

There was a change in the government at centre and so the announcement in respect of industrial policy was made in July 1980. It placed renewed emphasis on the role of public sector as also on the mixed economy. This statement upheld its faith in the public sector as the provider of "the pillars of the country's economic infrastructure". It

also thought of private sector as a desirable segment of the Indian economy which should develop "in consonance with targets and objectives of national plants and policies". The statement also stressed that government "shall not permit the growth of monopolistc tendencies, and concentration of economic power and wealth in a few hands."
This statement viewed the large and small industries as intimately related to one another and implied no conflict between them.
This policy statement put forward the concept of economic federalism. It consists of setting up a few nucleus plants in industrial backward districts to generate as many ancillaries and small and cottage units as possible. The nucleus plant would be an assembly plant.
The small units were to be given special attention. The 1980 policy raised the limit of investments of (i) tiny units from Rs. 10 lakhs to Rs. 20 lakhs and (ii) ancillary units Rs. 15 lakhs. This policy renewed its faith in the industrial development as a total of correcting regional imbalance. This policy lays great stress on the energy conservation in respect of traditional sources of energy, reduce their use and the development of new sources of energy like solar energy.
The policy underlined the need of the maintenance of constructive and cordial industrial relation so that both labour and management can cooperate in responsible manner for the sustained growth of Indian Economy.

Major Changes in Industrial Policy in the Wake of New Economic Policy :

Recent changes in Industrial Policy are in continuation of the changes introducted in 1980 and 1985-86. But quantum of changes make qualitatively different in nature. The changed Policy announced on 24th July, 1991 is titled as New Industrial Policy. Objectives of this policy have been to correct the distortions or weakness in the industrial structure and maintain a sustained growth in productivity, gainful employment and attain intenational competitiveness. For this policy of liberalisation both at domestic as well as foreign level has been carried to the logical conclusion. The package of changes have been announced in two phases. In the first phase large industrial sector is covered. For small sector changes are introduced in the second phase in August 1991. Therefore, policy changes are divided into two parts in our discussion :

1. Policy changes in large industrial sector, and
2. Policy changes in small industrial sector.

Changes in Large Sector :

Changes to policy in this sector has been announced under the following heads :

A. Industrial Licensing;
B. Foreign Investment;
C. Foreign Technology Agreements;
D. Public Sector Policy; and
E. M.R.T.P. Act.

A. Industrial Licensing :

Licensing has been abolished with all the industries except 18 which include coal, sugar, motorcars, cigaretts, hazardous chemicals, drugs and pharmaceuticals, entertainment electronics, white good (refrigerators, domestic washing machines, air conditions etc.) industrial explosive, petroleum and products, distillation of alcholic drinks, animal fats and oils, asbestos and based products, plywood and docorative material, Raw-hides and skins paper and new sprint exept bagasse based units. The compulsory licensing provisions would not apply in respect of small scale sector. These specified industries will be subject to compulsory licensing for reasons related to security and strategic concerns, social reasons, problems related to safety and environmental issues and manufacture of hazardous nature of products and articles of elitist convern.

Government considers that exemption from the licensing will encourage small and medium range enterpreneurs who has been unnecessarily hampered by the licensing system. This is supposed to benefit the entire-economy by making it more competitive, efficient and modern.

B. Foregin Investment :

The relationship between domestic and foreign industry is being made dynamic than in the past in terms of both technology and investment. Foreign investment is being welcomed for country's industrial development. In high priority industries, it has been decided to provide

approval for direct foreign investment upto 51 percent foreign equity. There shall be no bottlenecks of any kind in this process. 34 industries have been listed in this category, they are metallurgical industries, Boilers and Steam Generating Plants, Prime movers (other that electrical generators), Electrical Equipment, Eletronic equipment, Transportation, Industrial Machinery, Agriculture Machinery, Earh moving Machinery, Industrial Instrument, Scientific Instruments and Laboratory Equipment, Nitrogenous and Phosphatic Fertilizers, Chemical (other than fert-ilizers), chemicals for industrial use, Drugs and pharmaceuticals, pate Glass, Ceramics, Cement products, carbon and carbon products, pre-tensioned High pressures RCC pipes, Rubber Machinery, Printing Machinery, Welding Electroles, Industrial Synthetic Diamonds, Photosynthesis etc. Extraction and up grading of Minor oils, pre-fabricated Building Materials, Soya Products, High yielding and synthetic seeds, Food processing Industries, and Hotels and Tourism related Industry. Clearance will be available for foreign exchange requirement for imported capital goods. The payment of dividents are to be monitored through RBI so as to ensure that outflows on account of dividents payment and balanced by export earnings over a period of time. Foreign equity proposals including proposals involving 51 percent foreign equity in non-priority areas will continue prior clearance. Majority foreign equity holding up to 51 per cent is also permitted for trading companies primarily engaged in export activities and they will be treated at per with domestic trading and export houses in accordance with the import-export policy.

A special Empower Board is entrusted with the task of negotiation with a number of large international firms and approve direct foreign investment in selected areas.

C. Foreign Technology Agreements :

For import of foreign technology following steps have been decided :

(i) Automatic permission will be given for foreign technology agreements in high priority industries upto lumpsum payment of Rs. 1 crore, 5 per cent royalty for demestic sales and 8 per cent for exports subject to total payment of 8 per cent sales over a 10 years period from the date of agreement of 7 years from commencement of production. The prescribed royality rates are not of taxes and are to be calculated according to standard procedures.

(ii) For Non high priority industries also above guidelines will be followed.
(iii) All other proposals will need specified approval and
(iv) No permission will be necessary for hiring of foreign technicians & foreign testing to indigenously developed technologies. Payment will be made from blanket permits or free foreign exchange according to RBI guidelines.

D. Public Sector

Industries resaved earlier for exclusive development by public sector have been restricted to 8. They are Arms and ammunition and allied items of defence; Atomic Energy; Coal and Lignite; Mineral oils, Mining of iron ore, Manganese ore, Chromic ore, gypsum, sulphur, gold and diamond; Mining of copper lead, zinc, tin, molybdenum and wolfram; Minerals specified in the schedule to the Atomic Energy; and Railway transport. These industries belong to strategic, high tech, and essential infrastruture. Though reservation has been given to public sector but there would be no bar for areas exclusively to be opened p to private sector selectively. Similarly public sector will be allowed entry in areas not reserved for it. Chronically sick units in public sector will be referred to the Board for Industrial and Financial Reconstruction (BIFR) or other similar high level institutions created to protect the interests of the workers likely to be affected by such rehabilitation packages including closures.

To raise resources and encourage wide public participation a part of the government's share holding in public sector would be offered to mutual funds, financial institutions, general public and workers.

Board of public sector companies would be made more professional. Management will be given greater autonomy and will be held accountable for performance.

E. Monopolies and Restrictive Trade Practices Act.

The threshold limits of assets in respect of MRTP companies and dominant undertakings has been done away with. This eliminates the requirements of prior approval of Central Govt. for establishment of new undertakings, expansion-merger, amalgamation and takeover and appointment of directors under certain circumstances.

MRTP commission will concentrate on controlling and regulating monopolistic restrictive and unfair trade practices and is authorised to initiate investigations on companies complaints received from individual consumer in these matters. To enable the MRTP commission to exercise

punitive and compensatory powers necessary amendment in the Act. has been decided.

2. Policy Changes for Small Sector :

The primary objective would be to impart more vitality and growth impetus to the sector to contribute its might in terms of growth of output, employment and exports of the country. To remove all fetters on its growth potential following Policy initiatives are taken :

(A) Investment Limit :

Investment limits in plant and machinery of small scale industries, ancillary units and export oriented units have been kept at Rs. 60 lakhs, Rs. 75 lakhs and 75 lakh respectively. Such limits in respect of Tiny enterprises have been increased from Rs. 2 lakhs to Rs. 5 lakhs, irrespective of location of the unit. All industries related to service and business enterprises irrespective of their investment ceiling would correspond to those of tiny enterprises.

(B) Financial Support :

While the small scale sector other than tiny enterprises would be entitled to one time benefit like preference in land allocation, power connections, access to facilities for skill technology up-gradation, the tiny sector will be eligible for additional on continuing basis including easier access to institutional finance, priority in government purchase programme and relaxation from certain provisions of labour laws.

It has been decided to widen the scope of National Equity Funds Scheme to cover projects upto Rs. 20 lakhs with working capital margin upto Rs. 10 lakhs. Facilities available through State Financial Corporations (SFCs) and State Small Industries Development Corporations (SSI DCs) would also be channelised through commercial banks. A special monitoring agency would be set up oversee the genuine credit needs of small scale sector.

Other industrial undertakings have been allowed equity participation in small scale industries upto 24 percent of the total share holdings. This is supposed to encourage ancillarisation and sub-contracting. A suitable legislatin is also being passed passed to ensure prompt payment of small industries bills.

(C) Infrastructural Facilities :

A new scheme of integrated Industries Development for small scale industries is being implemented with active participation of state Government and financial institutions. This includes setting up of Technology Development Cell (TDC) in small Industries Development organisation. TDC would co-ordinate with tool rooms and process-cum product development centres. These measures will help in technology modernisation and make available needed raw materials.

(D) Marketing and Exports :

Marketing of products of the small industries will be promoted through National Small Industries Development Organisation (SIDO). Process of ancillarisation and sub-contracting of small units with the large enterprise in public sector will be encouraged.

SIDO has been recognised as model agency to support the small scale industries in export promotion. An Export Development centre is being set up in SIDO to help this sector in this matter through a network of field offices.

(E) Other measures :

Several other measures have been annouced for promotion of small scale industries. They include measures to promote entrepreneurs, simplication of rules and procedures and special provisions of the resources, materials and facilities for village industries particularly handloom sector, handicrafts sector and other village industries.

The policy changes announced for small scale sector intend to create greater integration of small sector with the large industrial sector. It is entrusted with the task of creation of large employment and held the country in earning of large amount of foreign exchange. The changes announced are also in consonance with the policy measures of large sector in terms of greater liberalisation of the economy and promotion of competition in the country.

Assessment :

The recent policy changes are motivated to productivity improvements though greater privatization, decontrol, liberalisation and greater competition both at national as well as international level. The greater efficiency in resource use and technological up gradation is expected to boost the rate of growth of industrial sector of the economy. The objective of growth is given preference over other objectives of the policy in India. The critics of the policy changes point the following difficulties which need serious attention.

a.Social Justice :

Removal of MRTP limits for large monopoly houses, open invitation of MNCs abolition of licensing for large number of industries and move of

privatization of public sector enterprises are steps which ensure greater expansion of assets and income of monopoly houses in the country. This will add further to meet the need of the upper sections of the society. The commodities of mass consumption which are consumed by the poor will be ignored. The complete neglect of objective of social justice will have serious long term social implications which country cannot afford to ignore.

b.Self Reliance :

The main thrust to the recent policy is to integrate the industrial sector of the country with the global economy. Increasingly, this sector will produce for foreign markets, and will invite more foreign firms and their capital and technology leading to increased dependence on foreign sources both for market as well as for capital and technology. This will undermine long cherished objective of the self reliance on one hand and add to India's already deteriorating balance of payment problems.

c.Employment

India is suffering from unemployment problem. This is contributed by a strong demographic pressure on one hand and slow expanding employment on the other hand. In the decade of 1980's the large private sector in the country did not contribute any additional employment. Whatever little additional employment has been created it has been by public sector enterprises and the small scale sector. Both these sectors will suffer due to recent policy changes and large private (both Indian and Foreign) sector will gain in terms of resources and output. This will badly affect the process of creation of additional employment. Consequently, the problem of unemployment will become more serious. The first victims of the unemployment will be women and children from the very poor families.

Thus, the thrust of new industrial policy is to promote rate of industrial development pushing the other objectives of economic policy at the second place.