CHAPTER II

ROLE OF AGRICULTURE IN INDIAN ECONOMY
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Agriculture forms the backbone of Indian economy and despite concentrated industrialisation in the last five decades, agriculture occupies a place of pride. Being the largest industry in the country, agriculture is the source of livelihood for over 70 per cent of population in the country. The significance of agriculture in the national economy can be best explained by considering the role of agriculture.

Indian agriculture had reached the stage of development and maturity much before the now advanced countries of the world embarked on the path of progress. At that time, there was a proper balance between agriculture and industry and both flourished hand in hand. This situation continued till the middle of the eighteenth century. The interference from the alien British government and its deliberate policy of throttling the village handicrafts and cottage industries destroyed the fibre of balance and the economy of the country was shattered. Britishers pursued a typical colonial policy in India and did nothing to develop (or restore) agriculture. Instead, they created a class of intermediaries known as Zamindars who sucked the very blood out of the rural poor. A substantial part of the produce was taken away by this parasitic class and the actual cultivator was left only with subsistence income. The cultivators had neither the resources nor the incentive to invest in agriculture. Therefore, Indian agriculture in the pre-independence period can be correctly described as a “subsistence” occupation which yielded “too little to live on and too much to die on”. The Zamindars and moneylenders usurped a large part of land on the pretext of settlement for debts taken by cultivators and a number of cultivators were thus left landless. This gave birth to the class of landless laborers, or agricultural workers who worked on the land of others for wages which were often too merge to keep
the body and soul together. A majority of farmers were just able to eke out a level of subsistence from agricultural activities. It was only after the advent of planning (and more precisely after the advent of green revolution in 1966) that some farmers started adopting agriculture on a commercial basis.

Agriculture sector plays a strategic role in the process of economic development of a country. It has already made a significant contribution to the economic prosperity of advanced countries is of vital importance. In other words, where per capita real income is low, emphasis is being laid on agriculture and other primary industries. In U.S.A and Japan, agricultural development has helped to greater extent in the process of their industrialization. Similarly various under developed countries of the world now engaged in the process of economic development have by now learnt the limitation of putting over emphasis of industrialization as a means to attain higher per capital real income. Thus agriculture and industrial development are not alternative but are complementary and are mutually supporting with respect to both inputs and outputs. It is seen that increased agricultural output and productivity tend to contribute substantially to an overall economic development of a predominantly agriculture and over-populated country. In the early stage of economic development of the country, it will be rational and appropriate to place greatest emphasis on further development of the agricultural sector. Agricultural production can be raised more rapidly with lesser amount of capital. The contribution to the general economic development of the country. Thus it is one of the "Preconditions" which must be fulfilled before a self-sustained economic growth become possible. It must be, however kept in mind that the role of agriculture in the economic development of a country largely depends upon the stage of economic history in which a particular country may be.
The gains of agricultural development have been by and large, confined to irrigated areas. It has been observed that of the total increase in foodgrain production in the crop sector from 1970-73 to 1980-83, 14 districts in the country have contributed 25% and 30 other districts the next 25%. In other words, 44 districts out of 450 districts in the country have contributed 50% of the increased agricultural production in the total crop sector from 1970-73 to 1980-83. In 40 districts production has actually declined over the same period. The uneven growth has focused attention on the following problems.

Widespread un-employment/under employment in vast rainfed areas is accentuating all pervasive poverty with associated problems of illiteracy, poor health, frustration and unrest.

Exodus from backward rainfed hinterlands to towns and cities creating congestions and slums.

In view of these agriculture, ecological and socio-economic concerns, government have resolved that "ending neglect of vast rainfed and dry land areas" would be a major policy concern as reflected in Approach paper to VII Five year plan in pursuance of this, the present National Watershed Development Project for Rainfed Areas (NWDPRA) has been restructured is being expanded to create models of scientific land use through development of integrated farming systems on the principals of watershed management in each development block where less than 30% arable area is under assured means of irrigation.
AGRICULTURAL DEVELOPMENT DURING THE FIVE YEAR PLANS:

AGRICULTURE IN THE FIRST PLAN (1951-56): -

The First Plan was launched with two-fold objectives, viz; to correct the disequilibrium in the economy and to initiate simultaneously a process of all round balanced development which would ensure a rising national income and a steady improvement in living standards.

ACHIEVEMENT OF THE FIRST PLAN: -

The success achieved during the First Plane even exceeded the targets. The index number of agricultural production increased from 95.6 in 1950-51 to 114.3 in 1953-54 and 116.8 in 1955-56. The targets of production set out in the plan were exceeded in the case of foodgrains (69m tons) and oilseeds (6.2 m.tones) in 1953-54; while in the case of cotton, the target was exceeded in 1954-55. In the case of jute and sugarcane, production had gone down in 1952-53 and 1953-54 there was a remarkable recovery in their production in 1954-55 and 1955-56. Sugar production reached the record figure of 15.9 lakh tons in 1954-55 but in 1955-56 was manufactured 8.7 lakh tons.

AGRICULTURE UNDER THE SECOND PLAN (1956-61): -

At the end of the First Plan, the country appeared to be out of the words. Against this background the Second Plan was drawn up to meet the increasing demand for food and raw materials on amounts of growing population and expanding industries.

The target of foodgrains production was put at 15.5 million tons that is an increase of 24 percent over the estimated production for 1955-56. The production of oilseed, sugarcane, cotton and jute was expected to go up by 38, 35, 56 and 58 per cent respectively, while agricultural production as a whole represented an over all increase of 27 per cent.

**ACHIEVEMENT UNDER THE SECOND PLAN: -**

The tempo of agricultural development was accelerated during the plan period, resulting in an increase in production by 19 per cent. Foodgrains output increased by about 13 million tons (though the target was 15.5 millions) the rate of increase being about 4 per cent per year.

**AGRICULTURE UNDER THE THIRD PLAN (1961-60): -**

The planning commission observed: "In the scheme of development during the Third Plan the first priority necessarily belongs to agriculture. The experience in the first two plans has shown that the growth of rate in agricultural production is one of the main limiting factors in the progress of Indian economy. Agricultural production has, therefore, to be increased to largest possible extents feasible. Both in formulating and implementing programmes for the development of agriculture and the rural economy during the Third Plan, the guiding consideration is that whatever is physically practicable
should be financially possible and the potential of each area should be developed to the most extent possible".

The target fixed for various crops are indicated below. The index number of total agricultural output (base 1954-60 =100) was envisaged to rise from 139 in 1960-61 to 176 in 1965-66; and that of the food grains from 132 to 171. Thus, the Third Plan assumed substantial stepping up of the annual rate of growth in Indian agriculture.

ACHIEVEMENTS UNDER THE THIRD PLAN: -

During the plan period there had been steady expansion in the total agricultural effort, and it has constant aim to identify and remove technical and administrative weakness in the execution of agricultural programmes. Unfavorable weather conditions had an adverse affect on the volume of agricultural production.

The best year of the third plan, from the point of view of agricultural output, was 1964-65. During the first four years of this plan, the average increase in agricultural output worked out to be 26 per cent. As a result of the drought conditions in 1965-66, agricultural production was adversely affected. The decline of 17 per cent in agricultural production in 1965-66 was unprecedented and thus the target of 100m.tones could not be realized.

ANNUAL PLAN AND AGRICULTURE (1966-69)

The Fourth Plan should ordinarily have commenced in 1966 on the expiry of the third plan. But severe stress as and strains had been developing in the economy due to hostilities of 1962 and 1965, steep fall in agricultural production over two successive
years in 1965-66 and 1966-67 and the devaluation of rupee in June 1966. These events necessitated readjustment in planning. It was, therefore, decided that the fourth plan should be abandoned for the time being and instead Annual plans for 1966-67, 1967-68 and 1968-69 be formulated. Accordingly three yearly Plans were implemented. The total expenditure on agriculture during the three Annual plans amounted to Rs.1, 624 crores; Rs.1,167 crores or 17 per cent was spent on agriculture and C.D and Rs.457 crores or 7 per cent on account of drought conditions during 1966-67, minor irrigation received a high priority.

Programme of highly yielding varieties along with the requisite application of chemical fertilizes was undertaken. As a result of good rainfall and new technology used in production, food grains production rose up to 95.1m tones in 1967-68. The target for 1968-69 was fixed at 102m, but due to crop failures in different parts of the country, the actual production was of the order of 94.0m tones.

AGRICULTURE AND THE FOURTH PLAN (1969-74)

The Forth Plan had two main objectives in the agricultural sector. The first aimed at a growth of about 5 per cent per annum over the next decade. The second objective was to enable as large a section of the rural population as possible, including the small cultivator, the farmer in dry areas and the agricultural laborers, to participate in development and share its benefits. Accordingly the priority programmes fell into two categories, namely, those which aimed at maximizing production and those which aimed at remedying imbalances.
ACHIEVEMENTS OF THE FORTH PLAN: -

The Fourth Plan assumed a production level of 98 lakh tones in the base year and target was put at 129m. tones, but actual production of food grains in 1968-69 turned out to be lower by about 4m tones. As regards the production level in 1973-74 the total for the country may reach 114m tones.

AGRICULTURE UNDER THE FIFTH PLAN: -

The Fifth Five-Year Plan was formulated at a time when the economy was facing severe inflationary pressure. The major objectives of the plan were to achieve self-reliance and to adopt measures for rising the consumption standards of the people living below the poverty line. The plan also gave high priority to bringing inflation under control through appropriate fiscal and monetary policies. The Fifth five-year plan targeted an annual growth rate of 5.5 per cent in national income. It provided Rs.8,528 crores for agricultural development and irrigation, i.e. 20.5 per cent of total plan outlay.

In sum, the broad strategy under the agricultural production will be to develop irrigation as rapidly as possible and optimally utilise land and water as well as other local resources in a Coordinated manner. For this a comprehensive area development approach would be adopted with special attention to the poorer sections in the rural areas. Mixed farming would be promoted extensively as a means of increasing investment employment and income per unit of land and integrating crop production animal husbandry, forestry and fisheries. The development policy will lay emphasis on the production of foods of higher nutritive value with a view to increasing the nutrition and health of rural production.
AGRICULTURE UNDER THE SIXTH FIVE YEAR PLAN: -

The sixth plan aims at a compound annual growth rate of 3.3 per cent in the gross value added in agriculture and over 5 per cent per annum in value of gross output. To achieve these goals and the stated plan objectives, the main strategy for crop production during the ‘Sixth plan’ period is based on a steady growth of foodgrains production, substantial increase in pulses production, self-sufficiency in oilseeds and increased production of export oriented crops like tea, tobacco, spices etc. Inter alias the aim of the agricultural programmes during the Sixth Plan period was:

- To consolidate gains already achieved;
- To extend the benefits of new technology to more farmers, cropping systems and regions and to promote greater farm management efficiency through concurrent attention to cash and non-cash inputs;
- To make agricultural growth not only as an instrument of maintaining an effective national food security system but also a catalyst of income and employment generation in rural areas;
- To safeguard the interest of both producers and consumers by attending to the needs of production, conservation, marketing and distribution in an integrated manner.

THE SEVENTH FIVE YEAR PLAN (1985-90)

Attempted to accelerate growth in food grain production, increase in employment opportunities and raise productivity. In other words, the focus of the seventh plan was on
Food, work and productivity. The seventh plan was heralded as a great success since the Indian economy recorded 6 per cent rate of economic growth during this plan was against the targeted 5 per cent. The decades of the Eighties (The sixth and seventh plans) witnessed a creditable average annual rate of growth of 5.8 per cent as against the average of 3.5 per cent in the previous five plan. The Indian economy finally, crossed the barriers of what professor Raj Krishna called “The Hindu Rate of Growth.”

The introduction of the Eighth Plan was postponed by two years because of political changes at the center, but once it was approved, it was implemented (1992-97) and the country witnessed a new take-off of high GDP growth and industrial resurgence. During the Eighth plan, India registered the high annual rate of growth at 6.8 per cent and the interesting point was that this order of growth rate could be achieved even though the share of public sector in total investment had declined considerably to about 35 per cent. With the adoption of economic reform and liberalization, the importance of the private sector and movement towards private sector and movement towards market based economic system were both responsible for the higher rate of economic growth during the Eighth Plan.

During Ninth plan period 37,546 crores was allocated for the development of agricultural and allied activities

**SHARE OF AGRICULTURE IN PLAN EXPENDITURE**

It is the usual practice to include the expenditure on irrigation and flood control in agriculture, if this practice is followed, expenditure on agriculture under various plan can be expressed as in Table 2.1.
AGRICULTURE’S SHARE IN PLAN EXPENDITURE.

<table>
<thead>
<tr>
<th>Plan</th>
<th>Total Plan Expenditure</th>
<th>Expenditure on agriculture irrigation and flood control</th>
<th>(3) as percentage of (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>First Plan</td>
<td>1,960</td>
<td>724</td>
<td>37.0</td>
</tr>
<tr>
<td>Second Plan</td>
<td>4,672</td>
<td>979</td>
<td>20.9</td>
</tr>
<tr>
<td>Third Plan</td>
<td>8,577</td>
<td>1,754</td>
<td>20.5</td>
</tr>
<tr>
<td>Annual Plans</td>
<td>6,625</td>
<td>1,578</td>
<td>23.8</td>
</tr>
<tr>
<td>Fourth Plan</td>
<td>15,779</td>
<td>3,674</td>
<td>23.3</td>
</tr>
<tr>
<td>Fifth Plan</td>
<td>39,426</td>
<td>8,741</td>
<td>22.1</td>
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<tr>
<td>Sixth Plan</td>
<td>1,09,291</td>
<td>26,130</td>
<td>23.1</td>
</tr>
<tr>
<td>Seventh Plan</td>
<td>2,18,730</td>
<td>48,099</td>
<td>22.0</td>
</tr>
<tr>
<td>Eighth Plan</td>
<td>4,95,669</td>
<td>1,02,728</td>
<td>20.7</td>
</tr>
<tr>
<td>Ninth Plan</td>
<td>8,59,200</td>
<td>1,70,232</td>
<td>19.8</td>
</tr>
</tbody>
</table>

Source: S.K. Missra & Puri: Indian Economy (It’s Development Experience) P. 399

From the Table 37.0 per cent of actual expenditure in the First Plan was for agriculture and allied activities. This percentage declined sharply to 20.9 in the second plan on account of the adoption of the Mahalanobis strategy which called for a massive increase in the expenditure on the industrial sector particularly heavy and capital goods sector. In fact, the share of industry and minerals in total plan expenditure which was only 2.8 per cent in the First Plan rose to 20.1 per cent in the Second Plan. The percentage share of agriculture in total plan expenditure in the Third Plan was approximately as the same as under the Second Plan after the Third Plan, the share of agriculture in total plan expenditure has varied between 20 and 24 per cent. In the Ninth plan, it is expected to be 19.8 per cent (i.e. almost one-fifth of total plan expenditure)

IMPORTANCE OF DRY LAND FARMING AND WATERSHED PROGRAMME

Green Revolution in India is a success strategy which is commended all over the world. During the early periods of planned development efforts were by and large
directed toward irrigated agriculture in view of serious food shortages and urgent need of self sufficiency in food grain. Development of dryland farming was relegated to the background. The objective of overall food availability in the country has been achieved, but the development process has created and aggravated serious unintended agricultural, socio-economic and ecological imbalance.

In spite of Green Revolution in irrigated areas, the national food security continues to be fragile. During the years of drought, when rainfed crops suffer, there is sharp decline in annual production of foodgrains. Often a record production of 152.3 m in 1983-84, the drought of 1984-85 brought down the production to 145.54 m.t. Further, in 1987-88, the production declined to 140.35 m.t. The estimated annual target of food production of 240 m.t. by 2000 A.D. would be achieved only if own rainfed crops lands develop to their full potential.

Whereas production and productivity of irrigated crops has increased manifold, the production of oilseeds and pulses which are largely rainfed, had made little progress.

The serious shortages of oilseeds and pulses and the resultant increase in their prices are assuming the proportion of crises and need to tackled on a sustained basis.

Catchments areas of irrigation reservoirs and tanks, which contribute water, are rainfed. The deterioration of production enshrinement in catchments due to growing human and livestock population, is acceleration erosion and causing siltation of storage structures at much faster rate then was assumed in their initial designs. The life and capacity was assuming in their initial designs. The life and capacity of big water reservoirs have been reducing at an alarming rate.
Degradation and denudation of such vast rain fed lands is one of the major causes of ecological imbalance in the country. Integrated development of such lands holds the key to ecological health of the country.

**NEED FOR WATERSHED PROGRAMME:** - Dry land areas in the country, account for about 70 per cent of the cropped area and contribute more than half of the country’s foodgrains production. These areas share 60.80 per cent of the output of coarse cereals, major oilseeds and fibre crops. Even after realizing the entire irrigation potential in the country, about half of the area will still remain unirrigated. The sheer weight of this in crop economy alone can suppress or enhance the growth performance at the country².

Low and variable rainfall, heterogeneity and extreme fragility of land resources are the key features of the natural resource base of dry regions. Further the strains on traditional farming systems caused by the rise in population pressure on land, operation of market forces and side effects of different technological and institutional changes as well as the weak policy responses to the worsening situations of dry land agriculture have resulted in the following. The traditional crop varieties suited well to the extensive type of mixed farming system have become less suitable for intensive cropping systems necessitated by rising pressure on land; traditional technologies of dry farming, reflected through choice of crops and agronomic and other resource use practices, which are helpful in maintaining soil fertility and in controlling weeds and insect-pests and in offering flexibility to adjust to weather variability are found to be either infeasible or ineffective under the changed circumstances; stagnation of production and productivity

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². Level Agriculture + rural development 2/99 volt 6: 64.
has been observed in all the major food crops of dry land agriculture; Coarse cereals have not been able to compete with the superior cereals, viz. rice and wheat, the beneficiaries of green revolution. Further pulses and oil seeds, have a comparative advantage in the dryland agriculture, have been neglected.

Population growth has led to a decline in traditional grazing areas including rural common property lands and periodically followed cropland. This has adversely affected mixed farming (agriculture + animal husbandry) systems and has curtailed the range of multiple options offered to the dryland farmers. At the same time, the population pressure, besides reducing the per capita availability of land, has led to over exploitation and therefore erosion and degradation of crop and grazing lands.

Thus the prospects for agriculture in the dryland areas are severely constrained by the specific feature of their natural resource endowments and the changed context. In a situation of low pressure on resources, viability was possible through traditional land cultivation practices. In the changed circumstances with the high pressure on agil resources, the required high resource use intensity for high productivity with conservation is not possible through traditional measures. This requires application of modern science and technology blended with the rationale of indigenous practices.

The necessity for purposive measure to check soil erosion, improve the moisture retention capacity and the natural fertility of the soil and reverse the progressive decline in the extent and quality of forest cover has of course been long recognized. Successive

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five-year plans have included a variety of programmes to this end. But, the fourth five-year plan initiated a new phase in the development of dry farming technology all research efforts till 1970- either treated the problem of dryland farming areas only partially or suggested generalized technologies evolved essentially for well-endowed stable environments. As a consequence, the technologies relevant to dry farming were not available to dryland farmers till the early 1970s. A significant public policy inclination towards rainfed agriculture can be noticed from the beginning of the sixth plan beginning. Earlier plan documents mentioned the necessity of a systematic approach to tackle the problem of rainfed agriculture but did not concentrate on a strategy. The sixth plan adopted a watershed development approach, a holistic approach to check the deterioration by erosion and to encourage natural vegetative course in cultivable, and in the light of the available resource and crop based technologies.

It was the seventh plan document, which gave considerable importance to rainfed farming (planning Commission 1986)\(^5\). This lead was followed through in the approach papers to the eighth plan. Thus, the framework of agriculture planning for dryland areas on watershed (holistic resource region) basis began at some locations. Different organizations at various locations in the country undertook experiments on watershed basis. Broadly, there are five different programmes operating in the country, which differ in terms of techniques, administration, planning the system composition. The first group consists of the operational research projects (ORP) taken up by the Indian Council of Agricultural Research (ICAR) at different locations in the Country.

\(^5\) Government of India planning Commissions New Delhi p: 32.
Secondly the World Bank financed four watershed projects in Manoli (Maharastra), Kabbelnala (Karnataka), Maheswaram (Andhra Pradesh) and Parua Nala (Madhya Pradesh). These were also undertaken with the active participation of agricultural Universities. These are purely scientist managed projects. Thirdly, state governments have taken up such programmes either with additional or existing administrative machinery. Fourthly, the Central Government Initiated a national watershed Development Programme for Rainfed Areas (NWDPRA) which was implemented by each state government with some modifications. Lastly there are projects undertaken by voluntary agencies (Despande and Reddy, 1991).

**Conclusion:** An analysis reveals that, 37.0 per cent of actual expenditure in the First Plan was for agriculture and allied activities. This percentage declined sharply to 20.9 in the second plan on account of the adoption of the Mahalanobis strategy which called for a massive increase in the expenditure on the industrial sector particularly heavy and capital goods sector. In fact, the share of industry and minerals in total plan expenditure which was only 2.8 per cent in the First Plan rose to 20.1 per cent in the Second Plan. The percentage share of agriculture in total plan expenditure in the Third Plan was approximately as the same as under the Second Plan after the Third Plan, the share of agriculture in total plan expenditure has varied between 20 and 24 per cent. In the Ninth plan, it is expected to be 19.8 per cent (i.e. almost one-fifth of total plan expenditure).
Dry land areas in the country account for about 70 per cent of the cropped area and contribute more than half of the country's food grains production. These areas share 60.80 per cent of the output of coarse cereals, major oilseeds and fibre crops. Even after realizing the entire irrigation potential in the country, about half of the area will still remain unirrigated. The sheer weight of this in crop economy alone can suppress or enhance the growth performance at the country.