CHAPTER – II
GOALS OF ECONOMIC PLANNING

At the time of independence, the greatest challenge before India was to feed its population. The country had gone under severe stress of Bengal famine, caused by droughts and floods. The scarcities caused by the Second World War and the partition of the country had worsened the situation. The world–wide feeling was that India would not be able to stand on her feet due to this strain.

Immediately after the independence, to meet the growing demand of food, the Central Government formulated new policies and projects from time to time to increase the agricultural production. Grow More Food, Community Development Programme, Intensive Agriculture District Programme (IADP) and Intensive Agricultural Area Programme (IAAP) were the earlier attempts.¹

The Directorate of Economics and Statistics was set up in January, 1948 by the Ministry of Agriculture under the Economic and Statistical Advisor. In 1949, a Technical Committee on Co-ordination of Agricultural Statistics under the chairmanship of Shri W.R. Natu examined the existing system of reporting agricultural statistics and suggested measures for improving the data collection. An objective method for estimating administrative structure was developed by Indian Council of Agricultural Research under the guidance of Dr. P.V. Sukhatme and Dr. V.G. Panse. Earlier, sample survey techniques were used for estimating area and production evolved by the Indian Statistical Institute under the guidance of Professor P.C. Mahalvnobis.²

The Planning Commission was set up in 1950.³ The First Five-Year Plan started its work in 1951. The Community Project Administration and the Ministry of Irrigation and Power was established in 1952. The Community Project Administration was converted into an independent Ministry of Community Development in 1956. An

² Ibid, pp. 144-145.
³ Ibid, p. 146.
Extension Service Organization was also set up under Indian Council of Agricultural Research in 1952. After 1955 it became a separate Extension Organization of the Centre.  

The separate Ministries of Food and Agriculture were amalgamated into a single Ministry of Food and Agriculture in February, 1951. But the old division was restored in October 1956 for the sake of strengthening food administration at the Centre. The Planning Division was added to the Directorate of Economics and Statistics under the Ministry of Food and Agriculture in 1956. It became the channel of communication between the states, the Ministry and the Planning Commission. An Agriculture Production Advisor was appointed in 1957 to work as link with the states for the implementation of development programmes.

Under the Agricultural Produce Act, 1956, the National Cooperative Development and Warehousing Board and the Central Warehousing Development Corporation were set up in 1956 and 1957 respectively. In 1958-59, works related to the Central Warehousing Corporation were transferred from the Department of Agriculture to the Department of Food at the Centre. The Department of Cooperation was transferred from the Department of Agriculture to the Ministry of Community Development and Cooperation in December, 1958. In the same way, fisheries development and fisheries research and education were transferred from the Department of Agriculture to the Department of Food in 1962 and then brought back to the Department of Agriculture in 1966.

The Green Revolution in India was not a miracle, but was the result of proper public policies, the creation of appropriate infrastructure, inspiring leadership, dedicated workers and the hard work of the Indian peasantry. From the beginning of the five year plans, development of the agriculture was considered to hold the key to the development of the country. Agriculture was treated as the most important sector of the economy. “If

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5 *Ibid*, pp. 43-44.
6 *Ibid*, p. 44.
you late in doing one thing in agriculture, you are late in all things”, remarked Cato in second B.C. Even today, if the developing countries are on time in doing all things required in agriculture, they will be on time in all things such as a food supply, industrial development and economic growth leading to higher employment, income and living standards. 

**GROW MORE FOOD**

The Second World War had been a turning point in many ways in the history of India. The immediate effect of the war on the economy was that commercial crops like jute, cotton and ground nut lost their export markets and demand for food grains increased. The situation became suddenly grave after the fall of Burma to the Japanese in 1942. Food prices in India rose speedily. The supply of rice from Burma was not available. To tackle the famine like situation of the country, the Government of India called a Conference of representatives of provinces and the Indian states on 6 April, 1942. The Conference viewed with grave concern the shortage of food which the country was likely to face largely because of the loss of import of rice from Burma. It recommended that a planned drive for the increased production of food and fodder crops should be immediately initiated.

Accordingly, a new Department of Food was set up by the Government of India in December, 1942. The Conference made recommendations for increasing food production within the country. These recommendations have come to be known as “Grow More Food Campaign”. These recommendations suggested (a) An increase in the area under food crops by bringing fallow and waste land under cultivation and diverting land from non-food crops to food crops. (b) Intensive cultivation of cultivated lands through

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8 Cato (243-147 B.C) was the earliest of the Roman Chroniclers of agricultural practices. According to him, the farmers business was to sell the maximum and buy the minimum.


double cropping and providing better irrigation facilities. (c) Extended use of manures and fertilizers. (d) Increased supplies of improved seeds. (e) The state governments were asked to prepare plans to implement these recommendations. No target for food production was set during this phase.\textsuperscript{12}

The Campaign was launched in 1943. Between the period 1943-46, the Central Government sanctioned Rs. 1,616 crores in the form of loans and grants to the provinces.\textsuperscript{13} The farmers received aid for under ground works and supply schemes. It enabled the farmers to repair and construct wells, tanks, small dams, tube wells etc. Farmers could also get fertilizers, manures and improved seeds at concessional rates.\textsuperscript{14}

The Grow More Food Campaign put the agricultural administrative machinery to the first real test. The Central and Provincial Governments, however, failed to make agriculture as one of the important activities of the Government.\textsuperscript{15} It was also not able to ensure the necessary supplies during the phase of Grow More Food Campaigns. There was no coordinated scheme in which individual programmes and related facilities could be brought together. The available experts were very few. The supervision from the provincial level was weak and the extensions staff of the Agriculture Department was pre-occupied with trading functions. These duties were secondary for them.\textsuperscript{16}

In September 1946, the decision was taken to continue Grow More Food Campaign for another five years. The Central Government’s interest in making the production campaign successful led to the establishment of a number of extension and development organizations. The Central Ground Water Organisation and the Directorate of Plant Protection, Quarantine and Storage were set up in 1946. The Food Grains Policy


\textsuperscript{13} \textit{Proceedings of Conferences of Ministers of Agricultural of Provinces and States}, 8 and 9 September, 1948, Ministry of Agriculture, Government of India, Delhi, p. 3.

\textsuperscript{14} S.P. Singh, \textit{Centre-State Relations in Agricultural Development}, pp. 30-31.


Committee’s recommendation for a Central Land Reclamation Organisation later became the basis for the organisation of the Central Tractor Organisation.\(^\text{17}\)

The Grow More Food Campaign, however, suffered during 1946-47 on account of unfavourable weather, uncertain political situation, communal riots and ineffective control of supply and prices etc.\(^\text{18}\) Another important factor which accentuated the situation was the partition of the country in 1947. The areas of West Punjab and Sind which used to supply 10 – 12 lakh tones of food grains every year went over to Pakistan. The net effect of the partition was that India lost a supply of about 7 to 8 lakh tones of food grains. While the Indian Union now had 82 percent of the total population of undivided India, but had only 75 percent of the total cereal production and only 65 percent of the total wheat production. Thirty one percent of the total irrigated area went to the share of Pakistan and 69 percent remained with the Indian Union. While in undivided India, the proportion of irrigated lands to the total cropped area was 24 percent, the corresponding figure in respect of the Indian Union was 19 percent and that for Pakistan was 44 percent.\(^\text{19}\)

After Independence, the immediate task facing the Indian Government was to increase the domestic production of all agricultural commodities. A Committee for framing Food Grain Policy was appointed under the chairmanship of Shri Purshotamdas Thakuradas in September, 1947. The Committee made important recommendations such as : (a) greater attention to minor irrigation works, development of local manorial resources and distribution of improved seeds; (b) plans for production of fertilizers; (c) survey of ground water resources with a view to undertaking tube well construction and setting up of a Central Organization for undertaking reclamation and development of large blocks of cultivable waste land.

The Committee suggested an organizational set up based on village panchayats and Co-operative Societies to help in the production drive. The Committee also suggested

\(^{17}\)Report of the Food Grains Policy Committee, Government of India, New Delhi, 1947, p. 17.


a target of 10 million tones of increased production, out of which 3 million tones were to be achieved by the reclamation of about 10 million acres of land.\textsuperscript{20}

The movement was started on a planned basis from 1947-48. The all India target of additional production for the five year period was fixed at four million tones. The target of three million tones was fixed for provinces and one million tone for the Indian states. The target of three million tones for provinces was further distributed between provinces according to the facilities available for increasing food production in those provinces.\textsuperscript{21}

Towards the close of 1948, the Government of India felt that the Grow More Food Campaign was not responding adequately, in terms of crop production. Lord Boyd Orr was invited to review the working of the campaign and to make suggestions. He recommended that the whole campaign should be placed on an emergency footing and bottle necks in supply and in movement of essential materials should be removed. Coordinating agencies at the Centre and in the States were to be appointed with wide powers to execute the programme. The objective of the programme was to achieve self sufficiency in food grains by March, 1952.\textsuperscript{22}

The recommendations were followed up with suitable measures. In July, 1949, the Government appointed a Commissioner of Food Production with special powers to implement the new policy. The State Governments also appointed counterpart officers. However, the agricultural production continued to remain sluggish which promoted a major change in the approach. Instead of spreading the programme all over the country, it was decided to concentrate such efforts in compact areas called intensive cultivation areas which possessed assured water supplies and fertile soil.\textsuperscript{23} Meanwhile, the difficulties of importing cotton and jute from Pakistan highlighted the importance of stepping up the production of these essential raw materials. The Government, therefore,


\textsuperscript{23} Report of the National Commission on Agriculture, 1976, p. 143.
decided to extend the campaign to cover these two crops as well. The extended programme called the ‘Integrated Production Programme’ was launched in June, 1950. While the short term objective of the programme was “to win freedom from foreign bread and achieve progressive self-sufficiency”. Land transformation was considered as its ultimate objective. By the land transformation was meant securing “Utilization of land on a rational basis so that the available resources of land, water and live stock were developed to the maximum extent”. Some diversion of area from food grains to cotton and jute was inevitable. To offset the likely loss, a few schemes like development of fisheries, subsidiary foods etc. were included in the campaign. Besides strengthening its own machinery, the Government extended financial assistance to states for meeting the cost of additional staff and other measures connected with food production schemes. By the end of March, 1952, the concept of ‘self-sufficiency’ in food grains was modified to that of ‘relative self-sufficiency’ which implied that some imports of food grains might be necessary for meeting emergencies, for building reserve stocks and to compensate the loss due to diversion from food to cash crops.

In view of the persisting stagnation in crop production, the Government instituted a special enquiry in early 1952. The Grow More Food Enquiry Committee headed by Shri V.T. Krishnamachari expressed the view that “the food problem is a much wider one than near elimination of food imports. It is the problem of bringing about such a large expansion of agricultural production as will assure to an increasing population and progressively rising levels of nutritions”.

The Committee felt that the lack of success of the programme was mainly due to its failure to arouse enthusiasm in the countryside. Important recommendations made by committee were:

i) the setting up of countrywide extension service organization;

ii) the acceleration of minor irrigation programme; and


iii) the provision of adequate credit and quality seed, and development of local manorial resources.

The Committee also recommended that a sum of Rs.10 crore per year might be placed at the disposal of the Ministry of Food and Agriculture over and above the plan allocations to be given as loans to states for undertaking special programmes for minor irrigation works.  

A provision of Rs.25.62 crores were made for giving financial assistance to the states in the form of loans and subsidy for their Grow More Food Schemes during the year 1956-57. It also included an allotment of Rs. 10 crores as short term loans to the states for purchase and distribution of fertilizers and seeds. It was expected to yield a gross production of food grains to the extent of about 16 lakh tones for the year 1956-57. The Government of Punjab further extended the area of this campaign to the departments of cooperatives, forest, veterinary, irrigation, electricity and public relations to increase the agricultural production.

**FOOD POLICY**

After the outbreak of the Second World War, a number of factors had combined to make the food situation grave. In these circumstances, a national food policy began to emerge. The Government intervened in the food grains market for the first time in December, 1941 when ceiling on prices were imposed on wheat in the Punjab following a steep rise in prices. Stoppage of rice supply from Burma had greatly aggravated food scarcity and rise in prices. The Government promulgated the Food Grains Control Order of May, 1942 with a view to licensing traders and isolating speculators. The provincial Governments banned movement of food grains outside their borders in an attempt to conserve supply. The Food Department which was established in December, 1942 for

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formulating food policy and administrating the same, was also to undertake purchase of food grains and take care of movement, storage and inspection of grain stocks.\textsuperscript{30}

Meanwhile, the Government appointed the Food Grains Policy Committee in July, 1943 to lay the guidelines of food policy and food administration in the country. The Committee made an interim recommendation to introduce rationing of food stuffs in all big towns and cities. In fact, during the period from 1939 to 1947, the Government took measures not only to meet the immediate food storage but also to make permanent improvement in agriculture. In response to the challenging situations in production and distribution of food grains, the rudiments of a national production policy and also of food policy began to emerge.\textsuperscript{31}

With independence, the pressures were mounting on the Government to do away with irksome controls on production, distribution and prices of food grains. The Food Grains Policy Committee of 1947, had suggested progressive de-control. In February, 1950, the Government appointed the Food Grain Procurement Committee under the Chairmanship of Shri M. Thirumala Rao to review the system of procurement and distribution of food grains and suggest improvements. The main recommendations of this Committee were monopoly procurement of food grains, abolition of the free market, imposition of complete statutory rationing in town with a population of 50,000 and above and informal rationing else where.\textsuperscript{32}

Import of food grains increased in the post-independence period as compared to the average two million tones of food grains imported during the pre-war period. Imports increased to 2.9 million tones in 1948 and 3.8 million tones in 1949. In 1951, under the policy of Government to Government aid, U.S.A. granted long term loan for purchase of two million tones of food grains. Aggregate imports during that year were 4.8 million tones, the highest level on record till then.\textsuperscript{33}


\textsuperscript{31} Report of the National Commission on Agriculture, 1976, p. 141.


When de-control of the food was proposed by the Food Ministry, it also recommended various precautionary and countervailing measures including the building up of buffer stocks and the licensing of traders as an integral part of the decontrol proposals. The policy of decontrol got through conflicting attitudes. According to the Report of the Food Grains Enquiry Committee headed by Ashok Mehta, the ultimate decision was taken by the Planning Commission.\(^{34}\)

The enthusiasm surrounding decontrol in 1952-53 had petered out towards the end of 1956 when prices again took an upward turn. The unique features of the food situation during the Second Five Year Plan were increasing demand of food grain and a steady decline in market arrivals despite higher production. These factors combined to make food grains scarce in the market and gave a big push to prices, compelling the Government to re-introduce controls. The Government, nevertheless opted for a policy of partial control relying mainly on imports under PL-480 \(^{35}\) from the U.S.A.\(^{36}\) The principal elements of the scheme of partial control which came into force in 1956 were the system of distribution of food grains through fair price shops, restrictions on bank advances to trade against grain stock, cordonning of the big cities, formation of zones for rice and


\(^{35}\) The USA Government enacted the Agricultural Trade Development and Assistance Act in July, 1954. This Act is known as Public Law – 480 or PL-480. During the Second Five-Year Plan, India experienced a serious food crisis in various part of the country due to drought, floods and cyclone. To meet this crisis, the Government of India signed an agreement in 1956 with USA to import 3.1 million tones wheat and 0.19 million tones of rice for the next three years. This agreement was known as PL-480. PL-480 food imports were intended mainly to enable to maintain a minimum level of buffer stocks which in a country subject to weather induced fluctuations in agricultural output, was essential to sustain food consumption. Availability of PL-480 food was also meant to enable the Government to plan for a larger investment programme than would have been possible, were it necessary to meet food deficits through imports. The volume of import of food grains under PL-480 which was 1.4 million tones in 1956-57 went up 6.3 million tones in 1963-64, 7.4 million tones in 1964-65 and then 10.3 million tones in 1965-66. See, “Economic Effects of PL-480 imports” The Indian Express, 20 July, 1966 ; Bipin Chandra, India After Independence (1947-2000), pp. 412-413 and Paul R. Brass, The Politics of India Since Independence, Cambridge University Press, Cambridge, 1990, pp. 306-307.

wheat with restriction on the movement of grains outside the zone, licensing of wholesale trade and roller-flour mills and greater reliance on imports.37

Under the chairmanship of Ashok Mehta, the Food Grains Enquiry Committee was appointed to study the situation and suggest suitable measures. It agreed with the policy of partial control. It felt that the annual imports of the order of 2-3 million tones would be required for some time to come. As long term solution to the problem, the Committee suggested open market operations in food grains, socialization of part of the wholesale trade, control over trade through a system of licensing and maintenance of sizeable reserve stocks of rice and wheat. The Committee also recommended the setting up of a Price Stabilization Board to formulate and implement price policies, a Central Food Advisory Council of non-officials to advise the Board and a Food Grain Stabilization Organisation to undertake open market operations including purchase, sale, procurement and maintenance of stocks.38

There was a marginal improvement in food position in 1958 due to some increase in output of some crops. In November, 1958, the Government decided in favour of state trading in food grains to be implemented through co-operative. This move, however, proved to be self-defeating as it caused a sharp rise in prices in the deficit and marginally placed states. State trading was, therefore, suspended in deficit states in 1959, followed by suspension of levy and purchase of wheat and rice in most of the surplus areas.39

An important element in Government’s food policy during the Second Five Year Plan was imports of food grains. A number of agreements were signed between the Governments of India and U.S.A. for imports of food grains under PL. 480. The various agreement provided for an aggregate import of over 28 millions tones of food grains, mostly wheat. Commercial imports of rice were arranged from Burma. The average

37 Report of the National Commission on Agriculture, 1976, p. 188.
39 Report of the National Commission on Agriculture, 1976, p. 188. Also see, S.P. Singh, Centre-State Relations in Agricultural Development, pp. 112-113.
annual imports of food grains during the Second Five Year Plan period was about 3.5 million tones as against 2.5 million tones during the First Five Year Plan.40

The Third Five Year plan period was marked by frequent shortfalls in production especially in 1965 and 1966. There was severe drought. The situation was further aggravated by strong economic pressures caused by steady increases in population and income, growing urbanization and two major conflicts with China and Pakistan. All these had a destabilizing effect on the economy. From this time onwards, the food policy moved towards rigorous restrictions on movement, prices and distribution of food grains. The Government adopted a cautious approach to begin with and took steps to arrange more imports, intensify procurement efforts and streamline distribution. Restrictions on movement of wheat were re-imposed in March, 1964. Important wheat growing states were constituted into separate zones and selective credit control was imposed on wheat. The large rice zones too were broken up into single state zones in November, 1964. The Food Corporation of India was set up in January, 1965 with a view to securing for the Government a commanding position in the Food Grain Market.41

The average level of imports during the Third Five year Plan period was about 5.1 million tones, i.e. about one and a half times the imports arranged during the Second Five Year Plan period. Imports reached a peak level of 10.4 million tones during 1966. The average level of imports during the three years 1966-68 was 8.24 million tones, the highest average level reached so far.42

**PLANNING COMMISSION**

Before Independence, when the Congress Ministers were in power, the Indian National Congress in 1939 had appointed a National Planning Committee with Shri Jawaharlal Nehru as the chairman. During the period of struggle for freedom, the Congress regarded political freedom as a means to establish life and society on the basis

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of economic progress and justice. In the thirties, the achievements of the planned economy in USSR, attracted attention all over the world. Therefore, the National Planning Committee and its various sub-committees were established to undertake a survey of the resources and the production potential of the Indian economy and formulate polices for tackling the problems of poverty and unemployment. However, with the outbreak of the World War-II and resignation of the Congress Ministries, the work of the National Planning Commission was suspended.43

Towards the close of 1946, the Interim Government appointed an Advisory Planning Board to examine and review the major problems of the post-war economic reconstruction. The Board recommended that a permanent Planning Commission should be appointed at the Centre to devote continuous attention to the task of planning and development. The Planning Commission was set up in March, 1950, with the Prime Minister Shri Jawaharlal Nehru as Chairman and Shri V.T. Krishnamachari as Deputy Chairman. The following were some of the important functions assigned to the Commission:-

(i) make an assessment of material, capital and human resources of the country, including technical, personnel, and investigate the possibilities of augmenting such of these resources as are found to be deficient in relation to the nation’s requirements;

(ii) formulate a plan for the most effective and balanced utilization of the country’s resources;

(iii) appraise from time to time the progress achieved in the execution of each stage of the plan and recommend the adjustments of policy and measures that such appraisal may show to be necessary.

By July, 1951, the Commission had drawn up the draft of the First Five Year Plan and it was finalized in December, 1952.44 Though the Planning Commission was only an advisory organ of Government, overtime it had come to exercise significant influence over the formation of public policies even in matters other than that of development. Its

44 Ibid. p.146.
advisory role in a way extended over the entire administration. The Prime Minister, Pt. Jawaharlal Nehru observed that, “even the Planning Commission has gradually become more and more the Government type of organization.” Though, the Government and the Planning Commission did not succeed in putting an end to regional economic disparities.

**FIVE -YEAR PLANS**

Food problem became a national issue in India after Independence. The Government realized that bold economic policies were needed for survival. Pt. Jawaharlal Nehru soon after Independence said, “Everything else can wait, but not Agriculture”. This statement got reflected in several public policies and investment decisions, particularly in the areas of irrigation, fertilizer production, land reforms and Community Development Programme.

The First Five-Year Plan was launched in 1951. The major objectives of the First Five-Year Plan in the field of agriculture were to correct the imbalances caused by the partition in the supply of food grains and commercial crops and improve infrastructure facilities. Agriculture, including irrigation and power, was therefore accorded the highest priority. Efforts to improve agriculture were spread over the entire country and every village was to be involved in it through Community Development Programme.

The First Five-Year Plan (1951-56) laid special attention to the production of food grains. The target was to increase the production of food grains from 54 million tons to 62.59 million tons; of cotton from 2.87 million bales to 4.21 million bales and of sugarcane from 5.7 million tons to 6.4 million tons during this period.

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To achieve the target of higher agricultural production, emphasis was laid on adoption of better cultivation methods, use of more fertilizers, improved seeds and needful supply of water. The First Five-Year Plan included a number of development projects which had already been taken as well as others which had not begun. Out of a total outlay of Rs. 1,960 crores, Rs. 290 crores were granted for agriculture and community development, Rs. 310 crores for major and medium irrigation works and Rs. 260 crores for power development.

During the First Five-Year Plan period (1951-56), Punjab also drafted an agricultural policy as per the national policy. More food grains production and expansion of irrigation system were the main objectives of its policy. Punjab also succeeded in getting the support of the central leadership and they were ready to help it by allocating good amount of the planned allocations. Punjab got special attention in the First Five-Year Plan because it had favourable environment for food production because of its legacy of irrigation facilities and other infrastructure provided under colonial rule.

With the help from the Central Government and its own resources, the Government of Punjab launched its First Five-Year Plan fully in favour of agricultural sector. The total expenditure incurred in the First-Five Year Plan of Punjab was Rs 141 crores. In the First Five-Year Plan, Punjab allocated 76.66 percent of the total expenditure on agriculture, irrigation and power. The main focus on agriculture was necessary to rehabilitate the economy shaken by the partition and fill the gap in the irrigation system. The success achieved in agriculture sector during the First-Five Year Plan of Punjab was commendable but it still needed more allocation. It was thought that

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though the results were encouraging, yet one more plan period had to be devoted to the agricultural sector on priority basis.54

In the Second Five-Year Plan (1956-61), the Government of India accorded somewhat lower priority to agriculture vis-à-vis industry.55 The assumed success of the agricultural sector in the First Five-Year Plan made the planners turn away from agriculture as the key link in the development process. The shift in the priorities was due to; (a) the smooth performance of agriculture during the First Plan period; (b) possibility of financing economic development through foreign aid in farm surpluses and (c) heavy industry being considered as the leading sector of the economic development. The objectives of the Second Plan were (a) rapid industrialization, with particular emphasis on the development of basic and heavy industries; (b) increase in national income to raise the level of living in the country; (c) expansion of job opportunities and (d) reduction of inequalities in income and wealth.56

The shift in favour of rapid industrialization reduced the proportion of total outlay allocated to agriculture and irrigation from 34.6 percent in the First Plan to 17.5 percent in the Second Plan.57

Punjab continued to lay stress on agriculture in its Second Five-Year Plan. The projects and programmes started during the First-Five-Year Plan, were still incomplete. So, plan after plan, agriculture and its allied sectors claimed about 70 percent of the total plan outlay. A large part of public investment in irrigation was devoted to the multipurpose project of Bhakra Dam and the construction of canal works.58

55 Report of the National Commission on Agriculture, p.147.
56 Report of the National Commission on Agriculture, Part I, p.147. Also see, B.M. Bhatia, Indian Agriculture – A Policy Perspective, Sage Publications, New Delhi, 1988,p. 34.
It was also the beginning of an era where farmers were becoming more important in political scene of Punjab. Agricultural development held top priority during the time of Pratap Singh Kairon and his successor Governments.\(^{59}\) The Central Government of India did not interfere in the policies of the state. In fact, it supported the Punjab Government especially Pratap Singh Kairon’s approach to agriculture sector.\(^{60}\) During the first two Five-Year Plans, Punjab achieved an increase of 76.5 percent in agriculture production as against the rest of country which was 46.4 percent.\(^{61}\)

The year 1957-58, however was a bad year for crops. A food shortage threatened the country and the Government of India was worried at its possible effects on economic growth. The experience in the first two Five-Year Plans had led to realization that the growth rate in agricultural production is one of the main limiting factors in the progress of Indian economy.\(^{62}\) Therefore, in the Third Five-Year Plan priority at Centre again shifted to agriculture sector. The main objectives of the Third Five-Year Plan were to achieve self-sufficiency in food grains and increase in agricultural production to meet the requirements of industry and export.\(^{63}\) The Third Five-Year Plan provided a large outlay on agricultural programmes including large and small irrigation schemes, soil conservation and co-operation of about Rs. 1281 crores. In the Second Five-Year Plan it was around Rs 667 crores. The target was fixed to double the rate of agricultural production growth.\(^{64}\) Punjab was allocated the total outlay of Rs. 231.39 crores in the Third Five-Year Plan which was 40 percent more than the outlay of Rs 162.68 crores for the second plan. The agriculture including irrigation and power enjoyed 65.25 percent of the total outlay.\(^{65}\)


\(^{64}\) C.B. Mamoria & Badri Bishal Tripathi, *Agricultural Problems of India*, pp. 625-626.

For intensive agriculture, new programmes, Intensive Agricultural District Programme (IADP) and the Intensive Agricultural Area Programme (IAAP) were launched during the Third Five-Year Plan. A number of new institutions such as the Food Corporation of India, the National Seeds Corporation of India and the Agricultural Refinance and Development were set up to extend support to development activities in different fields in 1963. The other elements of the strategy were the new concepts of irrigation and water management, adaptive research and price guarantee to producers.\(^66\)

From 1951, top most priority was given to investment in rural infrastructure. Punjab got the highest allocation per capita plan expenditure in rural infrastructure during the first three Five-Year Plans. For example, per capita plan expenditure was Rs. 174 in Punjab compared to Rs. 26 in Bihar and Rs. 38 for India as a whole during the first three Five-Year Plans.\(^67\)

The large scale investment in irrigation, electric power, foundation of agricultural research and extensive services, strengthening of the co-operative credit structure and expansion of markets as well as land reforms during the early post-independence period years laid the foundation for rapid growth and modernization of agriculture. Punjab was able to record an agricultural growth rate as high as 4.6 percent during 1950-51 to 1964-65 long before the onset of the Green Revolution.\(^68\)

**COMMUNITY DEVELOPMENT PROGRAMME**

The Central Government of India on the advice of the Planning Commission launched the Community Development Programme in selected districts on 2 October, 1952. It played a significant role in agricultural development in the First Five-Year Plan. Besides supporting schemes in agriculture, the Community Development Programme

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included a number of other schemes like provision of better communications, improvement of health and education, measures for the welfare of women and children, development of cottage and small scale industries etc. The main objective of the programme was to develop self-reliance in the individual and the initiative in the community towards achieving general welfare, including appreciable increases in agricultural production. In fact, it was to be a people’s movement for their own welfare.\textsuperscript{69}

The Community Development Programme was instituted on a limited scale covering 55 community development blocks. Each block consisting of about 100 villages with a population of sixty to seventy thousand. It was an effort for intensive work covering the entire field of rural life, irrigation, lifting up the standards of agricultural practices by supply of good seeds, fertilizers etc; formation of multi-purpose co-operative societies; cottage and small scale industries and health and education measures. A multipurpose extension workers or Gram Sewaks were assigned to every five villages to demonstrate the use of improved seeds, fertilizers, pesticides and implements. The expenditure on Community Development Programme by the Centre was proposed at Rs. 65 lakhs in three years of which about Rs. 21.25 lakhs were recommended for irrigation and drainage, Rs. 11 lakhs for roads, Rs. 4 lakhs for drinking water supplies, Rs. 3 lakhs for land reclamation, Rs. 7 lakhs for education and Rs. 3 lakhs for health units etc. Out of the whole amount, Rs. 30 lakhs was advanced in the shape of recoverable loans and the rest in the form of grants.\textsuperscript{70} This was the model but variations were to be made to suit the individual areas.

The National Extension Service was envisaged as the main agency for bringing about the desired economic and social change. By 1955-56 about one-fourth of the villages were covered under the Community Development Programme. The coverage progressively increased to 60 percent in 1960-61 and all villages were covered by 1963-


64 at all India level. More than 6,000 Block Development Officers and over 600,000 village level workers were employed to help the implementation of the programme.71

Panchayati Raj institutions introduced during the Second Plan were intended to provide democratic leadership to economic development. These institutions sought to democratize administration from the village to the district level and involve people in the development process at all levels. The Community Development Programme achieved considerable results in extension works, better seeds, fertilizers and in particular construction of roads, tanks, schools and primary health centers and education. Later on, the extension service broadened itself into the Panchayat Raj. The main objective of bringing an area under the National Extension Scheme or Community Project was to provide an initial stimulus, to establish the method of coordinated working between various agencies and to build up people’s organization in particular the Cooperatives and the Panchayats.72

The entire rural area and population of the Punjab was covered by Community Development Blocks. The state was divided into 116 Development Blocks. These Blocks were under the charge of Block Development Officer who was answerable to Deputy Commissioner of the District. His function was to coordinate the activities of the officials of the various departments involved in the rural development work at Block level.73

The achievements of Community Development Schemes were due to the combined efforts of the Departments of Agriculture, Animal Husbandry, Cooperation, Industries, Public Health etc. For all agricultural programmes and other programmes of health, animal husbandry, education and industries, the Block Development Officer continued to be the executing agency.74

To educate the illiterate adults and to impart knowledge to the people, 527 literacy centers were started in 1967-68, 412 in 1968-69 and 336 in 1970-71. 1,22,241 adults in the year 1968-69, 9097 adults in 1969-70 and 8,710 adults were made literate in 1970-71. Under the programme “Roads” 1,530 Kms of roads were built in 1969-70 and 1,994 Kms in 1967-68. Improvement in already existing kacha roads were also made. They measured 2,406 Kms in 1967-68, 2,147 Kms in 1969-70 and 1,728 Kms in 1970-71. Under the “Health and Sanitation” programme 139 new drinking water wells were constructed, 76 drinking wells were renovated, 5,154 hand pumps were installed, 1,326 rural latrines and 2,69,982 meters of pucca drains were constructed in 1967-68. Rural manpower programme was started in public rural works like roads, minor irrigation works, soil conservation, orchards, fisheries and forestation. In 1967-68, this programme was being run in 16 blocks. This was increased to 18 in 1969-70. Emphasis was given mainly on construction of minor irrigation works.\textsuperscript{75}

To acquaint the farmers of Punjab with latest researches in the field of agriculture and to demonstrate results in the field, the Agricultural University, Ludhiana had set up the ‘Farm Advisory Service’. The objective of this wing was to bring the field and research laboratories closer to each other by organizing various programmes like the farmers training camps, demonstration trials and arranging practical demonstrations in the field.\textsuperscript{76}

At the District, Block and Village level, the training camps were held before the commencement of rabi and kharif seasons and the farmers were apprised of the latest techniques and the new varieties of seeds, their time and method of cultivation, use of fertilisers and measures singly or in combinations, their placement and protection of plants from various insects.\textsuperscript{77}

\textsuperscript{75} \textit{The Third Decennial World Agricultural Census (1970-71)}, p.51.
\textsuperscript{76} \textit{Ibid}, p.53.
\textsuperscript{77} \textit{Ibid}, p.53.
The basic weakness of the Community Development Programme, however, was that it ignored the class division of the rural society where nearly half the population was landless or had marginal holdings. A major limitation of the Community Development Programme was that scarce resources were dispersed over too wide an area, without achieving appreciable increases in crop production. The benefits of Community Development Programme and the extension services were mostly earned by the rich peasants and capitalist farmers, who also dominated the Panchayati Raj Institutions.

LAND REFORMS

After independence, the movement for land reforms gained momentum. On the basis of the Directive Principles of state policy of the Indian Constitution, hopes of social justice and of reducing inequalities of income and wealth were raised. The realization that absentee landlordism, tenancy at will; share cropping and fragmented holdings were the barriers to the rapid agricultural growth.

At the time of Independence, 50 percent land of India was under the Zamindari System. In these area, 80 percent of the land was under the absentee Landlords. Actual cultivators were those who did not own the land. On the one hand, there was a large class of poor peasants and landless labourers with negligible area under cultivation, while on the other hand there were a handful of people possessing a major part of the cultivable land. These inequalities in land ownership and rights of cultivators were first pointed out by the All India Kisan Sabha in its first meeting held in Lucknow in 1936. It articulated the demands of small landowners tenants and landless labourers for the first time in its Manifesto. The Indian National Congress took up the issue and adopted the Agrarian

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81 Har Swarup Singh, Vice-Chancellor, Haryana Agricultural University, Hissar, delivered Inaugural Address at North Western Regional Seminar on Land Reforms in India from February 17-19 1988, Department of Sociology, Haryana Agricultural University, Hissar in M.L. Sharma and R.K. Punia.(eds.). Land Reforms in India, Ajanta Publications, New Delhi, 1989, pp. XIII-XIV.
Programme at Faizpur Session of the Congress in December, 1936. It asked for 50 percent reduction in rent and land tax; exemption from both rent and land revenue for uneconomic holdings.\(^8^2\) The Congress Agrarian Reform Committee remarked that, “The Committee feels that there can not be any lasting improvement in agricultural production and efficiency without comprehensive reforms in the country’s land system.” \(^8^3\)

The Congress Party committed itself to bring about Land Reforms. After independence, the Indian National Congress adopted the slogan “land to the tiller”.\(^8^4\) A Committee was set up in November, 1947 under the chairmanship of Jawaharlal Nehru to examine the issues related to the agrarian reforms in the country. The Committee submitted the report to the Congress President with the following recommendations: “All intermediaries between the tillers and the State should be eliminated and all middleman should be replaced by non-profit making agencies, such as, Co-operative. Land should be held for use as a source of employment, the use of lands of those who are either known non-cultivating land-lords or are otherwise unable for any period to exercise the right of cultivating them, must come to in the village community, subject to the condition that the original lawful holders or his successors will be entitled to come-back to the land for genuine cultivation. In the case of minors and physically incapacitated persons, a share of the produce should be given to them. The maximum size of holdings should be fixed. The surplus land over such a maximum should be acquired and placed at the village co-operative. Small holdings should be consolidated and steps taken to prevent further fragmentation.” \(^8^5\)

At the time of the First Five Year Plan, the Planning Commission remarked “The future of the landownership and cultivation constitutes perhaps the most fundamental

\(^{8^2}\) Hari Singh, *Punjab Peasantry in Freedom Struggle*, p. 204.


issue in national development. To large extent the pattern of economic and social organization will depend upon the manner in which the land problem is resolved..... A policy for land may be considered adequate in measure in which, now and in the coming years, it reduced disparities in wealth and income, eliminates exploitations, provides securities for tenants and workers and, finally promising equality of status and opportunities to different sections of the rural population...... In the main, land policy has to be worked out in terms of local needs and conditions.**86** According to the recommendations of Planning Commission and the Congress Agrarian Reforms Committee, 1948, different states of India tried to enact land reforms measures to change prevailing land system.**87**

The land policy set out in the First Five-Year Plan recognized that the pattern of land ownership and cultivation was a fundamental issue in planned economic and development programme. The principal programmes of land and tenancy reforms envisaged in the First Five Year Plan included abolition of intermediary rights, limitations on future acquisition of land and resumption for personal cultivation, provision of security of tenure for tenant cultivators and fixation of reasonable rents. Distribution of available land among landless workers and encouragement to cooperative farming societies was also envisaged.**88**

The main objective of the land-reform measures was abolition of intermediary system between the state and the tiller, security of the tenure, conformation of ownership to the cultivator or the land to the tiller, imposition of ceiling on agricultural land holdings and the consolidation of land holdings for the application of modern techniques in agriculture.**89**

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**89** *Report of Agricultural Holdings in Haryana State, 1971-72, Director Land Records, Haryana, Chandigarh, p 57.*
Zamindari Abolition Bills or Land Tenure Legislations were introduced in a number of provinces such as Uttar Pradesh, Madhya Pradesh, Bihar, Madras, Assam and Bombay in 1949. The report of the Uttar Pradesh Zamindari Abolition Committee became the initial model for many others. The abolition of Zamindari meant that about 20 million erstwhile tenants became landowners. As for the rough estimate the area under the tenancy decreased from about 42 percent in 1950-51 to between 20 to 25 percent by the early sixties.\textsuperscript{90}

Another land reforms measure which became necessary in order to eliminate intermediary tenures and to bring the tillers of the soil in direct contact with the Government were tenancy reforms. Even after the abolition of Zamindari had been implemented, the issue of continuing tenancy in Zamindari areas remained. Tenancy reform had three basic objectives. First, to guarantee security of tenure to tenants who had cultivated a piece of land continuously for a fixed number of years. Secondly, to seek the reduction of rents paid by tenants to a reasonable level which was generally considered ranging between one-fourth to one-sixth of the value of the gross produce of the leased land. The third objective was that the tenant acquires the right of ownership of the lands cultivated, subject to certain restrictions.\textsuperscript{91}

A number of states enacted legislation for providing security of tenure during the Second Five-Year Plan. Legislations were passed in all the states regulating the rent payable by cultivating tenants. Most states fixed maximum rents at levels suggested by the first and second plan such as 20 to 25 percent of gross produce. Some states like Punjab, Haryana, Tamil Nadu, Andhara Pradesh fixed maximum rents somewhat higher between 33.3 and 40 percent. Thus, the first objective was that of providing security of tenure to all tenants and the third objective, the acquisition of ownership rights by tenants were achieved partially.\textsuperscript{92}

The progress achieved in these areas was, however limited. Problems arising from the implementation of land reforms legislations enacted by the states were reviewed by

\textsuperscript{91} Ibid, pp. 378-379.
\textsuperscript{92} Ibid, pp. 382-383.
the panel on Land Reforms set up by the Planning Commission in 1959. It laid particular stress on the preparation of correct and up-to-date record of rights and on the need to strengthen revenue administration.\(^93\)

During the Third Five Year Plan, state governments were mainly preoccupied with the follow up of various legislative measures. Some states enacted new legislations in place of old ones or amended them so as to plug loopholes and remove deficiencies. Amendments in the Constitution were also made to resolve the apparent contradiction between some articles of the Constitution and some provisions of land legislation already enacted. Progress of implementation was slow in most of the fields except in regard to abolition of intermediary tenures. In several states, the fair rent or the share of the produce, as fixed by law, was still one third or one half of the gross produce.\(^94\)

It was also observed that up-to-date records of rights did not exist in several states. A considerable proportion of area in some regions was cultivated on informal crop sharing basis. Such tenants were neither recognized nor registered in the record of the rights. They generally paid high produce rents but did not enjoy security of tenure and were not able to retain financial assistance for programmes of agricultural production.\(^95\)

The most important aspect of land reform legislation in India was imposition of ceilings and distribution of surplus land among landless labourers. The All India Kissan Sabha had supported the demand for a maximum limit of land ownership of 25 acres per holder in 1946. The Indian National Congress as per the recommendations of the Committee by Pt. Jawaharlal Nehru in November, 1947 for the first time demanded that the maximum size of holdings should be fixed. The surplus land over a maximum limit should be acquired and placed at the disposal of village cooperative. The Congress Agrarian Reform Committee, chaired by J.C. Kamarappa recommended in his report in July, 1949, a ceiling on land holdings which was to be three times the size of an economic holdings.\(^96\)


\(^{94}\) Ibid, p.169.


\(^{96}\) Bipin Chandra, India After Independence (1947-2000), p.385. An economic holdings being defined as that which would give a reasonable standard of living to the cultivators and provide full employment to a family of normal size and at least to a pair of bullocks.
In regard to legislation on ceilings, most of the states were slow in taking the preliminary steps for enforcing the provision and for determining the extent of surplus lands. Ceiling was imposed in different states according to the class of land and size of holdings. For example, in Andhra Pradesh, it varied from 27 to 312 acres, in Assam 50 acres, in Kerala 15 to 37.5 acres, in Punjab 30 to 60 acres. Initially, the ceilings was imposed on individual and not family in many states. Ceiling could not be imposed with efficiency. It was evaded through transfers and partitions and not much land was made available for distribution. It was also not very successful for the reason that the administrative arrangements for supervisory action on implementation were also inadequate.

As per the recommendations of Second Five-Year Plan, a large number of exemptions to the ceiling limits were permitted in most states. It was there in the farm of land held by Central, State governments Local bodies, tea, coffee and rubber plantations, orchards, specialized farms engaged in cattle breeding, dairying, wool, raising etc. Tamilnadu permitted 26 kinds of exemptions.

Though most of the states by 1961, had passed the ceiling legislations but till the end of the 1970 not a single acre was declared surplus in large state like Bihar, Mysore, Kearla, Orissa and Rajasthan. Only 1400 acres were declared surplus in Andhra Pradesh but no land was distributed.

Considerable attention was given to the issue of land ceilings during the Fourth Five Year Plan. Although, almost all the states had passed legislation prescribing ceilings but because of faulty implementation and legal loopholes, the legislation had not led to any major redistribution of land. With Indira Gandhi, coming to power after Lal Bahadur
Shastri, land ceiling efforts received a further momentum. She called a conference of the Chief Ministers to review land reforms. She forcefully argued that social discontent and violence in the countryside had erupted because the land reform measures have failed to match the legitimate expectations which were fostered among millions of cultivators during the national movement.\textsuperscript{102}

In August, 1971, the Central Reform Committee made a number of suggestions for improvement in ceiling laws of different states. These, in turn, were considered by the Government and then in the Chief Minister’s Conference in July 1972. Based on the recommendations of the Committee and other relevant facts, the Conference formulated a set of National guidelines on agricultural land reforms. The purpose of these directions was to bring about certain measure of uniformity in the ceiling legislation currently being revised in various states and generally to reduce the level of ceilings. The ceiling on irrigated land for a family of five members would be between 10 acres and 18 acres if the land was double cropped and 27 acres if single cropped. For all other categories of land including orchards, the family ceilings would be 54 acres. Area irrigated by private sources like tube wells, pump sets etc, was to get some weightage, but only within the overall ceilings. Where the number of members in a family exceeded five, additional land might be allowed to each member subject to an overall maximum of twice the family ceilings. Besides, categories exempted from the purview of ceilings were drastically reduced. Priority was to be given to landless agricultural workers, particularly those belonging to the scheduled castes and scheduled tribes in distribution of surplus land. The revision of the existing ceiling laws in the light of these guide lines were undertaken by almost all the states and revised enactments become operational in a number of states.\textsuperscript{103}

The Fourth Five-Year Plan suggested that steps should be taken to bring these records up to date in the next few years as part of re-survey and settlement operations.\textsuperscript{104}

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\textsuperscript{104} Report of the National Commission on Agriculture, 1976, p. 171.
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After independence, the programme of consolidation of Holdings gained some momentum with the enactment of legislations by several states, enabling them to frame schemes on their own initiative. However, only a few states like Punjab, Uttar Pradesh and Gujrat made significant progress during the First Five-Year Plan. In the Second Five-Year Plan period, consolidation work was undertaken as a task of primary importance in areas covered by the Community Development and National Extension Service. In the Third Five-Year Plan period, a target of consolidating 12.5 mha was fixed. However, only in areas where the scheme included rectangulation and reshaping of fields and provision for expansion of village *abadi*, it made some progress. The policy for consolidation was pursued vigorously in the Fourth Plan. The aim of the policy was to consider reorganization of holdings in such a way that small and uneconomical holdings were reallocated in single blocks, facilitating special programmes for development of such holdings.\(^{105}\)

The agrarian system of the East Punjab was highly defective in 1947. It was in favour of intermediaries, tenure was insecure, rents were unregulated and high, holdings were fragmented and land distribution was unequal. As a result, the production levels were low. Intermediaries had been created to collect rent from the tillers, paying a fixed sum to Government annually on a permanent basis. Whenever, there was decline of the ruler, these intermediaries became a powerful and rich class of proprietors, bringing in a Zamindari System which culminated in lazy and irresponsible approach to agriculture.\(^{106}\)

**LAND REFORMS IN PUNJAB**

To bring required reforms in agriculture, the Punjab Government followed the instructions of the Centre. It passed a number of acts keeping in view the need of state. Most of the legislations were passed during the early mid fifties and their
implementations were completed by the end of the fifties. Only the land ceiling legislation which had to be revised was passed in the seventies.\textsuperscript{107}


**CONSOLIDATION OF HOLDINGS**

During the colonial period, a few steps had been taken for consolidation of holdings. To tackle the problem of subdivision and fragmentation, the Royal Commission on Agriculture had suggested an intensive drive, relying on voluntary approach and persuasion. The Government of Punjab pioneered the experiment in 1921 with the help of special cooperatives. The Punjab Legislative Assembly passed the Consolidation of Holdings Act in 1936 which provided that consolidation operation should be carried out compulsorily if two-thirds of the landholders agreed to consolidation.\textsuperscript{110}


The East Punjab Holdings (Consolidation and Prevention of Fragmentation) Act 1948 was passed soon after Independence.\textsuperscript{111} This Act superseded the Punjab Consolidation Act of 1936. The old Act did not provide for compulsory consolidation of land holdings. The Government of Punjab created a separate Department of Consolidation of Holdings.\textsuperscript{112} Sardar Partap Singh Kairon was the minister in the department. He travelled from village to village to convince the farmers about the benefits of consolidation of holdings. At that time, holdings were not only small but they were scattered in fragments. Due to fragmented fields, extra time and expense was required in moving workers, animals, seeds, fertilizers and implements from one field to another. In these circumstances, supervision was difficult, comprehensive irrigation and drainage facilities became even more difficult.\textsuperscript{113}

The East Punjab Holdings (Consolidation and Prevention of Fragmentation) Act 1948 empowered the Government to fix a minimum size of holdings beyond which no sub-division and fragmentation can take place. This minimum area was known as standard area and could not be transferred and partitioned so as to render it un-economic for cultivation. The Act provided that the Government may declare its intention by a notification to make a scheme for the consolidation of estate or estates and the Government shall appoint a Consolidation Officer who with the consultation of the Village Committee will prepare a scheme for the village. The scheme prepared by the officer shall provide for compensation to any owner who has been allotted a land of less value than that of his original land. Re-distribution of land after consolidation will not affect the tenancy of a tenant in any way, but he will cultivate the land under the same owner as previously.\textsuperscript{114}


\textsuperscript{112} Himmat Singh, Green Revolutions Reconsidered, p.41.


\textsuperscript{114} The Third Decennial World Agricultural Census, 1970-71, p. 58
Consolidation of holdings had been tried in Punjab on a voluntary basis in 1920s. Cooperative societies were formed for the purpose of consolidation. But the progress of the work was very slow and from 1920 to 1951 only 2,80,000 acres could be consolidated.\textsuperscript{115} However, under the consolidation of Holdings and Fragmentation Act, 1948, consolidation was made compulsory.\textsuperscript{116} Punjab took the lead by completing consolidation of holdings by 1968.\textsuperscript{117}

The most important benefit of this scheme was that the farmers were able to sink tube wells and make other improvements in their farms with the help of new technology. In 1950, there were no tube wells in the East Punjab, but by 1975 there were 4, 27,000 tube wells.\textsuperscript{118} Consolidation of holdings enabled Punjab to provide a sound base for intensive agriculture particularly for the cultivation of Maxican wheat which demanded frequent irrigation. M.S. Randhawa comments that the contribution made to this plan by ministers such as Gyani Kartar Singh and Partap Singh Kairon is inmemorable.\textsuperscript{119} Consolidation of land holdings played a vital role in raising agricultural production in Punjab. It is estimated that the process of consolidation of land holdings alone helped about 25 percent increase in agricultural production.\textsuperscript{120}

The Punjab Government also passed The East Punjab Reclamation of Lands Act, 1949 and The East Punjab Utilization of Lands Act 1950. The East Punjab Reclamation of Lands Act, 1949 granted powers to the Director of Agriculture to take necessary steps for the reclamation and cultivation of reclaimed areas.\textsuperscript{121} The enactment of the Utilization of Lands Act, 1950, enabled the Collector of a District to take over agricultural lands

\begin{itemize}
\item[115] M.S. Randhawa, \emph{Green Revolution – A Case Study of Punjab}, p.40.
\item[116] \emph{The East Punjab Holdings (Consolidation and Prevention of Fragmentation Act,) 1948}, Punjab Government, Legislative Department, Chandigarh, 1961, pp. 2-3.
\item[119] M.S. Randhawa, \emph{Green Revolution – A Case Study of Punjab}, pp. 40-44.
\item[120] \emph{Report of the Public Relation Department of Punjab}, Agriculture in Punjab, Chandigarh, 1977, p.13.
\end{itemize}
which had not been cultivated for six years and to lease it out to prospective cultivators.\textsuperscript{122}

**TENANCY REFORMS**

The Abolition of Ala-Malikiyat and Talukadari Rights Act were passed in the Punjab and PEPSU area in 1952 and 1954 respectively to abolish all proprietary rights of superior land owners. This Act aimed at the abolition of the rights of superior owners and to give full proprietary rights to the inferior owners who were required to pay compensation to the superior proprietors.\textsuperscript{123}

Ala-Malik or Talukdari tenure were the superior owners. These superior owners were, generally, the descendants of those persons who enjoyed the rights of lordship over the land and were ousted during the Sikh rule, but some how or other they continued to collect some proprietary fee. In certain cases, these Talukdars were the descendants of those ancestors who were revenue farmers or Jagirdars under native rulers, enjoyed right of management and overtime these Jagirdars acquired proprietary rights in lands. Adnamalik means inferior owners. This Act abolished age old institutions of ala-maliks or talukdars, on being allowed compensation for the abolition of these rights.\textsuperscript{124}

The Punjab Occupancy Tenants (Vesting of Proprietary Rights) Act. 1952 was passed. According to the Punjab Tenancy Act, 1887, any tenant, who, at the time of commencement of this Act, had held land for more than two generations, or settled in a village along with the founder of the village and occupied the land since then or on the 21\textsuperscript{st} day of October, 1868, continuously and did not pay the rent more than the amount of the revenue, was bestowed with occupancy rights.\textsuperscript{125}

\textsuperscript{122} *Third Decennial World Agricultural Census (1970-71)*, p.58.

\textsuperscript{123} *Ibid.*


The Punjab Occupancy Tenants (Vesting of Proprietary Rights) Act. 1952 provided that from the date of its commencement the following changes will be observed:-

a) All rights, titles and interests enjoyed by the land-lord in the land held by an occupancy tenant under him will cease to exist henceforth. Such rights, titles and interests, in future will be vested in the occupancy tenant.

b) The land-lord will have no right to collect or receive any rent or any share of the land revenue in respect of such land. On the other hand, he will not be responsible for the payment of any revenue for such land.

c) The occupancy tenant will be held responsible for the payment of the revenue of the land of which he has been given the rights of an owner.

d) The occupancy tenant will pay compensation to the land-lord.

The proprietary rights of superior land owners came to an end in Punjab and PEPSU in October, 1952. The institution of Zaildari was abolished.\textsuperscript{126} The debate that peasant proprietor is better cultivator and produce more has been going on for long. It was this debate which had resulted into the abolition of Zamindary System and conferring of proprietary rights on cultivator.\textsuperscript{127}

In addition to the conferment of proprietary rights on occupancy tenants, it became necessary to ensure security of land tenure to all tenants. Previously, the tenants-at-will had no security of land tenure at all. The Security of Land Tenure Act was passed in 1953 and a similar legislation known as the PEPSU Tenancy and Agricultural Lands Act was passed in 1955. This made the ejectment of a tenant impossible as long as he paid rent regularly, cultivated the land according to the prevailing customs and did not sub-let his tenancy. The Act did not protect tenant of a land owner who suffered from recognized disability like widowhood, minority, unsoundness of mind or service in armed forces and a tenant of small land owner. These two enactments not only provided security

\textsuperscript{126} Sucha Singh Gill, “Economic Development and Structural Change in Punjab, Some Policy Issues”, Princiapal Iqbal Singh Memorial lecture, Principal Iqbal Singh Memorial Trust Ludhaina, Eco Publisher, Mohinder Art Press, 1994, p.25. Also see, Gurbachan Singh, Effects of Land Reforms on the Rural Economy of the Punjab with Special Reference to Jalandhar District, p.90.

\textsuperscript{127} Gurbachan Singh, Effects of Land Reforms on the Rural Economy of the Punjab with Special Reference to Jalandhar District, p.133.
of land tenures to tenants but also for the first time fixed the maximum rent which could be claimed by the land owner from a tenant as one third of the gross produce and also enabled tenants to get proprietary rights in certain circumstances.\textsuperscript{128}

\begin{quote}
Punjab Security of Land Tenures, 1953 Act is as under :-
\end{quote}

\begin{enumerate}
\item[a)] Permissible area in case of a land-owner or a tenant means thirty standard acres.
\item[b)] No area under orchard at the time of commencement of this act shall be taken into account while computing permissible area.
\item[c)] For a displaced person,
\begin{enumerate}
\item[i)] Who has been allotted in access of 50 standard acres or ordinary 100 acres, the permissible area will be 50 standard acres.
\item[ii)] Who has been allotted in excess of 30 standard acres but less than 50 standard acres, the permissible area shall be the area allotted to him.
\item[iii)] Who has been allotted less than 30 standard acres, the permissible area will be thirty standard acres.
\end{enumerate}
\end{enumerate}

Surplus area means the area other than the reserved area and when no such area has been reserved, the area in access of permissible area shall be surplus area. Self-cultivation is defined as cultivation either by a land-owner or through his family members or by servants under his supervision.

Following are the important provisions of the Act:-

\begin{enumerate}
\item[a)] To determine the surplus area under an owner, all transfer of land except bona-fides sales or mortgages with possession, or transfers as a result of inheritance, made after 15 August 1947, and before the commencement of this Act, shall be ignored and overlooked.
\item[b)] The tenancy shall not be affected by death of landlord or by the death of the tenant except when the tenant leaves no male lineal descendents to succeed him. No landlord is authorized to eject his tenant except on the following grounds:-
\item[c)] A tenant of a small landowner or tenant of a reserved area will be ejected if the owner so desired.
\end{enumerate}

\textsuperscript{128} \textit{Third Decennial World Agricultural Census (1970-71)}, p.58.
d) Incase, the tenant fails to pay the rent regularly without sufficient cause, he is liable to be ejected.

e) If the tenant has used the land in such a manner as to render it un-fit for agricultural purposes, his tenancy will be terminated.

f) The tenant is liable to be ejected if he sub-let the land or he refuses to execute a patta deed in prescribed form.

g) A tenant shall also be liable to be ejected from access of permissible area under his cultivation. There is an option for the tenant to leave any area in access of the permissible area. No tenant can be ejected until and unless he is provided with land. Any tenant, who was ejected before the commencement of this Act or after 15 August, 1947, from the surplus area, can be restored by applying to collector.

Under the provisions of this Act, no tenant was required to pay rent more than one-third of the crop and if rent was to be paid in cash, it could not be more than the value of one-third of the crop. In area where already the customary rent was less than one-third, the maximum rent payable should be the customary rent.

The land owner, after receiving the rent, was required to issue a receipt to the tenant in the form prescribed in the rent received. In case he failed to give such a receipt, he might be convicted and fined up to Rs.100. No transfer, except legal transfer by inheritance or acquisition of land by the Government, after 1 February, 1955, could affect the rights of the tenant. The Act provided that a tenant of a landlord, other than a small owner who had been in continuous possession of his tenancy for minimum period of six years or was ejected on 14 August, 1947, and before the commencement of this act, and held the land continuously for 6 years immediately prior to his ejectment, would be entitled to purchase the land under his tenancy. The tenant would pay the purchase price either in lump sum or in six monthly installments not exceeding ten in numbers.\textsuperscript{129} The tenancy reforms which were an important part of overall land reforms helped to change the owner-tenant relationship in favour of tenants. The Punjab Tube wells Act 1954 was

passed so that in places where small land owners were not in position to install their own tube wells, The Punjab Government would supply them water at nominal rates for irrigation of their lands.\textsuperscript{130}

However, in reality the tenancy reforms legislation took a relatively much longer time. A number of land owners ejected tenants on paper as well as in practice immediately after independence, when the land reforms became a burning question. In addition to this, the powerful land owners did not let a large number of ejection cases come to the notice of the State. The interest of the land lords dominated the State Assembly and wielded strong influence in police and local administration. They in collaboration with administration were able to suppress facts about the number of actual ejectment. This resulted in hiding the actual area under tenancy. The equal distribution of gains in rural areas continued to be hindered.\textsuperscript{131}

**LAND CEILING**

The programme of imposing ceilings on land holdings was also taken up for the first time towards the middle of 1950’s. Necessary legislations were enacted. It gave effect to the policy of imposing ceiling on land holding of land owners and tenants.\textsuperscript{132}

Under the Punjab Land Ceiling Act of 1955, the land was brought under ceiling in Punjab. It was fixed at 30 standard acres and applied on landowners and not on families. In case of displaced person, it was 40 acres in PEPSU and 50 acres in Punjab. As a result of the imposition of the ceiling laws in the erstwhile Punjab and PEPSU areas, 1,74,221 standard acres of land were declared surplus.\textsuperscript{133}

Exemptions were granted for orchards and specialized dairy, poultry, sugarcane farms, tea estates and for gallantry to army personnel. A number of loopholes, however


were there in The Punjab Land Ceiling Act which allowed land owners to get exemptions.\textsuperscript{134}

The operation of the ceiling laws in 1950’s brought to the surface many weaknesses of the programme and of the policy adopted in the First and the Second Five Year Plan. The identification and the recognition of these weakness helped the government to improve its strategy and to remodel its legislative measures with the result that loopholes which had been left in the earlier programme were plugged. Therefore, according to the guidelines of Central and Land Reforms Committee, Punjab legislature enacted Punjab Land Reform Act, 1972. The most important changes that were introduced in the Punjab Land Reforms Act, 1972, were as follows:-

a) The permissible area in the new Act had a reference to the family consisting of a husband, a wife and minor children. Previously, the permissible area had a reference to an individual land owner and the old law permitted a large or even a moderate family to operate large areas of land in the state. Now the family had been taken as a unit for ownership and operation of holdings. Certain concessions were given to a family having more than a five members and having adult sons, who did not own any land at all or own small area of land.

b) Under the old law, a person could have land up to the permissible area both in erstwhile Punjab area as well as in the PEPSU area. For example, in two neighboring districts Jallandhar and Kapurthala, a single individual could have 30 standard acres of land in Nakodar and 30 standard acres of land in the neighboring areas of Kapurthala. The Punjab Land Reforms Act had been made uniformly applicable to the entire state and the entire land owned by a family in both visions should be taken into consideration for applying the ceilings.

extent during the last two decades that the old classification now seemed to be unscientific and unrealistic. It was for this reason that a new classification of land had been adopted while drafting the Punjab Land Reforms Act, 1972 and the Punjab Land Reforms Rules, 1973. The primary consideration for classifying lands in different categories had been whether a certain area of land got assured irrigation for at least two crops in a year, had assured irrigation for only one crop in a year and whether the land was barani or banjar. Of these categories a family of five persons could have 7 hectares, 11 hectares, 20.5 hectares and 21.8 hectares respectively.\(^{135}\) A number of exemptions were given in old ceiling laws. However, under the Punjab Land Reforms Act, 1972, these exemptions were withdrawn.\(^{136}\)

During the enactment of the Punjab Reforms Act, 1972, the Government hoped that 5 lakh acres of land would be found surplus under the revised ceiling level.\(^{137}\)

Most of the legislations were passed in 1950s and were implemented in 1960s. But still 30,013 acres of land was under litigation by 1990s.\(^{138}\) Intervention of courts, procedural difficulties, pressure by the landlord’s lobby and unwillingness of Government to risk losing political support from the influential sections had reduced the surplus area for re-distribution.\(^{139}\)

Despite best efforts on the part of the State, the individuals in powerful political positions, law makers, upholders of law and moulders of public opinion reversed the process of land reforms.\(^{140}\) Dr Pavte, the Governor of Punjab from 1967 to 1973 has remarked that that how difficult it was to implement land reforms in the face of the

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138 Himmat Singh, Green Revolutions Reconsidered, p.39.


140 Sucha Singh Gill, “Changing Land Relations of Punjab and Implications for Land Reforms”, p.115.
opposition of ministers and bureaucracy. He agreed that the Congress Government of Punjab passed a historic Land Reforms Bill in December, 1972, but, on a rough estimate, about 500 families in Punjab owned and cultivated 200-1000 standard acres which was possible only with the help of local officers.\(^{141}\)

On the whole, as a result of above mentioned legislative measures, the farmer came in direct contact with the Government. Intermediaries were removed. These reforms also changed the owner, tenant and labour relationship. The reforms also aimed at transferring ownership of land to landless agricultural labourers, though it was not successful in its aim. The principal aim of these reforms was to increase the productivity of land. The cultivated area by owners increased from 51.4 percent of the total in 1947 to 66.4 percent in 1957 and 80.89 percent in 1969-70. Area cultivated by tenants decreased from 47.2 percent in 1947 to 32.5 percent in 1957 and to 19.11 percent in 1969-70. The number of owner cultivators increased. When, the tenants became the owners, they put maximum efforts to get maximum output. Punjab emerged as a land of peasant-proprietors. So, a stable and reconstructed rural area base with a better tenurial system paved the way for ‘Green Revolution’.\(^{142}\)

**EXPANSION OF IRRIGATION AND POWER**

As part of the post-war reconstruction, the Colonial Government had started work on few multipurpose projects like Bhakra Nangal, Damodar Valley and Hirakund and few other small projects. After Independence, besides continuing with these schemes, a large number of new schemes were taken up in the First and the Second Five Year Plans. Important among them were Nagarjunasagar, Kosi, Chambal and Tungabhadra in the First Plan and Rajasthan Canal, Gandak, Tawa and Parambikulam-Aliyar in the Second Plan. The aggregate irrigation potentials of schemes included in the First and Second Plan were 8.9 million hectares and 6.1 hectares respectively. Beginning from the Third Five Year Plan, greater emphasis was laid on completion of projects already taken up and


utilization of the created potential. The Government Departments and Village Panchayats were directed to take initiative in these matters, complete these on their own wherever necessary and recover the cost from the beneficiaries.  

Development of minor irrigation projects had received special attention from the early forties under the Grow More Food Campaign. They were given a compact area approach in the First Plan like the installation of tube wells figured prominently. The Exploratory Tube Wells Organization was set up in 1954 to intensify efforts at deep strata exploration. A substantial part of the central assistance to states was allocated in minor irrigation works. The project of the construction of the tube wells sponsored by the Government of India under the Indo-American Assistance Programme was taken up in the states of U.P., Bihar, Punjab and Pepsu to be completed by 31 December, 1956.

In the Second Five Year Plan, allocation for minor irrigation works was made under the Community Development Programme, with a view to mobilizing public cooperation and involving the Community Development Organization. The Food Grains Enquiry Committee, 1957, which gave considerable thought to the problem of agricultural improvement suggested that greater reliance be placed on minor irrigation works for increasing production and that special provision to be made for them particularly their repair, renovation and maintenance. The allocation for minor irrigation was subsequently increased in the third plan and priority was given to maintenance, repair, renovation and full utilization of existing works. Minor irrigation works were recognized as a high priority programme in Annual Plans from 1966-69. It was given about one third of the total allocation made for agricultural programmes.

The emphasis in the Fourth Plan was on expeditious completion of continuing projects, expansion of irrigation facilities through better utilization of the potential

already created, construction of new projects preferably in drought areas, integrated use of ground and surface water and re-orientation of irrigation practices so as to ensure optimum production. Under the policy of Central assistance to states, a provision of 10 percent of the total amount of Central assistance was made for the continuing irrigation and power schemes in advance stage of construction to facilitate their early completion.\(^{147}\)

In April 1969, the Government of India appointed the Irrigation Commission under the chairmanship of Shri Ajit Prasad Jain to go into the question of future irrigation development in the country. The Commission recommended that the irrigation policy should aim at maximum production per unit of area in areas where rain falls was abundant; maximum production per unit of water where water was limiting factor; and maximum coverage of area in drought areas. It emphasized the importance of adopting an integrated approach to actual development and the need for conjunctive use of ground and surface water to achieve better irrigation efficiency. In regard to drought areas, the Commission suggested that in view of the inadequate surface water resources in these areas, the aim should be to develop ground water to the maximum extent possible. The Commission also proposed a detailed programme for doubling irrigated area in country by 2000 AD with the objective of achieving self-sufficiency in food and fiber. They also recommended the setting up of a high powered National Water Resource Council to ensure integrated development of irrigation and seven River Basin Commissions for Planning irrigation development on regional basis.\(^{148}\)

Rural Electrification had many problems such as long distribution lines, wide spread out villages, sparse load, the seasonal nature of requirements and fluctuations in the rate of consumption and the low tariff rates traditionally adopted for agricultural use.\(^{149}\) Under the Electricity Supply Act, 1948, which was amended in 1956, The Electricity Boards were setup in different states as autonomous body and were to be run on commercial principles. These Boards depended primarily on loans from state

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\(^{148}\) Ibid, p.154.

\(^{149}\) S.P. Singh, Central-States Relations in Agricultural Development, p. 247.
governments to whom the Centre advanced for this purpose. The Boards were required to consult the Central Electricity Authority set up under the Act in respect of schemes costing more than Rs. one crore.\textsuperscript{150}

Between 1953 to 1960, only 6.1 percent of the total electricity consumed in the country was used for agricultural purposes. The position varied from one state to another. For the same period Madras and U.P. consumed 24.9 and 1.9 percent, while in the case of Orissa and Bihar the figures were 0.15 and 3 percent respectively.\textsuperscript{151}

A strong irrigation base had all along been the main strength of the agriculture of Punjab. However, with the partition of India, the Indian Punjab had lost a major part of irrigated area which fell into Pakistan. Heavy investment in the form of irrigation was needed for healthy agricultural base. The Punjabi farmers that had migrated to the East Punjab from canal colonies were familiar with the improvement practices associated with irrigated agriculture. They provided a good demonstration effect wherever they settled in the Indian Punjab.\textsuperscript{152}

The biggest public investment was in the Bhakra-Nangal Project. Multipurpose Bhakra Nangal project was started in 1946. It was hydro-electric project which was proposed to be completed in the First Five-Year Plan. The Bhakra Dam with a live storage of about 57.25 lakh acre feet of water was built on the Satluj at Bhakra. Its irrigation objective was to provide irrigation in the dry areas of the southern-part of the state and also to improve the existing supplies in other parts.\textsuperscript{153} The construction of Bhakra Canal system is the biggest milestone in canal irrigation system of the East Punjab after Independence. After remodeling, the Sirhind Canal included the Bhakra Canal and the Bist Doab Canal.\textsuperscript{154} Its canal system extended to Rajasthan.

\textsuperscript{150} Third Five-Year Plan, Planning Commission, Government of India, Delhi, 1962, p.407.
\textsuperscript{151} S.P. Singh, \textit{Central-States Relations in Agricultural Development}, p. 246.
\textsuperscript{152} A.S. Kahlon, \textit{Modernization of Punjab Agriculture}, p.10
Various other schemes were also started during the First Five-Year Plan for remodeling, repairing and extension of water supplies. During the First Five-Year Plan, in all 99 irrigation schemes were handled by the Irrigation Department of Punjab. Private canals played a minor role in irrigation. Their importance declined. The tank irrigation also minimized.

Minor irrigation works played an important role in the agricultural economy for stepping up agricultural production in Punjab. These had the advantage over major irrigation works. Sinking of percolation wells, installation of tube wells and pumping sets not only brought more acres under irrigation but also enhanced the yield of crops.

By the end of First Five-Year Plan, 894 state tube wells had been sunk in addition to 256 tube wells under the Jagadhri scheme and 42 under the Radaur-Manuk scheme, which were put into operation during the plan period. In 1957-1958, 232 tube wells were drilled against a target of 150. These tube-wells irrigated 20,880 acres of barani land and produced 1,25280 maunds of additional foodgrains. Thirteen electric and diesel driven pumping sets were distributed to the cultivators on tacavi loans under the Central Government Loan Scheme. The tube-wells scheme was closed on 01 October, 1955 by the Government as it was running at a loss.

In the year 1962-63, tacavi loans amounting to Rs. 23,60,000 were given to the farmers for the installation of 377 tube-wells against the target of Rs. 2,50,000 for 400 tube-wells. The tube-wells irrigated about 34,000 acres of land, which in turn was expected to yield an outturn of about 7,500 tons of foodgrains. The Agriculture Department also helped the farmers to install their tube-wells and pumping sets entirely

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156 *Census of India, 1961*, Punjab, District Census Hand Book No. 14, Gurdaspur District, p. 29.
with their own resources.\textsuperscript{161} The irrigation facilities improved the production of food grains but much more still had to be done.

**EDUCATION AND RESEARCH DEVELOPMENT**

Immediately after Independence, the Government of India appointed the University Education Commission under the chairmanship of Dr. S Radhakrishnan to examine the entire spectrum of higher education in India. The Commission submitted its report in 1949. The Commission observed the weakness of traditional system and the need to link programmes of agricultural education with production programmes. It suggested the establishment of ‘rural universities’.\textsuperscript{162}

Meanwhile, the unique developments in agriculture had happened in the United States of America. It also attracted the attention of Government of India. The Government asked for assistance from the United States. This assistance which began as wheat loan in 1950 took the shape of regular bilateral dealing with the signing of Indo-U.S. Technical Cooperation Programme on 5 July, 1952.\textsuperscript{163} According to this agreement, U.S.A. was to give economic and technical assistance for developing projects besides the supply of agricultural commodities.\textsuperscript{164}

The first joint Indo-American Team was set up by the Ministry of Agriculture in 1955. The objectives before the team were to study functions, organization and working of Indian Institutions, engage in agricultural research, education and extension at college level. It was also to study the needs of agricultural institutions in India and to make recommendations for improving them by providing laboratories, farm equipments and training of personnel engaged in teaching and research.\textsuperscript{165}

The Preamble of the first Indo-American Team on Agriculture and Research read:

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\textsuperscript{161} Annual Report on the Operations of Department of Agriculture, Punjab for the year ending 30\textsuperscript{th} June, 1964, Punjab Press, Chandigarh, 1966. p. 2.\\
\textsuperscript{162} Report of the National Commission on Agriculture, p.144.\\
\textsuperscript{163} Amrit Parkash Singh, Role of Punjab in Green Revolution, p.24.\\
\textsuperscript{164} K.C. Naik & A. Sankaran, A History of Agricultural Universities, IBH & Oxford Publishers, New Delhi, 1972, p.21.\\
\textsuperscript{165} R.N. Chopra, Green Revolution in India, P.102. Also see, Report of Indo-American Team on Agricultural Research and Education, ICAR, New Delhi, 1955, pp. 99-100.
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“The experiences of the Agricultural Colleges and Research Institutions in the United States, particularly of the land grant colleges which have long history of agricultural development, it is felt, would provide some useful guidelines for strengthening agricultural colleges in India for promoting centre-state cooperation in the field of agricultural research. It has accordingly been decided that a joint team of Indian and American specialist dealing with agricultural research and education should make a comparative study of the organization, functions and the working of Indian and American Agricultural Research Institution and Agricultural colleges and make recommendations, including in particular how the assistance envisaged under Technical Mission could be utilized in maximum advantage to remove some of the practical deficiencies in the existing facilities for agricultural research and education in India.”

Indian members of the team visited United States of America to observe the research and educational institutions and their activities in 1955. American representatives of the team also evaluated the research and educational progress in different institutions in India in the same year. The team submitted its report on 28 September, 1955 to Ministry of Food and Agriculture, Government of India. The team concluded in its report that there was a lack of co-ordination between results of research and extension. It also made specific recommendations for the establishment of rural universities.

The Report also endorsed the recommendations of the University Education Commission: “A rural university should include a ring of small residents under graduate colleges with specialized and university facility at one centre. The Report spelled out in details as what should be constituent colleges of such a university. Moreover, the team suggested the establishment of at least one agricultural university in each state.”

The second Indo-American Team on Agricultural Education, Research and Extension was constituted by the Government of India on 12 September, 1959. Dr. M.S.

168 Ibid, p.54.
Randhawa, then the Vice President of Indian Council of Agricultural Research was the Chairman of this team. The second Indo-American Team recorded a wide spread demand from different states for the establishment of agricultural universities. In view of the recommendations of the second Indo-American Team and earlier recommendations made by first Joint Indo-American Team and Radhakrishnan Report, the Planning Commission made a final decision on the need of agricultural education in the third Five-Year plan. 

The idea of agricultural university ultimately became a reality by the Cumming’s Report of 1960. The outcome of this Committee’s Report was the establishment of six agricultural universities in India during the Third Five-Year Plan. Among them was the Punjab Agricultural University at Ludhiana. For putting this dream into reality Pratap Singh Kairon, the Chief Minister of Punjab played a significant role. The main motive behind the establishment of the agricultural university was to bring about an integration of teaching, research and extension education programmes in agriculture. Punjab Agricultural University Act was passed in 1961.

The Imperial Council of Agricultural Research had been set up in 1929 as a registered society to promote, guide and coordinate agricultural research. Most important among them were the Central Rice Research Institute at Cuttack in 1946, the Indian Central Sugarcane Committee(1944), The Indian Tobacco Committee (1945), The Indian Central Coconut Committee(1945) and The Indian Central Oil Seed Committee(1947). Besides crop research, the Committee attended to problems of development and marketing and advised the government on matters relating to crops concerned.

172 Sardar Partap Singh Kairon, The Chief Minister of Punjab, had received his education form California. His dream to convert the state of Punjab into the California of India helped in the adoption of the decision to establish Agricultural University at Ludhiana.
173 M.S. Randhawa, Green Revolution – A Case Study of Punjab, pp. 61-62.
dominant trend in agricultural research so far was to organize efforts crop wise and institution wise without achieving adequate coordination. Crop centered research was mostly confined to cash crops.\footnote{Report of the National Commission on Agriculture, 1976, p. 184.}

Following the recommendations made by a high powered Agricultural Research Review Team in 1964, the ICAR was reorganised into an autonomous body for coordinating, directing and promoting agricultural research and education in the country. All central institutes under the administrative controls of the Departments of Agriculture and Food were transferred to Council and were made constituent units. All the commodity committees were abolished and research institutes under their control were transferred to the council to be made constituent units. Application of Science and Technology to agriculture being the keynote of the strategy in the Fourth Five Year Plan, Agricultural research was accorded high priority.

The principal agencies involved in the research programme were the Central Research Institutes, Agricultural Universities and to some extent, Research Stations run by Agricultural Departments in some states.\footnote{Ibid. pp.184-185.}

**INTENSIVE AGRICULTURAL DISTRICT PROGRAMME (IADP) AND INTENSIVE AGRICULTURAL AREA PROGRAMME (IAAP)**

Despite great efforts, the country was still short in food crops. To solve the food problem of the country, the Government of India invited a team of agricultural experts from “Ford Foundation” of America to boost up agricultural production of the country.\footnote{Report of the Comparative Study of I.A.D.P. Districts in Punjab, Operational & Analytical Research Unit, Intensive Agricultural District Programme, Ludhiana, Punjab, 1983, P. I. Also see, Francine R. Frankel, India’s Political Economy, 1947-1977 - The Gradual Revolution, pp. 179-180.}

The report prepared by the expert of Ford Foundation was a turning point in the agricultural history of India. Its recommendations were accepted when a new strategy was formulated in the shape of a programme of intensive agriculture in selected districts. Intensive Agriculture District Programme (IADP) was launched in 1961. The team
thereby conducted an intensive study of agricultural problems and recommended few solutions. The new programme was characterized by four major innovations; (a) it emphasized measures for immediate increase in agricultural production; (b) only districts with adequate production potential in terms of assured water and infrastructure facilities were selected; (c) emphasis was directed towards profitability at the farm level and; (d) stress was laid on adoption of package improved practices evolved for individual crops which included use of improved seeds, fertilizers and manures, pesticides, improved implements and proper soil and water management practices.  

IADP programme emphasized the concentration of efforts and resources in particular regions rather than their wide diffusion. There were certain conditions for the selection of districts where IADP programme was to be launched. The districts selected for IADP should have assured water supply. It should have a minimum of natural hazards such as floods and droughts. It should have maximum potentialities for increasing agriculture production within a short period of time. Intensive Agriculture District Programme was also called as “Package Programme” as it was to use a package of improved practices such as the use of improved seeds, improved implements and proper soil and water management in given area. Farmers of selected districts were provided all types of facilities such as improved seeds, improved implements, easy credit and soil testing facilities. They were instructed about the quantity of fertilizers and insecticides, the dose and time when they were to applied as well as about the number of watering.

Under the Intensive Agriculture District Programme, seven districts were selected. But later on, It was extended to 15 districts. Ludhiana from Punjab was selected

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for this experiment. It was launched in district Ludhiana in 1961 to bring revolutionary change into the practices of farming and an evolutionary change in the social set-up of a society. It can be defined as an organized attempt by the Government to bridge the gap between agricultural situation on one hand and farming population on other hand by establishing suitable agencies at various levels of administration so that the results of research may be systematically extended to the farming community for wider applications and their farm problems may be brought back to the research station for study and solution. This very two way traffic system not only enhanced the production of crops under IADP programme but tended to bring an overall improvement in the economic condition of the cultivators.¹⁸²

IADP not only imparted knowledge but also enabled farmers to change their habits, behavior and attitude towards agricultural by using improved agricultural practices and implements. Ludhiana belonged to the first group of seven districts in the country for the implementation of IADP Programme. Ludhiana farmers were ready to use new technology as soon as it was made available to them. The coverage of the programme had been expanded rapidly starting with the coverage of 202 villages. Ludhiana district had 378 thousand hectares of geographical area. Wheat, maize, rice and groundnuts were the major crops of the district. All efforts were made by the experts of IADP to provide timely help of all the relevant inputs, so that the farmers of Ludhiana could get maximum production from their respective crops.¹⁸³

IADP workshop was attached to the Punjab Agricultural University. Important activities of the workshop were field trials of improved implications and machinery, organizing training programme for farmers. It also under took servicing and repair of vehicles and implements.¹⁸⁴

¹⁸² Report of A Comparative Study to Assess the Impact of IADP Programme upon Agricultural Production in Punjab, p.2
¹⁸³ Ibid, p.2
Ludhiana district made remarkable progress in agriculture after the inception of IADP. No district of Punjab or in India, more closely identified with the gains of the Green Revolution than Ludhiana. Under the IADP package between 1960-61 to 1968-69, the area under irrigation increased from 45 percent to 70 percent. Consumption of fertilizers increased more than 13 times, from 17.6 pounds to 242 pound per cultivated acre. The new Mexican dwarf varieties expanded from 170 acres to 42,000 acres in Ludhiana district by 1968-69. The most striking achievement was that yields per acre in Ludhiana increased form an average of 1,385 pounds in 1960-61 to over 3,280 pounds in 1968-69 more than 120 percent. It was mainly to the constant efforts of IADP staff that the yield of wheat in Ludhiana district had been the highest among the wheat growing countries of the World.\(^{185}\)

Glaring achievements of Ludhiana district under IADP programme encouraged the state to extend the programme to other districts. Accordingly, a decision was undertaken by the Cabinet with the recommendations of Director of Agricultural Development Commissioner to extend this programme to other five districts of Punjab. It came into operation in Ferozpur and Sangrur district in 1971-72, Gurdaspur and Faridkot in 1973-74 and Amritsar in 1975-76.\(^{186}\) Punjab Agriculture under IADP programme in the above mentioned districts had made a rapid progress in the wake of new technology and package practices. IADP programme succeeded in accelerating the agricultural progress of the villages, along with an improvement of the environment of the farmers in the respective villages of various districts. The progress was not only confined to the inputs but had increased the participation of all classes of farmers which led to tangible efforts of improving the status of small farmers in the community for the betterment of farming communities in the villages.\(^{187}\)


\(^{186}\) Report of A Comparative Study to Assess the Impact of IADP Programme upon Agricultural Production in Punjab, p.3.

IADP programme attained its objective of increasing production due to systematic research, extension services including field demonstration of improved technology, farmers training and their education, farm planning and management, adequate and timely supply of inputs to the farmers and adoption of improved agricultural practices. An overall contribution of IADP was three folds i.e. increase of area under high yielding varieties, utilization of fertilizers in the form of N.P.K. and yield per acre.\textsuperscript{188}

A modified version of the IADP was introduced in October 1964. This was named as Intensive Agricultural Area Programme (IAAP).\textsuperscript{189} It was extended to 184 Blocks drawn from 114 districts. It was to cover 1410 Blocks in selected districts by 1966-1967. Two major points of difference between IADP and IAAP were that the later was crop oriented and the additional staff provided was on a reduced scale. IADP and IAAP marked a significant beginning in the agricultural growth as a fairly large proportion of cropped area in the country, possessing adequate production potential was brought under intensive production efforts for the first time.\textsuperscript{190}

The IADP played an important role in developing the new strategy for the Fourth Five-Year Plan in formulating the high yielding seed varieties programme and a demand of farmers for better inputs and facilities. It was demonstrative effort in the field of agriculture, which on, success was succeeded by the IAAP. The Fourth Report of the Expert Committee on Assessment and Evaluation remarked “The IADP has played the role of ‘path finder’ rather than that of ‘pace-setter.’”\textsuperscript{191} This was the adoption “break-through” which was available when the ‘biological break-through’ came on the Indian scene. It led to the advent of the Green Revolution in India in the late sixties.\textsuperscript{192}

\textsuperscript{188} Report of A Comparative Study to Assess the Impact of IADP Programme upon Agricultural Production in Punjab, p.118.


\textsuperscript{190} Report of the National Commission on Agriculture, 1976, pp. 150-151.
