CHAPTER 4

ORGANISATIONAL SET-UP

As already highlighted in the preceding chapter, agriculture constitutes an extensive and complex sector of the Indian economy. It provides livelihood to about three-fourth of the population and accounts for nearly one half of the national income, one half of the industrial raw material and over one half of the earnings in foreign exchange. Since mid-fifties which marked the beginning of 'Green Revolution' as a result of the adoption of 'High Yielding Varieties Programmes', Indian agriculture, especially Punjab agriculture has acquired greater strength and resilience. The challenges of meeting the needs of growing population and the expanding industries and exports, call for a suitable strategy for consolidating the gains already achieved; making further progress in agricultural output; extending and percolating the benefits of the new technology to all categories of farmers and to all reasons for all times to come.

It is worthwhile to note that even developed countries like the U.S.A., France and Japan owe their prosperity to their strong cultural base. Agricultural development, in many of these countries, has provided more

Income and higher standard of living to their people, stimulus for development of industries, expansion of employment opportunities and export market. Traditionally, ours is, an agricultural country bestowed with ample natural resources. Development of agriculture to its fullest potential is, therefore, essential to the Indian economy. It is only through a sound organisation and administration of agricultural development programmes and policies that we can usher in an era of prosperity and economic stability.

The Directorate of Agriculture, Punjab is trying to meet these challenges through agricultural programmes and policies. Before we discuss the present organisation and functions of the Directorate of Agriculture, it would be worthwhile to discuss the growth of the Department of Agriculture in historical context. Therefore, we have divided this chapter into two parts — Historical Background and Present Organisation and Functions with critical evaluation. This is considered essential for the proper understanding of the working of the Directorate.

PART-A

HISTORICAL PERSPECTIVE

In this part, we propose to study the growth of the Directorate of Agriculture, Punjab, over a period of time. This has been considered essential for a proper understanding of the working of the Directorate. However, a brief
account of the growth of central agricultural organisation is also being presented as the growth of the Directorate is linked with it.

Growth of the Department of Agricultural at the Central level

The Department of Agriculture has a long history of its own. Before the middle of the 19th century, the British government took little interest in the problems of agriculture. The government was mainly concerned with the problems of revenue, police and judicial administration. However, the great famine of 1866 in Bengal and Orissa, forced the attention of the Government to the need for the development of agriculture as a means of averting famines and mitigating the hardships of the people. The first proposal to constitute a special Department of Agriculture at the Centre was put forward by the Famine Commission appointed in 1866. The proposal was repeated by the Manchester Cotton Association in 1869. The British Government in India considered the proposal and established a Department of Revenue, Agriculture and Commerce as a branch of the Secretariat of the Government of India in 1871. The Department had, however, a very brief existence and was merged with the Home Department in 1879 for reasons of financial stringency. Its only achievement was the

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1 Before independence, Ministry of Agriculture was known as Department of Agriculture.
evolvement of a system for the collection of agricultural
statistics and other data.¹

The Report of the Famine Commission of 1880-81,
urged the revival of a separate Department of Agriculture
both in the Central Secretariat and the provinces as a long
term remedy for famines. As a consequence, a separate
Department of Revenue and Agriculture was revived in the
Central Secretariat in 1881 and subsequently similar Agri-
cultural Departments were set up at provincial levels. As
Agricultural Departments remained pre-occupied with collection
of statistics, surveys and famine relief administration,
implementation of a positive policy for agricultural improve-
ment did not receive due attention of the Government. In
1889, the Secretary of State for India sent Dr. J.A. Voeicker,
a Consultant Chemist to the Royal Agricultural Society, to
advise on the application of Agricultural Chemistry to Indian
agriculture and to effect improvements in it.² This is
regarded as the first serious step to frame a policy of
agricultural research suited to the conditions of India.³ This
was followed by the appointment of specialists for agricul-
tural research and education in 1892. Among the developments
of this period, mention may be made of the establishment of

¹India, Ministry of Agriculture and Irrigation, The Report
of the National Commission on Agriculture 1976 (New
Delhi: Ministry of Agriculture and Irrigation, 1977),
Part I, p.146.

²India, The Report of Royal Commission on Agriculture 1928

³Ibid., pp.18-19.
the Imperial Institute of Veterinary Research in 1889 and the Botanical and Zoological Surveys in 1890. In 1901, the post of Agricultural Chemist was replaced by an Inspector General of Agriculture who was to perform duties in the advisory capacity both in relation to the central Government and to the provincial governments. His duties were specified as "the systematic study of Indian agriculture, its conditions and remediable defects; the supervision and development of provincial agricultural department; the establishment of improved agricultural methods and new staples and generally the direction of the agricultural policy of the government." Similarly an Imperial Mycologist and an Entomologist were added to the Department between 1901 and 1903.

The Report of the Famine Commission of 1901 quickened the pace of the growth of Agricultural Departments. The Commission recommended strengthening of the scientific staff of agricultural departments and legislation to set up mutual credit societies. Following Lord Curzon's reforms in 1903, the full-time Directors of Agriculture were appointed in most Provinces. And in 1906 there was also an expansion of the scientific staff of the departments and their activities. With the setting up of the Imperial Agricultural Research Institute at Pusa, an Imperial Agricultural Service was

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1Ibid., p.19.
2In the Province of Punjab too, Director's post was created in 1903.
constituted. Altogether the years from 1905 to 1914 were years of steady growth in agricultural research and education and other services. The substantial advances made during these years by Provincial Departments were largely due to the stimulus and guidance of the Central government and grants given by it. The outbreak of the World War I (1914-18) halted further progress. In the period immediately after the Reforms of 1919, there was an initial set-back. Agriculture was made a transferred subject and formed part of the responsibility of the combined departments of Education, Health and Lands at the Centre and of composite development departments under ministers responsible to provincial legislatures in the Provinces. Recruitment to the Indian Agricultural Service ceased in 1924. The Centre ceased to co-ordinate and direct research and experimental programmes of provincial agricultural departments. Till 1928 the only notable steps in advance were the setting up of the Indian Animal Husbandry and Dairy Research Institute in 1923, cattle breeding stations at Karnal, Wellington and Anand, the Institute of Veterinary Research at Mukteswar and the Imperial (now Indian) Council of Agricultural Research in 1928. The primary function of the Imperial Council of Agricultural Research (ICAR) was "to promote, guide and co-ordinate agricultural (including veterinary) research in India."¹ The Pusa Institute was re-organised and equipped with the necessary specialist staff to undertake higher agricultural research and

training. More finances were made available to agricultural departments to undertake work in all fields of agricultural improvement.

In the year 1935, an Agricultural Marketing Adviser was appointed at the Centre and the Agricultural Marketing Officers in the provinces. A Statistical Advisor and an Adviser on Irrigation and Fisheries were also appointed in 1944. A number of Commodity Committees came into existence: Jute, Tobacco, Coconut, Oilseeds, etc., on the model of the earlier Central Cotton Committee. A Central Rice Research Institute (Cuttack), and the Central Inland Fisheries Institute (Mandapam) were also established. From the viewpoint of the development of administrative machinery, the most important event, however, was the creation of a Department of Food and of a Department of Agriculture in 1943 and 1945 respectively.

The Department of Agriculture was renamed, the Ministry of Agriculture after independence. In 1951, with the amalgamation of the Department of Food with it, this ministry was designated as Ministry of Food and Agriculture. In 1956, the Ministry of Food and Agriculture was split up into two ministries, namely, the Ministry of Food and the Ministry of Agriculture, but, in 1957, both were merged together to form the Ministry of Food and Agriculture, two departments, namely, the Department of Food and the Department of Agriculture. In
1966, the Ministry of Food and Agriculture and the Ministry of Community Development and Co-operation were combined into a single ministry known as the Ministry of Food, Agriculture, Community Development and Cooperation. In 1974, it again underwent change and was renamed as the Ministry of Agriculture and Irrigation. With the transfer of Irrigation to the Ministry of Irrigation and Power and amalgamation of Rural Development with it, this Ministry is now known to be the Ministry of Agriculture and Rural Development.

**Growth of the Department of Agriculture at the State Level**

The growth of agricultural departments in provinces including Punjab has been parallel with that of the Central Department of Agriculture which had been set up in 1871. They were established mostly following the Report of the Famine Enquiry Commission of 1880 which had strongly urged the setting up of permanent departments of agriculture in the provinces.\(^1\) It was realised even at the initial stages that without a provincial agency, no programme of agricultural improvement which emanated from headquarters could be productive of tangible results; that the main responsibility for agricultural research and experiment must fall on provincial governments\(^2\).

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and all that the Centre could do was to give a general lead, guidance and help. Agricultural Departments in most provinces were set up between 1876 and 1905.¹

As in other provinces, the recommendations of the Famine Commission of 1880 resulted in the setting up of a Department of Land Records and Agriculture in Punjab. Though, a few experiments were made with exotic varieties of cotton, wheat and maize, yet nothing serious was attempted by way of agricultural experiment till 1901. During this year, a small farm of 56 acres was opened at Lyallpur (now in Pakistan) which was staffed by the agricultural assistants who had been trained at Coimbtore. In 1904, one post each of the Deputy Director of Agriculture and the Economic Botanist were sanctioned for the province. The appointment of Deputy Director of Agriculture and Economic Botanist however, was made in 1905 and in 1907 respectively, followed by the appointment in 1907 of an Agricultural Chemist for research work.

Reorganization of the Department of Agriculture

It was in 1905 that the organisation of the Department was considerably improved. It was relieved of the extra work with which it had been formerly saddled, and a recurring grant of Rs.21.2 lakhs supplemented out of the provincial funds was

¹India, Ministry of Food and Agriculture, Report of the Agricultural Administration Committee (New Delhi: Ministry of Food and Agriculture, 1958), p.7. The first Provincial Agricultural Department to be organized was that of the U.P., then known as North Western Province in 1875.
allocated from the beginning of the financial year 1905-6, for the development of agricultural experiments, research, demonstration and instruction. In the same year an All-India Board of Agriculture was established with a view to securing co-ordination of agricultural programmes of various provincial departments and making suitable recommendations to the Government of India.

Following Lord Curzon's reforms in 1903, in 1907 the Punjab Agriculture College and Research Institute were set up at Lyallpur. It was in 1914, that the Director of Agriculture and Industries was appointed to head both the Departments. However, the constitutional reforms of 1919 devolved the responsibility for improvement of agriculture including veterinary and co-operation on the provinces. This led to the re-organisation of the department of Agriculture in Punjab. A separate Director of Agriculture was appointed. The province was divided into 5 circles and one Deputy Director was appointed in each circle (See Fig.4.1). In districts, Extra Assistant Directors of Agriculture were appointed. At Tehsil level, Inspectors were made incharge of agricultural activities. At the State level, a provincial

1 The Department of Agriculture was separated from that of Land Records on July 1, 1906. See Punjab Agriculture Department Report 1905-6, p.26.
2 Ibid., p.27.
3 These circles were not co-terminus with Administrative Divisions. These 5 circles were: Lyallpur, Gurdaspur, Hansi, Multan and Montgomery. Later on another circle that is Rawalpindi was added. Ambala was the 7th circle to be added in 1920. See, Annual Report of the Department of Agriculture of 1920.
FIG. 4.1

Organization of the Department of Agriculture in Punjab in 1919

Financial Commissioner

Board of Agriculture

Director

Directorate

Circle Level

Lyallpur
Dy. Director

Gurdaspur
Dy. Director

Hansi
Dy. Director

Multan
Dy. Director

Montgomery
Dy. Director

District Level

Extra Assistant Directors of Agriculture

Tehsil Level

Agricultural Inspector
Board of Agriculture was formed under the presidency of the Financial Commissioner.¹

With the introduction of Provincial Autonomy in 1937, responsibility in the sphere of Forest and Agriculture were further devolved in the provincial governments. However, the impact of formulation of popular governments in provinces on Agricultural development was of little significance.

As regards the expenditure of the department, though it increased from Rs 2.58 lakhs in 1906-07² to Rs 16 lakhs in 1920-21, Rs 23 lakhs in 1926-27, Rs 28.5 lakhs in 1936-37 and Rs 86.97 lakhs in 1946-47,³ yet the activities of the Agriculture department during this period were largely confined to research in the field of demonstration. It did not undertake the 'servicing' of agricultural development by providing the inputs and credit requirements of farmers. The findings of the research remained unutilised as extension work was neglected due to lack of finance and staff. In 1936-37, the Department had only 60 gazetted officers;⁴ only an insignificant number of these were employed in actual extension and

¹Punjab Agriculture Department Report, 1919-20, p.67.
³Ibid., pp.36-37.
⁴Report on the work of the ICAR in applying science to Crop Production in India by Sir John Russell, ICAR 1937, Table 16.
⁵Annual Reports of the Department of Agriculture, 1936 to 1947.
⁶Pertains to the period 1947-48, i.e. after Partition. The figure rose to Rs 111.25 lakhs in 1949-50.
development activities. District Administration was essentially revenue-oriented and was little concerned with agricultural extension work.

The turning point in the growth of agriculture department came with the food crisis created by the Second World War and the Bengal Famine of 1943. The 'Grow More Food' Campaign initiated in 1943 in order to meet the acute food scarcity placed new responsibilities on the Central as well as on the Provincial governments. The agricultural machinery in the Provinces was put to its first real test and it proved unequal to its new tasks. The administrative arrangements and field establishments of the departments could not handle the development schemes under the Grow More Food(G.M.F.) Campaign. The general district administration was pre-occupied with other matters and regarded agricultural activities as of secondary importance. No attempt was made to create an extension organisation in the department of agriculture that could effectively carry out the GMF programme effectively. Most of the staff was, however, appointed on a temporary basis, mainly because the GMF schemes themselves were of an ad-hoc nature. This introduced an element of uncertainty and prevented the complete re-organisation of the agriculture department.  

2Initially even the Schemes under the GMF Campaign were executed through the Deputy Directors-incharge of Circles. The change over to the institution of District Agricultural Office took place in the U.P. in 1949, in Bombay during 1950-57, but, much later in the case of West Bengal. 
The organisation of the Agriculture Department since Independence may be discussed in three stages: First, at the initial stages of agricultural development at the time of independence; second, between 1950 to 1984; and, third, the present and the future organisation.

First Stage

Agricultural Organisation at the time of Independence

The food problem became acute after the partition of the country in 1947. At the time of partition, the Punjab agriculture received a serious set-back as most of the valuable and productive lands went over to Pakistan. As a result, new techniques could not be made readily available to the farmers as the research had also been affected seriously. As a result of all this, the State for the first time became a deficit State, almost in all the agricultural commodities.

The Department of Agriculture at that stage was engaged in teaching and research, and the extension activities were organised on a small scale. The extension wing of

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2 Government of Punjab, Development Department, Twenty-Five years of Development in Punjab (Chandigarh: Punjab Government Publication, August 1972), p.34.
3 The teaching responsibility was shared by the Government Agriculture College, Ludhiana. See Annual Report of the Department of Agriculture, 1948 to 1950.
the Department made arrangement for supplies of such inputs as seeds and improved implements for the farmers, and carried the research findings to their fields. The extension organization of the Department, at that time consisted of Directors of Agriculture at the state Headquarter, the Deputy Directors of Agriculture at the divisional level, the District Agricultural Officers at the district level, Agricultural Inspectors, subinspectors, Agriculture and Fieldmen (Beldars) at the Tehsil level.

Thus at the time of independence, Agriculture Department in the State had a highly generalised organization to deal with agricultural activities. Again, the non-involvement of commercial banks and inadequate resources of the co-operatives could, at the most, meet only a fraction of the total credit requirements of the farmers in general, and of small farmers in particular. Further the over compartmentalization of the functions made the cross fertilization of ideas and interdepartmental co-ordination rather difficult. This led to the duplication and even triplication of efforts and wastage of human and material resources. As a result of all this, the state of Punjab did not make any notable strides in the agricultural development.

Second Stage (1950-84)

During this stage, the government aimed at rural development and rural reconstruction. Many programmes launched by the government boosted agricultural production also. A
Organization of Directorate of Agriculture, Punjab (1950)

Agriculture Minister

Finance Commissioner Revenue and (Secretariat)
Secretary to Government, (Level)
Punjab, Agriculture Department ()

Director Agriculture (Directorate Level)

Deputy Directors Agriculture (Divisional Level)

District Agriculture Officers (District Level)

Inspector/
Sub-Inspector Agriculture and (Tehsil Level)
Beldars
brief reference of all these programmes is being made here.

**Community Development Programme (1952)**

With a view to promote agricultural development, the Government of India and the State Governments evolved a method called Community Development Programme. It was conceived as a multi-purpose programme for rural development which would mobilize villagers in self-help efforts to build roads, dig wells, pave streets, build schools and health centres, and increase agricultural production. A fundamental idea behind this programme was that increased agricultural production could be achieved only in an atmosphere of total development and that institutional changes had to precede any sustained production efforts.

With the development block of about 100 villages as its basic unit of operation, Community Development Programme was initiated in October, 1952, and by the end of the First Plan, covered nearly one-fourth of the rural population in 1200 blocks. The number of blocks more than doubled during the Second Plan. By the end of the Third Plan the functions of Community Development Programme were handed over to Panchayati Raj institutions. The government helped the people through technical knowledge, technical know-how and money (credit facilities). The Directorate of Agriculture was overhauled to meet the villagers' 'felt needs' (See Fig. 4.2). The supply of chemical fertilizers, seeds, green manuring and above all
knowledge of the improved agricultural practices was made the responsibility of the Directorate of Agriculture.

However, despite these changes in the organizational set-up, agricultural production did not show any upward trend during the 1950s. This was partly because of the persistent lack of co-ordination between the departments at the state level, among the officers at the district level, on the one hand, and those at the block level, on the other. This state of affairs affected the Agricultural development work in the state adversely.

Another bottleneck in the agricultural organisation was the faulty functioning of the Community Development Programme. It did not effect the desired results and proved inadequate for the task. It was perhaps because these programmes envisaged all-round development of the people, including their ecology, their production plans and their attitudes and beliefs, without giving due priority to the process of revolutionizing production, based on economic and technological considerations for increasing their incomes.

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(ii) Report of the Working Group on Inter-departmental and Institutional Co-ordination for Agricultural Production (New Delhi: Ministry of Food and Agriculture, 1963)
(iii) D.C. Pelz, "Co-Ordination and Communication in Cultural Development" in the Indian Journal of Public Administration, Vol. XII, No.1, pp.18-27; and

Having realised the inadequacies of the Community Development Programme for rapid modernization of Agriculture and Rural Development, the Government of India appointed a committee under the chairmanship of Shri Balwant Rai Mehta to study the execution of these programmes and suggest measures for their effective implementation in future. On the recommendations of this committee, a three tier programme commonly known to be the Panchayati Raj was introduced in the State in 1962. This programme led to the creation of new institutions at the Village, Block and District Levels. These new organizations were named 'Gram Panchayat', 'Panchayat Samiti' and 'Zila Parishad' respectively. The Panchayati Raj institutions, however, failed to arouse the full support of the rural masses for want of co-ordination between different levels of Panchayati Raj Institution, bureaucracy and the elected representatives, people's apathy and political interference.

**Intensive Agricultural District Programme 1961 (IADP)**

In 1959, the Government of India appointed a Joint Indo-American Team to enquire into the causes of persistent food shortage and steps to meet it. The team suggested

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2. S. Bhatnagar, *Panchayati Raj in Kangra District*.
the introduction of Intensive Agricultural District Programme (IADP) with a view to boosting agricultural production in the country. It also recommended the setting up of Agricultural Universities in the States.

The IADP was initiated in the State from 1961 with a view to "demonstrating the potentialities of increase in food production through a multi-pronged, concentrated and co-ordinated approach to agricultural development in areas which can quickly respond to such efforts." This approach became necessary in view of the fact that the available inputs, technical manpower including Subject-Matter Specialists and extension personnel cannot cover the requirements of the whole country adequately. Concentration of supplies and extension methods in areas of high potential could serve the dual purpose of having a large impact on production and of demonstrating the use of improved methods. Two types of efforts are combined in this approach, viz., 'Package of Improved Practices' involving simultaneous efforts at the use of improved seeds, fertilizers, pesticides, improved implements, proper soil and water management, and also 'Package of Services' consisting of guidance from competent technical staff, provision of credit and supplies, arrangements for storage and marketing and adequate supporting research information. Precisely, the idea was to demonstrate

1Ibid. pp.6-10.
2Government of India, Ministry of Food and Agriculture, Department of Agriculture, Agricultural Development: Problems and Perspectives (New Delhi: April, 1965), p.43.
Organization of Department of Agriculture -1962

Agriculture Minister (Cabinet Rank)

Financial Commissioner Development (Secretariat Level) and Secretary to Govt. Punjab

Agriculture Department

Director Agriculture (Directorate Level)

Joint Directors

Deputy Directors

Assistant Directors

District Agriculture Officer

Agriculture Officers (District Level)

Agriculture Inspectors/Sub-Inspectors/Beldar

Block Development Officer (Block Level)

Extension Officers

Village Level Worker (Incharge of Cluster of 8 to 10 villages)
in a Pilot District by co-operative efforts between the Centre, the State, the District, the Block, the Village and the individual cultivators. However, the final aim was to increase agricultural production. Initially, the Project was started in seven selected districts of the country during 1961 and Ludhiana\(^1\) district (Punjab) was one of them. This programme was later extended to 16 districts of different states in India.

The entire work under this programme was supervised by the Deputy Commissioner, who was assisted by a Pilot Project Officer, a senior technocrat of the Department of Agriculture. This officer was exclusively responsible for agricultural development work in the district and the officers of other departments were operationally answerable to him for this work. He was assisted by a Deputy Registrar (Co-operative Societies) in making realistic assessment of the requirements and making suitable arrangements for the timely and adequate supplies of such farm inputs as credit, improved seeds, fertilizers and pesticides to the farmers.

The specialists in Agronomy, Soil Science, Animal Husbandry, Plant Protection, Horticulture and Farm Management were added to the Agricultural organization at the district level for providing subject-matter advice to the Agricultural block-level officers and the farmers. The administrative

set-up under the IADP at the block and village levels was not very different from that of the Community Development Programme, except that the number of extension officers, Agriculture and Co-operatives was increased to 5 and 2 respectively and that of the Village Level Workers (VLWs) to 20 per block to meet the requirements of package programme and the individual farm plan.

IADP of the type introduced in Ludhiana District involved heavy financial burden on the State Government. In 1971 the government decided to extend this programme further in Ferozepur and Sangrur districts in a somewhat modified form. The programme in these districts followed more or less the same strategy for the agricultural extension work as the IADP in Ludhiana District, but, the departmental staff was pruned greatly to achieve economy. But this economy in the budgetary provisions was reflected in a relatively poor performance. The crux of the IADP was to raise productivity with additional staff, both at the district and grass-root levels. But the IADP blocks in the new IADP districts had a team of only 10 VLWs and 3 Assistant Extension Officers (AEOs) at the grass root level. The Plant Protection Officer (PPO) at the district headquarters was provided with three Subject Matter Specialists, one each in Horticulture, Plant Protection and Agronomy. Besides, he had one Seed Development Officer, one Assistant Agricultural Engineer, and one Statistical Officer to assist him in the discharge of his functions.

1 By March, 1985, this programme was extended to Sangrur, Ferozepur, Gurdaspur, Faridkot and Amritsar (besides Ludhiana).
However, in spite of the added strength of extension personnel under the IADP, the organizational structure continued to suffer from certain shortcomings. These shortcomings centred on the split lines of command at the district and block levels, the inadequate devolution of administrative and financial powers and the lack of effective interdepartmental co-ordination.

Setting up of Agricultural University, Ludhiana, 1962

On October 17, 1962, the Punjab Agricultural University, Ludhiana came into being. It was established to promote agricultural research, teaching and extension education in an integrated manner. In the following year, the education and research which was hitherto operationalised by the Department of Agriculture was transferred to Punjab Agriculture University. The Department, however, continued to perform the extension and training work. The co-ordination between the university and the Department of Agriculture was ensured through the inclusion of the Chief Secretary, the Development Commissioner, the Finance Secretary, the Director of Agriculture and the Director.

1 One of the important recommendations of the Ford Foundation Study Team, 1959 was to establish agricultural Universities, one in each State.

2 The Punjab Agricultural University Act, 1961 empowers the University to provide graduate and post-graduate instructions in agriculture, veterinary and animal science, agricultural engineering, home science and other allied sciences and in such other branches of learning as the University may deem fit.

of Animal Husbandry on the Board of the Management of the university. The University appoints Subject-Matter Specialists in Agronomy, Horticulture, Farm Management, Entomology, Plant Pathology, Agricultural Engineering, Extension Education and Soil Science at the state level and the District Extension Specialists in Agronomy, Horticulture, Plant Protection, Farm Management and Soil Science at the District level. The co-ordination between the departmental and the University field officials at the District level is affected by the Chief Agricultural Officer to whom the former are made functionally answerable.

New Strategy in Agriculture (1966)

In 1966, the Seed-Pesticide-Irrigation technology commonly known as 'New Strategy in Agriculture' was introduced in Punjab.1 The adoption of this technology was, however, greater in the Intensive Agriculture District Programme areas than in other areas. The strategy laid greater stress on the adequate and timely supply of such non-conventional inputs as seeds, fertilizers, pesticides, farm machinery and credit and improving the managerial ability of the farm entrepreneur. For this purpose, the National Seed Corporation, the Punjab State Agro-Industries Corporation and the Punjab State Co-operative Supply and Marketing Federation (MARKFED) were set-up.

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Besides, the administrative organisation of the Department of Agriculture was strengthened to improve the decision-making process. Further, the technocrats of the Department of Agriculture was relieved of their time consuming obligations to arrange supplies of such material inputs as seeds, fertilizers and pesticides to the farmers. This enabled the technical personnel to devote full time to their professional work.

With a view to meeting the growing demands for credit effectively, the efforts of the co-operative sector were supplemented by the commercial banks. These banks adopted special schemes for financing agriculture. The Agricultural Refinance Corporation established in July, 1963, also formulated plans for extending help to such Mortgage Banks and State Co-operative Banks as would take up agricultural development projects as land reclamation, irrigation and drainage, which were approved by the Reserve Bank of India and required heavy capital outlay. To help small and marginal farmers, the Government established in 1971 special agencies such as the 'Small Farmers Development Agency' (SFDA) and the 'Marginal Farmers and Agricultural Labourers Agency' (MFALA) to facilitate the financing of small farms so as to make them viable units of production.

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1It may be mentioned here that in the year 1969, 14 banks were nationalised.
2Now, they are known as Land Development Banks.
Reorganization of the Directorate of Agriculture - 1971

In 1971, the Department of Agriculture created a number of new senior positions of Joint Directors and Deputy Directors of Agriculture to take care of various specialized jobs, such as the multiple-cropping programmes, the cotton extension programme, the plant-protection work, improved water management, agricultural farm implements work, and programmes for soil and water management. In 1972, the Chief Agricultural Officers (in the Punjab Agricultural Service Class-I) were appointed in all districts, and the entire staff of the Directorate of Agriculture in the district, the block development agency and the district level university extension specialists were made operationally responsible to them. The new appointments at the state level appeared to have created a top-heavy administration, whereas that at the district level appeared to strengthen the district machinery for forging a better coordination among the various arms of the district organisation for agricultural development. Many other programmes like Drought Prone Area Programme(DPAP), 1976; Krishi Vigyan Kendras (KVK's) ,1974, Integrated Rural Development Programme(IRDP), 1977, Lab to Land Programme(1979) were launched from time to time for boosting agricultural production.

Integrated Rural Development Programme, 1977

This programme was launched in November, 1977 by Mr. Morarji Desai, the then Prime Minister. It aims at: providing full and gainful employment; achieving at least
50 per cent increase in agricultural production; reviving traditional rural industries and trades; setting up cottage, small scale and agro-based industries and ancillary industries; and full deployment of local resources. The programme revolves round local-level economic activities, such as agriculture, minor irrigation through wells, etc., animal husbandry and dairying which have great scope in the context of Punjab. As a result of this programme, Block Development Officers, Extension Officers and Village Level Workers who earlier used to help in agricultural production were withdrawn and put under the Department of Rural Development and Panchayats.

Setting up of Separate Horticulture Department (1979)

In 1979, the Department of Horticulture was carved out of the Department of Agriculture and since then it has been functioning as a separate Department. Further in 1979, on the advice of the Central Government, a 'Single Line of Command' administration was introduced and Block level agricultural officers were shifted to blocks but no additional staff was provided due to lack of funds. Hence this scheme is merely on paper. Similarly, another laudable scheme viz. 'Training and Visit Programme' (T&V) the blueprint of which was prepared by the Department on the advice of the Central government, as the aid was to come from the Central government and the World Bank for five years. The scheme couldn't be implemented due to fear of financial burden to be borne by the State Government after five years.
The efforts to modernize agriculture during this period concentrated more on the building up of infrastructure rather than on the development of new technology through the intensification of agricultural research.

Thus the steps taken by the State Government in reorganizing the Agricultural Department during this period and the effects of the interaction of several factors, both economic and non-economic, helped the Punjab farmers to adopt the Seed-Fertilizer-Irrigation technology rapidly in the second half of the sixties. The quick transformation of agriculture from a 'subsistence to a 'modern' one was taking place mainly because of the unique characteristics of the peasantry, their skill and entrepreneurial ability and their psychological orientations considering agriculture to be a productive business. Related to these were the simultaneous growth and expansion of the organizational structure, which paved the way for the adoption of the new technology and the intensive use of the associated technological inputs that go with the intensive and profitable agriculture.

Third Stage

Existing Organizational Set-up

This part is intended to present an overall picture of the administrative machinery involved in the promotion of agricultural production operating from various levels — Central, State, District, Block and Village. This has been discussed in detail in Part-B of this chapter.

PART-B

PRESENT ORGANIZATIONAL SET-UP

In this part, we intend to examine the existing structure at all the levels i.e. Secretariat, Directorate and Field of the Department of Agriculture. We will point out deficiencies in the existing set-up and suggest reforms to make these administrative agencies more viable and effective instruments of agricultural development. However, a brief account of the Central Agricultural Organization has also been given to present a coherent picture of the State Agricultural Organization through its forward and backward linkages.

Central Level

It may be emphasised that agricultural production is a joint venture of the Central and the State Governments on the one hand, and the cultivators on the other. The Indian constitution has visualised promotion of agricultural production as the basic responsibility of the State Government.\(^1\) It has also cast a number of responsibilities on the Union Government with direct or indirect bearing on agriculture.\(^2\) The Union Government has to provide leadership and co-ordinate, direct

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\(^1\) Agriculture figures in state list of the Seventh Schedule of the Constitution of India. See, Item 14, the entry being "agriculture, including agricultural education and research, protection against pests, prevention of plant diseases."

\(^2\) Those items which are in the Union list are: the supply and distribution of inputs, agricultural credit, negotiation for agreement on foreign aids; and those in the concurrent list which also give powers the Central Government are: Production, supply and distribution of food stuffs, economic and social planning, etc.
and advise the States in agricultural research, production and development.

At the Central level, there is the Department of Agriculture and Co-operation under the Ministry of Agriculture and Rural Development. The Minister for Agriculture and Rural Development (cabinet rank) is the overall incharge of this Ministry. He is being assisted by the Principal Secretary, three Additional Secretaries, a dozen Joint Secretaries and a number of Deputy and Under Secretaries, and ministerial staff.

The Department of Agriculture and Rural Development is entrusted with the responsibility of collection and maintenance of a wide range of statistical and economic data relating to agriculture, required for development planning, organising, agricultural census, assisting and advising the States in undertaking scarcity relief measures and in the management of natural calamities e.g., flood, drought, cyclone, etc. Further, the Department is responsible for the formulation of overall co-operative policy in the country, matters relating to the national co-operative organizations, co-operative training and education and also for participation in the activities of international organizations, fostering bilateral co-operation in agriculture and allied sectors and for promoting export of agricultural commodities.

1The Ministry of Agriculture and Irrigation has been renamed as Ministry of Agriculture and Rural Development and S. Buta Singh (Cabinet Minister) has been entrusted the responsibility of Department of Agriculture and Co-operation.
With the assumption of office of the new government at the Centre, the Forestry Division has been transferred from this department to the Ministry of Environment and Forests. This makes an important change in the structure of this Department, which is now organised into 24 Divisions and 2 Cells (Annexure ) concerned with the development of agriculture and allied activities.

**State Level**

As already stated, agricultural policies and programmes are formulated by the Union and the State Governments by way of frequent and mutual consultations, while the State Governments are left with implementation in accordance with the agreed schedules of operations. In order to provide a fuller view of Agricultural Administration in the State, we will have to discuss the 'Organization and Functions' of agricultural administration at various levels i.e. Secretariat, Directorate and field levels.

(a) **Secretariat Level**

The Agriculture Minister is the overall incharge of the Department of Agriculture. The final executive powers for the administration of the Department are vested in him. These powers are exercised through the Secretary (Development Commissioner) of the Directorate of Agriculture, Punjab. He has to bear a heavy responsibility for formulation of policies and monitoring and evaluation of the implementation of these policies and programmes.
The responsibilities of the Agricultural Minister are two fold in nature viz., political as well as administrative. The political responsibilities comprise of (a) helping the cabinet to determine broad policies; (b) establishing departmental policies with the assistance of his officers; (c) securing legislative approval where needed to government's policies and for appropriation of funds; (d) accountability to the legislature; (e) interpreting public needs and attitudes to the administration; and (f) leading and shaping public policies and programmes.

His administrative responsibilities include (i) ensuring efficient and clean administration within the department under his charge; (ii) inspiring confidence in the senior officers, securing team work, and promoting an internal effort for continuous improvement of personnel performance and methods of work; and (iii) ensuring prompt and effective implementation of policies and programmes, reviewing progress periodically and resolving implementation difficulties. Being busy with political activities, the minister does not find enough time for administrative functions. Lack of professional knowledge and of aptitude are the other contributory factors.

Immediately below the political level, the Department of Agriculture is under the administrative control of the Development Commissioner who is also Secretary, Agriculture.

1 The post of Development Commissioner is occupied by the Senior member of the I.A.S.
FIG. 4.3

ORGANIZATION OF AGRICULTURE DEPARTMENT AT THE SECRETARIAT LEVEL

Chief Minister

Agriculture Minister
Development Minister
Animal Husbandry Minister
Forests Minister

Development Commissioner

Joint Secretary Agriculture

Under Secretary Agriculture

Deputy Secretary Agriculture

Agriculture I Branch
Agriculture II Branch
Agriculture III Branch

Forests Department

Animal Husbandry Department

Rural Development and Panchayats Department
Including Community Development

Co-operation Department
He also looks after such departments as Horticulture, Soil Conservation, Animal Husbandry, Dairying and Milk Supply, Fisheries, Forests, Co-operation, etc. (See Chart 4.3). In this work, he is assisted by a Joint Secretary, one Deputy Secretary, two Under Secretaries and a large number of secretariat staff. The main duties and responsibilities of Development Commissioner are:

(i) assisting the Minister in policy-making and in the discharge of his legislative responsibilities from time to time;
(ii) framing draft legislation and rules and regulations;
(iii) co-ordination of policies and programmes, supervision and control over their execution and review of results;
(iv) budgeting and control of expenditure;
(v) maintaining contact with the Government of India and other State Governments; and
(vi) overseeing the smooth and efficient running of administrative machinery and initiating measures designed to develop personnel and organizational competence.

There is a State Cabinet Sub-Committee for agricultural production which meets frequently and takes policy decisions on agricultural production matters. The study team of the Administrative Reforms Commission on Agricultural Administration recommended that the integrated department of Agriculture should be headed by a Commissioner who should be of the status of the highest paid administrator next only to the Chief Secretary.\(^2\)

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1Also see Chart- Organization at Secretariat Level.
2Information provided by the Study Team on Agricultural Administration (New Delhi, September, 1967), p.273.
Although this post has been created at the Secretariat level, setting up of an integrated department of Agriculture and Rural Development consisting of all the Departments and agencies concerned with agricultural production and Panchayati Raj under the control of one senior Cabinet Minister has not materialized. As a result, there has been no effective co-ordination in the working of the officers at the directorate, district and the lower levels.

Again, the system under which the proposals are analysed in the first instance at the Directorate of Agriculture and then at the Secretariat level, is the cause of undue delay and dilution of responsibilities. Due to administrative centralization at the Secretariat level, the Director of Agriculture has to approach the state government for sanction even in respect of relatively minor matters.\(^1\) Concentration of powers at the Secretariat level leads to duplication and increased workload. Therefore, there is the need for the devolution of authority to the Directorate. A suggestion to this effect has also been made by the Administrative Reforms Commission in its Report on 'State Administration'; that the headquarters organizations of executive departments in areas of development administration such as Agriculture, Animal Husbandry, Forest, Fisheries, Co-operation

\(^1\)This is the analysis of my discussion with the present Director of Agriculture, Punjab.
and Community Development should be integrated with the State Secretariat; and the Heads of Executive Agencies amalgamated with the Secretariat, should function as the principal advisers to the State Government under their respective areas and be assigned suitable status.¹

Dr. Ram Subhag Singh Committee had recommended the setting up of Agriculture Production Co-ordination Committees — one at the Ministerial level and the other at the Secretariat level presided over by the Chief Minister and the Chief Secretary respectively. While these Committees have been set up in the State, they have not been of much assistance in bringing about co-ordination in actual practice.² The Study Team on Agricultural Administration suggested setting up of a State Agriculture Development Board with the Minister-in-charge Agriculture as its Chairman. It was suggested that the Board should have representatives of the farmers' organizations, the agricultural universities, the co-operatives and Panchayati Raj institutions and the heads of the departments concerned with agricultural production.³ This suggestion seems to be an improvement upon

the earlier suggestion of the Dr. Ram Subhag Committee in favour of an Agricultural Production Committee at the ministerial level. However, the effective and efficient functioning of the Board or a committee at the State level would depend upon the effectiveness of the planning, co-ordination and evaluation cell to be set up at the Directorate of Agriculture. This cell should work under the direct supervision of the Director of Agriculture with suitable guidance from the Development Commissioner.

It is no exaggeration to say that decision-making on technical matters would be qualitatively improved through the participation of specialists. Deprived of key positions in agricultural administration at the Secretariat level, specialists have not been able to develop their full potential in the field of agricultural development. It is suggested that specialists should be suitably trained in agricultural administration and granted suitable secretariat status. The present Director of Agriculture suggested that the Director be given the ex-officio status of the Additional Secretary to the Government.

(b) Directorate level

At the State level administration in India, the Directorate is quite a familiar agency of the government. It is a middle level rung of administrative hierarchy and is
responsible for execution and implementation of policies and programmes framed by the Secretariat. It also provides feedback to the Secretariat in regard to policies, programmes and decisions taken by them. The Directorate has full control over its field offices. The Directorate of Agriculture is headed by the Director who belongs to State Agriculture Service (Class I).\(^1\) He is the Chief Executive (Head of the Department) functionary with his headquarters at Chandigarh. He is responsible for overall planning, guiding, execution and supervision of all types of activities relating to agriculture in the State.

He is assisted by senior officers of the Joint Director level in various disciplines, such as High Yielding Variety Programme, Inputs, Engineering, Bio-gas, Statistics, Intensive Cotton Development Programme, Pulses, Extension and Training, Agricultural Census, etc. The Joint Directors attend to the activities of the respective sections including important meetings at the State and the National levels. The Deputy Director Agriculture (Headquarters), the Deputy Director Agriculture (Seeds), the Project Officer (Reclamation), the Agricultural Information Officer, the officer on Special Duty (Planning) and the Chief Inspector Fertilizers have been provided at the headquarters for attending to respective subjects as well as to assist the Director, Agriculture.

\(^1\)In Punjab, the post of Director Agriculture is a selection post. Conventionally, a senior person is posted as Director. For details, see also the chapter on 'Personnel Administration'. 
the Joint Director, (Administration). There are State level officers in Punjab Agriculture Service Class I cadre in the subject of Plant Protection and Locust Control, Cotton Extension, Implements, Tubewells, Oilseeds, Sugarcane, Hydrology and Statistics for implementing respective programmes in the field as well as for co-ordinating the work at state level.

(i. ) Organisation

The present organizational structure of the Directorate is shown in the chart (Fig.4.4). The Directorate at the headquarters is divided into various sections like Administration, Information Service, Inputs Supplies, Crop Production, Marketing, Plant Protection, Planning, Statistics, Engineering, ICFP, HYVP etc.

(ii) Functions and Activities of the Directorate

Section/branch-wise functions/activities of the Directorate of Agriculture, Punjab, are detailed here-under (See also Chart4.5).

Planning Cell

The Planning Cell is responsible for planning, monitoring and evaluation of the activities of the Directorate of Agriculture. All the schemes pertaining to agricultural development are formulated in this section. It is headed by Officer on Special Duty who works directly under the guidance and supervision of Joint Director, Agriculture. The working
### Allocation of Functions/Activities to Various Branches and Sections of the Directorate of Agriculture (Headquarters)

<table>
<thead>
<tr>
<th>Officer In-charge</th>
<th>Branch</th>
<th>Work allotted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chief Accounts Officer/Accounts Officer</strong></td>
<td>Fund Section</td>
<td>(i) Income and Expenditure, (ii) T.A. Bills of the headquarter officials; (iii) Tour Programme; and (iv) Pay of both gazetted &amp; non-gazetted staff, G.F. Fund, of Class-Iv, cash, medical bills and contingent of all employees.</td>
</tr>
<tr>
<td></td>
<td>Accounts Section</td>
<td>Budget</td>
</tr>
<tr>
<td></td>
<td>Purchase and Audit Section.</td>
<td></td>
</tr>
<tr>
<td><strong>JDA(Census)/OSD Planning (Planning) and JDA(Statistics)</strong></td>
<td>Planning Branch</td>
<td>(i) Planning; (ii) Statistics; (iii) Crop Insurance; (iv) Agricultural Census; &amp; (v) Reorganization Schemes</td>
</tr>
<tr>
<td><strong>JDA(Sngg.)/JDA (Bio-gas)</strong></td>
<td>Engineering Section</td>
<td>(i) Minor Irrigation; (ii) Boring, Groundwater Cell and Implements; (iii) Tractor &amp; Farm Machinery; and (iv) Bio-gas.</td>
</tr>
<tr>
<td><strong>JDA(Inputs)</strong></td>
<td>Reclamation Branch</td>
<td>(i) All Fertilizers Schemes; (ii) Enforcement Acts regarding Inputs; (iii) Soil Testing Schemes;&amp; (iv) All Schemes of quality control of Inputs.</td>
</tr>
<tr>
<td></td>
<td>Enforcement Branch and Inputs Branch</td>
<td></td>
</tr>
<tr>
<td><strong>C.I.F.</strong></td>
<td></td>
<td>(i) Allocation and supply of Fertilizers; (ii) Enforcement of Fertilizers and Input Acts; &amp; (iii) Technical Cases of Fertilizers.</td>
</tr>
<tr>
<td><strong>JDA(CC)/JDA(PULSES)</strong></td>
<td>Cash Crops and Pulses Branch.</td>
<td>(i) Oil Seeds, Sugarcane and other Cash Crops &amp; compost; (ii) Pulses, Natural Calamities and Gobar Gas Plants; (iii) I.A.D.P, Store and Liverie and Marketing; (iv) Repair of Vehicles; (v) Old Recovery Cases of Reclamation;</td>
</tr>
<tr>
<td>Officer In-charge</td>
<td>Branch</td>
<td>Work allotted</td>
</tr>
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<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>JDA(HYVP)/DDA</td>
<td>HYVP Branch</td>
<td>(vi) Condensation of vehicles; (vii) Culturable Waste Land; (viii) Marketing; and (ix) Sugarcane.</td>
</tr>
<tr>
<td>JDA(ICDP)</td>
<td>ICDP Branch</td>
<td>(i) All seeds; (ii) Seeds Farms; (iii) SFDA/MFALA and Awards to Farmers; (iv) Processing Plants; and (v) HYVP.</td>
</tr>
<tr>
<td>JDA(Ext.&amp; Trg.)</td>
<td>Extension Training and Information Br. and Visit Programme.</td>
<td>(i) Young Farmers Associations and Farmers Unions; (ii) Building Work of Head Office &amp; Sub-offices; (iii) Training and Information Section; (iv) Warehousing Corporation; and (v) Contact with Radio/Television.</td>
</tr>
<tr>
<td>JDA(Admn.)/E.O.</td>
<td>Estt.I.</td>
<td>(i) Establishment of Gazetted Staff, Agricultural Inspectors and Statistical Assistants; (ii) Loans and General Circulars; and (iii) Class IV Employees of Sub-offices.</td>
</tr>
<tr>
<td>JDA(Admn.)/DDA(HQ)/E.O.</td>
<td>Estt.II.</td>
<td>(i) Establishment of Class III of Head office and sub-offices; (ii) Establishment of Technical Staff and Class IV employees of Head Office; and (iii) Establishment of A.S.I., Drivers and others of Sub-office and Head-office.</td>
</tr>
<tr>
<td>E.O.</td>
<td>Record Section</td>
<td>(i) Type, Despatch and Watch-ward Staff; and Maintenance of Record.</td>
</tr>
<tr>
<td></td>
<td>Despatch Section</td>
<td>(i) Maintenance of Record and Weeding Out of Record.</td>
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<td>Type Section</td>
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</tbody>
</table>
Abbreviations Used

JDA - Joint Director Agriculture
JDA(CC) - Joint Director Cotton Crops.
C.I.F - Chief Inspector Fertilizer.
E.O. - Establishment Officer
D.D.A(Hq) - Deputy Director (Headquarters)
Engg. - Engineering
OSD(Plg.) - Officer on Special Duty (Planning)
HYVP - High Yielding Varieties Programme
ICDP - Intensive Cotton Development Programme
Ext.& Trg. - Extension and Training
Estatt. - Establishment.
of the cell has indicated that it does not give adequate
guidance to the District Planning Cells. The existing
planning unit is ill-equipped. As a result plans are ill-
prepared and cause delay in their finalization and sanctions.

Study of the Planning Cell at the Directorate has shown that
most of the staff in this cell is non-technical and even the
senior technical officers are not trained in the methodology
of planning. There is no rational pattern of staffing this
cell since due status has not been assigned to experts in
the field of economic planning, farm management, agriculture
finance, statistics, etc. At the Directorate level, as
already suggested, there has to be a Planning, Co-ordination
and Evaluation Cell which will be the central nerve of the
Directorate to give guidance to the District Planning, Co-
ordination and Evaluation cells and bring cohesion in the
entire agricultural machinery in the State. This cell should
work under the direct supervision of the Director with
suitable guidance from the Agriculture Secretary. The re-
organized Planning Cell should be responsible for the collection
of the basic data, fixing of priorities, targets and time-
schedule of work, internal evaluation, and for deciding and
the strategy of implementation and monitoring. In order to
have liaison with the Agricultural University of the State,
this cell would arrange frequent meetings of experts of the
University and the Directorate.
High Yielding Varieties Section

The Joint Director Agriculture (High Yielding Varieties Programme) deals with the production of important Rabi and Kharif crops like Wheat and Paddy. He organises training camps before sowing the crops to impart technical knowledge to the farmers about the latest agricultural techniques. He ensures supply of certified seeds recommended for various districts through the Punjab State Seed Corporation and National Seed Corporation. With the present irrigation facilities and other available infrastructure, strenuous efforts are being made to increase per unit productivity in the State as there is very little scope to increase area under High Yielding Varieties. ¹ Package programme of various hybrid varieties is dealt within this section. ²

Agricultural Input Section

The Joint Director Agriculture (Inputs) who is a class I Officer from technical cadre is incharge of this section. He is responsible for the supplies of inputs to the farmers at the proper time and in adequate quantity. This section is responsible for the supply and distribution of fertilizers through government and private manufacturers; enforcement of Fertilizer Control Order; supply and distribution of Zinc Sulphate and Gypsum, including financial sanctions; making

² For details, see Chapter 3 on 'Administration of Agricultural Production and Inputs'.
arrangements for supply of inputs like Seeds, Pesticides and Weedicides to the farmers/cultivators.

**Extension and Training Section**

The Joint Director Agriculture (Extension and Training) is the overall incharge of this section. He is responsible for the extension and training programmes like imparting new agricultural technology from the Punjab Agricultural University and disseminating it to the farmers in the field by holding training camps for them, demonstrating seed treatment before sowing, in order to save the crops from diseases for better germination, imparting knowledge of soil treatment, application of fertilizers on the basis of soil tests and the use of the latest farm technology. He also helps in transmitting the latest technology to the farmers through various media such as exhibitions, films, slides, radio, television, booklets and leaflets. He arranges field visits for the various experts coming from within and without the country. The working of this section can be improved further if Training and Visit (T&V) programme as envisaged by the Directorate is sanctioned by the Government without any further loss of time.\(^1\)

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\(^1\)There is a proposal to impart training, education and other facilities concerning agricultural production, right at the door of the farmers, under the (T&V) programme. We have discussed this programme in detail under the head "Field Level Organization in this Chapter."
Agricultural Engineering Section

This is a specialised section of the Directorate of Agriculture, responsible for various engineering activities. The Joint Director of Agriculture Engineering has many specialised engineers under his direct control. They look after the functioning of the following sections:

(a) Tubewell Boring Section; (b) Agricultural Engineering ( Implements) Section; and (c) Ground Water Cell.

Tubewell Boring Section

This section conducts trial bores in difficult areas of the State where the exploration of tubewells has not been done. The successful trial bores, are converted into tubewells and if the trial bores are unsuccessful farmers are not charged anything.

Agricultural Engineering ( Implements) Section

This section is responsible for the standardization of improved agricultural implements. It lays stress on the adoption of the latest scientific implements. For this, practical demonstrations are arranged and farmers are given training in the use of these implements.

Ground Water Cell

This cell proposes minor irrigation schemes for the installation of shallow tubewells depending upon ground water availability. It also conducts geo-physical survey in saline ground water areas of Bathinda, Faridkot and Firozepur districts, so as to identify fresh ground water pockets and to locate fresh water in Kandi area.
Cash Crops Development Section

This section is headed by the Joint Director, Agriculture (Cash Crops). There are a number of other officers/officials working in this section to give assistance to him. This section deals with oil seeds, extension work including package programme of these crops; sugarcane development work, etc. All matters are disposed of by him except important policy matters which are referred to the Director. Cases involving change in the continuing schemes are also referred to the Director.

Agricultural Pulses Section

This section is headed by the Joint Director, Agriculture(Pulses). He is assisted by a number of technical and non-technical functionaries. This section is responsible for pulses development schemes, residual multiple cropping, construction of godowns by the Warehousing Corporation. The major pulses are 'Mash', 'Gram', 'Lentil' and 'Moong'. These pulses are a rich source of protein which are very useful for body building. The State government is laying much stress on the pulses production programme.

Intensive Cotton District Programme Section

A Joint Director of Agriculture (ICDP) has been appointed to head this section. He has many technical and non-technical personnel working under him. He makes arrangements for the ground as well as aerial spray to protect the crops from various insects, pests and diseases. This section
also arranges supplies of pesticides and Plant Protection Equipment to the farmers and makes arrangements in respect of Cotton Extension work including package programme on Cotton. Arrangements for campaigns regarding eradication of weeds, insects, pests and diseases, are also made by him.

**Cane Development Section**

The Cane Commissioner is the head of this section. Under his control are the Project Officer (Sugarcane), the Assistant Cane Commissioner, the Assistant Cane Development Officers, the Cane Inspectors, the Cane Development Inspectors. There are many other administrative and technical personnel assisting the Cane Commissioner in his duties. The main duties of this section are: to regulate cane supply to the sugar factories, assign areas to the various sugar factories in the State; ensure payment of cane prices to the cultivators within the stipulated period; arrange for the collection of cane cess due from sugar mills; ensure payment of cane prices to the cultivators; and to organise special campaigns with regard to control of pests and diseases of cane.

**Marketing Section**

The Marketing section is headed by a Senior Class I Officer designated as the Director of Marketing. The main function of this section is related to the fixation of market prices and grading of agricultural commodities both visually and with chemical analysis, so that the farmers may get the maximum price for their produce. The Director of Marketing
is assisted by five Class IX officers, designated as the Assistant Marketing Officers; one each posted at Amritsar, Ludhiana, Patiala and two at Chandigarh.

**Bio-Gas Plants Section**

A Joint Director of Agriculture (Engineering) heads the Bio-Gas Plants Section in the Directorate. He has a number of officials of different categories working under him. This section is purely technical in nature and as a result engineers of varied disciplines are employed. The activities of this section are: (a) to produce gas for cooking/lighting purposes for the farmers; (b) produce fertilizers with more Nitrogen nutrient value; destroy the weeds in the fields of the farmers; and provide fuel gas to the farmers in the fields especially the engines using diesel.

The Joint Director of Agriculture Bio-Gas has under him Assistant Agricultural Engineers in all the Districts of Punjab, who in turn are assisted by the Agricultural Inspectors. These Agricultural Inspectors assist the Junior Agricultural Engineers, who in turn are supported by mechanics. The mechanics are expected to have regular and direct links with the farmers in the fields.

**Agricultural Census Section**

Agricultural Census is a very valuable instrument for drawing up meaningful programmes of agricultural development. The agricultural census, which is a part of the Directorate of Agriculture, Punjab, is headed by a Joint
Director of Agriculture (Census). He has a number of agricultural officials working under him. The primary functions of this section are:

(a) agricultural census with regard to the number and size of each operational holdings; tendency status; land utilization; source-wise irrigated area; and crop-wise irrigated and un-irrigated area.
(b) with regard to number of parcels; multiple cropping; application of chemical fertilizers; organic manure and pesticides; live stock; agricultural machinery and implements; area-wise water logged, saline and alkaline land; and agricultural credit.

Statistics Section

This section is headed by the Joint Director, Agriculture (Statistics). He is assisted by a number of agricultural personnel belonging to statistical cadre. This section collects agricultural statistics which are considered to be vital for agricultural development. On the basis of these statistics, new plans are formulated and executed. It undertakes crop estimation survey, meteorological investigation in High Yielding Varieties Programmes and training to field supervisory staff in connection with the submission of timely returns.

Establishment Section

The administrative wing of the Directorate has a Joint Director of Agriculture (Administration) as its head. He has under him a Deputy Director (Headquarters) and an Establishment Officer. Establishment I and II branches are also under him. This section is responsible for appointments,
postings, promotions, transfers, enquiries and disciplinary measures of clerical staff, accountants, superintendents Grade II, Steno-typists, steno-graphers, and non-gazetted field staff belonging to administrative, statistical and technical cadres. Promotions, transfers, enquiries and disciplinary measures relating to Class I and II officers are processed in this section but are finally disposed of at the Secretariat level. The Joint Director, Administration finalises appointments of class III and class IV staff of the headquarter with the approval of the Director.

**Accounts Section**

The Head of the Accounts Section in the Directorate is the Chief Accounts Officer who in turn is assisted by the Accounts Officer and the other members of the staff. This section performs the duties of maintaining the accounts of the department, Pension, General Provident Fund, Gratuity, Loans, Advances and Medical Allowance of the employees. It also fixes the pay of the employees in consultation with the Administrative Department (Secretariat). All budget estimates and proposals of all sections/branches of the Directorate and the field sub-offices are scrutinised, finalised and consolidated by this section.

**Type, Despatch and Record Section**

The Establishment Officer is overall incharge of the type, despatch, watch and ward staff and record section. He is responsible for maintenance of record and weeding of old files.
Land Reclamation

This section is under the control of the Joint Director Agriculture (Inputs). The scheme for reclamation of kallar lands was started during the year 1967-68 with gypsum technology. The Punjab Government has declared the Kallar Land Programme as a prestigious programme. The major attempt to undertake this work was made in 1975-76; and has been receiving priority till today. The kallar soils are reclaimed with gypsum technology. In order to induce the farmers to take up the reclamation of their kallar lands, 75 per cent subsidy is given for the purchase of gypsum to the cultivators, who have land up to 3 hectares and 50 per cent subsidy to those who have more than 3 hectares.

(c) Field Level Organization

Strong, effective and efficient agricultural administration at Village, Block and District levels is sine-qua-non for agricultural development. All the three tiers may be effectively integrated to support and derive strength from one another, particularly when a large number of development programmes have given rise to new organisational problems.

(1) District Level

At the District level, we find two types of organisations, one where intensive Agricultural District Programme\(^1\) and the other where Non-Intensive Agricultural

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\(^1\)The districts under the IADF are: Ludhiana, Sangrur, Ferozepur, Faridkot, Gurdaspur and Amritsar
Fig. 4.5

ORGANISATIONAL CHART OF INTENSIVE AGRICULTURAL DISTRICT PROGRAMME, LUDHIANA

Director of Agriculture Chandigarh

Chief Agricultural Officer, Ludhiana

District Level Officers

1. Statistical Officer
2. Rural Sociologist
3. Deputy Registrar Co-Operative Societies
4. Soil Testing Officer, Ludhiana
5. Assistant Project Officer
6. Assistant Agrl. Eng. (Imp)
7. Seed Testing Officer
8. Seed Inspection Officer
9. Assistant Plant Pathologist
10. Evaluation Officer
11. Field Officer

Drawing and Disbursing Officer

Class II Officer (Agricultural Technical Officer)

(a) Superintendents
(b) Accountants
(c) Statistical Assistant
(d) Assistants
(e) Clerks/Stenos/Peons

Block Level Officers

1. Agricultural Officer, Ludhiana
2. Seed Development Officer, Sudhar
3. S.M.S. (Agronomy) Sidxwanbat
4. S.M.S. (Entomology) Doraha
5. S.M.S. (Soil Science) Fakhowal
6. S.M.S. (Farm Management) Dehlion
7. District Agricultural Information Officer, Ludhiana
8. Asstt. Project Officer, Ludhiana I & II
9. Soil Testing Officer, Samrala
10. Soil Testing Officer, Machhiwara
11. Soil Testing Officer, Jagraon
12. Marketing Inspector
13. Agricultural Extension Officers
14. Agricultural Inspectors
15. Agricultural Sub-Inspectors

FARMERS
Director of Agriculture
Chandigarh

Chief Agricultural Officer
Ludhiana

1. District Training Officer
2. Training Officer (Female)
3. Assistant Statistician
4. Assistant Agricultural Engineer *(Imp.)*

1. Superintendent
2. Accountant
3. Statistical Assistant
4. Assistants/Clerks
5. Stenographer/Peons

1. Seed Development Officer, Chamkaur Sahib.
2. Training Officer (Male) Khayar
3. Agricultural Information Officer (FTC), Anandpur Sahib.
4. S.M.S. (Farm Management) Kurail.
5. Soil Testing Officer, Ropar.
7. Agricultural Inspectors
8. Agricultural Sub-Inspectors.

ORGANISATIONAL CHART OF NON-INTENSIVE AGRICULTURAL DISTRICT PROGRAMME ROPAR
District Programme is being followed. The organization chart of one IADP District (Ludhiana District) Fig.4.5) and one non-IADP district (Roop Nagar District, Fig.4.6A) is shown in the chart. The main difference between these two organizations is that in IADP districts, Subject-Matter-Specialists are appointed in addition to the posting of general staff. Such distinctions cause area and class disparities. As such, it is suggested that this distinction between IADP and non-IADP should be abolished and Subject-Matter-Specialists be appointed according to the need of the area.

**Chief Agricultural Officer**

The District is supervised by the Chief Agricultural Officer (Class I). He belongs to technical cadre, that is, State Agricultural Service. He is the field agent of the Directorate of Agriculture at the district level. He has the overall responsibility of carrying out and co-ordinating the work of agricultural development in accordance with the instructions issued by the Director of Agriculture from time to time. The main functions of the Chief Agriculture Officer in relation to the agricultural development are to

(i) secure efficient implementation of development programmes for raising agricultural production;
(ii) maintain and ensure timely and adequate supply of various inputs like improved seeds, fertilizers, implements, plant protection equipment, pesticides and fungicides to the farmers;
(iii) grant and distribute subsidy among the farmers for the purchase of fertilizers;
(iv) exercise supervision and control over the working of the cereal and vegetable seed multiplication farms in the district;
(v) disseminate knowledge about the improved agricultural practices and the results of research among the
(vi) exercise technical control over agricultural Officers, Agricultural Inspectors, Agricultural Extension Officers, Manure Supervisors, Beldars, etc.

In a non-IADP district, the Chief Agricultural Officer is assisted, in the performance of his duties, by the Agricultural Officer, the Assistant Plant Protection Officer, the Agricultural Information Officer, the Training Officer (Male and Female) and the Project Officer. But, in an IADP district, in addition to the above functionaries, Subject Matter Specialists, Statisticians and Rural Sociologists are also provided. In addition, the Deputy Registrar (Co-operatives) and the Statistical Officer, both class I officers, are also provided in each of the IADP Districts. They are answerable to the Chief Agricultural Officers of their districts.

District Training Officer

There are twelve farmers' training centres functioning in each district of the State. These training centres are situated at Amritsar, Bathinda, Firozepur, Faridkot, Gurdaspur, Hoshiarpur, Jalandhar, Ludhiana, Patiala, Rup Nagar and Sangrur. Each training centre meant for the training of farmers is headed by a Class I Officer designated as the District Training Officer. He is responsible for the overall training of new agricultural techniques to the farmers through various media such as exhibitions, films, slides and demonstrations. Each
Class I Officer is assisted by four Class II officers and two demonstrators. Out of these, one training centre is attached to Punjab Agricultural University, Ludhiana and one to Khalsa College, Amritsar.

Subject Matter Specialists

There are state level officers in Punjab Agricultural Services Class XI, also called Subject Matter Specialists in the subjects of Plant Protection, Implements, Tubewells, oilseeds, Sugarcane and Hydrology. They are posted in districts and blocks for implementing schemes in their respective fields and also for co-ordinating the work of agricultural production at the state level.

Relationship between the Deputy Commissioner and the Chief Agricultural Officer

The Deputy Commissioner, the district is the leader and captain of the team of officials working at the district level. He is the overall incharge of the development programmes in agricultural and other sectors in the district. He has to ensure that all the officials work in a synchronised manner, thus contributing to the realisation of shared goals through collective efforts. He acts as a liason officer among various departments and co-ordinates their activities.

In the present set-up at the district level, there is no single organisation covering the various district level offices under different agricultural departments at the State
level and other non-official agencies which are working independently of each other and within the confines of their own hierarchy. There has been a steady growth of developmental staff at the district level during the Plan-period under various agricultural departments like Agriculture, Animal Husbandry, Co-operatives and other official and non-official agencies. The requirements of specialists of calibre have also increased progressively at the district and block levels. The growth of staff has, however, not taken place in a planned manner and there is also variation in the strength of the agricultural development staff from district to district. It is evident from the organizational chart of IADF and non-IADF districts (Fig. 4.5 & 4.6) that the present system, co-ordination among the agricultural development programmes is secured in most of the states through the District Collector (Deputy Commissioner) who acts as the Chairman of the District-level Co-ordination Committee. The periodicity of the meetings of the District-level Co-ordination Committees is not frequent as may be observed from Table 4.1.

### Table 4.1

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Roop Nagar</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Ludhiana</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Patiala</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Jalandhar</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Amritsar</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
Again, the study has revealed that there is no arrangement for quick follow up on the decisions by these committees. By and large, these have not been effective in achieving co-ordination in actual practice. It is not possible for the District Collector (Deputy Commissioner) to keep a check on the progress of numerous programmes and attend to the administrative bottlenecks faced by them. Experience shows that team work among closely related departments can be secured through a common head who has a deep understanding of sustained interest in the problems of the related departments and interactions between them. It is obvious that this kind of leadership can come from one of the Chiefs of the agricultural departments only. It is, therefore, suggested that the Chief Agricultural Officer who is the overall incharge of District level agricultural organization should play the role of co-ordinator, promoter and planner of agricultural programmes; the Deputy Commissioner should be relieved of this burden. However, co-ordination between various and related agricultural departments at the district level can be secured primarily through the quality of leadership which the Chief Agricultural Officer can achieve only if he is a senior technical incumbent having varied and wide experience, coupled with rigorous training in agricultural management.

Block Level

For the purpose of development, the entire state has been divided into one hundred and eighteen blocks.¹ In Names of the Blocks (118) in the State can be seen at Appendix I.
each Block, there is a Block Development Officer who was the field agent of the Community Development (now the Integrated Rural Development and Panchayats Department.)

The Block Development Officer was supported by a team of Extension Officers in the field of agriculture, horticulture, animal husbandry, fisheries, co-operatives and social education.

But with the setting up of a separate Rural Development and Panchayat Department, the Community Development staff that is Block Development Officers and Extension staff related to the panchayats department and village level workers have been withdrawn from the agriculture work. Now these functionaries are not performing any work relating to agriculture department.

The Directorate of Agriculture has provided functionaries for agriculture work at the block level. Prior to the formation of National Extension Services Blocks, one Agriculture Inspector supported by three to four Agricultural Sub-Inspectors and 8 to 10 Beldars were provided at important places within the district to look after the development of agriculture. However, with the formation of blocks, one agricultural inspector along with some agricultural sub-inspectors and few beldars was provided for each block. On the recommendations of Nalagarh Committee, Subject-Matter-Specialists were provided according to the suitability of the districts for specific crops. Presently, the number of
Subject-Matter-Specialists (Class II posts) in each district varies from one to three.

Under the Training and Visit Programme (T&V)\(^1\) in each block, there will be 7 to 10 agricultural inspectors supported by 5 to 6 agricultural sub-inspectors and beldars. Currently, there are 900 agricultural inspectors and 795 sub-inspectors covering 118 blocks (Table 4.2 and 4.3). 317 agricultural inspectors are in the common pool while the others working in special disciplines like Plant-protection, HYVP, Sugarcane, Oilseeds, Cotton, Marketing, ICDP, etc. under centrally sponsored or state plan schemes are exclusively devoted to these areas and cannot form a part of the general pool. This staff is inadequate as seen from the Table 4.4 and needs to be strengthened. Moreover, there is need of strengthening 'Single Line of Command' to which we have made a detailed reference at the end of this chapter.

**Agricultural Extension Officers**

There are 900 Class III Agricultural Extension Officers in the State responsible for Agricultural Extension Services. They are posted at the district and block levels.

\(^1\)Training and Visit Programme(T&V) has been envisaged by the Directorate of Agriculture but has not been approved by the government so far.
TABLE 4.2

There are at present 900 Agricultural Inspectors and 795 Sub-Agricultural Inspectors working in 118 Blocks of 12 districts. The position of Agricultural Inspectors is programme-wise as follows:

<table>
<thead>
<tr>
<th>(Section or Programme-wise)</th>
<th>No. of Agri-Inspectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>District work</td>
<td>317</td>
</tr>
<tr>
<td>Seed Farm</td>
<td>11</td>
</tr>
<tr>
<td>Enforcement (Quality control of Inp-</td>
<td>15</td>
</tr>
<tr>
<td>uts)</td>
<td></td>
</tr>
<tr>
<td>HYVP</td>
<td>107</td>
</tr>
<tr>
<td>Plant Protection</td>
<td>50</td>
</tr>
<tr>
<td>Sugarcane</td>
<td>46</td>
</tr>
<tr>
<td>Oilseeds</td>
<td>37</td>
</tr>
<tr>
<td>Cotton</td>
<td>81</td>
</tr>
<tr>
<td>Laboratories</td>
<td>58</td>
</tr>
<tr>
<td>Marketing</td>
<td>64</td>
</tr>
<tr>
<td>Pulses</td>
<td>7</td>
</tr>
<tr>
<td>ICDP</td>
<td>72</td>
</tr>
<tr>
<td>Farmers' Training Centre</td>
<td>10</td>
</tr>
<tr>
<td>Reclamation</td>
<td>5</td>
</tr>
<tr>
<td>In-service</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>900</strong></td>
</tr>
</tbody>
</table>

*Source: Directorate of Agriculture, Punjab*
### TABLE 4.3

**Existing Strength of Agricultural Sub-Inspectors**

<table>
<thead>
<tr>
<th>Section (Programme-wise)</th>
<th>No. of Agri-sub-Insps. As on 31.3.1985</th>
</tr>
</thead>
</table>

**PART A:**
- Oilseeds Section: 42
- Cane Section: 54
- Cotton Section: 64
- ICDP: 2
- Marketing Section: 2
- Maize Section: 1

**PART B:**
- Amritsar: 110
- Bathinda: 69
- Faridkot: 37
- Firozepur: 47
- Gurdaspur: 52
- Hoshiarpur: 36
- Jalandhar: 71
- Kapurthala: 28
- Ludhiana: 45
- Patiala: 36
- Rup Nagar: 20
- Sangrur: 79

**Total:** 795

*Source: Directorate of Agriculture, Punjab.*
## TABLE 4.4

**Details of Staff Requirements (Agricultural Inputs)**

1. No. of operational holdings as 13.75 lakhs stand in 1971

2. No. of operational holdings as 15.00 lakhs stand in 1985 (prov.)

### Agricultural Inspector (Primary Worker)

One primary worker (Agricultural Inspector for each set of 800 operational holdings:

<table>
<thead>
<tr>
<th>Description</th>
<th>Requirement</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Total requirements</td>
<td>15,000,000</td>
<td>[\frac{15,000,000}{800}] = 1875</td>
</tr>
<tr>
<td>II. Available for pool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>for general supply</td>
<td></td>
<td>= 317</td>
</tr>
<tr>
<td>III. Additional Requirements</td>
<td></td>
<td>= 1558</td>
</tr>
<tr>
<td>IV. Total Available</td>
<td></td>
<td>= 900</td>
</tr>
</tbody>
</table>
Eight of them are posted at the Head Quarters, Chandigarh. These Agricultural Extension Officers are assisted by Sub-Inspectors and Beldars. The main function of the Agricultural Extension Officers is the transmission of the latest farm technology to the farmers in an easy and understandable form. They are also responsible for convincing the farmers to adopt innovations for increasing agricultural production. Agricultural Extension Officers assist the Chief Agricultural Officers at the district level in the execution of the agricultural production programmes. They organise training Camps at the village and block levels for the farmers in new scientific techniques. They visit their fields and guide them from time to time so that there is more agricultural output. They tour extensively during the campaign period of Rabi and Kharif Crops to ensure completion of action plan.

**Agricultural Sub-Inspectors**

Agricultural Sub-Inspectors help the Agricultural Extension Officers in the execution of agricultural production programme. They maintain contacts with the farmers individually and help them in solving their problems pertaining to agriculture. They also assist the co-operative sub-inspectors in the sale of fertilizers.

The National Commission on Agriculture in its interim Report on "Some Aspects of Agricultural Research,"
Extension and Training" has suggested that a group of specialists should be located at the taluka or equivalent administrative level that is the Block in the State and that the team leader and the specialist at this level should preferably be M.Sc.¹ This is so because the Block Development and Panchayat Officer is not in a position to give effective leadership to agricultural programmes which constitute only a part of his multiple responsibilities. This integrated agricultural organization at the Block level may be called the Block Agricultural Development Centre. This would be the immediate support level to the organization at the village level with a population of about 10,000. This organization may be headed by an officer who may be designated as the Block Agricultural Development Officer. He would be answerable to the Chief Agricultural Officer and would play the role of the Co-ordinator and promoter of the programmes. The Chief Agricultural Officer will be responsible for supervising agricultural programmes with the help of the Block Development Agricultural Officer (proposed designation) at the Block level. The Planning and Co-ordination Cell at the Block level² will be more intimately connected with the preparation of working programmes and supervision over the implementation of schemes. The Subject-Matter Specialists

¹Several studies have shown that the BDO cannot provide effective leadership to Agricultural programmes: See N.K. Roy, Study of Job Satisfaction of Block Agricultural Officers; Bhatnagar's Panahayati Raj in Kangra Distt.

²On the pattern suggested for the district 'Planning and Co-ordination Cell' needs to be set up in each Block.
at this level would be brought within the ambit of this cell. The planning and co-ordination organization at the Block level will have to be supported by a high powered co-ordination committee which should consist of the representatives of all development departments, at the Block level. Further, Block level organization will have to be delegated adequate administrative and financial powers so that they may work effectively.

(c) **Village Level**

In the areas identified for coverage of agricultural programmes, the chain of administrative control extends to the village level.

The organisation for agricultural development at the village level is at present in the formative stage. The proposal for the creation of organization at this level under the scheme 'Single Line Organization' has been sent to the State government many times but it has not received adequate attention. However, there is thus the need of local agricultural development centres as 'focal points of growth' within the rural community serving a number of revenue villages. It may cover a circle or an equivalent area (within 4 to 6 villages) with a population range of about 10,000. At this level, a functionary who has specialised in agriculture science should be made the incharge. The National Commission on Agriculture (1976) has recommended that ordinarily, there should be a direct hierarchical control from the village Level Worker to the District Officer and to secure co-operation
and participation from people in agricultural development programmes, the technical organizations should work in close-association with the elected representatives.\textsuperscript{1} The Commission further recommended that an agricultural graduate should be appointed at the focal point. He should cater to the needs of a population of 10,000 which is equivalent to 2,000 families of which roughly 1,000 will be farm owning families.\textsuperscript{2} It is a sound suggestion for consideration of the State government.

The National Commission on Agriculture in its report "Some Aspects of Agricultural Research Extension and Training" has recommended that the Village Level Worker (VLW) should be provided better technical support at the next higher level, i.e., the Agricultural Extension Officer who may be located at circle headquarters within a Block with a population range of about 10,000. The VLW is a general purpose functionary in the agricultural sector and it has been stated by several committees that his continuance is essential for a link between the expert and the farmer. However, the findings of this study indicate that they rarely manage to devote more than half of the time to agriculture work. This is because of duality of control since he is under the administrative


\textsuperscript{2} Ibid., p.198.
control of the B.P.D.O. Moreover, he does not possess sufficient technical knowledge and competence necessary for undertaking agriculture work. They do not devote sufficient time to agricultural activities. It is, therefore, proposed to have Agricultural Inspectors as the primary functionaries in the Agricultural Development at the village level. The Primary Functionary will keep 'index Map' of the village. He will have detailed classification of the available area along with the requirements of each field. Besides, he will make advance planning for cropping pattern according to the needs of the population so that inputs and other services are arranged in time. He will also motivate the cultivators to follow the latest package of practices by laying out demonstration plots at the farmers' fields. Since the introduction of High Yielding Varieties Seeds, credit needs for fertilizers, pesticides and insecticides, installation of tubewells and purchase of machinery and implements have greatly increased; the majority of uneducated farmers need guidance and assistance which could be provided by these functionaries.

1(a) In many areas, the VLWs are still functioning as multipurpose functionaries. This shortcoming has to be removed. It has been suggested that alternatively at least 75 to 80 per cent of the VLWs should be assigned to agriculture while the rest of VLWs may continue to do non-agricultural work.

(b) It is of interest to note that agricultural work assigned previously to Block Development Officers and Village Level Workers, functionaries of Community Development (now Rural Development and Panchayat Department) has been withdrawn since April, 1985 with the setting up of separate Rural Development and Panchayat Department.
As stated earlier, the Agricultural Inspector would be the primary functionary for a cluster of four to five villages. On an average, the functionary will look after 800 farming families. For each cluster of 5 villages having 800 farming families, one Agricultural Inspector is proposed to be assisted by one or two Beldars.

The State government has already taken steps for the implementation of the Integrated Rural Development Programme in all the 118 Blocks. Under this programme the state has been divided into 566 Focal Points and a set of 5 villages has been kept as a unit for development. So it will be possible to keep this unit for agricultural activities under the care of one Agricultural Inspector. The Agricultural Inspector will function under the direct control of Subject-Matter Specialists provided at the Block level. They in turn will be answerable to the proposed Block Development Agricultural Officer who in turn will be responsible to the Chief Agricultural Officer provided at the District level.

**Critical Appraisal**

The earlier part of this chapter has acquainted us with the organization and functions of the Directorate of Agriculture. There is a need to streamline and rationalise its working. We, therefore, proceed further to locate the problems and make suitable suggestions for its efficient and effective functioning.
1. **Need for Unified Policy Direction**

We have seen that the political head of the agriculture Department is the Agriculture Minister. Similarly for other agricultural subjects like Animal Husbandry, Community Development, Panchayati Raj and Rural Development, Co-operatives, we have separate political heads i.e. ministers. This hampers unified policy direction and ultimately affects the performance. This may be overcome by placing all the subjects pertaining to Agricultural Sector under one senior minister who may be assisted by a number of ministers of state in accordance with the requirements, and inter-relationship among the different sub-sectors within this sector.

2. **Relationship between the Secretariat and the Directorate**

The relationship between the technical head (Director of Agriculture) and the Secretariat also needs to be restructured. The system under which the proposals are examined in the first instance in the Directorate and then at the Secretariat level causes undue delay and dilution of responsibilities. Due to concentration of power at the Secretariat level, the Director of Agriculture has to approach the government for sanction even in respect of relatively minor matters. This also increases the load of desk work. Moreover, in the existing system, examination of proposals and decision-making at the secretariat level is initiated in actual practice, from the lower levels, with almost
no contribution from the technical angle. It is, therefore, essential to grant ex-officio secretariat status of Additional Secretary to the Director of Agriculture so that decision-making is decentralised.

3. **Relationship between the Directorate of Agriculture and the Punjab Agricultural University**

The Punjab Agricultural University Ludhiana was set up in 1962. It was assigned functions like agricultural education, research and extension. The Directorate of Agriculture as well as the Agricultural University are performing certain common functions like training of farmers, extension services and supply of seed. Hence, there is no clear cut demarcation of functions between the two; collaboration, too, is lacking. With a view to ensure a clear-cut delineation of responsibilities between the two organisations, it is recommended that the main functions of the Directorate of Agriculture should be: planning for the production and supply of inputs; field extension work including the organisation of minikit demonstrations and farmers' training programmes, and arrangements for storage, processing and marketing whereas the Agricultural University should confine its activities to research, education and training of farmers.

The Directorate should be structured as a technical department. It should be headed by competent technical experts. Mobility of staff between the University and the Directorate should be assured through appropriate administrative devices.
including ex-officio positions in the Department for senior staff of the University and vice-versa as suggested in the chapter on 'Personnel Administration'.

4. Technical Status to the Directorate of Agriculture

The Directorate of Agriculture, on the whole, has failed to arouse interest in the farming community regarding new techniques and scientific knowledge of agriculture. This is due to lack of technical staff at the disposal of the Directorate. We have studied this aspect in detail in the next chapter namely, 'Personnel Administration'. The suggestions made by the Government of India, if adopted, may improve or remedy the situation to a great extent. It is recommended:

"Department of Agriculture should be made responsible for the planning of production and supply of the essential agriculture inputs; arrangements for marketing of the produce; field extension work including demonstration and farmers' training programmes. It should be structured as a technical department and be manned and headed by competent technical experts." ¹

5. Overburdened with Routine Functions

The administrative powers of the Director include powers regarding appointment, transfer, promotion, punishment, countersigning the bills, sanctioning of leave

etc. The Director pointed out that the administrative as well as financial powers vested in him are not adequate. The Director of Agriculture should be free from routine and administrative duties connected with appointments, transfers, approval of tours etc. to the maximum extent possible, i.e., without affecting his authority as the Head of the Organisation, so that he is able to give the maximum attention to planning, co-ordination, technical guidance and supervisory functions.

6. **Rationalization of Functions and Activities**

With the transfer of research activities to the Punjab Agricultural University in 1963 and of service functions to the institutional agencies, such as Punjab Agro-Industries Corporation, Punjab State Co-operative and Marketing Federation (MARKFED), Punjab Warehousing Corporation, Dairy Development Corporation, Marketing Board, Seed Corporation, Punjab State Tubewell Corporation, the main stress of the activities of the Directorate of Agriculture should be on development, extension and regulatory activities. As a functional unit, the Directorate should concentrate on planning, policy-making, the strategy of implementation and discharging regulatory functions. Though not involved with the distribution of supplies, yet the Directorate should be responsible for proper co-ordination of the functioning of
various agencies responsible for the distribution of supplies and related services so that there is proper scheduling and synchronization in ensuring availability of services and supplies. The regulatory functions and quality control may include marketing, processing, grading, consumption, regulation of seed varieties, fertilizers, pesticides and insecticides. Hence, the need for rationalization of the activities of the Directorate of Agriculture is vital.

7. **Delegation of Administrative and Financial Powers**

Irrational disposition of the staff, too much stress on old rules and regulations, tardy methods and procedures as discussed earlier and dependence on precedents cause delay which ultimately leads to inefficiency and corruption. In order to avoid this, we will have to reduce too many levels of dealing with cases and removal of conflicts and duplication of work through the media of co-ordination and delegation of financial and administrative powers. There is a need of conferring upon the Director and the other technical heads at the Directorate, District and Block Levels, maximum financial and administrative powers. For example, at present, the Director can sanction upto Rs 10,000 at a time. Since the price index has risen considerably, the powers of the Director require to be enhanced considerably. Similarly, in a particular case, due to lack of sufficient powers with the Director, a project could not be carried out. As a result, it remained unproductive, causing considerable loss to the
State Government. Full powers of reappropriation need to be vested with the Director; being the Head of the Department, he knows the requirement of funds for various activities and their proper utilization. This will lead to greater speed and flexibility of action too.

8. Need for Administrative Reforms Unit

Some of the methods and procedures adopted by the Directorate of Agriculture are cumbersome, tardy, difficult and need rationalization. The Directorate should evolve adequate, simple and self-contained procedures for its own functioning. The employees in the Directorate, especially those at the lower levels, should know what is to be done in a given situation or about a particular case. The rules and regulations should allow sufficient discretion to officers at all levels to dispose of the cases at the earliest and to the satisfaction of the beneficiaries. In order to ensure better and quicker disposal of cases, and elimination of unnecessary and unproductive work, the setting up of Administrative Reforms Unit at the Directorate level is required. This unit may conduct inspection of various branches of the Directorate and Field offices with a view to finding out the extent and reasons of delay and understand the nature of procedural and organizational defects with a view to suggest remedial measured. The proposed Administrative Reforms unit may be

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1 Information based on perusal of the files of the Directorate of Agriculture, Punjab.
2 This observation is based on interviews of various functionaries of the Directorate and field level officers and personal talk with them.
assigned the following duties: to;

(a) inspect the working of the branches of the Directorate as well as field offices and to watch their performance and suggest remedies for rooting out corruption, inefficiency and delays;

(b) advise the Director in regard to structure, staff strength and staffing of the Directorate as well as field level offices;

(c) suggest the issuance of proper directions to field level officers/offices by the Directorate with a view to achieving progressive and marked increase in efficiency;

(d) chalk out training programmes of the employees of the Directorate as well as field level offices in collaboration with Agricultural University, Ludhiana and Punjab Institute of Public Administration; and

(e) secure improvement of procedures followed in the matters of disposal of business by issue of appropriate office orders; and to compile the sets of comprehensive instructions in the form of guide points and to make them available to field offices.

9. Planning, Evaluation and Monitoring Cell

The real issue is that of co-ordination between the technical programmes and supplies and services. Co-ordination has to be at the district level also. At present, the basic handicap of agricultural administration under the Chief Agricultural Officer is that it is not backed by a strong technical organisation. It is, therefore, suggested that there has to be a 'Planning, Co-ordination and Evaluation Cell' at the District as well as Block levels in every district. This cell may consist of an Economic and Statistical Unit, a Technical Unit comprising a group of specialists, a Planning and Evaluation Unit and an Administrative and

1This part has been discussed in detail in the Chapter 'Co-ordination' and preceding pages of this 'chapter' also.
Co-ordination Unit for follow-up action on various problems. It is desirable that the Chief Agricultural Officer of the Agricultural Department should be the in-charge of the cell so that all matters of co-ordination among the various departments are dealt with expeditiously. Such issues as cannot be tackled at the field level will have to be processed in the Planning, Evaluation and Co-ordination Unit (proposed) of the State Directorate of Agriculture. There has to be a continuous link between the District unit and the Directorate Unit. Co-ordination Committees at the district level could also be strengthened by adequate and appropriate representation of institutional agencies as well as farmers' associations. The follow up action on the decisions of this body will have to be the responsibility of the Chief Agricultural Officer and the planning and co-ordination cell under his care. It needs no emphasis that much of the success of the proposed organization depends upon the capacity and drive of the Chief Agricultural Officer and, therefore, he must be an expert in any one of the agricultural fields. He should have adequate experience of agricultural administration and management.

10. Co-ordination with other agriculture-allied sectors/activities

The problem of administrative organisation at the district level has assumed new dimensions. A large number of programmes belonging to the central or state sector and the corporate, co-operative or the private sector, have been
institutionalised at the district level. A large number of them have to be implemented or financed through co-operative or corporate bodies like Cooperative Societies, Land Development Banks, Punjab Agro-Industries Corporation, MARKFED, etc. Co-ordination with the institutional sector has, therefore, assumed special dimension especially at the district level. Therefore, necessity for an effective organization at the district level which should be responsible for breaking up the policy directives from the State or even the Central level into suitable action programmes, organizing and directing the field staff, fixation of detailed targets and standards of performance, progress analysis and supervision and co-ordination of the implementation of programmes, review of methods of work and for feed-back to the State Headquarters.

11. No Single Line Organization

At present there is no single line organization covering the various aspects of agricultural development at the district level. This has led to the varied problems of co-ordination between and among offices/agencies connected with agricultural development.¹ The Directorate of Agriculture has introduced a single line system to a limited extent i.e. in regard to Training and Visit (T & V) Programme and that too, has not taken a concrete shape.

¹Problem of Co-ordination at the district level has been discussed in detail in the chapter on 'Co-ordination'. 
Further, there has been substantial growth of staff at the district level during the plan periods under various schemes and programmes of agriculture. However, this growth has been discerned only in the general staff category.\(^1\) The requirement of specialists has also grown at the District level. The growth of staff has, however, not taken place in a planned manner. There is also variation in the strength of agricultural staff from district to district.\(^2\) There is an urgent need for the Directorate of Agriculture to set up its own field offices at the Block and Focal Point levels as suggested in this chapter earlier.

**THE SUMMING UP**

The administrative machinery for agricultural development depends for its success on the maximum delegation of powers—financial, administrative and technical—at all levels—Directorate, District, Block and Village. With the establishment of strong and integrated agricultural organization and employment of competent staff at all the levels, it would be possible to allow adequate delegation of powers to these levels in relation to finance and planning for purposes of approving schemes and sanctioning expenditure. The inordinate delay and uncertainty are generally caused when matters have to be referred to the government for sanction. There has been

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\(^1\)This observation has been made through the study of agenda note for the meeting held under the chairmanship of Financial Commissioner Development on 1.8.1985 for discussing the additional staff requirements for the implementation of plan schemes of the department of agriculture.

\(^2\)See Organization Chart at the District level. (Fig.4.5 and 4.6).
under-utilization of development funds in the districts which is mainly due to dilatory, cumbersome, complicated procedures and centralization of powers at the higher levels. The entire position regarding delegation of administrative and financial powers needs to be looked into in view of the new responsibilities conceived for various tiers of agricultural administration. This situation can be remedied to some extent by conferring ex-officio status of Additional/Joint Secretary on the Director and setting up of Agricultural Development Board with 'Single Line of Command' in administration.

Devolution of authority and responsibility from the state to the district and from the district to the block level, is essential to facilitate decisive action programmes. In the organizational set-up as outlined above, the Director of Agriculture and other technocrats will be the technical guides and co-ordinators at the State level. Their chief concern would be to look into the priorities of policies and programmes on issues that might have wider repercussions and cannot be managed at the district level.

It has also been observed that much of communication even at the district headquarters and below is carried out by means of routine correspondence involving a lot of paper work which has multiplied manifold at the district and block levels. There is need for greater use of meetings and
conferences at which block level officials and non-officials could meet officials at the District and Directorate level, in order to sort out common problems and take prompt decisions. Follow up action to ensure the monitoring and evaluation of these decisions is also essential. Besides, there is the felt need of securing co-ordination between and among various offices/agencies concerned with agricultural development through setting up Planning, Co-ordination and Evaluation Cells at all levels.

The Director of Agriculture and the Chief Agricultural Officer at the District level or other technical heads of departments should be free from routine administrative duties connected with appointments, transfers, approval of tours, etc., to the maximum possible extent, but without affecting their authority as the Heads of the Organizations so that they are able to give adequate attention to technical guidance and control.