

GEOGRAPHICAL ANALYSIS OF PLANNING AND DEVELOPMENT IN PUNJAB : A PRELIMINARY INQUIRY

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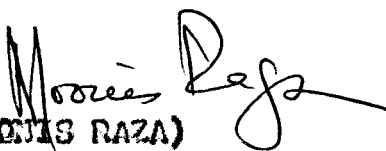
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I certify that the dissertation entitled "Geographical Analysis of Planning and Development in Punjab : A Preliminary Inquiry" submitted by Balwinderpal Singh Dhillon, in fulfilment of six credits out of the total requirements of twentyfour credits for the degree of Master of Philosophy (M.Phil.) of the University, is, to the best of my knowledge, a bonafide work and may be placed before the examiners for evaluation.

Dated: 5.2.81.


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B.S. Dhillon
(BALWINDERPAL SINGH DHILLON)

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CHAPTER - I
INTRODUCTION

I.1 Statement of the Problem

The problem studied in the present work is **Geographical Analysis of Planning and Development in Punjab: A preliminary Enquiry**. An assessment has been made on the planning and development process since it was introduced in the State. An attempt has been made to trace the historical background of both the Regional and the Sectoral planning in Punjab. The economic, physical and socio-demographic aspects have been emphasised as basic requirements for the planning purposes. At the same time, attempt has been made to analyse the impact of strategies of development on the economic, social and demographic characteristics of the state.

I.2 Purpose of the Study

The primary objective of the study is to examine and assess the process of development and planning in Punjab at its various stages. This means:

- (a) Evaluation of the development and planning in a historical perspective.
- (b) To assess the sectoral and regional emphasis in the plan outlays.
- (c) To highlight the socio-economic conditions of the region.
- (d) To assess the achievements of the Five-Year-Plans.

I.3 Area and Importance of the Study

Situated in the north-western part of India, the state of Punjab has a great locational and economic significance in the history. Before partition, an excellent canal irrigation and alluvial soils of the flood plains - gifted by the five rivers - provided a strong base for the agricultural development of the region. Due to the partition, the whole economy of the region was shattered. The Agriculture received a serious setback as most of the productive land and large share of the irrigation network went to Pakistan. Between its reshaping after partition and today, Punjab had led the rest of the country to increase the agricultural production. It has emerged as one of the major surplus states, making a substantial

contribution to the national foodgrains pool¹. After rehabilitating the large number of refugees, a systematic programme for development of the economy through Five-Year Plans, was taken on a massive scale. Thousand of acres of uncultivated land were reclaimed and consolidation of land holding was taken up through out the state as a pre-requisite for rational agriculture along scientific lines².

Since 1947, the Punjab economy experienced a rapid growth rate not only in food production, but it has achieved a marvellous targets in others sectors of economy also. It managed to emerge as the richest state in India with the highest per capita income in the country. In 1976-77, the per capita income in the Punjab was Rs.1812 compared with a national average of Rs.1081 (TABLE-I.3.1). The state income rose at a rate of 2.8 per cent during the fifties - a rate almost exactly equal to the national

-
1. BHALLA, G.S. & Others, Structural and Institutional setup of Rural Punjab in the year - 2000; The Implications of Population Growth and Distribution, C.S.R.D., Jawaharlal Nehru University, New Delhi, 1980, p. 4.
 2. Government of Punjab, Punjab: The Possible Dream, Punjab National Press, Delhi, 1975, p.63.

TABLE - 1.3.1
STATE-WISE PER CAPITA INCOME IN INDIA
1976-77 (At Current Prices)

State	Per capita income (Rs)
Andhra Pradesh	919*
Assam	NA
Bihar	NA
Gujarat	1,119*
Haryana	1,472
Himachal Pradesh	1,056
Jammu & Kashmir	897
Karnataka	1,002
Kerala	909*
Madhya Pradesh	779
Maharashtra	1,489
Manipur	736
Orissa	NA
Punjab	1,812
Rajasthan	885
Tamilnadu	950
Uttar Pradesh	NA
West Bengal	1,047
ALL INDIA	1,081

Source: Statistical Abstract of Punjab, ESO, Chandigarh, 1978

* Figure for 1975-76.

rate³. Punjab's performance during the sixties has been outstanding. The average growth rate 5.5 per cent is not only much higher than the rest of India's (3.72 per cent) - it ranks amongst the highest in the world⁴. The growth rate was especially high during the hay day of the 'Green Revolution' (1965-66 to 1970-71), when the new seed-fertilizer technology was rapidly expanding. During this period compared with a growth rate of about 5.7 per cent in the rest of India, the Punjab economy achieved a growth rate of about 7.0 per cent per annum⁵. The rate of growth has fallen to 4.91 per cent in Punjab and 3.0 per cent during 1970-71 to 1976-77. Taking the entire period 1960-61 to 1976-77, the state income in Punjab has grown at a rate of 5.05 per cent compared with a national growth rate of 3.45 per cent⁶.

Apart from agriculture production, the Punjab has also achieved a notable growth in other fields of economy

3. BHALLA & Others, op.cit., p. 8

4. BHALLA, G.S. Punjab Economy: Growth and Prosperity, (Occasional Paper) C.S.R.D., Jawaharlal Nehru University, New Delhi, 1976, p. 4.

5. BHALLA, G.S., The Green Revolution in the Punjab (India) Rural Structural Changes in Non-Metropolitan Region, (Occasional Paper), C.S.R.D., Jawaharlal Nehru University, New Delhi, 1978, p. 1.

6. BHALLA & Others, op. cit., p.6

TABLE - 1.3.2

ELECTRIFICATION AND IRRIGATION IN INDIA BY STATES
(1977)

State	No. of Inhabited Villages	Village electrified	Irrigated area (% to net area sown)
Andhra Pradesh	27,221	50	29.1
Assam	22,224	9	22.5
Bihar	67,566	27	30.2
Gujarat	18,275	40	17.3
Haryana	6,731	100	50.6
Himachal Pradesh	16,916	43	16.7
Jammu & Kashmir	6,503	44	42.5
Karnataka	26,826	55	12.3
Kerala	1,268	95	21.1
Madhya Pradesh	70,883	20	8.8
Maharashtra	35,778	57	8.9
Nagaland	960	21	33.0
Orissa	46,992	28	16.2
Punjab	12,188	100	77.8
Rajasthan	33,305	25	19.0
Uttar Pradesh	1,12,561	29	45.4
Tamil Nadu	15,735	98	43.9
West Bengal	38,074	29	24.1
Manipur	1,949	12	46.4
Tripura	4,727	7	12.5
Meghalaya	4,583	7	24.7
India	5,75,721	36	24.4

Source : Statistical Abstract of Punjab, ESO,
Chandigarh, 1978.

Viz., irrigation, electrification and transportation.

The state ranks number one in the country in the irrigated area proportion to the net sown area (TABLE-I.3.2). A hundred per cent rural electrification has been achieved by the state. Haryana is the only other state in the country, which has achieved the same target in rural electrification (TABLE- I.3.2). In the field of transportation also the state has achieved a remarkable growth. Every village in Punjab has been connected by a road.

Even at this stage of development, which has taken place in the state, the importance of the present study is to highlights the loop holes of various development schemes and plans undertaken before and after partition. It is also significant to look at the imbalances in the budgetary allocations of vericus sectors of economy. For a balanced development of a region, it is important to have a picture of existing spatial disparities which have been traced in this study.

I.4 Sources of Historical & Current Information & Data

Number of historians highlighted the socio-political structure of Punjab extending over various periods.

Ganda Singh⁷, Fauja Singh⁸ and C.L.Steinbach⁹ have attempted the political history of Punjab at different periods. S.M.Latif a noted historian, traced the political as well as social history of Punjab right from the antiquity to 1947¹⁰. The various economists namely H.C.Calvert, M.L.Darling, H.K.Trevaskis, G.S.Chhabra and B.S.Saini have given the analysis of the socio-economic conditions of the Punjab from time to time.

-
- 7(a). SINGH, GANDA, Patiala and East Punjab States Union- Historical Background, Patiala Archives Publication No. I, Patiala, 1951, p. 100.
- 7(b) SINGH, GANDA, The Punjab in 1839-40, Sikh History Society, Amritsar, 1952, p. 319.
8. SINGH, FAUJA (Ed.), History of The Punjab (A.D. 1000-1526), Vol. III, Department of Punjab Historical Studies, Punjabi University, Patiala, 1972, p. 420.
9. STEINBACH, C.L., The Punjab: Being a Brief Account of The Country of the Sikhs, Punjab Language Department, Patiala, 1970, p. 183.
10. LATIF, S.M., History of the Punjab: From the Antiquity to the Present Time, Eurasia Publication, New Delhi, 1964, p. 625.

Calvert¹¹ laid stress on economic development, whereas, Darling¹² highlighted the socio-economic conditions of the Punjab peasantry. Trevaskis¹³ surveyed the economic conditions of Punjab during the last decade of nineteenth century and first quarter of twentieth century. Commandable contributions towards the economic history was made by Chhabra¹⁴ and Saini¹⁵.

The Geographers have not been able to made a substantial contribution in the field of planning and development of Punjab, particularly before partition.

The government publications before partition were limited to the Punjab Administration Reports. There reports

-
11. CALVERT, H.C., Wealth and Welfare of the Punjab, Oxford University Press, London, Second Ed., p. 372. 1932
 12. DARLING, M.L., The Punjab Peasant in Prosperity and Debt, Oxford University Press, 1925, p. 298.
 - 13(a) TREVASKIS, H.K., Punjab of To-day: An Survey of the Punjab in 1890-1925, (Two volumes), Civil and Military Gazette, Lahore, 1931, p. 305.
 - 13(b) TREVASKIS, H.K., The Land of the River Rivers, Oxford University Press, 1928, p. 372.
 14. CHHABRA, G.S., Social and Economic History of Punjab: 1849-1901, S.Nagin, Jullundur, 1962, p. 384.
 15. SAINI, B.S., Social and Economic History of the Punjab: 1901-1939, Ess Ess Publication, Delhi, 1975, p. 381.

were published annually giving all details of administrative policies regarding various development schemes. Director Land Records had also given the information about the agriculture sector. The only document available regarding the development and planning before partition is 'Five-Year-Plan; Post-War Development Schemes'. It was published by the Department of Planning, government of Punjab.

After partition the Punjab Statistical Abstracts and Census of India have been the major source of information for all the fields. But the major information and assessment towards an understanding of the Development and Planning process in the Punjab comes from the publications of the Punjab Planning Board, Statistical and Economic Organization, Punjab, Board of Economic Enquiry, Punjab and the Planning Commission.

Secondary data have been used from the following major sources:-

- (a) Punjab Administration Reports (pre-partition Publications)
- (b) Civil and Military Gazetteers (Pre-partition Publications)

- (c) Directorate of Land Records (Pre-partition Publications)
- (d) Reports of Board of Economic Enquiry
- (e) Punjab Planning Board Publications
- (f) Census of India (Punjab State)
- (g) Statistical Abstracts of Punjab.

I.5 Methodology

Following methods have been used in this study:

- (a) A detailed literature survey has been conducted to trace the physical and historical background.
- (b) A number of graphs have been used to highlight the temporal variations for the different sectors of the economy.
- (c) Concentration index have been used for showing all the socio-demographic components such as population distribution, rural-urban composition, literacy and working groups.
- (d) All the sectors of economy have been ranked to show the plan-wise priority in budgetary allocations.
- (e) Composite Ranking method has been used to depict the levels of development on the district level.
- (f) Lastly, shade method have been used to prepare the maps.

I.6 Chapter Scheme

The thesis extends over six chapters the details of which are as under:

Chapter I is the Introductory Chapter where the following points have been highlighted:

- (i) Statement of the problem
- (ii) Purpose of the study
- (iii) Area and Importance of the Study
- (iv) Sources of Historical & Current Information and data.
- (v) Methodology
- (vi) Chapter Scheme

Chapter II. In this Chapter Physical and Historical Background of the Region has been studied under the following levels:

II.1 Physical Background

- (i) Geographical Position
- (ii) Relief
- (iii) Drainage
- (iv) Climate
- (v) Soils

II.2 Historical Background

- (i) Irrigation canal Network
- (ii) Transport Network
- (iii) Changes in Area and Boundaries.

Chapter III deals with the Spatial and Sectoral Planning in Punjab under:

III.1 Pre-Partition Plans

- (i) Sectoral Frames of Plans
- (ii) Post-War-Development-Plan

III.2 Rehabilitation Plans

- (i) Economic Survey
- (ii) Rural Rehabilitation Plans
- (iii) Urban Rehabilitation Plans
- (iv) Industrial Rehabilitation Schemes

III.3 Five-Year-Plans

- (i) Sectoral Frames of PEPSU Plans
- (ii) Sectoral Frames of Punjab Plans
- (iii) New Capital Project
- (iv) Plan Holidays
- (v) Regional Frames of Plans

Chapter IV Gives the Economic and Socio-Demographic Characteristics of the Regions

IV.1 Economic Characteristics

- (i) Objectives of the Five-Year-Plans
- (ii) Achievements of the Plans

IV.2 Socio-Demographic Characteristics

- (i) Distribution of Population
- (ii) Density of Population
- (iii) Population Growth
- (iv) Rural Urban Composition
- (v) Sex Ratio
- (vi) Literacy
- (vii) Occupation Structure

In Chapter Vth the Impact of Planning on Regional Development has been discussed:

- (i) Introduction
- (ii) Choice of Indicators
- (iii) Methodology
- (iv) Levels of Development
- (v) Conclusion

In Chapter VIth the Summary and Conclusion have been given.

CHAPTER - II

PHYSICAL AND HISTORICAL BACKGROUND OF THE REGION

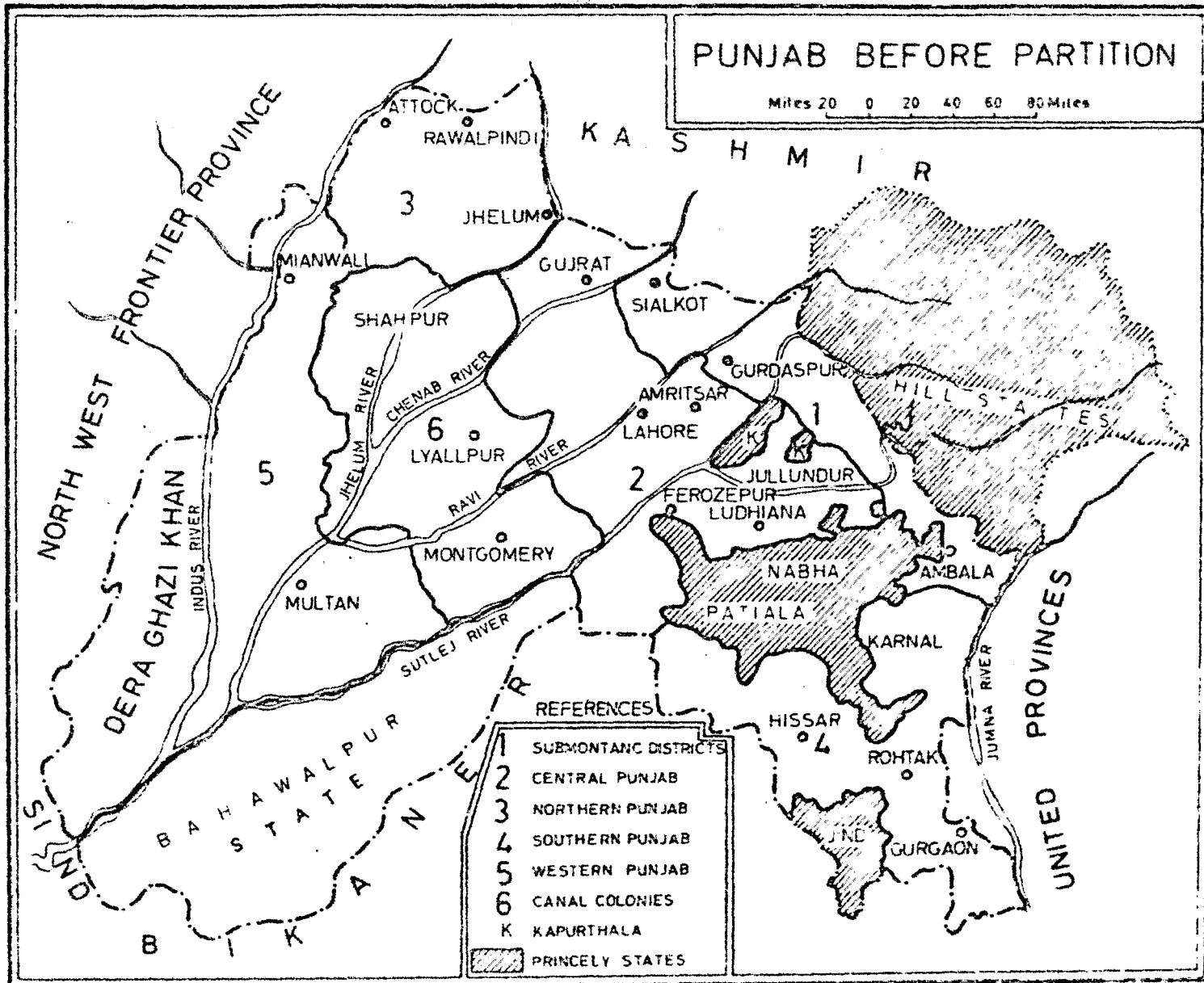
II.1 Physical Background

The north-west part of India which was known as Punjab, derives its appellation from two Persian Words - 'Panj' five, 'aub' water - from the rivers which flow through the territory. These rivers were : The Jhelum, The Chenab, The Ravi, The Beas, The Sutlej (MAP. II.1)

II.1.1 Geographical Position

Before 1947, Punjab including the neighbouring Princely States, covered an area of 1,48,610 square miles. Its territories were sprawling approximately from latitude 27°39' to 35°21' north, longitude 64°35' to 78°35' east and formed a peninsula extending into the north-western corner of the British Indian empire.¹ It was bordered on its north and west by Tibet, Kashmir, the North-West Frontier-Province (N.W.F.P.) and Baluchistan. To its south lay Rajputana and Sind and on the east united province was situated.

1. Punjab Administration Report, Government of Punjab, Lahore, 1923, pp. 1-2.



MAP II

The present Punjab is situated approximately between $29^{\circ}33'$ and $32^{\circ}32'$ north latitudes and $73^{\circ}54'$ and $76^{\circ}56'$ east longitudes². It is bounded on the north by Jammu and Kashmir, on the east by Himachal Pradesh, on the south by Haryana and Rajasthan and on the west by Pakistan. It is one of the smallest states of Indian Union.

II.1.2 Relief

The combined Punjab was an extensive flat plain, hemmed in by high mountain walls on the north and west and open to the south and east. It lies in the land of five Rivers from which it had taken its name. Its plains divided into five extensive natural regions, described by the native term 'doab' ('do-two, 'sub-water) - signifying a great tongue of land lying in the bifurcation above the confluence of the two rivers³. Thus :

- (a) the tract enclosed between two rivers, the Beas and Sutlej was called the 'Bist Doab' ;
- (b) The space enclosed between the Beas and Ravi was called 'Bari Doab' ;

2. Census of India, General Report, Punjab, Vol.A(1), 1971.

3. LATIF, Op. cit., pp. 11-12.

- (c) the tract enclosed between the Ravi and Chenab was called the 'Rechna Doab' ;
- (d) the space enclosed between the Chenab and Jhelum was called the 'Chaj Doab' ; and
- (e) the tract enclosed between Jhelum and Indus was called 'Sind Sagar Doab' .

The altitude of the great plains was varying between 200 feet to 1,600 feet from north-east to south west⁴. The gradual slope and smoothness of the region had the effect of causing the rivers to change their courses and form flood plains on their banks. However, the physical features of the region in the northern and southern parts were vary marked. Therefore, it was divided into six main physical divisions (MAP II.1)⁵:

(1) Sub-mountane tract: The sub-mountane tract varying 100 to 200 miles in breadth, which was fertile and habitable, separated the flat plains from the Himalayan mountains. It comprised the Alpine region of Kangra district and Shivalik Hills of Sialkot, Gurdaspur, Hoshiarpur and Ambala districts. The fertilizing influence of the Ravi, Beas and Sutlej rivers contributed mainly to the

4. STIENBACH, Op. cit., p. 3.

5. TREVASKIS, Punjab of Today, pp. 10-15.

charming appearance of the tract, intersected by green valleys and encircled by snow clad hills.

(ii) Central Punjab: An upper part of the Punjab plains between sub-mountain tract and canal colonies was known as Central Punjab. It included the districts of Gujrat, Gujranwala, Shikhpura, Lahore, Amritsar, Jullundur, Ludhiana and Ferozepur. The Central Punjab was a fertile alluvial plains and intersected by the rivers of Chenab, Ravi, Beas and Sutlej. It comprised the upper parts of Chaj and Bari Doab, Central part of Rechna Doab and lower part of 'Bist Doab'.

(iii) Northern Punjab : The northern angle between Indus and Jhelum rivers comprised the districts of Attock, Rawalpindi and Jhelum. This region occupied the upper part of the 'Sind Sagar Doab'. It was a zone of foot-hills between the Himalayan range and the Punjab plains.

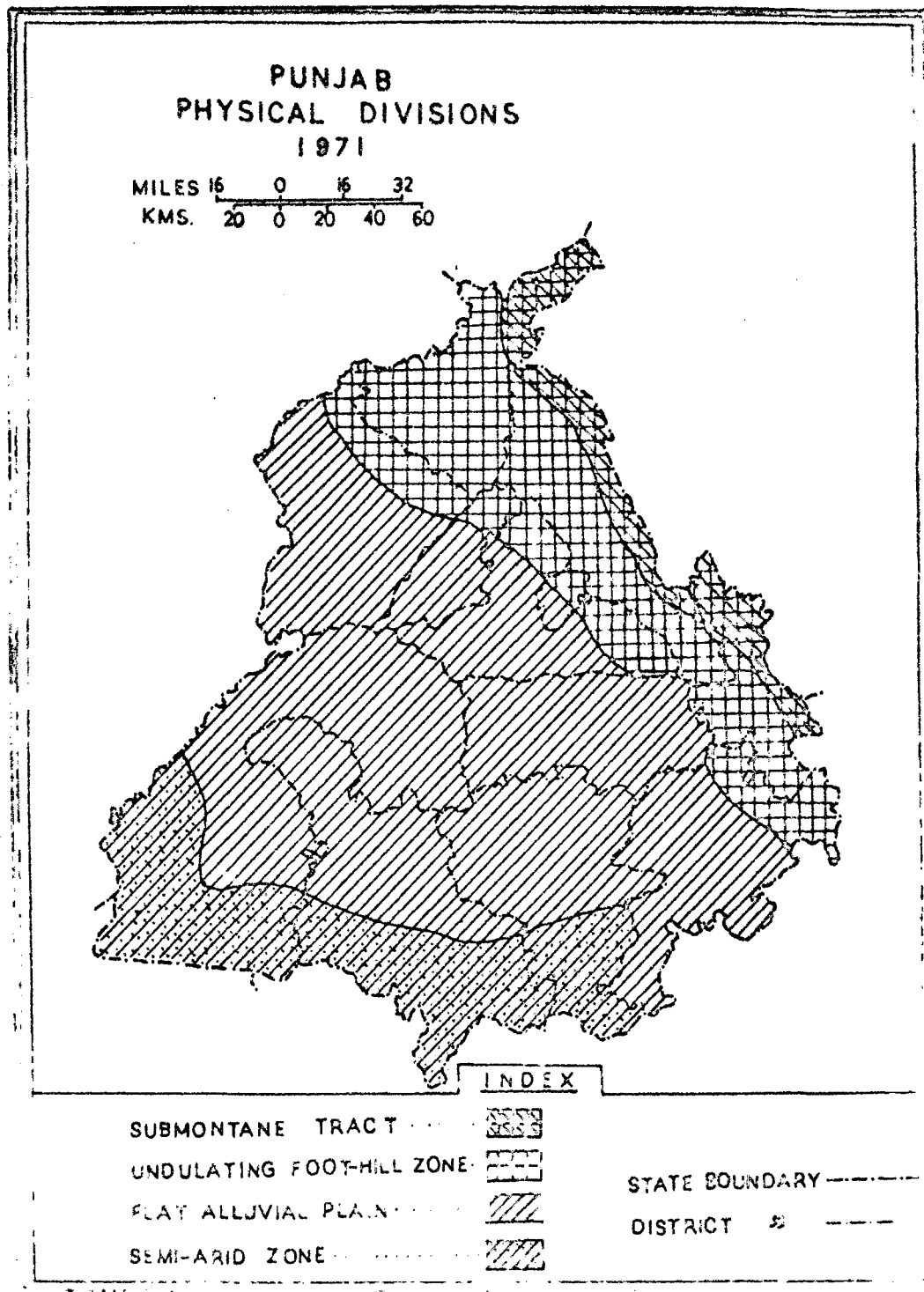
(iv) Southern Punjab: This region occupying southern part of the Punjab was also known as 'Malva region'. The south-western part of this region was semi-desert due to the proximity of the Thar desert. It was covered with the sand dunes. The eastern part of this region was an alluvial plain formed by river Jamuna. This region was bordered by river Jamuna on the east and Rajputana on the south-west.

The southern Punjab included the Karnal, Hissar, Rohtak and Gurgaon districts.

(v) Western Punjab: This region also known as the salt range of Punjab covered the whole western Punjab between North-west Frontier-Province and Bahawalpur State. It extended eastward to the Indus and terminate on the right bank of the river Sutlej. The salt range contained inexhaustible veins of rock-salt and limestone. The western Punjab included the districts of Mianwali, Dera Ghazi Khan, Muzaffargarh and Multan.

(vi) Canal colonies: The region between central Punjab and western Punjab, known as canal colonies, was a fertile alluvial plain. The whole region was covered with the canal irrigation network. It has occupied the lower parts of 'Chaj' and 'Rachna Doab' and central parts of 'Sind Sagar' and 'Bari Doab'. It was intersected by the Jhelum, Chenab and Ravi rivers. This was an agriculturally developed region in the Punjab. It included the districts of Shahpur, Lyallpur, Jhang and Montgomery.

• Thus, the present Punjab is reduced to a small state. But compared to its small area, the present Punjab also has a marked variety of land scope. It can be divided into four physical divisions (MAP II.2):



MAP 12

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(i) Sub-montane tract: In this part the Shiwalik hills are covering a small fraction of the state's area on the north-east, about 300 to 1000 metres in elevation. It constitutes of the small strips of territory stretching between Himalayas and Indo-Gangetic plains into which the spurs of the Himalayas run. The river Beas and Sutlej are intersecting the tract. The upper portions of the districts of Gurdaspur, Hoshiarpur and Ropar lie in this sub-montane tract and covering the upper part of the 'Bist Doab'.

(ii) Undulating foot-hills zone: This narrow strip lies on the north-east of the State between the sub-montane tract and the Punjab plains. It is dissected by closely spaced seasonal tarrents, locally known as 'Choas', several of which terminate in the plain without joining any stream. The lower portions of the districts of Gurdaspur, Hoshiarpur and Ropar and small strips of the upper portions of the districts of Amritsar, Kapurthala, Jullundur and Patiala lie in this zone. This zone is also forming the central part of 'Bist-Doab'.

(iii) The flat alluvial plain: A major portion of the State is flat alluvial plain. The altitude varies from about 300 metres in the north-east to about 180 metres in

the south-west giving it a gentle gradient. The low lying flood plains along the rivers and slightly elevated flat uplands between them are distinguishable within the plains. The low lying flood plains are locally called 'bet' or 'khaddar'. The flood plains are separated from the upland plains by a steep slope of 5 to 10 ft. The flood plains are also subject to inundation during rainy season. Above the confluence of the Beas and Sutlej rivers, is an extensive upland plain which is locally called 'Bist Doab'. This flat alluvial plain forms the largest natural region of the State comprises of all the remaining eight districts of the State (i.e. Amritsar, Kapurthala, Jullundur, Ludhiana, Patiala, Sangrur, Bhatinda and Ferozepur) except southern part of Sangrur and Bhatinda districts and south-western part of Ferozepur district.

(iv) Semi-arid zone: This strip goes along with the boundaries of Haryana and Rajasthan on the southern and south-western portion of the State. It is covered by the sand dunes. The southern part of Bhatinda and Sangrur districts and South-Western part of Ferozepur district lie in this zone.

II.1.3 Drainage:

The Punjab before 1947, was traversed by a network of five snow-fed rivers. The Jamuna river formed the boundary on the east, while the Indus flowed partly through the State and partly along its boundary on the west. There were five rivers between the Indus and the Jamuna, namely the Jhelum, the Chenab, the Ravi, the Doas and the Sutlej. Out of all these rivers, only the Indus and the Jamuna were navigable and they served as arteries of commerce particularly in the pre-railway era.⁶

All the five rivers emerged from the Himalayas range and traversed through the Punjab plains (MAP.II.1). The Indus bordered the state from Attock to Dera Ismael Khan and it flowed through the western part of the State till it joined the Sutlej near Rajanpur. The Jhelum and Chenab joined near Jhang, while Ravi joined in the main stream near Multan. River Beas joined river Sutlej at Harike. River Sutlej flowed through the southern part of the state and joined the main streams of Jhelum, Chenab

6. LATIF, S.H., Op. cit., p. 9.

and Ravi near Muzaffargarh. Apart from these major rivers, there were several seasonal streams traversing the inter fluvial divides.

All the five perennial rivers provided an excellent irrigation canal network in the region. In the present Punjab, there are three snow fed rivers, the Sutlej, the Beas and the Ravi and two seasonal streams, the Ghaggar and 'Black Bein'. All the three perennial rivers form the excellent irrigation network in the State. These rivers are, however, neither navigable nor do they offer an opening into the sea. The Ravi river, after its emergence from the foot-hills at Madhopur, flows between Jammu and Kashmir State and Gurdaspur district of Punjab. Lower down, the Ravi river flows on the international boundary between India and Pakistan. The Beas river leaves the hills near Talwara and flows through the plains of Punjab for a length of about 160 kms. till it joins the Sutlej at Harike. It forms boundary between Gurdaspur and Hoshiarpur districts in the upper regions and between Amritsar and Kapurthala districts in lower regions. The river Sutlej traverses through the middle of the Punjab. After its emergence from the Shivalik hills, it forms the boundary between Jullundur and

Ludhiana, Amritsar and Ferozepur districts and lower down it forms the international boundary between India and Pakistan. In Hoshiarpur and Gurdaspur districts, there are very closely spaced rivulets ('nadis') flowing from the Shivalik hills, known as 'Choas'. During the heavy monsoons, they bring down sand to deposit on their shifting and lay waste fertile lands.

The main rivers have been used for the development of hydro-electricity and canal irrigation. The Bhakra-Nangal and Pong Dam projects of the Sutlej and the Beas respectively have already been completed. The Thein Dam is under construction to tap water from the river Ravi.

II.1.4 Climate:

Before 1947, owing to its geographical position, distance from the sea and scanty rainfall, the region was subject to the extremes of climate. In the latter part of December and January and sometimes in February the night temperature almost touched the freezing point, while during the day the thermometer generally did not

rise above 75°F⁷. In summer beginning from April to the end of June, fierce dry heat prevailed in the afternoon and in May and June the temperature ranged from 100°F to 120°F. Dust storms and thunder storms were common in the hot weather and invariably tended to reduce the temperature by a few degrees. The climate of montane tract was cool in summer, while an intense cold accompanied by snow fall was experienced in winter on high altitudes⁸.

Rainfall exerted an immense influence on the agriculture of the region, particularly in the irrigated areas. It was, however, not evenly distributed over the region and varied from torrential precipitation in the hills - Kangra received over 100 inches annually - to a fall of only a few inches in districts like Multan, which, in some years, got less than 2 inches where the average rainfall was about 5 inches⁹. The Central Punjab received about 15 to 25 inches of rainfall annually. The average

7. SAINI, Op. cit., p. 4.

8. CALVERT, Op. cit., p. 122.

9. SAINI, Op. cit., p. 3.

annual rainfall recorded during 1926 in the central districts of Lahore and Amritsar accounts for 18 and ~~24~~ 24 inches respectively¹⁰. The region experienced maximum of its annual rainfall during summer monsoon.

The present Punjab is also a land locked state and having the similar climatic conditions as before 1947. Climate over it is of a continental type characterized by extreme summer heat followed by severe winter. The average rainfall accounts for 70 cms. of which about 70 per cent occurs in the monsoon months i.e. July to September, whereas, 15 per cent occurs during winter months i.e. December to March from the western cyclones¹¹. There is a definite pattern in the distribution of rainfall revealing a declining trend as one moves from north-east to south-west because of the increasing aridity.

II.1.5 Soils:

The soil is one of the world's greatest natural resources. Before 1947, the Punjab barring the mountainous and parts of the sub-mountainous tracts, was mainly

10. CALVERT, Op. cit., 1932, p. 123.

11. Census of India, General Report Punjab, Vol.(1) 1971.

a vast level plain of alluvial origin. It formed a part of the Indo-Gangetic plain with a gently slope of about one foot per mile from north-east to south-west. In composition the soil was generally a sandy loam which was deficient in humus, but well supplied with essential mineral constituents¹². The soils of sub-montane tract consisted of disintegrated Shiwalik sandstone differing widely in appearance and in agricultural potential from alluvium of the true Punjab plains¹³. The alluvial soils occupied the whole Punjab plains between the Jamuna and the Indus. The upper 'Sind Sagar Doab', the 'Chaj Doab', 'Rachna Doab' and 'Bist Doab' and the central 'Bari Doab' were very rich in alluvium¹⁴. Vast area of desert like sandy soils known as salt range occupied the south-western part of the region. The extensive strata of limestone sandstone and gypsum were also found in this salt range¹⁵.

12. SAINI, op. cit., p. 2.

13. TREVASKIS, op. cit., p. 11.

14. Punjab Administration Report, Lahore, 1911-12, pp. 3-4.

15. LATIF, op. cit., pp. 12-13.

Desert-like sandy soils also occupied the extreme southern part of the region.

The present Punjab is also having various types of soils. The sub-montane region has forests and hilly soils. These soils are slightly acidic and are said to be in different stages of Podzolization. They are somewhat deficient in lime and phosphoric. The district of Bhatinda and Ferozepur have desert soils, deficient in water and inorganic matter, nitrogen and phosphorus. The alluvial soils belonging to the soil types of the Indo-gangetic plains cover the remaining part of the state. The upper layer forming the soil comprises of 10 to 15 per cent clay within average depth of 10 inches. The problem of salinity and alkalinity is rather devastating in the districts of Amritsar, Ferozepur and Sangrur and to a lesser extent in Gurdaspur, Jullundur, Kapurthala, Ludhiana and Patiala. Such soils are highly deficient in nitrogen, phosphorus and potassium.

II.2 Historical Background

II.2.1 Irrigation Canal Network

Before Britishers, the Mughal rulers excavated some canals, mainly for supplying drinking water to some of the towns. But their lengths allowed their waters to be used for irrigation as well¹⁶. During the British period for the agricultural development of India, the only instrument wielded by them was the promotion of large scale irrigation works which were directly revenue yielding. In the Punjab, they created one of the most extensive perennial irrigation systems in the world (MAP II.3). However, all the major irrigation canal works in the Punjab were created before 1947¹⁷.

(1) The Western Jamuna Canal

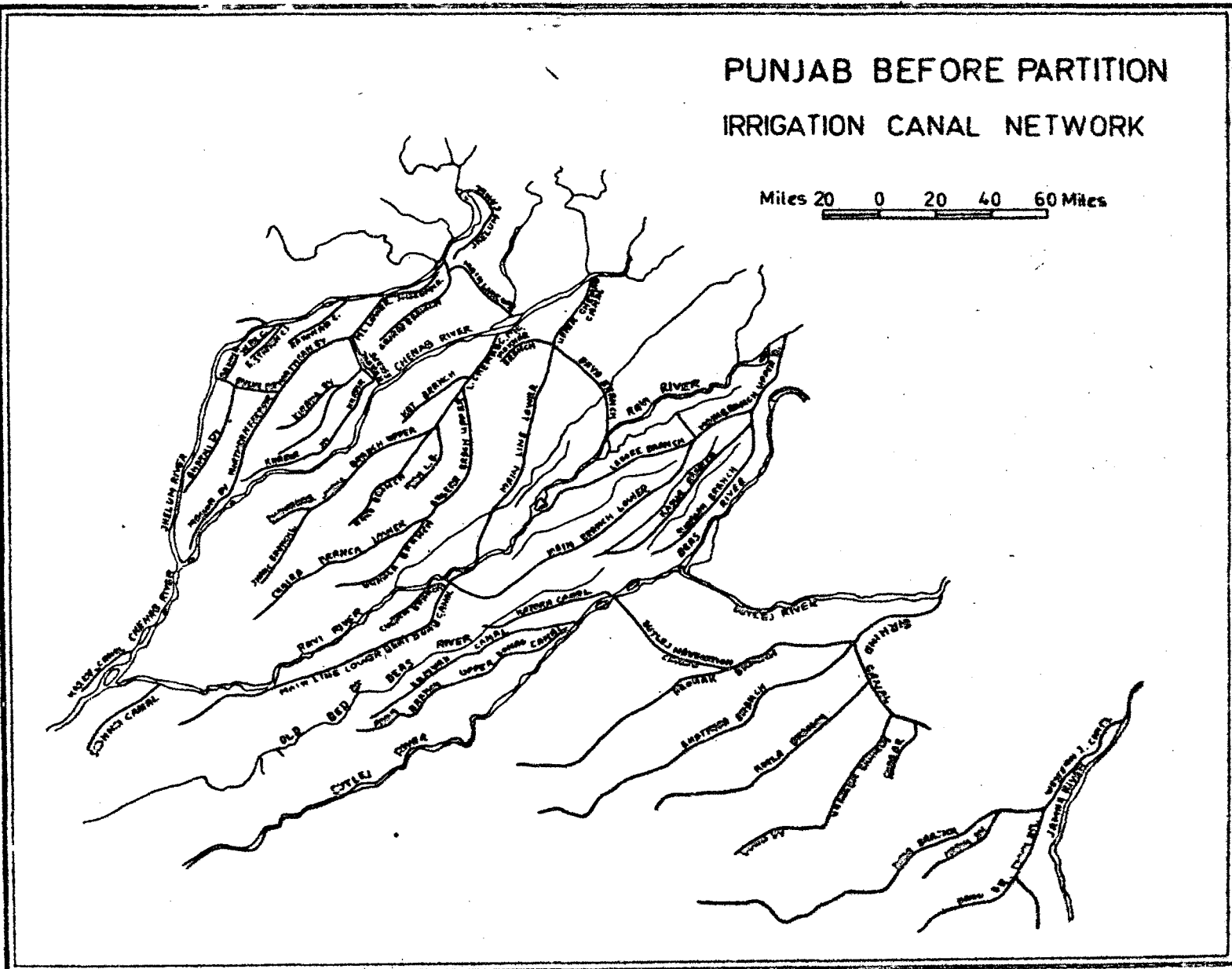
The Western Jamuna canal was an important perennial irrigation works in the Punjab, taking off from the west bank of the river Jamuna. It irrigated Ambala, Karnal, Hissar and Rohtak districts and parts of the

16. SINGH, Fauja, op. cit., p. 362.

17. JOSH, Bhagwan, Communist Movement in Punjab (1926-1947), Anupama Publications, Delhi, 1979, p. 41.

PUNJAB BEFORE PARTITION IRRIGATION CANAL NETWORK

Miles 20 0 20 40 60 Miles



MAP 113

Patiala and Jind States. At Indri regulator, the canal was divided into the Sirsa Branch and the Hansi Branch. The main line of the canal was 445 miles in length¹⁸.

(ii) Sirhind Canal

The Sirhind Canal weir was at Ropar, where the Sutlej emerged from the Shiwalik Hills. It was a perennial canal, taking off from the Sutlej and irrigated the princely states of Patiala, Nabha and Malerkotla. The canal was divided into four main branches. It was constructed by the British Government, in association with the Patiala, Nabha and Jind States. The canal was formally opened in 1882¹⁹.

(iii) Bari Doab Canal

The Bari Doab Canal was a perennial irrigation canal in the Punjab, taking off from the left bank of the Ravi and irrigated the districts of Gurdaspur, Amritsar and Lahore in the tract between the Beas and the Ravi (Bari Doab). The main line of this canal was

18. DUTT, ROMESH, The Economic History of India, Vol. II, Publication Division, Government of India, 1976, p. 120.

19. NIJJAR, B.S., Punjab under the British Rule (1849-1947), Vol. III, K.D. Publications, New Delhi, 1974, pp. 2-4.

450 miles in length²⁰. It was originated in a project for the improvement of an older work, the Hasli Canal, constructed about the year 1633 by Ali Hardan Khan, the famous engineer of emperor Shahjahan²¹.

(iv) The Lower Chenab Canal

The lower Chenab was a perennial canal in the region, taking off from the left bank of the Chenab River and irrigated the 'Rachna Doab'. The greatest part of this areas was desolate region before the introduction of irrigation. The original work was designed as a small inundation canal and opened as such in 1887, but in 1889 it was decided to convert it into a perennial canal of the first magnitude²². There were five branches of this irrigation project i.e. Kot Nikka Branch, Jhang Branch, Rakt Branch, Mian Ali Branch and Gugera Branch.

(v) The Lower Jhelum Canal

The Lower Jhelum Canal, a perennial irrigation work in the region was opened on October 30, 1901. It was taken off from the left bank of the Jhelum river

20. DUTT, op. cit., p. 122.

21. NIJJAR, op. cit., p. 8.

22. Ibid, p. 10.

and is supplying perennial irrigation to the whole of the region lying between the Jhelum and Chenab rivers (Chaj Doab). Shahpur canal is the main branch of it²³.

(vi) The Upper Sutlej Canals

The Upper Sutlej Canals comprised a group of imperial system at four inundation canals in the region known as the Katora, Khanwah, Upper Sobag and Lower Sobag Canals irrigated the districts of Lahore and Montgomery i.e. the central part of the 'Bari Doab'²⁴.

(vii) Triple Canal Project

The bold scheme known as the Triple Canal Project which embraced the construction of the Upper Jhelum, Upper Chenab and Lower Bari Doab, had based on the belief that Jhelum river had, even in the cold weather, water to spare after feeding the lower Jhelum Canal. The Triple Canal Project irrigated the districts of Gujarat, Sialkot, Shahpur, Montgomery and Multan in the region²⁵.

23. GALVERT, op. cit., p. 124.

24. NIJJAR, op. cit., pp. 13-17.

25. Ibid, pp. 24-25.

Except these irrigation Canal works several private canals were also constructed²⁶. The most important private canals were the Grey Canals in Ferozepur district Sarswati canal in Karnal district, the Charak and Gharkhana canals in Montgomery (Pakistan) district and the Shahu Nahar Canal in Hoshiarpur district²⁷.

These irrigation facilities increased the total irrigated area, irrigated area under wheat and Maize and yield per acre under wheat. In Amritsar district the output was recorded five mounds (about two quintals) more on irrigated land than on unirrigated land²⁸. The following table is showing the impact of increased irrigation facilities before 1947:

TABLE - II.2.1

TEMPORAL IMPACT OF IRRIGATION CANAL NETWORK

Year	Total irrigated area (in million acres)	Irrigated area under wheat (in lakh acres)
1901 - 02	2.43	56.6
1903 - 04	5.00	-
1916 - 17	8.00	-
1928 - 29	10.00	99.6
1932 - 33	-	85.9
1936 - 37	11.0	-
1939 - 40	-	95.6
1943 - 44	12.50	-

Source: Roberts & Singh, A Test Book of Punjab Amritsar, 1947

26. In the sense that they did not belong to the Govt.
 27. SAINI, op. cit., p. 206.
 28. CALVERT; op. cit., 1926, p. 125.

The irrigation canal network of the region was entirely dependent upon the water supply in the rivers. For steady flow into the canals an adequate amount of precipitation in the catchment area of the five rivers was pre-conceived. On the basis of the nature of availability of water in the rivers the canals were divided into three categories:

- (a) Perennial canals, which flow through the whole year;
- (b) Inundation canals, which were always flooded; and
- (c) The seasonal canals, which flow only for a limited period of the year.

But during partition large share of irrigation canal network went to the west Punjab (Pakistan). The present Punjab is enjoying the irrigation facilities only of few canal networks, which are given below:

(1) Sirhind Canal

The Sirhind Canal has four main branches i.e. Abohar Branch, Bhatinda Branch, Kotla Branch and Gheggar Branch. The main canal is irrigating the Ropar and Patiala districts and its feeder branches

are irrigating southern Punjab viz. the districts of Sangrur, Bhatinda and Faridkot.

(ii) Upper Bari Doab Canal (UBD)

This canal is divided into three main branches i.e. Lahore Branch, Kasur Branch and Subraon Branch. The main line of this canal is irrigating the extreme northern part of the present Punjab. Its feeder branches are irrigating the districts of Gurdaspur and Amritsar.

(iii) Grey Canals

These canals take off from river Sutlej near Ferozepur irrigating the district of Ferozepur and some parts of Faridkot district.

II.2.2 Transport Net-work

Like the irrigation system, the Railway network was established in the region by the Britishers during the 19th century and early twentieth century. Obviously, the Britishers were being enforced to establish the Railway network in this region, firstly, to link up their administrative head quarters and secondly, for the mobility of the army troops and police from the

military head quarters to the disturbed areas. Though upto some extent, it pushed the economic life of the people but it also facilitated the British trade with India²⁹.

The main Railway links stretched before 1947 were (MAP II.4):

- (a) from Lahore to Amritsar (1862)
- (b) from Karachi to Kotri (1861)
- (c) Lahore-Amritsar line rapidly extended east to Ghaziabad and south to Multan (1870)
- (d) from Lahore to Jhelum (1873) and to Peshawar (1883)
- (e) Delhi-Ambala line extended to Ludhiana, Jullundur and Amritsar (1891)
- (f) Delhi - Bhatinda - Ferozepur (1897)

Except above mentioned Railways network some short lines were also linked up the military head quarters and cities. It increased the mobility most of the high class people from remote areas to cities and towns. In 1901, the total number of passengers carried

29. DUTT, op. cit., p. 216.

by Railways were about 20 millions but by 1925-26 this had gone up to over 87 millions³⁰.

With the extension of Railway network the British rulers constructed the roads also to facilitate their administrative system. About 4,536 miles of roads were completed in 1938-39 on the important routes linking district head quarters, military head quarters and important towns³¹. The main road in the Punjab was a part of the most famous of the trunk roads in India known as the Grand Trunk Road stretched right across the northern part of the country from Peshwar to Calcutta. It was metalled through its length and was improved by the construction of bridges over the rivers. In its passage through the Punjab, it connected Peshwar with Rawalpindi, Jhelum, Gujranwala, Lahore, Amritsar, Jullunder, Ludhiana, Ambala, Karnal, Panipat and Delhi. Metalled roads branched off from it for short distances throughout its length in the Punjab³².

30. CALVERT, op. cit., 1932, pp. 107-110.

31. GARROT, H.L.O., The Grand Trunk Road in the Punjab, Language Department, Punjab, Patiala, 1971, pp. 13-45.

32. Ibid., p. 35.

The following table gives a picture of socio-economic infrastructure of the region before 1947:

TABLE II.2.2

TEMPORAL VARIATIONS IN SOCIO-ECONOMIC INFRASTRUCTURE

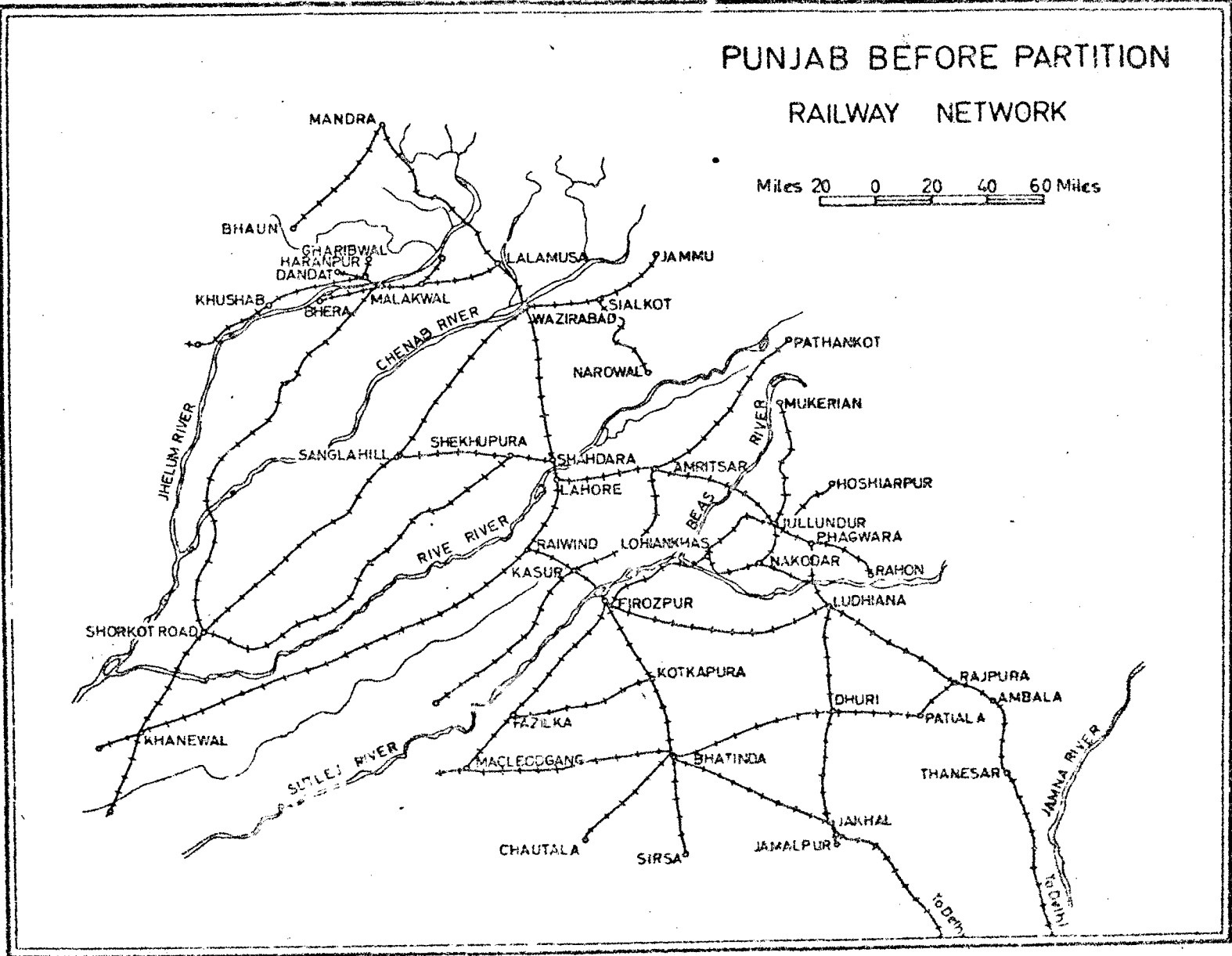
Year	Railway mileage	Canal mileages	Miles metrd. Roads	Cultivated area (Million acres)	Land Revenue (Rs lakhs)
1872-73	410	2,744	1,036	18.8	201
1882-83	600	4,583	1,467	23.4	206
1892-93	1,925	12,368	2,142	26.7	223
1902-03	-	16,893	-	26.8	260
1912-13	4,000	16,935	2,614	29.0	360
1922-23	4,441	18,663	2,938	30.0	400
1932-33	15,500	19,601	3,904	30.9	428

Source: Punjab Administration Report, Lahore, 1936.

The present Punjab has got a sufficient share of transport network after partition. All the district head quarters, cities and big towns are well connected with railways and roads. At present the Punjab is enjoying the transport facilities of the following railway

PUNJAB BEFORE PARTITION RAILWAY NETWORK

Miles 20 0 20 40 60 Miles



MAP II.4

network (MAP II.4):

- (a) Amritsar - Jullundur - Ludhiana - Rajpura - Delhi. From Amritsar towards north it is connected with Pathankot and from Jullundur it is connected with Hoshiarpur and Mukerian.
- (b) Ferozepur - Bhatinda - Delhi. From Ferozepur towards south it is connected with Fazilka.
- (c) Patiala - Dhuri - Sangrur - Bhatinda.
- (d) Ludhiana - Dhuri - Jakkhal - Delhi.

The Grand Trunk Road passes through the present Punjab connecting Delhi, with Rajpura, Khanna, Ludhiana, Phagwara, Jullundur and Amritsar. The Grand Trunk Road extends its branches throughout the state i.e. Ludhiana-Ferozepur, Patiala - Bhatinda, Jullundur - Pathankot and Amritsar - Pathankot.

II.2.3 Changes in Area and Boundaries

From the earlier times, the Punjab has had a great importance in the history of Indian sub-continent. It was a zone of interection between the Nomad breeding grounds of central Asia and the rich and fertile valley of Ganges. Like a strategic area it has been the arena of conflicts between the political systems for greater

than itself³³. It has been raided so many times by the Mughals, Turks and Britishers through the history.

In the middle of the eighteenth century the leading Sikhs started the protest and revolt against the religious hegemony and political tyranny of the Mughal rulers and their local agents in Punjab. As the result of their struggle against foreign domination, the Sikh states came into existence in 1764-65³⁴. Out of all the Sikhs States, three of them - Patiala, Nabha, Jind - having been called the Phulkian after the name of their common ancestor, Phul. Except these Sikh States some Hindu and Rajput states also emerged in the neighbouring areas i.e. Kalsian and Nalagarh. The states of Patiala, Nabha, Jind, Malerkotla and Faridkot were all having adjoining areas with each other. These princely states were surrounded by the Punjab territories on all sides (MAP II.1)³⁵.

33. TREVASKIS, Land of the five rivers, p. 7.

34. SINGH, Ganda, Patiala and East Punjab State Union, pp. 15-42.

35. Ibid, pp. 82-91.

The history tells us that the Punjab was organized and reorganized so many times. After the death of Maharaja Ranjit Singh it was annexed to British possessions of India in March 1849 and remained under the British rule about a century from 1849 to 1947³⁶.

During the early twentieth century, the first disintegration took place in the State. In 1901, the North-West-Frontier-Province (N.W.F.P.) was severed from Punjab and formed into a separate administrative unit, placed under the Government of India. In 1911, the district of Delhi was separated from Punjab, when the British Government transferred its seat from Calcutta to Delhi.

Before 1947, the Punjab comprised of twenty-nine districts having 1,000 to 2,000 villages and with three or four tehsils. For administrative purposes all the districts were grouped into five divisions³⁷:

- (a) The Ambala Division included the districts of Gurgaon, Rohtak, Karnal, Hissar, Ambala and Simla.

36. LATIF, op. cit., p. 572.

37. SINGH, KIRPAL, The Partition of the Punjab, Punjab University, Patiala, 1972, pp. 3-4.

- (b) The Jullundur Division included the districts of Kangra, Hoshiarpur, Jullundur, Ludhiana and Ferozepur.
- (c) The Lahore division included the districts of Gujranwala, Shiekhupura, Sialkot, Gurdaspur, Lahore and Amritsar. This was a smallest but the most important division of Punjab.
- (d) The Rawalpindi Division included six districts viz. Gujrat, Jhelum, Rawalpindi, Attock, Mianwali and Shahpur.
- (e) The Multan Division consisted of the six districts viz., Montgomery, Lyllpur, Jhang, Multan, Muzaffargarh and Dera Ghazi Khan.

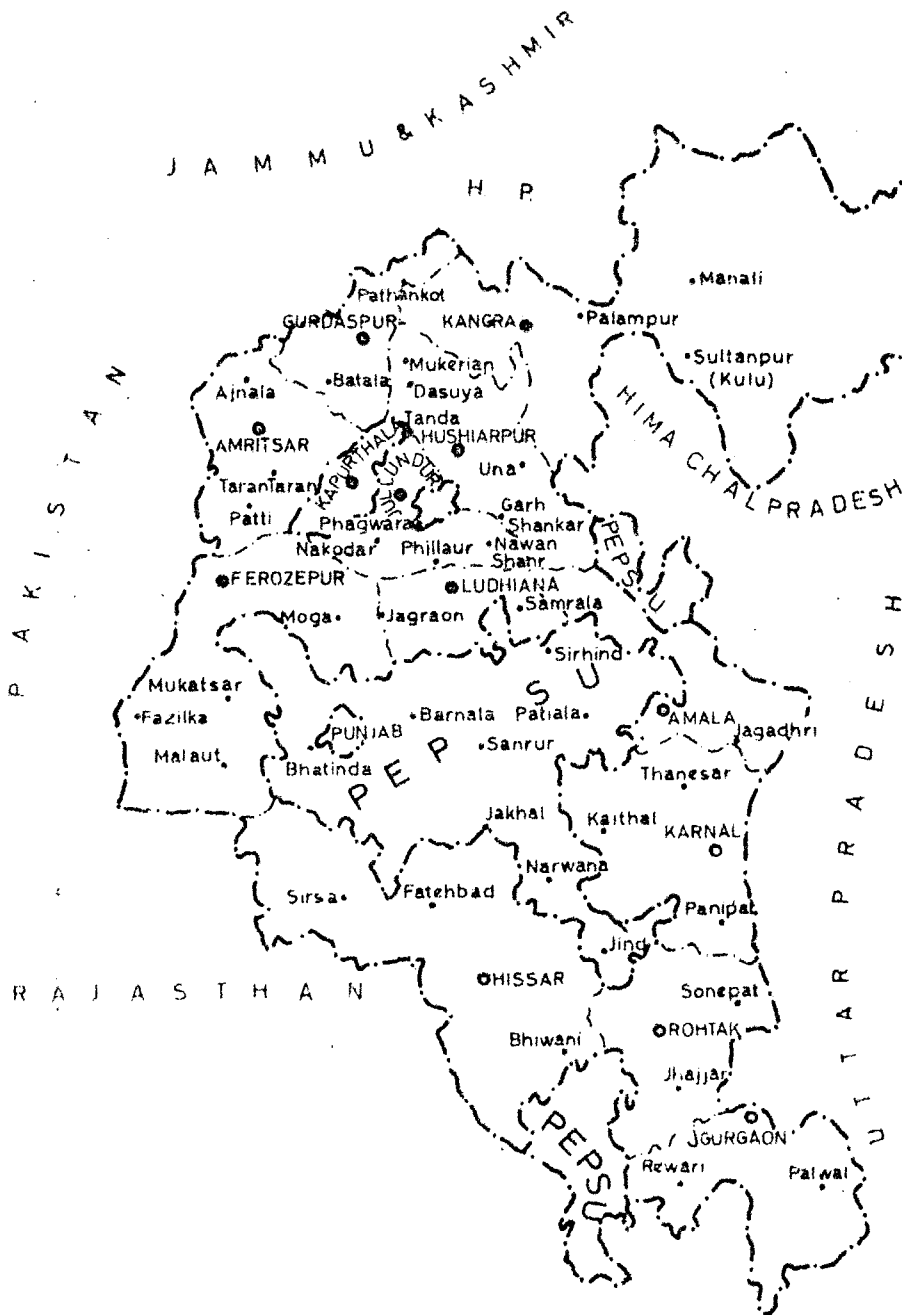
In 1947, the partition of India into Hindustan and Pakistan was one of the most important incident in the world history. The 'Land of Five Rivers' truncated into west Punjab (Pakistan) and east Punjab (Hindustan). The districts of Gurdaspur, Kangra, Simla, Hoshiarpur, Amritsar, Jullundur, Ambala, Ludhiana, Ferozepur, Hissar, Karnal, Rohtak and Gurgaon left with east Punjab and the rest of the districts went to the west Punjab³⁸. The Ravi and Sutlej marked the international boundary.

Immediately after partition, in 1948 the princely states formed a union under the leadership of Maharaja

38. Ibid, p. 4.

PUNJAB AND PEPSU (BEFORE INTEGRATION)

Miles 40 20 0 20 40 60 80 Miles



INDEX

- — — STATE BOUNDARIES
- - - DISTRICT BOUNDARIES

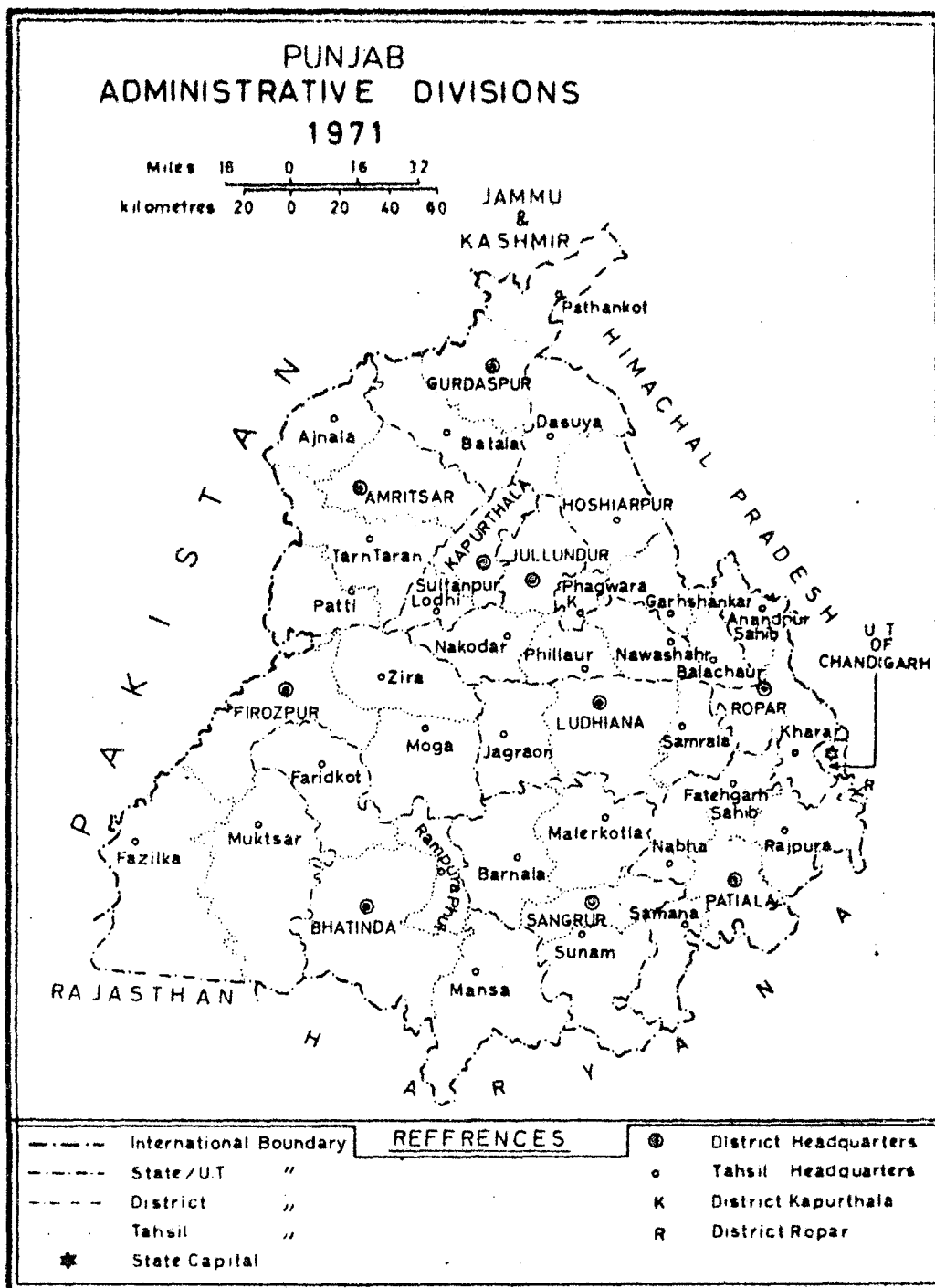
MAP II.5

Patiala bringing their territories under the banner of PEPSU (Patials and East Punjab States Union) (MAP II.5)³⁹. Just after 1947, the Government of India started the integration of princely states all over the country into the respective states. In 1956, the PEPSU was also integrated with the state of Punjab.

Again in 1966, the state of Punjab witnessed a change in its territories. The state of Haryana came into existence on November 1, 1966. The districts of Ambala, Karnal, Hissar, Rohtak, Jind and Gurgaon went to Haryana. The Hill areas of Kangra and Lahaul & Spiti were transferred to Himachal Pradesh. The Union Territory of Chandigarh was carved out of state and established as a dual capital for Punjab and Haryana. Since then, the dispute is going on between Punjab and Haryana state over Chandigarh.

At present the state extends over an area of 50,376 sq. kms. which is about 1.6 per cent of the total area of Indian Union. The state is divided into three

39. SINGH, GANDA, op. cit., pp. 11.12.



MAP II.6

divisions i.e. Ferozepur, Patiala and Jullundur. There were 11 districts in the state in 1971. Faridkot district came into existence during 1972. These districts have further been divided into 42 Tehsils (MAP II.6)⁴⁰.

To sum up, the territories of Punjab changed from time to time, especially it has been sliced twice to be reduced to the present position. The topography of the region presents a wide variety of physical features. Climatically, it lies in the regime of continental type of climate. The importance of drainage is obvious from nomenclature of the state. The favourable drainage system has resulted in high degree of alluviation and an excellent irrigation canal network. The economy of the region has always enjoyed the favourable transport network especially railways.

40. Census of India, Punjab General Report, Vol.A(1), 1971.

CHAPTER III

SPATIAL AND SECTORAL PLANNING IN PUNJAB

III.1 Pre-Partition Plans : Introduction

The development plans were unknown in the economic history of the Punjab before mid-nineteenth century. However, some government policies for the investment were made by the top bureaucrats on the state level. Before World War II some development schemes particularly for irrigation and transport were introduced by the British government. But after the World War II in 1945, a 'Five-Year-Plan' was formulated for the first time on the state level, also called 'Post-War-Development-Plan' about which we will discuss later in this Chapter. But all the pre-partition development schemes and plans undertaken by the government were almost without the proper understanding of the planning process. The natural resources were not utilized in a systematic way for the development and planning of the state¹.

The concept of regional and sectoral planning was also unfamiliar in the Punjab economy before the partition.

1. DUTT, op. cit., Vol. II, p. 405.

But some development schemes introduced in the state either by the central government or by the Punjab Government may be considered as regional, sub-regional or sectoral plans.

III.1.1 Sectoral Frames of Plans

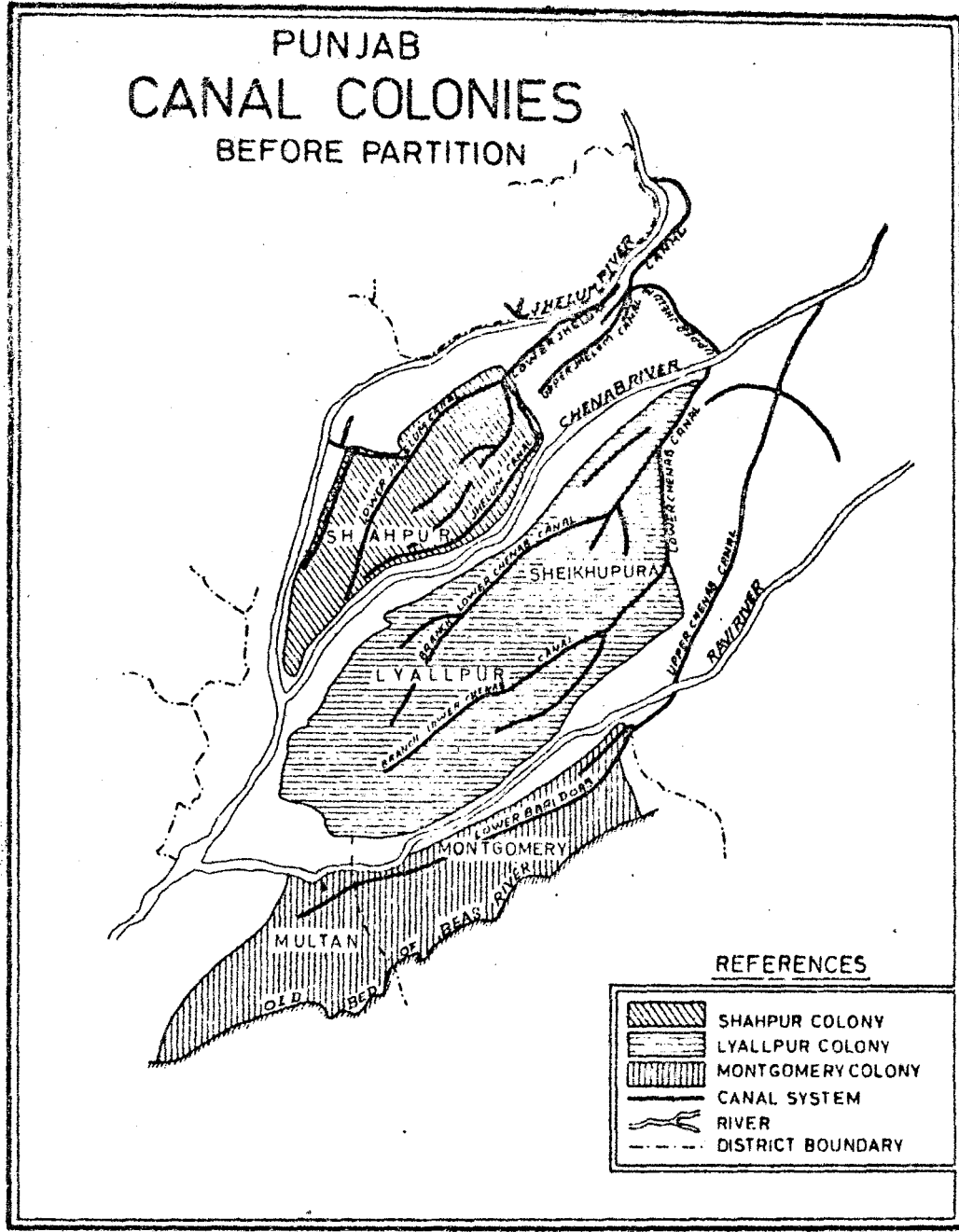
(1) Agriculture Sector

In the agriculture sector some schemes were formulated on the state level and implemented in the various regions of the state. Thus, in this sector maximum attention was given under the head of irrigation, which was directly a revenue yielding source. A management committee was appointed in 1810 to inquire about the condition of old canals and to conduct survey for the new irrigation projects². Under this scheme old canals were repaired and several new canal irrigation works were constructed. With the result of irrigation network, the canal colonies of Shahpur, Sheikhpura, Multan, Lyllpur and Montgomery were established in Punjab (MAP III.1).

For the development of agriculture in the Punjab the agriculture department was set up in 1904³. The

2. Ibid, p. 120.

3. DARLING, op. cit., p. 175.



MAP III.1

agriculture department opened the following institutions in the State.

- (a) an Agricultural College at Lyllpur,
- (b) an Experimental Farm at Lyllpur,
- (c) a private Veternery College at Lahoro, and
- (d) a Cattle Farm at Hissar.

In 1906, the co-operative scheme was started to finance the co-operative societies⁴. Under this scheme the Central co-operative Bank was established and its branches were opened at the district level.

(ii) Transport Sector

This sector was sufficiently developed by the Britishers according to their needs. Under the guidance of railway engineers a seventy years construction scheme was prepared by the Railway Board of the Central Government in this region⁵. This railway network in the Punjab state left many places more than 25 miles from a line but linked almost all the military and administrative headquarters.

4. Ibid, p. 174.

5. CALVERT, op. cit., p. 108.

A station was serving on an average of about fifty villages. Therefore, the popularity and economic importance of this railway network had become insignificant for the common people.

In 1919, a Provincial Board of Communication was constituted⁶. The Board of Communication started a scheme under which the roads were grouped into three classes. According to the scheme class I roads comprised all the arterial roads in the Province and their maintenance was entrusted to the Public Works Department. Class II roads were of only secondary importance and were to be maintained jointly from the Provincial revenues and local funds. Class III roads constituted the local and unclassified roads and were to be maintained by the District Boards⁷.

(iii) Industrial Sector

In the later half of the nineteenth century the industrial sector in India witnessed a decline mainly because of the import of machine-made goods from Britain. Britishers deliberately avoided the planning and development

6. SAINI, op. cit., p. 300.

7. Punjab Administration Report, Lahore, 1923-24, p. 95.

of the industry in the Punjab as well as in India⁸. The industry of Punjab was divided into two classes:

(i) cottage industries, and (ii) large scale industries.

In the case of former the scale of operation was small and the supplies intended for local needs, while the latter were carried on in workshops or factories with power-operated machinery⁹.

(iv) Education, Health and Recreation

Although there had been no planning as such for the development of urban centres, but some schemes were undertaken under the various heads, viz. Education, Health, Recreations etc.¹⁰ Under these schemes some schools, colleges, technical institutions and hospitals were opened in the big towns and cities. Unintentionally, some areas within the periphery of urban centres were developed. Easily approachable areas from the urban centres received maximum attention for instance the surrounding areas of Lahore, Amritsar, Lyllpur, Revalpindi etc.

8. DUTT, op. cit., Vol. II, p. VII-VIII.

9. SAINI, op. cit., p.261.

10. LATIF, op. cit., pp. 590-91.

III.1.2 Post-War Development Plan

(i) Main Objectives

In 1945, the government of Punjab prepared a provisional plan for the post-war development of the province. In fact, it was the first time to propose a five-year-plan in the province with the objectives:

- (a) to raise the standard of living of the people;
- (b) to increase their purchasing power;
- (c) to exploit and utilize the entire resources of the province; and
- (d) to fight against the poverty, disease, ignorance etc.

(ii) Plan Period

The schemes in this post-war-plan were marked out in detail only for a period of five years. The plan in its various aspects was conceived on a long-term basis extending over a period of 10-15 years. Even in the case of Education, it extended over a long period of 35 years¹¹. There were some short-term schemes also e.g. to rehabilitate the war-affected people and to employ the ex-servicemen of the British Army.

11. Five-Year-Plans: Post-War Development Schemes, Government of Punjab, Lahore, 1945, p.2

(iii) Financial Resources

The plan comprised of 231 schemes tabulated in a form which brought out the essential details of each individual scheme at a glance. They were preceded by two statements of cost, one under the subject of the provincial development and the other for each scheme. The plan was prepared on the assumption that about 116 crores of rupees was allocated for the expenditure during the plan period¹². Obviously, it was impossible for the province to meet this huge expenditure with its existing resources. Financial assistance was to be sought from the government of India. The schemes which could not be financed by those sources were to be financed from loans.

(iv) General Lay-out of the Plan

Broadly speaking, the Post-War-Plan was a Regional development Plan. Two types of schemes were chalked out in the general lay-out of the Plan.

12. Ibid, p. 5.

- (a) **Special Priority Schemes :** to be put into effect as quickly to meet the existing and post-war demands for staff, equipment etc. In other words, to speed-up the administrative machinery, such schemes were undertaken on the state level.
- (b) **Regional Development Schemes :** In this plan, for the development of all aspects, the main emphasis was given on the Regional Development Schemes. All over the state twenty nine tehsils were selected for the regional development from the four Divisions of Rawalpindi, Lahore, Ambala and Jullundur¹³. For the implementation of the Plan, Divisions were considered as Regions. The tehsils were selected generally on the criteria of backwardness. It was mentioned in the scheme that the remaining tehsils will take their turn in the subsequent five-year-plans.

13. Five-Year-Plan, op. cit., p. 7.

Following table shows the 29 tehsils under the four regions selected for the plan:

TABLE - III.1.1
DISTRIBUTION OF TEHSILS BY REGIONS (Divisions)

Rawalpindi 1	Lahore 2	Ambala 3	Jullundur 4
1. Kahuta	1. Sialkot	1. Rohtak	1. Hemir
2. Muree	2. Narowal	2. Jhajjar	2. Palampur
3. Gujarkhan	3. Tarntaran	3. Gurgaon	3. Hoshiarpur
4. Talagang	4. Ajnala	4. Rewari	4. Jullundur
5. Pindigheb		5. Bhiwani	5. Jagraon
6. Jhelum		6. Hissar	
7. Chakwal		7. Kharar	
8. Fatehjang			
9. Pind Dodan Khan			
10. Kharian			
11. Rawalpindi			
12. Khusab			
13. Isakhel			

Source: Government of Punjab, Five-Year-Plan Post War Development Schemes, Lahore, 1945.

(v) Implementation of the Plan

In view of the limiting factors of the finance and staff, however, it was not possible to take up all the schemes for execution. Particularly, implementation of the plan simultaneously in all parts of the state was not feasible. Therefore, it was decided to concentrate improvements under certain heads, viz; village, roads, schools, medical facilities water-supply and co-operation in certain compact areas corresponding to the selected tehsils for regional development schemes. To sum-up, this plan was of a tentative nature both in scope and outline.

III.2 Rehabilitation Plans 1947-52

There has seldom been in the history a migration of population so vast and so sudden as that which took place between East Punjab (India) and West Punjab (Pakistan) during the partition of the Indian subcontinent. The transfer of population presented extraordinarily difficult problems-social, economic and political - to the newly established administration of East Punjab. It was estimated that nearly 33 lakhs displaced persons from Pakistan sought shelter in East Punjab¹⁴. The challenge thrown up by the

14. Government of Punjab, Relief and Rehabilitation in Punjab, Simla, 1950, p. 5.

problems of refugee rehabilitation, seriously impaired the economy of the state. The East Punjab was too poor to meet the economic and food requirements of the displaced persons. Therefore, several plans were formulated on different levels to solve the rehabilitation problem. For the administrative purposes the Department of Rehabilitation (Rural & Urban) was established immediately after the Partition¹⁵.

III.2.1 Economic Survey

The Board of Economic Enquiry undertook a survey of the economic conditions of displaced persons both in towns and villages. The survey was conducted in 15 towns and 55 villages. At least one town and five villages were selected in every district of the state excepting the districts of Simla and Kangra to which the movement of displaced persons was nominal. The towns and villages were selected at random amongst the evacuee towns and villages¹⁶.

III.2.2 Occupational Pattern of the Displaced Persons

There was a wide disparity in the occupational pattern of the Muslims evacuees on the one hand and the

15. Ibid, p. 7.

16. Board of Economic Enquiry Punjab, Economic Conditions of Displaced Persons from West Pakistan, Part II, Publication No.25, ESO, Punjab, Chandigarh, 1955, pp. 3-5.

non-Muslim immigrants on the other. The evacuees were mostly peasants, artisans and village nominals, while the non-Muslim immigrants were non-cultivating land owners, petty traders and money-lenders as well as peasant proprietors. The following table shows the displaced persons according to their former occupation in West Pakistan and their present occupation in the East Punjab in 1949¹⁷.

TABLE - III.2.1

OCCUPATIONAL PATTERN OF THE DISPLACED PERSONS
BEFORE AND AFTER PARTITION

Occupation	Before Partition	After Partition
1. Agriculture & Rural Artisans	1,80,000	1,10,000 (about 39% less)
2. Industry	10,000	10,000
3. Trade & Commerce	1,10,000	70,000 (about 36% less)
4. Services	90,000	40,000 (about 20% less)
5. Professions	20,000	20,000
6. Unskilled Labour and others	40,000	40,000

Source : Board of Economic Enquiry, Punjab, Simla, 1949.

It can be observed from the above table that the work force employed in agriculture, trade and commerce and services decreased after partition accounting for about 39, 36 and 20 per cent of respectively. At the same time one finds that employment in industry, profession and unskilled categories remained unchanged.

On the basis of the economic survey and available existing resources, various schemes were formulated for the rural and urban rehabilitation by the rehabilitation department and government itself.

III.2.3 Rural Rehabilitation Plan

A Plan was prepared by Rural Rehabilitation Department to rehabilitate the refugees in the rural areas. The plan was considered to be an expedient to achieve the following objectives¹⁸.

- (a) To secure quick distribution of land.
- (b) To make it impossible for individuals to claim a specific piece of land.
- (c) To enable refugees from particular villeges to be as much together as possible.
- (d) To enable peasants to pool their resources as far as possible for the sowing and harvesting of crops.

18. Board of Economic Enquiry E. Punjab, Social and Economic Survey of Refugee Camps in E. Punjab, Publication No.4, Simla, 1949, p. 2.

To keep in view the above mentioned objectives, the following schemes were executed for the rural rehabilitation¹⁹.

- (a) Allotment of the land
- (b) Group system
- (c) Taccavi loans

(1) Allotment of the Land

In February, 1948, The East Punjab Government announced a scheme of allotments under which the lands were allotted only to those who were owners in the West Punjab (Pakistan). The scheme was implemented in the subsequent years.

(ii) Group System

Under this scheme, the land abandoned by Muslims was allotted not to individuals but to the group of families. The immediate advantage of this scheme was the collective use of limited number of bullocks and agricultural implements. But in practice the system did not mark well, as the allottees did not appreciate the value of joint farming. The number of families in a group depended not on any conscious planning but upon mere accident.

19. Board of Economic Enquiry Punjab (India), Economic Conditions of Displaced Persons From West Pakistan, (Villages) Publication No.25, LSO, Punjab, Chandigarh, 1955, p. 50.

(iii) Taccavi Loans

The mere allotment of land on paper would not be of substantial relief to displaced persons and would not achieve the rehabilitation of rural economy in Punjab. It was just a first step to be followed by means of financial assistance. The displaced persons had to be once again put on their feet. The entire evacuee area could not be brought under intensive cultivation, until the allottees were granted adequate financial assistance in the form of 'taccavi loans' for bullocks, seeds, repair of wells, houses etc.

However, it was estimated, that under those Rural Rehabilitation Schemes nearly 20 lakh non-muslims from rural areas of West Punjab benefited in East Punjab²⁰.

III.2.4 Urban Rehabilitation Plan

Out of the four million displaced persons who had come over from the West Punjab (Pakistan), nearly 20 lakh were from urban areas. In allotting the population quotas to the various states in India, the share of Punjab and PEPSU had been fixed by the government of India at 13 lakhs

20. Ibid, p. 7.

of urbanite population for settlement in their urban areas²¹. The names of those cities and towns were : Pathankot, Batala, Amritsar, Moga, Jullundur, Ludhiana, Khanna, Ropar, Ambala, Jagadhri, Panipat, Sonapat, Bhadurgarh and Shahbad.

Urban rehabilitation in respect of provision of the gainfull employment and housing accommodation to the displaced persons had also been hedged round with many difficulties. Therefore, the following schemes were undertaken at the various levels in urban areas.

- (a) Allotment of Evacuee Houses
- (b) Housing Scheme
- (c) Industrial Rehabilitation Scheme

(1) Allotment of Evacuee Houses

Just after partition, the first step taken by the government for rehabilitation was the shifting of displaced persons from refugee camps to evacuee houses in the towns and cities. Nearly 1,11,482 houses had been allotted and about 20,000 houses repaired by the Public Works Department. Out of 13 lakhs, about 9 lakh displaced persons were

21. Relief and Rehabilitation in Punjab, op. cit., pp. 2-3.

accommodated in the evacuee houses²². For the rest of the four lakh displaced persons, the remaining three schemes were formulated and implemented.

(11) Housing Scheme

Based on scientific principles of the modern town planning, two type of housing schemes were undertaken by the government in the towns and cities of Punjab. The financial assistance was extended from the account of house building loans. Under this scheme, the funds amounting to Rs.40 lakhs were placed to the individuals for the construction of new houses²³. The maximum amount upto 66.6 per cent of construction was being provided in the form of loan. The public works Department (Development) collected the building materials and issued at controlled rates. This housing scheme was broadly divided into two categories as given below according to the economic status of the displaced persons:

(a) Model Townships : Under this scheme the construction of 4200 houses and laying out of 9800 building sites in the new township colonies had been very largely

22. Ibid, pp. 4-7.

23. Ibid, pp. 8-10.

implemented. These townships had been created outside the various towns and cities of Punjab namely Jullundur, Ludhiana, Khanna, Hoshiarpur, Jagadhri, Karnal, Panipat, Rohtak, Sonapat, Gurgaon, Palwal, Rewari, Ambala, and Hissar. The total population of 66,000 displaced persons was accommodated under this scheme²⁴. It has been observed that the Model Township scheme provided the houses and building sites for the middle and upper middle class people only.

(b) Cheap Housing Schemes : The working classes and the low income groups were accommodated in the two cheap housing schemes. First scheme aimed at the provision of 6,150 building sites at the various places in the state and the second aimed at the creation of 10,000 eight marla plots²⁵.

The break-up of the 6,150 sites was as follows:

24. Ibid, pp. 12-15.

25. Ibid, pp. 16-18.

TABLE - III.2.2
CITY/TOWN-WISE DISTRIBUTION OF BUILDING SITES

Cities/ Towns	No. of Building sites	Cities/ Towns	No. of Building sites
Pathankot	1,000	Jullundur	1,000
Batala	700	Ludhiana	500
Amritsar	500	Jagadhri	200
Moga	300	Panipat	300
Ropar	250	Ambala	700
Bhiwani	500	Shahbad	100
Hansi	100		

Source: Department of Relief and Rehabilitation,
Simla, 1950.

The sites for the creation of these colonies had already been selected while the further implementation of the scheme had been held up under the instructions of the Government of India, consequent upon financial stringency.

IV.2.5 Industrial Rehabilitation Schemes

After partition, it was observed that the number of factories and industrial establishment in East Punjab

was so far too inadequate to meet the requirement of the displaced persons. The Punjab Government decided about two schemes of development of industries out side some important urban areas which had substantial industrial potential or which were expected to gain this potential upon the establishment of industries. For these purposes following schemes were under taken at the various places all over the state.

(1) Industrial Complex

The Committee set up by the Punjab Government recommended the location for these industrial complex at the following towns²⁶.

TABLE - III.2.3
TOWN-WISE AREA ALLOTTED FOR THE INDUSTRIAL COMPLEXES

Sl.No.	Name of the town	Area in acres
1.	Bahadurgarh	1,000
2.	Sonepat	1,000
3.	Panipat	1,000
4.	Jagadhri	1,000
5.	Jullundur	100
6.	Ludhiana	300
7.	Khana	100
8.	Roper	100

Source: Department of Relief and Rehabilitation,
Simla, 1950.

26. Ibid, p.28.

The master plan and detailed lay-out plans were prepared in respect of the industrial complex.

(11) District Industrial Centres

For providing employment to displaced skilled labourers, the Department of Industry was running the following ten district Industrial Centres²⁷:

TABLE - III.2.4
DISTRICT-WISE INDUSTRIAL CENTRES AND SUB CENTRES

Sl.No.	District Centres	Sl.No.	Sub-Centres
1.	Jullundur	1.	Batala
2.	Fatehgarh	2.	Taran Taran
3.	Jandiala	3.	Alwalpur
4.	Sham Chaurasi	4.	Ram Colony
5.	Nakodar	5.	Noor Mohal
6.	Jagraon	6.	Raikot
7.	Hoga	7.	Ruana Hoga
8.	Jegadhri	8.	Mustafabad
9.	Sonepat	9.	Buria
10.	Karnal	10.	Abdullapur
		11.	Ambala City
		12.	Rohtak

Source: Department of Relief and Rehabilitation,
Punjab, Simla, 1950.

27. Ibid, p. 32.

These centres were providing the employment to 8,680 spinners, 1,540 weavers and 130 artisans²⁸.

(iii) Allotment of Evacuee Factories and Shops

The allotments of evacuee factories and shops were made to those persons, who were carrying similar business or industry in the West Punjab (Pakistan)²⁹.

III.3 Five-Year-Plans

During the partition most of the agriculturally productive and industrially developed areas of combined Punjab, west to the West Punjab (Pakistan). East Punjab (India) was left with the traditional agriculture based economy. The immigration of millions of displaced people from Pakistan caused the food problem in the state³⁰. Therefore, when the First Plan was launched in the state, the primary aim was to step up the production of food. The primary sector was given the maximum attention to increase the food production in the First Three Plans.

28. Ibid, p. 36.

29. Ibid, p. 34.

30. National Council of Applied Economic Research, Techno-Economic Survey of Punjab, New Delhi, 1962, p.6.

To increase the agricultural production the priority was given to the irrigation projects almost in all the state plans. In the First Three Plans the secondary sector was given the least attention in the state, while in Fourth and Fifth Plans it has got the considerable attention. Considerable share was given to the tertiary sector almost in all the Five-Year-Plans of the state. To reduce the regional imbalances and disparities, budgetary allocations were made almost in all the Five-Year Plans. For the backward and less developed areas/regions, the special priority schemes have been implemented.

III.3.1 Sectoral Frames of PEPSU Plans

(1) Agricultural & Rural Development

In the history of PEPSU two Five-Year-Plans were formulated, but second plan was not implemented due to the integration of PEPSU and Punjab in 1956. In the First Plan of PEPSU, the primary sector was given a great importance. Out of the total plan budget of Rs.8.21 crores, about Rs.4.37 crores were allotted to develop this sector³¹. More than

31. First-Five-Year-Plan, PEPSU, Government of PEPSU, Patiala, 1952, p. 5.

53.2 per cent of the allocated fund in this sector was spent to increase the agricultural production whereas the Second-Five-Year-Plan of PEPSU the share was reduced to only 19.2 per cent³². The rapid decrease in the allocating funds to this sector was due to the increased accounts of irrigation and power sector.

(ii) Irrigation and Power

In the First-Five-Year-Plan of PEPSU, this sector was given second priority in the budget allocations having only 8.51 per cent of the total but in the proposals of second-Five-Year-Plan of PEPSU it was given the top priority with the budget allocations of 50 per cent of the total³³. The increase in irrigation and development of power had been the major reasons of agricultural development in this region. The development of power also helped in the establishment of medium industries.

(iii) Transport

When the PEPSU came into existence it was really facing the transport problem. Many district headquarters

32. Second-Five-Year-Plan, PEPSU (Proposals), Government of PEPSU, Patiala, 1956, p.15.

33. Ibid, p. 16.

and towns were not connected by roads. The considerable provision was made to construct 205 miles of roads and 50 miles of jeep trucks in the hilly areas. About 12.14 per cent of the total outlay of First-Five-Year-Plan was allocated for the development of this sector as compared to only 7.5 per cent in the second Plan proposals³⁴.

(iv) Social Services

This sector was also given a share of about one fourth of the total budget in the First Plan but slide to one fifth in the second plan proposals. After agricultural sector social services got maximum financial allocations, about 22.74 per cent of the total outlay. The main emphasis was given on the opening of the new schools and provision for medical & health facilities³⁵.

(v) Industry

In the PEPSU plans industry was provided with least financial aid. In the First and second plan outlays only 3.39 and 5.35 per cent respectively of the total budget was fixed up³⁶. Whatever financial assistance given

34. PEPSU on Road to Prosperity, Director of Information, PEPSU-Patiala, National Printing Works, Delhi, 1955, p. 91.

35. First-Five-Year-Plan, PEPSU, op. cit., p. 17.

36. Ibid, p. 19.

to this sector, was merely sufficient to rehabilitate the old industrial units.

To sum up the PEPSU plans were concentrated in the primary sector. The tertiary sector was given a considerable attention in the strategy of PEPSU plans. But, the secondary sector was given least attention. In fact, the secondary sector should have been given slightly more financial assistance to explore the industrial potential.

III.3.2 Sectoral Frames of Punjab Plans

During the last three decades of the planning process, the economy of Punjab State was advanced in many directions and registered considerable progress in almost all the major sectors. The strategy followed by the state for the various sectors is described below:

(1) Agriculture & Rural Development

The economy of Punjab being predominantly agricultural a second and third priority in all the State Plans was given to the development of the agricultural sector. A continuous trend has been recorded with the increase of financial aid for this sector with 18.1 per cent allocations

of First Plan to 22.5 per cent in the Fourth Plan (Table III-3.1). In the First and Second Plans there was a rapid increase in food production i.e. about 70 per cent as against All India increase of about 28 per cent in the corresponding period³⁷. A huge sum had been provided under the heads of reclamation of waste land, consolidation of land and availability of fertilizers. But the Third Plan brought in its many new serious problems such as devastating floods which caused heavy loss in agricultural production and Indo-China War (1962) and Indo-Pak War (1965) imposed exceptional burden on the border state of Punjab. At the juncture in agricultural sector top priority was given to the flood control schemes³⁸. During the Fourth & Fifth Plans agricultural sector recorded the highest growth of 11.3 per cent on account of the introduction of chemical fertilizers, pesticides and High Yielding varieties of wheat, Paddy, Maize and Bajra³⁹.

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37. Second-Five-Year-Plan, Punjab, Progress Report,
Government of Punjab, Planning Department, Chandigarh,
1962, p. 3.
38. The Mid-Term Appraisal of Third-Five-Year-Plan,
Government of Punjab, Planning Department, Chandigarh,
1964, p. 10.
39. Fifth-Five-Year-Plan, 1974, (Part I), Government of
Punjab, Planning Department, Chandigarh, p. 2.

TABLE - III.3.1
PLAN-WISE SECTORAL BUDGETARY ALLOCATIONS (in percentages)

Plan Period/ Major head of develop- ment	Agriculture and rural development	Irrigation and power	Industries	Transport and Communication	Social services	Miscella- neous
First Plan 1952-56	18.1	58.6	0.9	5.8	8.5	8.1
Second Plan 1956-61	16.1	51.6	3.4	7.0	16.4	4.8
Third Plan 1961-66	17.9	51.7	4.2	5.3	19.0	1.9
Fourth Plan 1969-74	22.5	42.2	6.4	6.3	21.0	1.6
Fifth Plan 1974-79	11.17	53.1	7.8	7.5	18.8	0.4

Various schemes were executed under the names of Community Projects, Extension Training Centres, National Extension Service and Integrated Rural Development Programme (IRDP) - for the rural development in all the Five-Year-Plans so far. It was observed that except IRDP all other schemes ended merely in a paper work.

(11) Irrigation and Power

During fifties large tracts of land were lying unproductive due to the lack of irrigation facilities. Top priority was given to the irrigation and Power Sector in all the Five-Year-Plans (TABLE-III.3.2). A balanced programme was launched comprising minor - short term canal irrigation and tubewell irrigation schemes as well as long term projects. This process was proposed to be carried forward in all the plans. To build up a sound agricultural base and industrial structure the multipurpose projects of Bhakhra Nangal, Harike & Pong Dam were built. The total final cost of two projects viz. Bhakhra Nangal Project and Harike Projects was estimated at Rs.173.54 crores and 14.51 crores respectively⁴⁰. In all the plans

40. Progress Report on First-Five-Year-Plan and other Development Schemes in Punjab, 1951-56, controller of printing & stationery, Punjab, Chandigarh, 1956, p.4.

TABLE - III.3.2

PLAN-WISE PRIORITY RANKING OF SECTORS

Plan period/	Major head of development	Agriculture and rural development	Irrigation and power	Industries	Transport and Communication	Social services	Miscellaneous
First Plan		2	1	6	5	3	4
Second Plan		3	1	6	4	2	5
Third Plan		3	1	5	4	2	6
Fourth Plan		2	1	4	5	3	6
Fifth Plan		3	1	4	5	2	6

more than half of the total outlay has been allotted for this sector (TABLE-III.3.1). The irrigation facilities has helped in Punjab to achieve the higher-intensity of cultivation and diversification of crops. During the Fourth Plan period efforts have been made to provide full requirements of the projects which are in advanced stage of completion i.e. Bhatinda Thermal Plant, Bhakhra Right Bank Project, Beas Project, Upper-Bari-Doab Canal (UBDC) Project etc. This sector achieved its target with the rural electrification of 100 per cent⁴¹.

To sum up, keeping in view the importance of irrigation and power in achieving the targeted rate of growth, this sector was accorded the top priority in allocation of funds during all the Five-Year-Plans.

(iii) Industries

As in other fields, the partition affected seriously the industrial structure of the state both in the matter of large scale industries and the availability

41. Preliminary memorandum on the Fourth-Five-Year-Plan, Punjab State, Government of Punjab, Planning Department, Chandigarh, 1969, p. 24.

of skilled labour. In the First-Five-Year-Plan only 0.9 per cent was allocated for this sector⁴². But in the Second Plan great importance was attached to the development of this sector. Therefore, emphasis was laid on shift from the development of secondary sector to avoid lopsided growth (TABLE- III.3.1). The secondary sector which includes mining, factory establishments and small enterprises responded well and registered handsome gains between 1960-61 to 1965-66. But then came the reorganization of the state in November, 1966. The industrial complex at Faridabad and large scale industrial units manufacturing cement and paper fell to the share of Haryana. The Stat's efforts to develop the industrial sector were thwarted by several other unfavourable factors like power cuts units and Indo-China, Indo-Pak wars. Even though, it has got good attention during the Fourth and Fifth plans. The allocation of funds increased consistently from First Plan 0.9 per cent to Fifth Plan 7.8 per cent (TABLE-III.3.1). However, the industrial development in Punjab has been characterized by the predominance of household industries

42. The First-Five-Year-Plan - A Summary, Government of Punjab, Janata Press, Jullundur, 1954, p. 8.

and modern factory type of small industries. These small industries are estimated to contribute more than two thirds of the total industrial output in the state. During 1961-71 the large scale manufacturing units developed at an annual rate of 5.4 per cent while the small scale manufacturing grew at the annual rate of 7.8 per cent during the same period⁴³.

(iv) Transport and Communications

After partition, the transport system was ill-woven in the state. It was the necessity of the time to construct the new roads in the state. In the First and Second Plan allocations 5.8 per cent and 7.0 per cent respectively were made for the development of this sector (TABLE- I). It comes from fifth number in the First Plan to fourth in the sectoral allotments of the Second Plan (TABLE- III.3.2). During this first decade of planning process of the state 1516 miles of roads were constructed to facilitate the trade, industry and commerce and for the easy and speedy movement of goods in the state⁴⁴. But this

43. Fifth-Five-Year-Plan, op. cit., pp. 3-4.

44. Review of Progress for 1956-61, Government of Punjab Planning Department, Chandigarh, 1961, Chapt.I.

sector experienced reduction in its funds in Third Plan due to the Indo-Pak war (1965) when 5.3 per cent of the total budget was allotted to it (TABLE - III.2.1). But in Fourth and Fifth Plans, keeping in view the increasing population and for the supply of consumer goods, this sector was again given more attention than the previous plans. And more over, it has got great importance in the Fifth Plan to speed up the administration and marketing system in the state. This is evident from the performance as against the sectoral expenditure increased from 6.3 per cent in the Fourth Plan to 7.3 per cent in the Fifth Plan (TABLE-III.3.1). To construct the link roads in the rural areas, this sector received the resources from market committees/Boards. This sector showed great performance to link up all the villages in the state by the end of the Fourth Plan⁴⁵. The construction of link roads in the rural areas lubricate the transport to bring the agricultural produce in the market. It is observed that the development of this sector increased the socio-economic interactions of the rural and urban population.

45. Fifth-Five-Year-Plan, op. cit., p. 2.

(v) Social Services

If irrigation and power sector is the backbone of agricultural and industrial development then this sector is also important instrument for the socio-economic development of the state. In the First and Second Plan of the State respectively 8.5 per cent and 16.4 per cent of budgetary funds were allocated to this sector (TABLE-III.3.1). Education and medical & health facilities got the maximum attention in this sector during the first decade of planning. And in Third Plan also the expenditure was 19.0 per cent (TABLE-III.3.1). During all the Five-Year-Plans except First Plan, social services remained a second ranking sector in the State and within the sector the sub-head of education got maximum attention (TABLE-III.3.2). In the Fourth and Fifth Plan the welfare of weaker section received considerable attention under the sub-head of welfare of Scheduled castes and Backward classes. Some facilities were given to them in terms of loans and housing advances⁴⁶. Under the sub-head of Health & Medical facilities, Rural Dispensary Programme was started as a

46. Ibid, p.230.

part of IRDP (Integrated Rural Development Programme)⁴⁷. The development in this sector increased the literacy rate as well as unemployment also. To solve the employment problem, Technical Education Programme has also been started in the state. Under the head of Miscellaneous sector little funds are always used for the administrative and executive machinery of the state (TABLE - III.3.1).

(vi) New Capital Project

After the partition, the capital of Punjab was shifted to Simla, which has been a summer capital of Punjab during British Period. But with the formation of Himachal Pradesh, Punjab again became a state without capital. Therefore, Punjab government attached very great importance to the new capital project to solve the administrative problems⁴⁸. The capital project was started in the First-Five-Year Plan with the allocation huge funds to achieve the following objectives⁴⁹:

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47. Integrated Rural Development Programme (Monograph), Development Department, Punjab, Chandigarh, 1978, p.45.
48. The First-Five-Year-Plan - A summary, op. cit., p. 101.
49. Relief and Rehabilitation in Punjab, op. cit., 1950, p. 25.

- (a) To fulfil the administrative necessity of the state for a capital,
- (b) Employment for 1.5 lakh displaced persons,
- (c) Residential accommodation for 2 lakh people, and
- (d) Industrial and Commercial establishments.

This new capital project was carried out in the Second-Five-Year-Plan also.

III.3.3 Plan Holidays 1966-69

In 1966, the reorganization of Punjab took place once again and the state of Haryana came into existence. As a result of administrative reshuffle Fourth-Five-Year-Plan could not be formulated after the completion of Third-Five-Year-Plan of Punjab. But for the development purposes, three Annual Plans were formulated during the Plan Holidays i.e. 1966-67, 1967-68 and 1968-69. The Plan Holidays ended with the formulation of Fourth-Five-Year-Plan for 1969-74.

During the Plan Holidays also, the irrigation and power sector was also given top priority in the annual plans⁵⁰.

50. Progress Report, Annual Plan, 1968-69, Planning Department, Punjab, Chandigarh, 1970, p. 105.

More than half of the total annual outlays 60 per cent was spent in this sector⁵¹. Development of irrigation and power plays a big role in carrying out the agricultural and industrial development programmes. The subsidies were given on the high yielding varieties of wheat and rice, fertilizers and pesticides to increase the yield per acre.

During the Plan Holidays secondary sector was given the second priority. Hence, considerable development was also recorded in this sector. The number of industrial units registered with the department rose with an increase of 7 per cent and total production and labour strength increased by about 26 per cent and 10 per cent respectively. The state government has been doing its maximum to diversify the state economy⁵².

The third preference was given to the tertiary sector. A considerable importance has been given to transport, education and medical facilities. Due attention was also given to the flood control operations and the welfare of the scheduled castes and backward classes.

51. Ibid, p. 5.

52. Annual Plan, 1967-68, progress Report, government of Punjab, Planning Department, Chandigarh, 1969, p.124.

To sum up the Punjab economy achieved an excellent growth in primary sector and considerable growth in the secondary and tertiary sectors even during the period of Plan Holidays.

III.3.4 Regional Frames of Plans

When Punjab launched its First-Five-Year-Plan, the intrastate disparities were easily traceable. But with the implementation of Five-Year-Plans and backward areas/regions scheme the disparities showed a decline. The Punjab government have identified from time to time areas/ regions which lagged behind in the matter of development for the one reason or the other. The main factors responsible for the backwardness of these areas/regions have been their⁵³;

- (a) economic backwardness,
- (b) relatively inaccessibility,
- (c) lack of social amenities, and
- (d) inadequacy of infrastructural facilities.

Based on these factors, the 'Bot' areas, hilly montane areas and the semi-arid areas were identified as

53. Fifth-Five-Year-Plan, op. cit., p. 254.

undeveloped areas/regions by the state government⁵⁴. The steps taken to minimize the intrastate disparities are discussed below plan wise:

(1) First-Five-Year-Plan

In January 1952, under the Indo-U.S. Technical Agreement, the Community Development Projects were implemented for the planning and execution of the rural development work. The main object of this scheme was to secure the fullest development of the material (resources) and human resources of an area/region. Under this project, the blocks as administrative units were undertaken. In 1954, Batala, Sonapat, Jagadhri and Nawanshahar were taken in the first phase of this scheme in Punjab⁵⁵. Latter another 4 blocks of Taran Town, Naraingerh, Thanesar and Kulu were taken under this scheme. About fourteen blocks were added in this scheme in the last year of the First-Five-Year-Plan.

54. Ibid, p. 255.

55. The First-Five-Year-Plan - A Summary, op. cit., p.6.

(ii) Second Plan

In the second plan, it was decided to pay special attention to the Hilly and Sub-montane region of the state. For the effective implementations of this regional development plan, a District Administrative Organization under a development commissioner had been set up. The Hilly and Sub-montane region comprising of the areas: Kangra and Simla districts, Dharkalen block of Gurdaspur 14 blocks of Hoshiarpur and 6 blocks of Ambala districts. The special plans had been drawn up for the Lahaul and Spiti region and Mohindergarh district⁵⁶.

(iii) Third Plan

In this plan, the particular conditions obtaining in the different areas of the state, their comparative level of economic development and the possibilities for growth were carefully considered while allocations to the various regions. In the allocations of the different district the hilly areas were given the top priority. For the Regional Planning purposes, the backward areas/

56. Second-Five-Year-Plan, Punjab, op.cit., p. 56.

regions were divided into two categories according to the characterization of the backwardness of the government⁵⁷. First category consist of districts or areas/regions which were economically backward but did not form homogeneous region, while the second category comprises hill and sub-montane areas/regions which were even more backward but were generally contiguous.

(iv) Fourth Plan

The regional development planning in the Fourth Plan was on the same lines as in Third Plan. The areas falling in the first category - economically developed but not a homogeneous region received attention while affecting the district-wise distribution of the schemes. The areas falling in the second category - hilly and sub-montane areas divided into : (a) the border areas of Lahaul & Spiti and (b) other hill and sub-montane areas. For the development of border region of Lahaul and Spiti about Rs.1.20 crores were allotted. For the hill and sub-montane region plan funds increased from Rs.22.85 crores in Third Plan to Rs.60 crores in the Fourth Plan⁵⁸.

57. Third-Five-Year-Plan, government of Punjab, Planning Department, Chandigarh, 1961, p. 15.

58. Fourth-Five-Year-Plan, Punjab State, Government of Punjab, Planning Department, Chandigarh, 1969, p. 70

(v) Fifth Plan

Reduction of the regional imbalances was one of the main objectives of the Fifth Plan. The difference in the level of development lies due to disparities in the availability of natural resources and means of production in the various regions of the state. This gives each region/area a comparative advantage in the production of some items and puts it at a comparative disadvantage in the production of some other items. Therefore, it has been proposed in the Fifth-Five-Year-Plan that private investment can play a big role in removing the regional imbalances within the state. But there has been a general tendency on the part of the private entrepreneurs to concentrate their investment in the already developed regions to reap easily the benefits of existing economic and social infrastructure⁵⁹

To sum-up, no formal planning took place before partition in the region, although some development schemes were under taken. The history of planning started with the formulation of a Five-Year-Plan in 1945.

59. Fifth-Five-Year-Plan, op. cit., pp. 255-256.

The holocaust of the partition forced the new government of the state to take up various rehabilitation schemes. It was in 1952 that the First-Five-Year-Plan was launched in the Punjab and PEPSU. In all the plans the emphasis has been laid on irrigation, agriculture and rural development. There was a period of plan Holidays from 1966 to 1969, during which annual plans remained as effective as Five-Year-Plans. A number of schemes were under taken to eradicate the inter-district disparities.

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CHAPTER - IV

ECONOMIC AND SOCIO-DEMOGRAPHIC CHARACTERISTICS
OF THE REGIONIV.1 Economic Characteristics

The World War II not only inflicted heavy losses on the countries which were directly involved in the War, but also adversely affected the economy of almost all the countries of World. The most prominent effect of the world war II was the inflationary tendency almost all over the world. As a result the wholesale prices in India jumped from 200 to 300 per cent between 1939 to 1947¹. The affected countries thus started thinking in terms of stabilizing the economy and reconstruction programme.

The Punjab, after partition, received only a smaller share of irrigation network (20 per cent) and area (34 per cent) while it inherited 47 per cent of the population². The state had also lost a major part of the

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1. Government of PEPSU, Report of the Inter-Departmental Secretaries Committee, Bhupindra Press, Patiala, 1952, p. 2.
 2. National Council of Applied Economic Research, op. cit., p. 5.

industrial potential and technical skill. India was immediately faced with the huge task of rehabilitating millions of people. Several rehabilitation plans were under taken by the state government as we have discussed already in the third chapter. However, no solidly based headway could be made towards the Five-Year-Plan in India before 1951-52, mainly because of two reasons. Firstly, because the country was seriously facing the inflationary tendency and secondly, because of the partition in the country in August, 1947. In March 1950, the Central Government was able to attend the task by setting up a Planning Commission enjoying a high status in the constitution of India. It was constituted under the Chairmanship of Prime Minister. At the instance of the Planning Commission, the State Planning Department, Punjab and Inter-Departmental Secretaries Committee on Planning, PEPSU were set up³. These two bodies were required to draw up the Five-Year-Plans separately for PEPSU and Punjab. In 1952, Punjab State and PEPSU launched their First-Five-Year-Plan.

3. Report of the Inter-Departmental Secretaries Committee, op. cit., pp. 3-4.

The sectoral plan outlays have been discussed earlier^{*}. It is pertinent to discuss the objectives of the plans.

IV.1.1 Objectives of the Five-Year-Plans

(1) PEPSU Plans

Before the integration of PEPSU with the Punjab State in 1956, the First-Five-Year-Plan had been completed on 31st March the same year. Achievements under the First Plan would be the starting point for the Second Plan⁴. It was proposed that Second-Five-Year-Plan of PEPSU would be bigger and bolder than the First Plan, but the objectives of both the plans were almost the same. The following were the main objectives of First and Second-Five-Year-Plans of PEPSU⁵:

- (a) increase in agricultural production;
- (b) to generate more power and increase in irrigation;
- (c) to construct new roads (particularly in rural areas);

* Supra-Chapter III, Section 3, page

4. Second-Five-Year-Plan (proposal), government of PEPSU, Patiala, 1956, Chapter I.

5. PEPSU Plans for prosperity, Directorate of Information, PEPSU, Patiala, 1953, p.34.

- (d) to extend industrial potential; and
- (e) to improve social services.

(ii) Punjab Plans

Punjab had also launched its First Plan in 1952 and completed first decade of Planning experience in 1961. In the mean time, PEPSU was integrated with the state of Punjab in 1956. Since PEPSU and Punjab have had similar physical and economic condition. Their objectives in the first decade of the planning process were almost the same. Thus, the First and Second-Five-Year-Plans were formulated with the following objectives⁶:

- (a) to increase the food production;
- (b) to develop the irrigation facilities and power supply;
- (c) to improve the transport network in the state;
- (d) to improve social services; and
- (e) to increase industrial production.

The main objectives of the Third-Five-Year-Plan of Punjab State had been⁷:

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- 6. Second-Five-Year-Plan, Punjab State, Review of progress for 1956-61, The Planning Department, Punjab, Chandigarh, 1962, Chapter I.
 - 7. Third-Five-Year-Plan, Punjab State (outline). The Planning Department, Punjab Government, Chandigarh, 1961, Chapter I.

- (a) A sizeable increase in agricultural production primarily through the provision of more irrigation facilities and measures for anti-water logging and flood control;
- (b) A steady diversification of the state economy with a distant orientation towards industrial expansion;
- (c) creation of additional employment opportunities to absorb at least the new entrants into the labour force;
- (d) Adequate expansion of social services with particular emphasis on the extension of technical education facilities; and
- (e) A substantial improvement in the socio-economic conditions of the backward classes and of backward areas, especially the hilly areas.

The main objectives of the Fourth-Five-Year-Plan of Punjab State are given below⁸:

- (a) A rapid increase in agricultural production;
- (b) Diversification of the state economy with orientation towards expansion;

8. Preliminary memorandum on the Fourth Five Year Plan, Punjab State, Government of Punjab, Planning Department, Chandigarh, p. 2.

- (c) Creation of additional employment opportunities by expanding the programme of technical education and craftsmen training; and
- (d) An improvement in the socio-economic conditions of the backward classes and backward areas.

The main objectives of the Fifth Plan were broadly the same as laid down in the Fourth Plan. The 'removal of poverty' and attainment of economic self-reliance were the two major tasks. Keeping in view this main approach, the Fifth Plan of the Punjab State was formulated with the following main objectives⁹.

- (a) Reduction of poverty through institutional changes, employment intensive programmes and programmes that provide economic and social opportunities to the weaker sections of the population;
- (b) A rapid increase in the state income so as to achieve an overall growth of income of 7.4 per cent per annum;
- (c) Removal of regional disparities through speedy development of backward and hilly areas, border areas and 'Bet' areas of the Punjab;

9. Draft Fifth Five Year Plan, Government of Punjab, Planning Department, Chandigarh, p. 29-30.

- (d) Provision of essential consumers goods at reasonable prices to the vulnerable sections of community through the creation of public distribution system;
- (e) Effectives steps for solving the problem of educated unemployment.

IV.1.2 Achievements of the Plans

Since 1951-52, the Punjab economy witnessed a significant trend of development almost in all the fields. It has achieved a marvellous target in the food production, irrigation, transportation and electrification. But the development of industry has remained relatively low in comparison to the other sectors of Punjab economy.

(1) Agricultural Development

Agricultural Economy of Punjab experienced a marked development almost during all the Five-Year-Plans. The gross cropped area of 394 thousand hectares increased during the First Plan period (TABLE-IV.1.1). During Second Plan the rate of increase declined considerably, which was again revived during the Third Plan. Then came a period of plan holidays during which a sharp increase in the gross cropped area was experienced. This trend of

TABLE - IV.1.1

TEMPORAL VARIATIONS IN GROSS CROPPED AREA (G.C.A.),
GROSS IRRIGATED AREA (G.I.A.) (In Thousand Hectares)
AND AGRICULTURAL PRODUCTION (In Thousand Metric Tons)

Year	G.C.A.	G.I.A.	Total Foodgrains	Total Pulses	Total Oil Seeds	Cotton*
1950-51	4,224	2,221	1,995	566	55	254
1955-56	4,618	2,481	2,266	706	57	433
1960-61	4,732	2,646	3,198	756	121	666
1965-66	4,878	3,136	3,391	390	221	731
1966-67	5,171	3,346	4,178	532	252	734
1967-68	5,441	3,414	5,368	485	314	779
1968-69	5,288	3,822	6,212	263	249	753
1969-70	5,499	4,080	6,924	419	213	804
1973-74	6,037	4,618	7,679	352	295	1,158
1978-79	6,629	5,507	11,671	313	177	1,320

* Cotton is cleaned cotton and is in terms of thousand bales of 170 kgs. each.

Source: Statistical Abstracts of Punjab, E.S.O., Chandigarh.

sharp increase in the gross cropped area was followed by Fourth and Fifth Plan (Fig.IV.1). Similar trends of increase have been found for the gross irrigated area in the First two plans. During the Third Plan the increase in the gross irrigated area was accelerated which became very sharp during the plan holidays. During the Fourth and Fifth Plans, the gross irrigated area has maintained a trend of sharp increase.

The agricultural production experienced a slight increase in the First Plan period which was accelerated during the second plan. The Third Plan witnessed a sharp decline in the increase of food grains. During the Plan Holidays the production of food grains increased at a very high rate and was almost doubled during this period (TABLE-IV.1.1). During the Fourth Plan, the increase was lowerdown, but it again accelerated during the Fifth Plan. The production of pulses has suffered a setback more because of the shifting of area to cereals. During the First & Second Plans, it increased a little but after that it has experienced a steady decline. The production of oil seeds increased gradually upto 1968, but thereafter, it also declined gradually (Fig.IV-2). The production of cotton has maintained a low but gradual increase right from the First Plan.

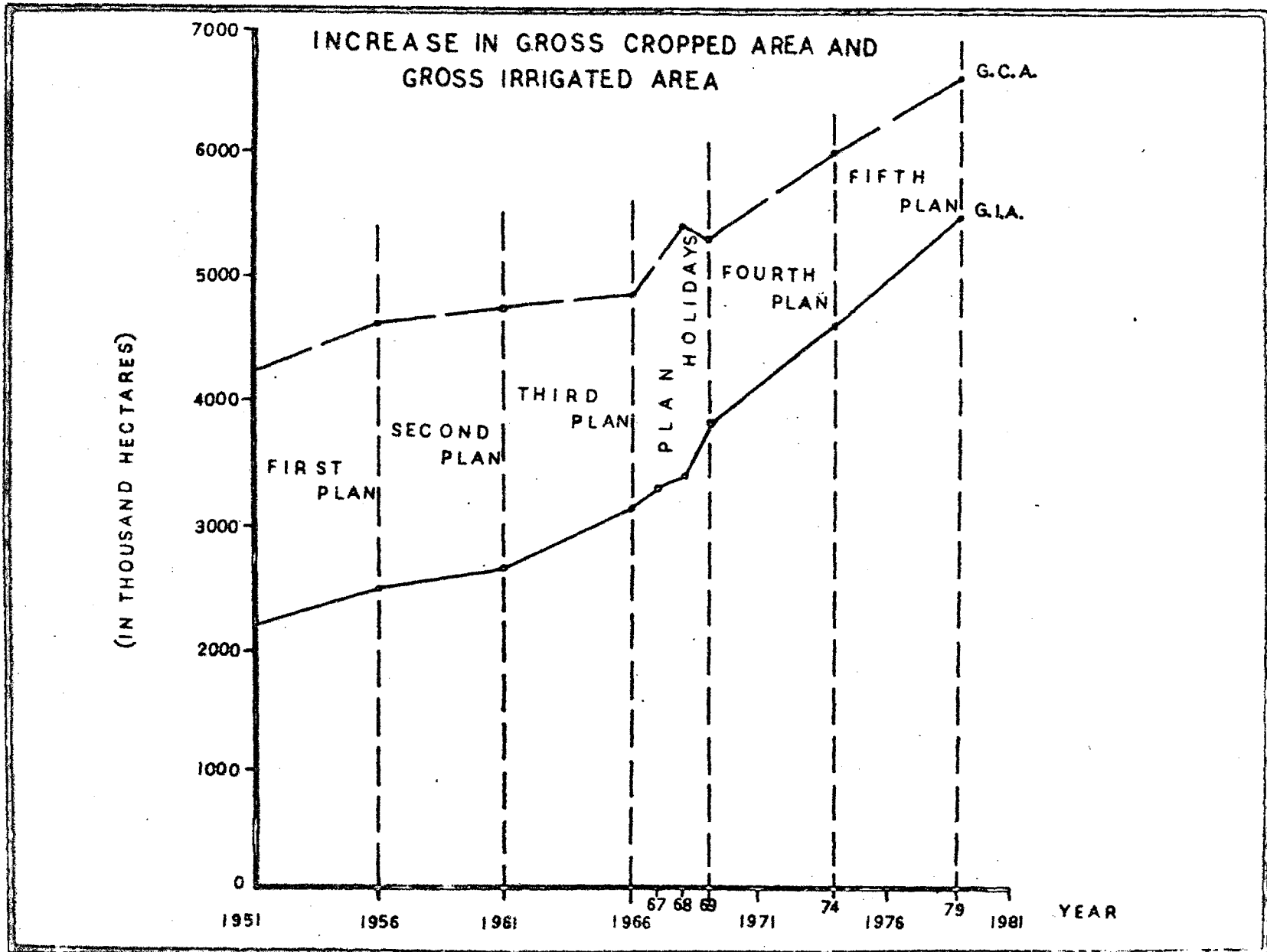


FIG. IV.1

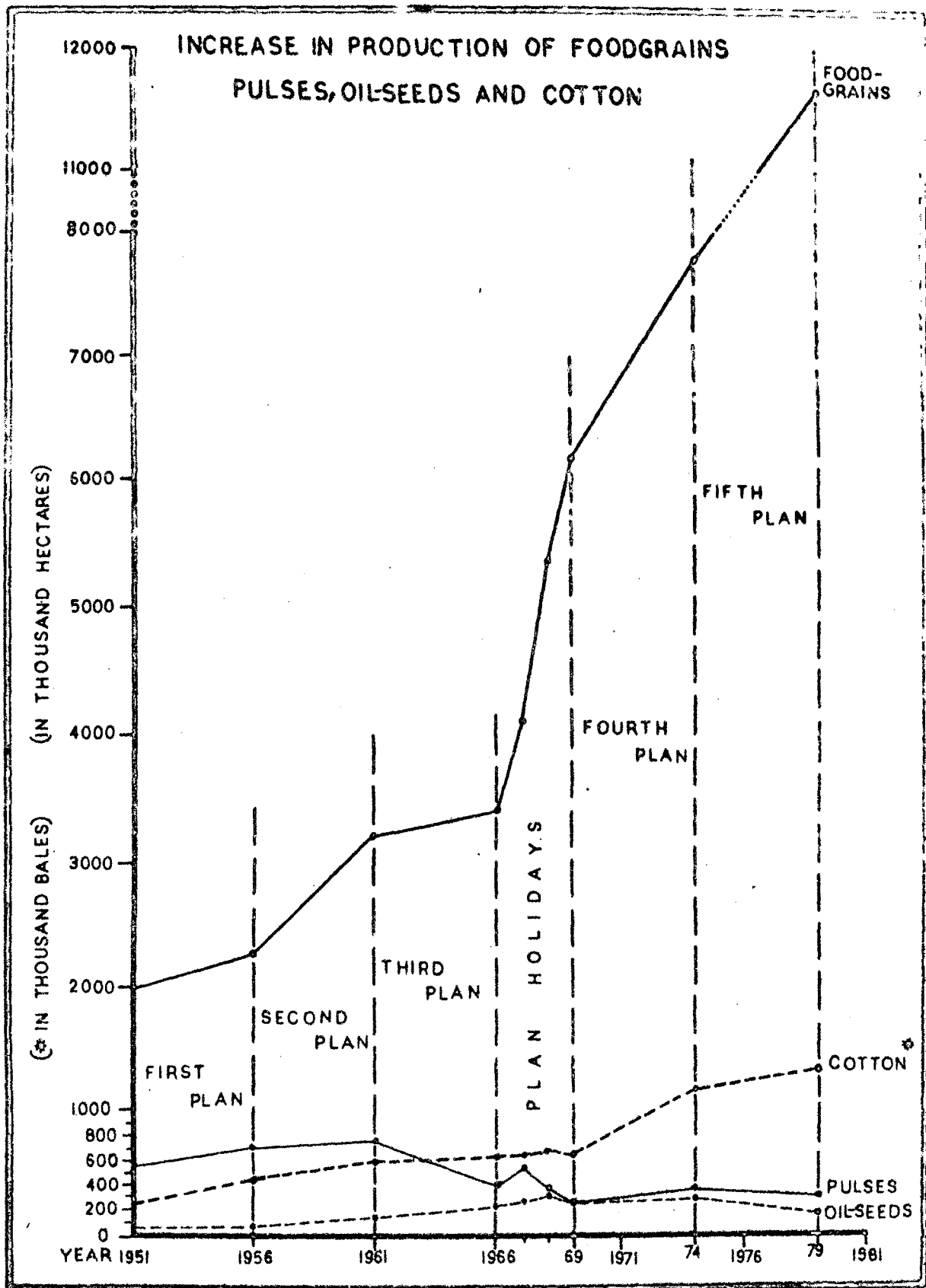


FIG. IV.2

(ii) Transport Network

The road transport network has increased its mileage substantially. During the First Plan Period, the road mileage increased by more than 1500 kms. (TABLE-IV.1.2). During the Second Plan it increased by about 2200 kms. (in the erstwhile Punjab). During the Plan Holidays road length increased by 1725 kms in the reorganized Punjab. During the Fourth Plan the road length increased by about two and half times. But during the Fifth Plan on 31st March, 1979, the road length of 30,836 kms was completed (TABLE-IV.1.2). During the Fifth Plan every Punjab village was linked by road.

(iii) Educational, Medical and Health Services

There had been a notable increase in the number of education, medical and health institutions in the state during ~~all~~ the Five-Year-Plans. During the Second Plan the total number of education institutions (in the erstwhile Punjab) increased by about twelve per cent (TABLE - IV-1.2). At the time of reorganization the Punjab was left with 9,190 education institutions. After 1966 during the Plan Holidays, there had been a very slow increase in the number of education institutions. During this period Punjab

TABLE - IV.1.2

TEMPORAL VARIATIONS IN ROAD MILEAGE(kms) AND TOTAL
NUMBER OF MEDICAL, HEALTH AND EDUCATIONAL INSTITUTIONS

Year	Road Mileage(kms.)			Total number of Medical & Health Institutions	Total number of Educational Institutions
	Pucca	Kucha	Total		
1951	5,215*	11,056*	16,271*	-	-
1956	6,983*	10,877*	17,860*	-	15,237 ^a
1961	10,349*	9,708*	20,057*	475	17,133 ^a
1966	6,370	2,745	6,794	496	9,190
1967	6,668	2,538	9,206	503	9,225
1968	6,923	2,372	9,295	510	9,226
1969	8,095	1,725	9,820	529	9,336
1974	23,185	37	23,222	727	12,015
1979	30,837	-	30,836	1,359	16,174

* Erstwhile Punjab State

Source: Statistical Abstracts of Punjab, E.S.O., Chandigarh

experienced only 1.6 per cent increase in this field. It was followed by a sharp increase of about thirty per cent during the Fourth and Fifth Plan period.

The number of Medical and Health institutions increased gradually during the Third Plan. It increased by about six per cent during the plan holidays. During the Fourth Plan the rate of increase was excellerated. But during the Fifth Plan period the total number of medical and health institutions was almost doubled (TABLE-IV.1.2).

(iv) Electrification:

In the field of electrification, the state of Punjab has made an astonishing achievements. On the one hand, the number of villages electrified has increased three times during the First & Second Plans, whereas, the number of consumers increased by about five times during the same period (TABLE-IV.1.3). During the Third Plan, the number of consumers almost doubled again, whereas, the number of villages electrified increased from 3,092 to 3,623. During the Plan Holidays there was a marked increase in the number of electrified villages, whereas, the number of consumers decreased. During the Fourth Plan the increase has been gradual in the total number of consumers as well as

TABLE - IV.1.3

TEMPORAL VARIATIONS IN THE TOTAL NUMBER OF
 FACTORIES, ELECTRIFIED VILLAGES/TOWNS AND
 NUMBER OF ELECTRICITY CONSUMERS

Year	Number of Factories	Electrified Villages/ Towns	Number of Electricity consumers
1951	1,336	1,077	1,03,342
1956	3,053	1,563	2,30,795
1961	4,079	3,092	5,00,859
1966	4,069	3,632	9,81,689
1967	4,250	3,965	9,04,804
1968	4,426	4,532	8,31,372
1969	4,718	5,712	9,07,985
1970	4,850	6,341	10,04,005
1974	5,379	7,254	12,22,942
1979	6,383	12,234	18,48,923

Source : Statistical Abstracts of Punjab, E.S.O.
 Chandigarh.

villages electrified. But during the Fifth Plan this rate of increase excellerated by about seventy per cent in the total number of villages electrified and about fifty per cent in the total number of consumers. The Fifth Plan have achieved hundred per cent electrification of villages of the State.

(v) Industrial Development

The development of industrial sector had been relatively low as compared to the other sectors of the economy in the state. The total number of industrial units was 1,336 in 1951, which increased to 6,383 towards the end of the Fifth Plan (TABLE- IV.1.3). During the First Plan, the state experienced a sharp increase in the number of industrial units accounting for two and half times. During the Second Plan the increase in the industrial units declined, and accounting for 33.3 per cent. During the Third Plan there was some decrease. But during the plan holidays, the increase in the number of industrial units was again excellerated. During the Fourth Plan the rate of increase remained gradual. It again excellerated during the Fifth Plan period.

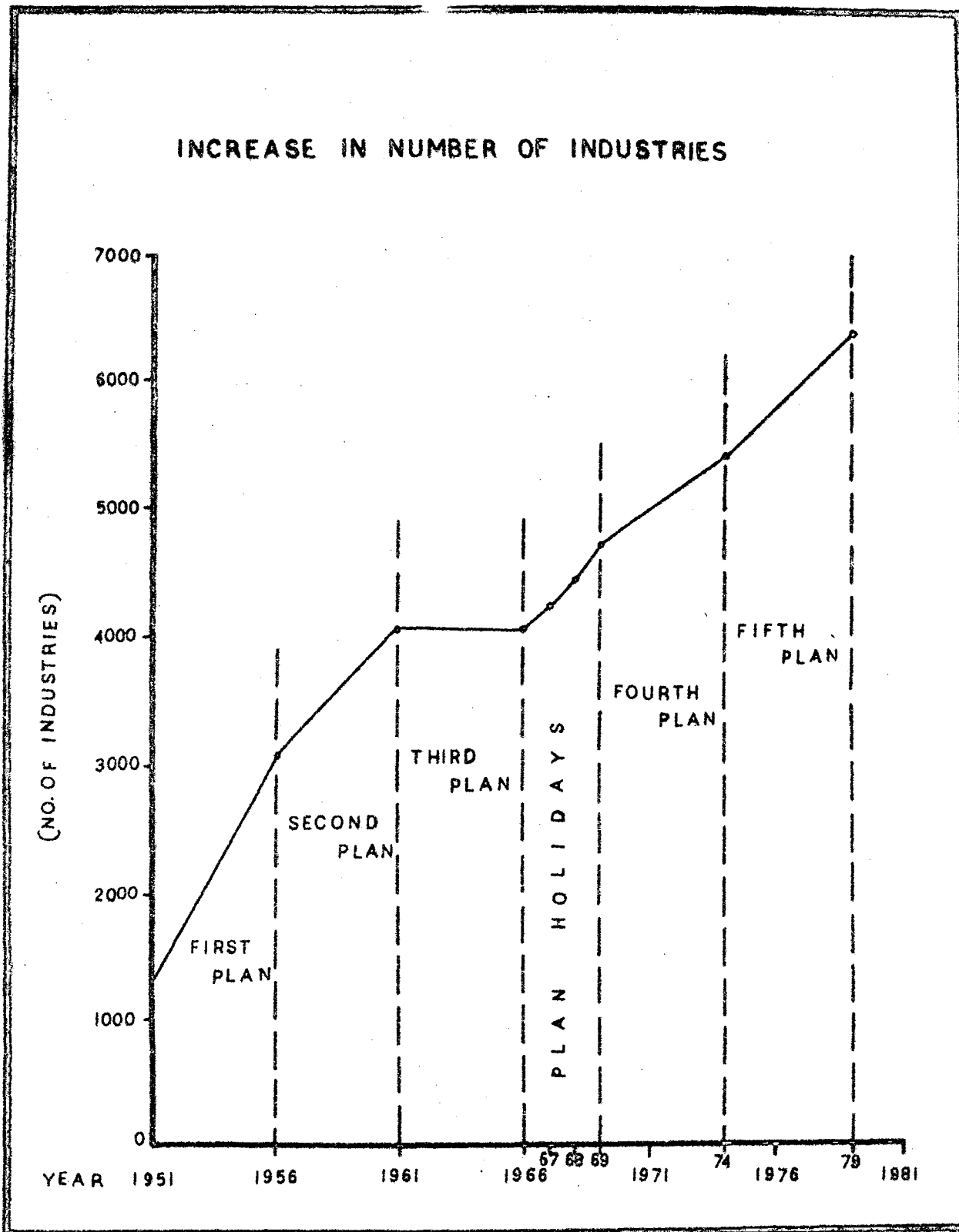


FIG.IV.3

To sum up the above discussion, it flows that the economic development was gradual during the First Three Plans in all the fields. The period of Plan Holidays had the annual plan, which proved more successful than the preceding Five-Year-Plans. During the Fourth and Fifth Plans, the economic development of the state maintained the same trend as it was achieved by the annual plans during the Plan Holidays.

IV.2 Socio-Demographic Profile

The state of Punjab is 50,362 kms in area and has 12,188 inhabited villages and 108 towns. Density of population for the state marks out to be 269 per square kilometre against 222 in 1961. The total population of Punjab is 13,551,060 persons.

IV.2.1 Distribution of population

There have been wide variations in the distribution of population at district level. The districts of Amritsar, Jullundur, Ludhiana have the highest percentage of population in the state. Jullundur and Ludhiana form a compact block in the centre of the state, whereas, Ferozepur and Amritsar lie in the west. These districts support 48.82 per cent of the total population of the state. Bhatinda, Gurdaspur,

Patiala and Sangrur districts support as much as 36.23 per cent of the state population (TABLE-IV.2.1). Patiala, Sangrur and Bhatinda form a compact block in the southern sector of the state, whereas, Gurdaspur lies in the extreme north. Hoshiarpur, Ropar and Kapurthala support the lowest percentage of population accounting for 15.95 per cent.

The districts of Ferozepur, Bhatinda, Sangrur and Amritsar cover the largest area of the state i.e. about 55 per cent. Ropar and Kapurthala cover an areas of 7.3 per cent of the state. The remaining area is covered by the rest of the districts namely Jullundur, Ludhiana, Gurdaspur, Patiala and Hoshiarpur (TABLE-IV.2.1).

The area as well as population are highly concentrated in some districts of the state. A little more than 55 per cent of the area of state comes under the jurisdiction of only four districts i.e. Ferozepur, Amritsar, Bhatinda and Sangrur, whereas, this area is inhabited by 45 per cent of the total population of the state (TABLE - IV.2.1). If we go by population concentration index, we find that about half of the population of the state is concentrated in Ferozepur, Amritsar, Jullundur and Ludhiana much because of the urban agglomerations which act as a magnet for the

TABLE - IV.2.1

RANKING OF DISTRICTS IN RESPECT OF POPULATION AND AREA, 1971

Sl. No.	Name of the Districts	Population		Ranking of Districts according to population	Area		Ranking of Districts according to area
		Total	Percentage		Total	Percentage	
1.	Ferozepur	1,905,833	14.06	1	10,145	20.15	1
2.	Amritsar	1,835,500	13.55	2	5,088	10.10	4
3.	Jullundur	1,454,501	10.73	3	3,999	6.75	9
4.	Ludhiana	1,419,421	10.48	4	3,857	7.66	7
5.	Shahinda	1,318,134	9.73	5	7,022	13.94	2
6.	Gurudaspur	1,229,249	9.07	6	3,560	7.07	9
7.	Patiala	1,215,100	8.97	7	4,583	9.10	5
8.	Sangrur	1,146,650	8.46	8	5,107	10.14	3
9.	Hoshiarpur	1,052,153	7.76	9	3,883	7.71	6
10.	Ropar	545,005	4.02	10	2,085	4.14	10
11.	Rapurthala	429,914	3.17	11	1,633	3.24	11
FUJAB		13,551,060	100.00		50,352	100.00	

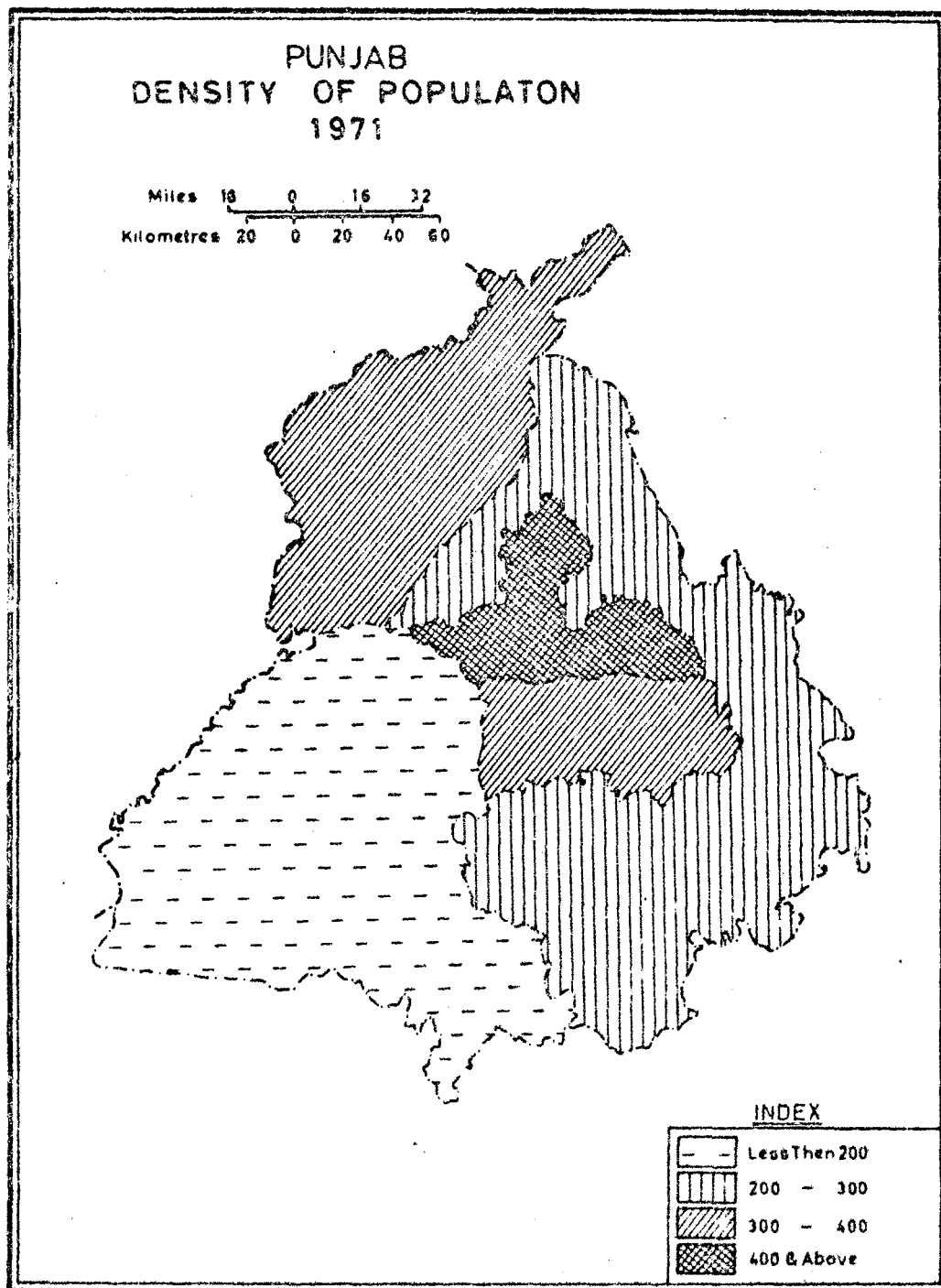
Source: Census of India, Punjab, General Report, vol.A(1), 1971

population in providing alternatives. The districts of Roper and Kapurthala are conspicuously small in size. Ludhiana and Jullundur districts are also of smaller size, although, their population is more than the average population of a district in the state which stands at 12,31,820 persons.

IV.2.2 Density of population

Density of population is a better measure of studying concentration than total population (MAP IV.1). The density of population in 1971 is highest in Jullundur district accounting for 428 persons per square kilometre, whereas, it is minimum in Ferozepur and Bhatinda districts each having 188 persons per square kilometre (TABLE -IV.2.2) Ferozepur, Kapurthala, Patiala, Sangrur and Bhatinda districts lie below the line of average density of the state (269) and remaining ^{six} districts lie above the state average. The same pattern have been traced in 1961 also revealing highest density in Jullundur i.e. 361 and lowest in Bhatinda and Ferozepur districts having 153 and 159 respectively.

In 1971, the average rural density was much lower than the total density (TABLE-IV.2.2). Ferozepur, Kapurthala, Patiala, Sangrur and Bhatinda were the only five districts with rural density below the state average (208). In 1961,



MAP IV.1

the pattern of rural density was more or less the same as in 1971. It was above the state average in Gurdaspur, Ludhiana, Jullundur, Hoshiarpur, Amritsar and Ropar, whereas, in the remaining five districts it was below average.

In 1971, Amritsar, Ferozepur and Ludhiana were the only three districts with urban densities above the state average (4,650). The remaining eight districts had urban densities below the state average (TABLE-IV.2.2). In 1961, it was above the state average (4,090) in Gurdaspur, Amritsar, Ferozepur, Ludhiana and Jullundur districts the total as well as rural density of population has increased in all the districts during 1961-71. Although, the average urban density of the state has increased during the decade of 1961-71 but in some of the districts such as Bhatinda, Ropar, Jullundur and Ludhiana it has declined much due to the spatial expansion of the urban territories.

IV.2.3 Population Growth

The population of Punjab on the whole experienced a marked decline during 1941-51. It increased only in two districts namely Ludhiana and Ropar by 0.62 and 2.45 per cent respectively. The border districts of Amritsar and

TABLE - IV. 2.2

DISTRICT-WISE DENSITY DISTRIBUTIONS
(Density of population per sq.kms.)

Sl No.	Districts	Total (1971)	Total (1961)	Rural (1971)	Rural (1961)	Urban (1971)	Urban (1961)
	Punjab	269	222	203	173	4,650	4,090
1.	Gurdaspur	345	276	230	225	4,642	4,249
2.	Aeritsar	361	302	259	213	7,300	6,343
3.	Ferozepur	183	159	152	123	5,766	5,028
4.	Luchiana	368	287	245	205	6,160	6,649
5.	Jullundur	428	361	309	264	4,065	4,144
6.	Kapurthala	263	211	207	167	2,405	1,593
7.	Hoshiarpur	271	224	240	202	3,430	3,175
8.	Ropar	261	226	225	139	2,531	2,620
9.	Patiala	265	210	199	157	4,328	3,316
10.	Sangrur	225	237	181	153	4,169	2,774
11.	Bhatinda	168	153	152	122	3,702	3,794

Source: Census of India, General Report, Punjab, vol.A(1), 1961 & 1971.

Ferozepur experienced a sharp decline during this period. It also declined in Gurdaspur, Jullundur and Hoshiarpur¹. The decline in population has occurred because of the partition of India in 1947 (TABLE-IV-2.3).

During 1951-61, the state experienced a sharp increase in its population growth i.e. 21.56 per cent. The districts of Patiala and Bhatinda experienced highest growth rate accounting for 36.72 and 33.83 per cent respectively. During this decade the growth rate remained relatively high, ranging between 20 to 30 per cent in Ferozepur, Ludhiana, Ropar and Sangrur districts. Hoshiarpur district experienced the lowest growth rate of 9.59 per cent in the remaining four districts the population increased between 10 to 20 per cent (TABLE-IV-2.3)

During 1961-71 decade, the population of Punjab increased by 21.7 per cent. In Amritsar, Ferozepur, Jullundur and Ropar districts it increased between 10 to 20 per cent, whereas, in rest of the districts the growth rate varied between 20 to 30 per cent. In four districts namely Patiala, Bhatinda, Ferozepur and Ropar the growth rate of population has declined in 1961-71 as compared to 1951-61.

1. For rest of the four districts the data is not available for the decade 1941-51 (see Table IV-2.3).

TABLE - IV-2.3
DECENNIAL GROWTH RATE OF POPULATION

Sl.No.	Districts	1941-51	1951-61	1961-71
1.	Gurdaspur	- 0.45	+15.26	+25.32
2.	Amritsar	-15.08	+12.26	+19.64
3.	Ferozpur	- 7.28	+26.90	+18.15
4.	Ludhiana	+ 0.62	+25.95	+28.22
5.	Jullundur	- 6.46	+16.32	+18.62
6.	Kapurthala	N.A.	+16.51	+24.94
7.	Hoshiarpur	- 7.46	+ 9.59	+20.78
8.	Ropar	+ 2.45	+24.80	+15.57
9.	Patiala	N.A.	+36.72	+25.55
10.	Sangrur	N.A.	+24.42	+20.16
11.	Bhatinda	N.A.	+33.83	+22.86
PUNJAB		- 4.58	+21.56	+21.70

Source : Census of India, General Report, Punjab,
Vol.A(1), 1951, 1961 & 1971.

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IV.2.4 Rural-Urban Composition

The proportion of urban population to total population of the state marks out 23.73 per cent. Nearly every fourth Punjabi is a town dweller. The urban population of Ludhiana, Jullundur and Amritsar districts have registered more than 10 per cent increase. Ludhiana district is at the top in urbanization with 34.81 per cent as its component followed by Patiala district (33.73 per cent). Kapurthala districts falls within 10 per cent range increase. The districts of Sangrur, Gurdaspur, Bhatinda, Ferozepur, Ropar and Hoshiarpur are 10 per cent below the state average of urban population².

To sum up, Ludhiana, Jullundur and Amritsar are the only districts which have very high degree of urbanization in the state over shadowing the other districts.

IV.2.5 Sex Ratio

As compared to other states of India the sex ratio of Punjab is very low. It is much below the national average of 930 (TABLE - IV.2.4). The population of the state of Punjab is most masculine as compared to any other

2. Census of India, General Report, Punjab, Vol.A(1),1971.

TABLE - IV.2.4
SEX RATIO IN THE STATES(1971)

Sl.No.	State	Sex Ratio	Sl.No.	State	Sex Ratio
	India	930			
1.	Andhra Pradesh	977	12.	Meghalaya	942
2.	Assam	897	13.	Karnataka	957
3.	Bihar	954	14.	Nagaland	871
4.	Gujarat	934	15.	Orissa	938
5.	Haryana	867	16.	Punjab	865
6.	Himachal Pradesh	958	17.	Rajasthan	911
7.	Jammu & Kashmir	878	18.	Sikkim	863
8.	Kerala	1,016	19.	Tamil Nadu	978
9.	Madhya Pradesh	941	20.	Tripura	943
10.	Maharashtra	930	21.	Uttar Pradesh	879
11.	Manipur	980	22.	West Bengal	891

Source : Census of India, General Report, Punjab, Vol.A(1), 1971.

state of India except Sikkim. In other words, the state of Punjab has the lowest sex ratio (865) in the country except the state of Sikkim as per 1971 census. The sex ratio is above the state average in the districts of Gurdaspur, Ferozepur, Jullundur, Kapurthala and Hoshiarpur, whereas, it is below the state average in the remaining six districts. The pattern of rural and urban sex-ratio is almost identical in the districts of Gurdaspur, Amritsar, Ludhiana, Jullundur, Hoshiarpur and Ropar. The rural sex-ratio is higher than the urban sex-ratio in these six districts. In the districts of Ferozepur, Patiala, Bhatinda and Sangrur the pattern is reversed i.e. the urban sex-ratio is higher than the rural sex-ratio. The sex-ratio is higher in the state in urban areas (868) than in the rural areas (856). The sex-ratio of Punjab has increased from 1951-71 at a gradual pace. During 1951-61, it increased from 844 to 854, whereas, it increased to 865 in 1971. The patterns at district level have wide variations. In the districts of Ferozepur and Bhatinda, there had been a slight decline in sex ratio during 1951-61. In Hoshiarpur district the sex ratio increased from 877 to 903 during 1951-61. In rest of the districts it increased gradually. During 1961-71, sex ratio decreased slightly in Ludhiana and

Hoshiarpur districts, whereas, it increased sharply in Gurdaspur, Ferozepur and Ropar districts. In rest of the districts it increased gradually. The highest increase in sex ratio was recorded in Ropar district (TABLE-IV.2.5).

IV.2.6 Literacy

Population of Punjab is highly literate as compared to most of the state of the country as per 1971 census. It ranks 6th in literacy among the states of India. Kerala (69.75), Maharashtra (45.77), Tamilnadu (45.4), Gujarat (41.8), and West Bengal (38.8) are the only states having higher literacy rate than Punjab. The average literacy in Punjab accounts for 33.67 per cent. The male literacy is relatively higher (40.38 per cent) than the female literacy (25.98 per cent) (TABLE- IV.2.6). A clear dichotomy can be observed between the zone of high literacy comprising of Ludhiana, Jullundur and Amritsar and low literacy zone comprising of Patiala, Ferozepur, Sangrur and Bhatinda district. The state of Punjab can be divided into three literacy zones. (i) High literacy zone: In this zone the literacy rate is above 40 per cent. It comprises of three districts of Ludhiana, Jullundur and Hoshiarpur, (ii) Relatively high literacy zone (30 to 40 per cent): This zone

TABLE - IV. 2.5
DISTRICT-WISE SEX-RATIO

Sl.No.	District	1951	1961	1971
1.	Gurdaspur	846	869	890
2.	Amritsar	841	854	856
3.	Ferozepur	850	848	870
4.	Ludhiana	846	854	846
5.	Jullundur	862	873	883
6.	Kapurthala	880	886	888
7.	Hoshiarpur	877	903	899
8.	Ropar	813	813	853
9.	Patiala	804	828	847
10.	Sangrur	821	832	840
11.	Bhatinda	838	856	855
	PUNJAB	844	854	865

Source : Census of India, General Report, Punjab,
Vol.A(1), 1951, 1961 and 1971.

TABLE - IV. 2.6
RATE OF GROWTH OF LITERACY RATE, 1951-1971
(Percentage of literates to total population)

Sl No.	District	1951			1961			1971		
		Persons	Male	Female	Persons	Male	Female	Persons	Male	Female
	PUNJAB	18.13	24.08	11.08	26.74	34.70	17.41	33.67	40.38	25.90
1.	Gurdaspur	13.74	18.89	7.66	24.86	33.06	15.41	34.23	41.81	26.20
2.	Amritsar	24.06	33.05	13.28	29.73	36.82	21.42	35.32	40.95	28.74
3.	Ferozepur	22.47	26.05	10.25	22.58	30.44	18.31	27.39	34.30	20.30
4.	Ludhiana	28.10	35.01	19.93	35.60	43.14	26.76	42.63	48.72	35.45
5.	Jullundur	15.47	20.71	9.38	33.80	42.30	23.79	41.30	48.29	33.38
6.	Kapurthala	15.31	19.63	10.41	29.36	37.56	20.09	35.70	42.56	27.99
7.	Hoshiarpur	14.44	20.12	7.47	29.56	39.79	18.24	40.83	50.21	30.51
8.	Ropar	14.72	20.98	7.07	27.81	37.63	15.72	37.17	45.84	27.01
9.	Patiala	17.00	23.44	8.98	24.62	32.07	15.62	31.51	37.94	23.92
10.	Sangrur	10.94	16.51	4.16	18.65	25.55	10.36	24.23	30.29	17.01
11.	Bhatinda	12.53	17.93	6.04	18.85	26.70	9.46	23.60	30.23	15.78

Source : Census of India, General Report, Punjab, Vol.A(1), 1951, 1961 and 1971.

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comprises of Gurdaspur, Amritsar, Kapurthala, Ropar and Patiala, (iii) Medium literacy zone (20 to 30 per cent): This zone comprises of three districts of Ferozepur, Bhatinda and Sangrur forming a compact block in the south of the state (TABLE - IV.2.6).

Total literacy has increased in all the districts from 1951 to 1971. In Gurdaspur, Hoshiarpur, Ropar and Sangrur districts the literacy has increased by more than hundred per cent. The lowest rate of increase has been recorded in Ferozepur district. The male literacy in Punjab has also increased by more than 80 per cent. The highest increase have been recorded in Gurdaspur, Jullundur, Kapurthala, Hoshiarpur and Ropar districts where it doubled during 1951-1971 (TABLE - IV.2.6).

The Female literacy has also increased by more than hundred per cent during 1951-71. The increase in female literacy has been much higher than the male literacy. In Gurdaspur, Hoshiarpur, Ropar and Sangrur districts the female literacy increased more than three times. In Jullundur and Patiala districts it increased more than two hundred per cent. In rest of the districts also, it increased substantially (TABLE-IV.2.6).

IV.2.7 Occupational Structure

The state of Punjab ranks seventeenth amongst the state of India with respect to working population. It has got 28.87 per cent of its population engaged in economic activities (TABLE - IV.2.7). As much as 71.13 per cent of its populations is sitting idle. The regional patterns present a wide variations in the percentage of working population. In Bhatinda and Sangrur districts, the percentage of working population is above thirty (TABLE - IV.2.8). In rest of the districts, it ranges between 26 to 30 per cent. The proportion of working population amongst the male is much higher than the female population. The percentage of workers in male population is lowest in Hoshiarpur district accounting for 48.77 per cent, whereas, it is highest in Sangrur district accounting for 56.95 per cent. In three districts namely Hoshiarpur, Jullundur and Gurdaspur the proportions of male workers is below fifty. In the remaining eight districts the proportion of male workers is above fifty. The female proportion rate ranges between 0.82 to 1.43 per cent. In Sangrur and Bhatinda districts it is very low as compared to the other districts (TABLE - IV.2.8).

TABLE - IV. 2.7
WORKING POPULATION IN THE STATES(1971)

State	Workers (%age)	Ranking according to working population	State	Workers (%age)	Ranking according to working population
Nagaland	50.76	1	Rajasthan	31.21	12
Meghalaya	44.16	2	Bihar	31.03	13
A.Pradesh	41.37	3	U.Pradesh	30.94	14
H.Pradesh	36.94	4	J & K	29.75	15
M.Pradesh	36.80	5	Kerala	29.12	16
Maharashtra	36.41	6	Punjab	28.67	17
Tamilnadu	35.78	7	Assam	28.34	18
Karnataka	34.74	8	W.Bengal	27.91	19
Manipur	34.56	9	Tripura	27.79	20
Gujarat	31.44	10	Haryana	26.44	21
Orissa	31.22	11			

Source : Statistical Profile of Rural India,
CSRD, U.N.U., New Delhi.

TABLE - IV. 2.8

DISTRICT-WISE WORKING POPULATION(1971)(In Percent)

Sl.No.	District	Persons	Males	Females
	PUNJAB	28.87	52.51	1.45
1.	Gurdaspur	26.43	49.04	1.03
2.	Amritsar	29.14	52.88	1.41
3.	Ferozepur	29.91	55.01	1.08
4.	Ludhiana	29.57	53.40	1.43
5.	Jullundur	27.10	49.79	1.41
6.	Kapurthala	27.78	51.52	1.08
7.	Hoshiarpur	26.20	48.77	1.10
8.	Repar	28.07	51.15	1.02
9.	Patiala	29.36	53.02	1.43
10.	Sangrur	31.32	56.95	0.82
11.	Bhatinda	30.73	56.25	0.88

Source : Census of India, General Report, Punjab,
Vol.A(11),1971.

IV.2.8 Sectoral distribution of working population

The distribution of working population is highly variable in different sectors of economy in the state.

(a) Primary Sector: The working population in primary sector accounts for 63.63 per cent in Punjab. In four districts i.e. Sangrur, Bhatinda, Patiala and Ferozepur the proportion of workers in primary sector exceeds the state average (TABLE - IV.2.9). It is highest in Bhatinda districts accounting for 76.51 per cent. In the remaining seven districts the proportion of working population in primary sector is below the state average.

(b) Secondary Sector: The proportion of working population in this sector 13.28 per cent in Punjab. In five districts namely Gurdaspur, Amritsar, Ludhiana, Jullundur and Kapurthala it is above the state average, whereas, in the remaining six districts it is below the state average (TABLE -IV.2.9). In Ludhiana and Jullundur districts the proportion of workers is very high in this sector accounting for 22.23 and 20.35 per cent respectively. In Ferozepur and Bhatinda districts it is very low accounting for 7.51 and 7.38 respectively.

TABLE - IV. 2.9
DISTRIBUTION OF WORKERS BY ECONOMIC SECTORS, 1971 (in percent)

Sl.No.	District	Primary Sector	Secondary Sector	Tertiary Sector
	PUNJAB	63.63	13.28	23.09
1.	Gurdaspur	59.71	12.45	27.84
2.	Amritsar	56.65	15.06	28.29
3.	Ferozepur	74.84	7.51	17.65
4.	Ludhiana	51.29	22.23	26.48
5.	Jullundur	51.31	20.35	28.34
6.	Kapurthala	61.87	16.05	22.08
7.	Hoshiarpur	62.04	13.24	24.72
8.	Ropar	63.21	13.22	23.57
9.	Patiala	64.52	12.12	23.36
10.	Sangrur	74.32	9.23	16.35
11.	Bhatinda	76.51	7.38	16.11

Source : Census of India, General Report, Punjab,
Vol.A(11), 1971.

(c) Tertiary Sector: The proportion of working population in this sector is higher than the secondary sector in the state (23.09 per cent). In Ferozepur, Bhatinda, Sangrur and Kapurthala the proportion of workers is below the state average. The lowest have been recorded in Bhatinda district accounting for 16.11 per cent. The highest proportion of workers has been recorded in Jullundur district accounting for 28.34 per cent in this sector.

The analysis of working population in different sectors reveals the following trends:

- (a) in all the districts there is an overwhelming majority of primary sector in working population;
- (b) the tertiary sector has over shadowed the secondary sector.

To sum-up all the five year plans were formulated with the main objectives of rural and agricultural development, development of irrigation and power, improvement of social-services and increase the industrial production. The state has achieved remarkable growth in food production, irrigation and power and transport.

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CHAPTER V

IMPACT OF PLANNING ON REGIONAL DEVELOPMENT

V.1 Introduction

If we look at the present level of regional Development in Punjab, the impact of the past and present processes of planning are quite obvious. The development schemes and plans formulated and implemented (whether partially or wholly) before 1947 contributed to the development of some areas or regions. For instance, the Transport-Plan which resulted in the establishment of a transport-network though served the colonial interests, provided linkages to important cities of Punjab viz., Amritsar, Jullundur, Ludhiana and Patiala¹. Among these four cities, Amritsar, Ludhiana and Jullundur are now have a well established industrial sector. Similarly irrigation canal-system established during the British regime was also the result of irrigation canal schemes. The same irrigation canal network provided the strong base for the present level of agricultural development

1. GARROT, The Grand Trunk Road in Punjab, op.cit., pp. 13-45.

in Punjab. Particularly Amritsar and Ferozepur districts received the largest share of canal irrigation, which resulted in the high intensity of irrigation. In 1945, under the Post-War-Development schemes, efforts were made for the development of some pocket areas in Punjab. For the overall development, tehsils of Tarantaran and Ajnala (Amritsar), Jagraon (Ludhiana), Hoshiarpur and Jullundur were undertaken². As a result, at present, these tehsils are highly developed.

During 1947-52, under the rehabilitation plans various schemes were implemented. The model townships and cheap housing colonies were established on the peripheries of Ludhiana, Jullundur, Amritsar, Pathankot, Batala (Gurdaspur) and Khanna (Ludhiana) cities³. As a result of the above mentioned schemes, the districts of Ludhiana, Jullundur, Amritsar and Gurdaspur are highly urbanized today. Under the industrial rehabilitation two types of schemes were undertaken to establish the industrial complexes and industrial centres and sub-centres. The industrial complexes and centres were established at Ludhiana, Jullundur, Ropar,

2. Post-War-Development Schemes, op. cit., p. 7.

3. Relief and Rehabilitation in Punjab, op. cit., pp. 12-18.

Noormahal (Jullundur), Tarantarn, Jandiela (Amritsar), Jagraon, Khanna, Raikot (Ludhiana), Fatehgarh (Patiala), Nakodar (Jullundur), Batala (Gurdaspur) and Hoga (Ferozepur)⁴. Under this scheme most of the towns of Ludhiana district were covered. Jullundur district was given the second preference followed by Amritsar and Patiala districts. The above mentioned schemes for industrial rehabilitation actually provided a strong base for the present level of development of industry in the districts of Ludhiana, Jullundur and Amritsar.

The concentration of the Community Development schemes has also been in the same areas, where most of the schemes were implemented already. In 1954, Tarantarn (Amritsar), Nawan shahar (Jullundur), Batala and Dharkolan (Gurdaspur) were taken under this scheme⁵.

Since the planning strategies developed so far have been either area-specific or sector-specific, different regions and different sectors of economy have developed at a differential rate of growth. In this chapter, the variations in the level of development of the districts in

4. Ibid, p. 28-32.

5. First-Five-Year-Plan, op. cit., p. 6
Second-Five-Year-Plan, op. cit., p. 36.

Punjab have been worked out by selecting several indicators from socio-demography agriculture, Industry and other Infra-structure and by measuring their combined development.

V.2 Choice of Indicators

The following is the detailed list of the indicators selected for 1961 and 1971 census years (Appendices 1 & 2):

(1) Socio-demographic indicators

To examine the socio-demographic conditions at the district level, four indicators have been selected:

- (a) Urban population as percentage to total population - it will reflect in degree of urbanization which is an important indicator of level of development.
- (b) Sex ratio - number of female per thousand male. The low sex ratio is an indicator of the high level of development, because to developing regions there is the male selective migration in search of employment and other opportunities.
- (c) Literacy rate - Percentage of literates to the total population is an obvious indicator of the level of development. It presumes not the accessibility to educational facilities but also a certain economic-stability which permits the families to send their wards to educational institutions.

- (d) Hospital beds per thousand population gives an idea about the health and medical facilities available to the people.

(11) Agricultural indicators

- (a) Intensity of cropping - area sown more than once as proportion of gross cropped area is known as the intensity of cropping. It is an indicator of mechanization and transformation of agriculture.
- (b) Intensity of irrigation - is an indicator for the intensity of cropping and transformation of agriculture, where the intensity of irrigation is high the gross cropped area will be more and the chances of crop failure will be less.
- (c) Number of tractors per thousand gross cropped area - is an important indicator of transformation from traditional agriculture to modern agriculture.
- (d) Number of tubewells per thousand gross cropped area - is a well known indicator of intensification of agriculture. Where tubewell irrigation is easily available, the chances of crop failure will be less.
- (e) Co-operative societies - percentage population covered by co-operative societies gives the concrete idea about the availability of loans and subsidies for the seed, fertilizer and agriculture implements.

(iii) Industrial Indicators

- (a) Number of industrial units - the high number of industrial units on important indicator of high level of industrial development of a region.
- (b) Number of industrial workers - the large number of workers employed in secondary sector is a clear indicator of industrial growth in the economy of a region.

(iv) Infrastructural Indicators

- (a) Road mileage per square kilometre - is an indicator of development of transport network on which depends the development of agriculture, industry or any other sector of economy.
- (b) Number of banks - the banking is an integral part of the economy of the highly developed regions, both for the agriculturally and industrially developed regions.
- (c) Number of radio-sets - as a source of entertainment, it can be considered as an indicator of development.
- (d) Number of electric transformers - the consumption of the power - domestic as well commercial - is an indicators for the advanced technology in agriculture and industry.

TABLE V.3.1

RANKING OF THE DISTRICTS ACCORDING TO THE INDICATORS OF DEVELOPMENT,
1961

DISTRICTS			
(1)		(2)	Urban Population %age to Total Population
	Curdaspur	8	
		4	(3) Sex Ratio
		8	(4) Literacy Rate
		6	(5) Hospital Beds Per Thousand Population
		7	(6) Intensity of Cropping
		8	(7) Intensity of Irrigation
		10	(8) No. of Tractors Per Thousand G.C.A.
		8	(9) No. of Tube-Wells Per Thousand G.C.A.
		4	(10) %age Population Covered by Co-op. Socs.
		1	(11) Rd. Mile Per sq. km.
		4	(12) No. of Working Regd. Factories
		5	(13) No. of Industrial workers
		8	(14) No. of Banks
		5	(15) No. of Radio Sets
		3	(16) No. of Transformers (Electric)
		81	(17) Cumulative Ranks
Item			
Aeritsar	1	6	
Kapurthala	5	8	
	8	6	
	7	1	
	11	2	
	4	1	
	9	6	
	7	5	
	1	9	
	6	2	
	7	1	
	6	1	
	11	1	
	11	1	
	10	1	
	115		

Contd...

Contd. TABLE V.3.1

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Jullundur	3	7	2	4	8	3	2	1	2	3	3	3	3	3	4	51
Hoshiarpur	11	1	4	8	4	11	5	2	1	5	10	11	7	8	8	96
Ropar	10	9	5	9	5	10	4	6	1	4	11	8	10	6	11	107
Ludhiana	2	2	1	3	6	5	1	3	3	4	2	2	2	2	5	43
Ferozepur	7	10	9	5	10	2	7	10	7	7	6	7	4	4	6	101
Bhatinda	6	1	10	11	9	7	7	11	8	8	8	10	6	10	9	121
Sangrur	9	5	11	10	1	6	8	9	5	7	9	9	9	9	7	114
Patiala	4	3	7	2	3	9	3	4	6	5	5	4	5	7	2	69

TABLE V.3.2

RANKING OF THE DISTRICTS ACCORDING TO THE INDICATORS OF DEVELOPMENT
1971

DISTRICTS			
(1)		(2)	Urban Population %age to Total Population
		(3)	Sex Ratio
		(4)	Literacy Rate
		(5)	Hospital Beds Per Thousand Population
		(6)	Intensity of Cropping
		(7)	Intensity of Irrigation.
		(8)	No. of Tractors Per Thousand G.C.A.
		(9)	No. of Tube-Wells Per Thousand G.C.A.
		(10)	%age Population Covered by Co-op. Societies
		(11)	Rd. Mile per sq. km.
		(12)	No. of Working Regd. Factories
		(13)	No. of Industrial Workers
		(14)	No. of Banks
		(15)	No. of Radio Sets
		(16)	No. of Transformers (Electric)
		(17)	Cummulative Ranks

Contd....

Contd. TABLE V.3.2

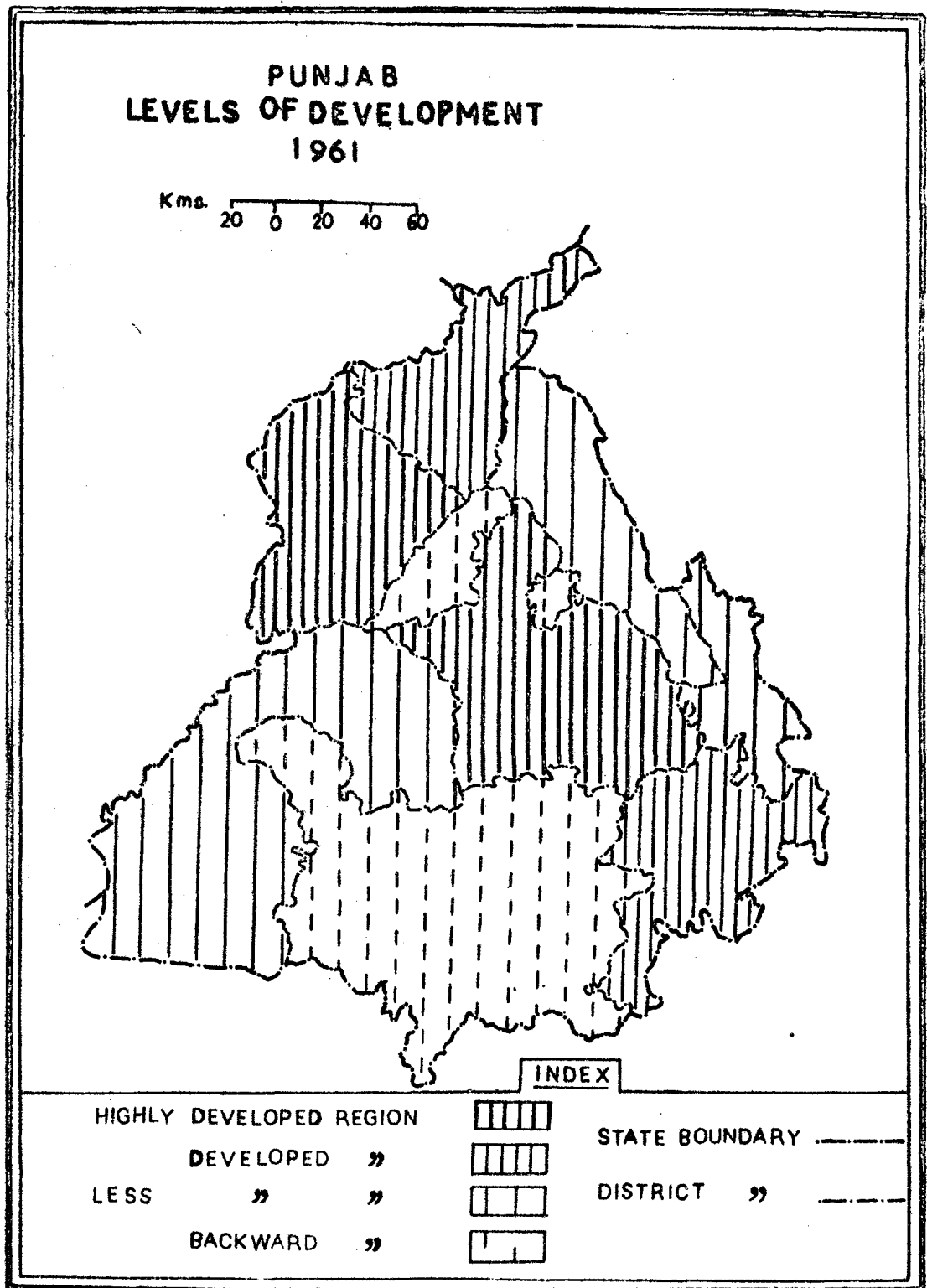
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Jullundur	2	10	2	4	8	4	10	3	1	3	1	3	1	4	4	60
Hoshiarpur	6	5	3	6	5	11	9	4	1	6	10	11	8	8	10	103
Ropar	11	9	4	8	1	10	6	6	1	6	11	8	10	11	11	113
Ludhiana	1	7	1	3	2	5	2	1	2	4	2	1	2	2	3	36
Ferozepur	10	11	9	6	10	2	7	11	5	7	7	7	4	3	2	101
Bhatinda	9	4	11	9	9	7	4	10	7	9	5	10	7	7	9	117
Sangrur	7	8	10	9	6	6	5	5	4	8	9	9	9	9	7	111
Patiala	4	2	8	2	4	8	1	2	6	6	6	4	5	5	5	63

V.3 Methodology

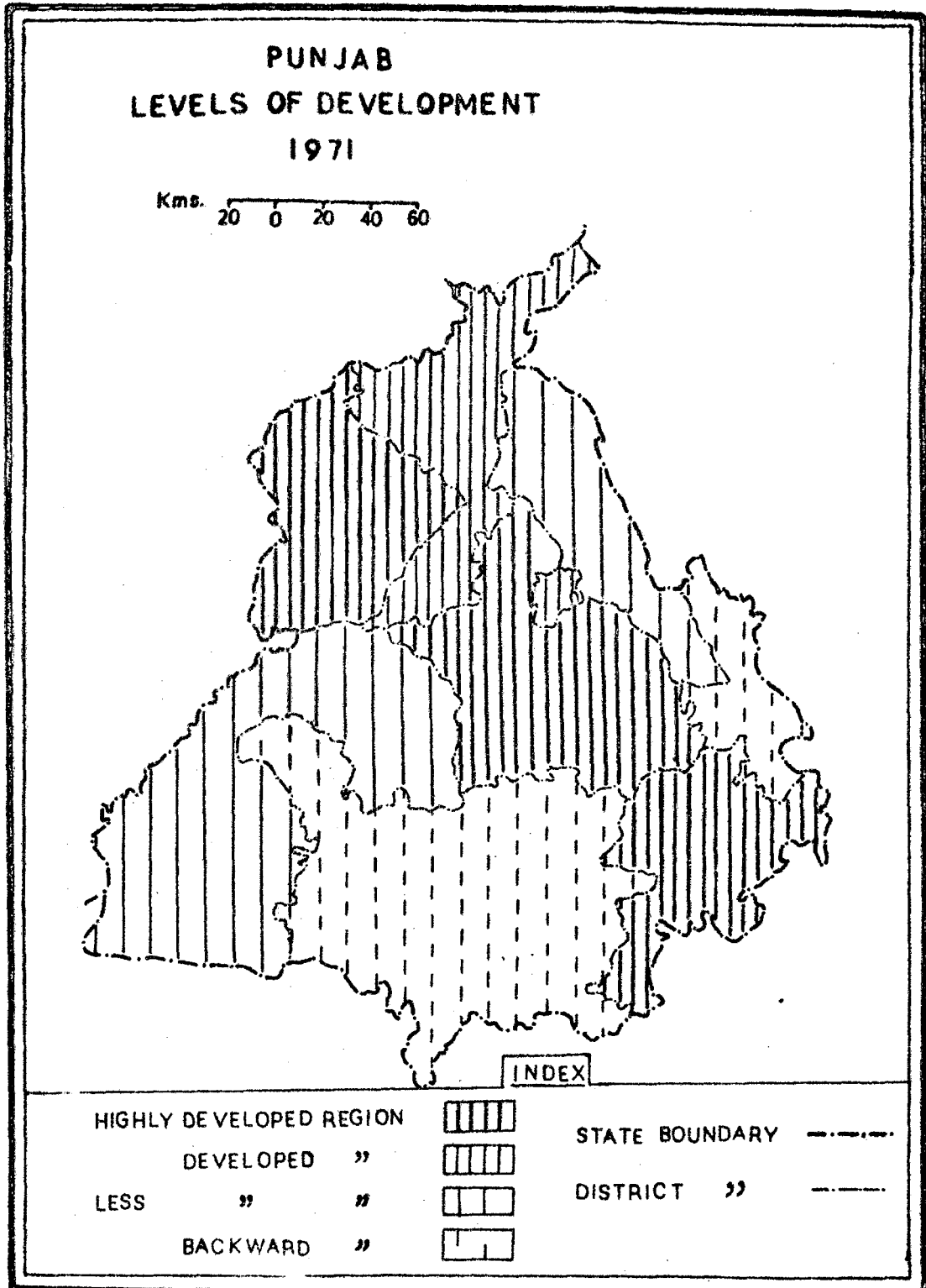
On the basis of the above mentioned indicators of development, a composite index has been worked out, where each district has been ranked in descending order, the district with the highest value has been given rank one except sex-ratio. For sex-ratio the districts have been ranked in ascending order, the district having lowest value has been given rank one (Appendix 1 & 2). Cumulative rank score has been worked out by adding all the ranks for each district (TABLE-V.3.1 and V.3.2) on the basis of the cumulative rank score, a final rank score has been prepared for each district, in which the district having lowest cumulative rank score is given the first rank and the district having the highest cumulative rank score is given the last rank.

V.4 Levels of Development

On the basis of the cumulative rank score for 1961 and 1971, Punjab can be divided into the following four regions according to their levels of development (MAP-V.1 & MAP-V.2):



MAP V.1



MAP V.2

(1) Highly Developed Region

The level of development of this region is the highest in the state. It includes the districts of Amritsar, Ludhiana, Jullundur and Patiala. The districts of Ludhiana, Jullundur and Patiala form a compact block, whereas, Amritsar district is bordered with Pakistan on the west. The whole region is a flat alluvial plain. The district of Ludhiana is on the Highest level of development (1971) within the region followed by the districts of Jullundur, Amritsar and Patiala. Ludhiana got the maximum 5 first ranks and 5 second ranks, which represents higher degree of level of development as given in the TABLE-V.4.1. The district of Ludhiana got only single 7th rank in sex-ratio, which is also an indicator of higher level of development. The districts of Jullundur and Amritsar each got the 3 first ranks and 2 second ranks, whereas, Patiala got only 1 first rank and 2 second ranks (TABLE-V.4.1). The rank position of Jullundur district indicates the high degree of industrialization, Banking, Co-operative Societies, Urbanization and literacy. The rank position of Amritsar district also indicates the high degree of health services, irrigation and entertainment. The incidence of tubewell irrigation in Patiala district is remarkable.

TABLE V.4.1

RANKING OF DISTRICTS IN HIGHLY DEVELOPED REGION, 1971

Dist- RICT	Urban Populat- ion %age Total population.	Sex Ratio	Literacy Rate	Hospital beds per thousand population	Intensity of cropping	Intensity of Irrigation	No. of Tractors per Thoud. GCA.	No. of T.Wells per Thoud. GCA.	%age pop. covered by co-op. socs.	Road Mile per sq. kilometre	No. of working Regd. factories	No. of industrial workers	No. of Banks	No. of Radio sets	No. of transfor- mers (Electric)	Cumulative Ranks
Ludhiana	2	7	1	3	2	5	2	1	2	4	2	1	2	2	1	43
Jullundur	2	10	2	4	8	4	10	3	1	3	1	3	1	4	4	51
Amritsar	3	6	6	1	3	1	11	9	8	2	3	2	3	1	3	62
Patiala	4	2	8	2	4	8	1	2	6	6	6	4	5	5	5	68

TABLE V.4.2

RANKING OF DISTRICTS IN HIGHLY DEVELOPED REGION, 1961

DISTRICTS		
Amritsar	1	Urban population %age Total population
Ludhiana	2	Sex Ratio
Jullundur	3	Literacy Rate
	4	Hospital beds per Thousand population
	6	Intensity of cropping
	5	Intensity of Irrigation
	1	No. of Tractors per Thousand G.C.A.
	3	No. of Tube-Wells per Thousand G.C.A.
	3	%age population covered by co-op. societies
	4	Road mile per sq. kilometre
	2	No. of working Regd. Factories
	2	No. of industrial workers
	2	No. of Banks
	2	No. of Radio sets
	5	No. of transformers (Electric)
	41	Cummulative Ranks

However during 1961, composite, index of level of Development was the highest for Amritsar followed by Ludhiana and Jullundur as is indicated in the TABLE-V.4.2. Amritsar district got maximum 8 first ranks followed by the districts of Ludhiana with 2 first ranks and Jullundur with 1 first rank. District Patiala jumped on the higher level of development from developed region in 1971. Tractorization and electrification are the main reasons for the promotion of Patiala district (TABLE-V.3.2). The Ludhiana and Jullundur districts bypass the Amritsar district as it is clear from the cumulative rank score for 1961 and 1971. The rate of growth of urbanization, industrialization, tube-well irrigation, electrification is high in Ludhiana and Jullundur districts. As a result, Amritsar relegated to Third position from the first followed by Patiala district within the region.

(ii) Developed Region

This region is slightly on the lower level of development than the highly developed region. It includes the districts of Kapurthala and Gurdaspur, which form a continuous block in the northern part of the state (MAP-V.2). District Kapurthala got 2 first ranks while Gurdaspur got only 1 first rank. The incidence of low sex ratio and high degree of co-operative movement in Kapurthala district and high degree .

TABLE V.4.3

RANKING OF DISTRICTS IN DEVELOPED REGION, 1971

DISTRICTS		
Kopurthala	5	1
Gurdaspur	8	3
Patiala	4	3
Gurdaspur	8	4
		7
		2
		3
		9
		3
		8
		8
		4
		6
		5
		5
		4
		5
		8
		5
		7
		2
		3
		81
		69

1961

of road mileage in Gurdaspur district are worth-mentioning for the high level of development of this region (TABLE-V.4.3). In Kapurthala district the degree of irrigation is adequate whereas, intensity of cropping and number of banks are on the lowest level. But both the districts have adequate degree of socio-demographic factors.

With the change of the level of development, there has been a remarkable change in the position of the districts in this region. In 1961, Patiala district was on this level of development. But in 1971, as a result of its mechanization of agriculture, it jumped to the highly developed region (TABLE-V.4.1). It is very interesting that the Kapurthala district, which was on the lower level of development (1961) in the state jumped to the higher level of development (1971). The main reason of this remarkable development is, the improvement in socio-demographic conditions and transformation of agriculture (TABLE-V.4.3). Kapurthala district crossed in its way, the districts of Sangrur, Ropar, Ferozepur, Hoshiarpur and Gurdaspur.

(iii) Less Developed Region

This region comprises of two districts of Ferozepur and Hoshiarpur. The Ferozepur district is in the south-west corner of the state and Hoshiarpur district is situated in the north-east part of the state (MAP-V.2). Out of these

TABLE V.4.4

RANKING OF THE DISTRICTS OF LESS DEVELOPED REGION, 1971

DISTRICTS		
Ferozepur	10	Urban Population Sage to Total Population
Hoshiarpur	6	Sex Ratio
	11	Literacy Rate
	9	Hospital Beds Per Thousand Population
	6	Intensity of Cropping
	10	Intensity of Irrigation
	2	No. of Tractors per Thousand G.C.A.
	7	No. of Tube-Well per Thousand G.C.A.
	11	Sage population covered by co-op. Socs.
	4	Road mile per sq. kilometre
	7	No. of working Regd. Factories
	10	No. of industrial workers
	11	No. of Banks
	8	No. of Radio Sets
	3	No. of Transformers (Electric)
	8	Cummulative Ranks
	10	
	2	
	103	
	101	

TABLE V.4.5

RANKING OF THE DISTRICTS OF LESS DEVELOPED REGION, 1961

DISTRICTS		
		Urban Population %age to Total Population
Hoshliarpur	11	1
Ferozepur	7	10
Ropar	10	9
		Sex Ratio
Hoshliarpur	11	4
Ferozepur	7	9
Ropar	10	5
		Literacy Rate
Hoshliarpur	11	8
Ferozepur	7	5
Ropar	10	9
		Hospital Beds Per Thousand Population
Hoshliarpur	11	4
Ferozepur	7	10
Ropar	10	5
		Intensity of Cropping
Hoshliarpur	11	11
Ferozepur	7	2
Ropar	10	10
		Intensity of Irrigation
Hoshliarpur	11	5
Ferozepur	7	7
Ropar	10	4
		No. of Tractors per Thousand G.C.A.
Hoshliarpur	11	2
Ferozepur	7	10
Ropar	10	6
		No. of Tube-Wells per Thousand G.C.A.
Hoshliarpur	11	1
Ferozepur	7	7
Ropar	10	1
		%age population covered by co-op. Societies
Hoshliarpur	11	5
Ferozepur	7	7
Ropar	10	4
		Road mile per sq. kilometre
Hoshliarpur	11	10
Ferozepur	7	6
Ropar	10	11
		No. of working Regd. Factories
Hoshliarpur	11	11
Ferozepur	7	7
Ropar	10	8
		No. of industrial workers
Hoshliarpur	11	7
Ferozepur	7	4
Ropar	10	10
		No. of Banks
Hoshliarpur	11	8
Ferozepur	7	4
Ropar	10	6
		No. of Radio Sets
Hoshliarpur	11	8
Ferozepur	7	6
Ropar	10	11
		No. of Transformers (Electric)
Hoshliarpur	11	96
Ferozepur	7	101
Ropar	10	107
		Cummulative Ranks

two districts, only Hoshiarpur has a single first rank. As the following table (TABLE-V.4.4) shows the rank score for this region (1971), the degree of co-operative societies in this district is remarkable, whereas, the degree of other indicators of development is low. The incidence of socio-demographic factors are adequate in Hoshiarpur, whereas, it is low in Ferozepur district. The incidence of economic indicators are adequate in Ferozepur, whereas it is low in Hoshiarpur district (TABLE-V.4.4).

In 1961 too, Roper district was in the category of low level of development (TABLE-V.4.5). But the rapid change in the level of development of Kapurthala district affected the hierarchy of the other districts in the level of development. Although, Roper got first rank in the co-operative societies (TABLE-V.4.5), the development of all other indicators was very low in 1971, which shifted its position from less developed region (1961) to backward region (1971).

(iv) Backward Region

This region comprises of the districts of Sangrur, Roper and Bhatinda. The districts of Bhatinda and Sangrur form a compact block in the southern part of the state, whereas, Roper district lies on the eastern part (MAP-V.2). In this region the level of development is very low in all the fields

TABLE V.4.6

RANKING OF DISTRICTS OF BACKWARD REGION, 1971

DISTRICTS		
		Urban Population %age to Total pop.
Songpur	7	
Roper	11	
Bhatinda	9	
		Sex Ratio
Songpur	8	
Roper	9	
Bhatinda	4	
		Literacy Rate
Songpur	10	
Roper	4	
Bhatinda	11	
		Hospital Beds Per Thousand pop.
Songpur	9	
Roper	8	
Bhatinda	9	
		Intensity of Cropping
Songpur	6	
Roper	1	
Bhatinda	9	
		Intensity of Irri.
Songpur	6	
Roper	10	
Bhatinda	7	
		No. of Tractors per Thousand G.C.A.
Songpur	5	
Roper	6	
Bhatinda	4	
		No. of Tube-Weils per Thousand G.C.A.
Songpur	5	
Roper	6	
Bhatinda	10	
		%age population covered by co-op. Societies.
Songpur	4	
Roper	1	
Bhatinda	7	
		Rd. mile per sq.km.
Songpur	8	
Roper	6	
Bhatinda	9	
		No. of working Regd. Factories
Songpur	9	
Roper	11	
Bhatinda	5	
		No. of industrial workers
Songpur	9	
Roper	8	
Bhatinda	10	
		No. of Banks
Songpur	9	
Roper	10	
Bhatinda	7	
		No. of Radio Sets
Songpur	9	
Roper	11	
Bhatinda	7	
		No. of Transformers (Electric)
Songpur	7	
Roper	11	
Bhatinda	9	
		Cummulative Ranks
Songpur	111	
Roper	113	
Bhatinda	117	

TABLE V.4.7

RANKING OF THE DISTRICTS OF BACKWARD REGION, 1961

DISTRICTS			
			Urban Population %age to Total Population
Sangurur	9	5	Sex Ratio
Kesurthala	5	8	Literacy Rate
Dhatinda	6	1	Hospital Beds Per Thousand Population
			Intensity of Cropping
			Intensity of Irrigation
			No. of Tractors Per Thousand G.C.A.
			No. of Tube-wells Per Thousand G.C.A.
			%age Population covered by Co-op. Societies
			Rd. mile per sq. km.
			No. of Working Regd. Factories
			No. of industrial workers
			No. of Banks
			No. of Radio Sets
			No. of Transformers (Electric)
			Cummulative Ranks

as shown in the TABLE-V.4.6.

Out of these three districts, Ropar got 2 first ranks whereas, Sangrur and Bhatinda districts could not get above the fourth rank. The intensity of cropping and degree of co-operative societies are remarkable in Ropar district, but the degree of other indicators of development is very low (TABLE-V.4.6).

According to the rank scores of the TABLE-V.4.7, the district of Kapurthala was on a lower level of development. The increase in irrigation and tractorization is the main reason for the promotion of Kapurthala district from lower level of development (1961) to the high level of development (1971) (TABLE-V.4.3). Due to the low rate of development the Ropar district is shifted from less developed region (TABLE-V.4.5) to the backward region in 1971. The districts of Sangrur and Bhatinda are the only two districts of the state, which remained on the lower level of development (in 1971 as well as in 1961).

V.5 Conclusion

The impact of the planning on the level of development of a region is obvious from the above discussion. The districts of Ludhiana, Jullundur, Amritsar, Patiala and Gurdaspur, which received maximum attention of any type of planning and development before partition, enjoyed the same

attention after the partition. During the rehabilitation plans (1947-52), the same districts received maximum attention in housing and industrial plans. The analysis of level of development for 1961 and 1971 also showed similar trend. It is obvious that even during the Five-Year-Plans, the districts having higher level of development were again given the top priority and the districts having lower level of development were given the least attention. For instance, the districts of Ludhiana, Jullundur and Amritsar have further developed from 1961 to 1971, whereas, the backward and less developed districts retained the same level of development. Kapurthala district is the only exception which has jumped from backward region (1961) to developed region in 1971. It is more interesting that in the districts of Ludhiana, Jullundur, Amritsar and Patiala, where the level of agriculture development is higher, the degree of industrialization and tertiarization is also high. But in the backward and less developed region the overall level of development is low. However, the inter-district imbalances in the levels of development are partly due to area-specific planning and partly due to sector-specific planning in the past which accentuated the difference in the level of development between the backward and the developed regions over the years. Hence even if Punjab is one of the most developed

states of India, there is lot of scope in its further development, by bridging the gap between the backward and the developed region and by reducing the intra-regional disparities.

CHAPTER - VI
SUMMARY AND CONCLUSION

The 'Land of Five Rivers' has had its own importance in the history of India. In the historical perspective, the study reveals that the region was raided so many times by ~~the~~ various foreign rulers. Due to its strategic geographical position between the Central Asia and Indian sub-continent, the region has been the arena of conflicts for long time. As its name reflects, this region being a distinguished geographical region, having all types of physical features, rich with the alluvial soils under tropical climatic conditions had a great economic importance in the country.

The region has been organized and reorganized so many times before partition and after partition. In March 1849, the Punjab was annexed into British possessed territory of India. During 1901, the North-West Frontier-Province was separated from Punjab. It was again divided into East and West Punjab due to the partition of India. After partition, the territories of Punjab ^{was} further contracted by the formation of Himachal Pradesh. During 1956, the PEPSU

(Patiala and East Punjab States Union) was integrated with Punjab. Finally in 1966, the Punjab was further divided into Haryana and present Punjab.

Before partition no plan was proposed or implemented with a full understanding of planning process. Some development schemes were formulated on the administrative levels i.e. Tehsils, Districts or Divisions. All the schemes were implemented on the various levels by the administrators or the bureaucrats. Some investment was made in various fields according to the needs of the British rulers. Main emphasis was given to the development of irrigation and transport network, especially railways.

After World War II, a five year plan was formulated in Punjab, which included some schemes to rehabilitate the economy. Some particular area schemes were implemented under the framework of this plan. Nevertheless, this plan cannot be considered as a sectoral plan as it stressed upon the development of some pocket areas.

As a result of partition, 3.3 millions of displaced persons from Pakistan sought shelter in the region. This

holocaust seriously hampered the economy of the state as a whole. Lot of rehabilitation schemes were undertaken by the government organizations. An economic survey was conducted for the analysis of occupational pattern of displaced persons. Under the rural rehabilitation programme, the arrangements were made for the allotment of land and evacuee houses and for loans. Under the urban rehabilitation schemes, the evacuee houses and factories were allotted to the refugees. Some schemes were also formulated for the housing accommodation in urban areas for the urbanite refugees. The housing scheme was broadly divided into two categories according to the economic status of the refugees. To rehabilitate the industry and industrialists also, some schemes were undertaken.

In the PEPSU plans, the major share of the finances were spent in the sector of Agriculture and Irrigation accounting for more than 60 per cent of the total plan outlays, whereas, the industrial sector was given least attention. The tertiary sector was given a considerable share of the plan outlays accounting for more than 25 per cent.

The regular development planning started with the launching of the First-Five-Year-Plan during 1952. In all the Five-Year-Plans of Punjab the main emphasis was laid on primary sector. The allocation of funds for the development of this sector increased in all the Five-Year-Plans. In the Primary Sector, the main emphasis was laid on the development of Irrigation and Power. Although, secondary sector was not given due consideration, yet the allocation of funds increased slightly during all the Five-Year-Plans of the state. In the First-Five-Year-Plan, the secondary sector accounted for 0.9 per cent of the total plan outlays, whereas, it increased to 7.8 per cent in the Fifth-Five-Year-Plan. The tertiary sector got good attention during the three decades of development and planning in the state. During this period, the allocation of funds in this sector has remained considerable accounting for more than 20 per cent of the total plan outlays.

During the Plan Holidays, the budgetary allocations of primary sector continued to be on the top. The secondary sector was given second priority, whereas, the tertiary sector was pushed back.

A project for New Capital was carried out in the First and Second-Five-Year-Plans with heavy budgetary allocations of funds.

To minimize the Inter-district disparities, some schemes were undertaken during all the plan periods. Separate plans were formulated for backward areas/regions under the names of Community Projects, National Extension Service and Integrated Rural Development Programme (IRDP). According to the characterization of state Government, the regional plans were formulated for the hilly and sub-montane region and other backward areas.

The objectives of the PEPSU Plans and the Punjab's first two Five-Year-Plans were similar. These plans aimed at increasing food production, development of irrigation, development of transport network, improvement of social-services and the increase in industrial production. In the Third and Fourth-Five-Year-Plan of Punjab, the emphasis was laid on improving the socio-economic conditions i.e. improvement in education, creation of employment opportunities. In the Fifth-Five-Year-Plan stress was laid on removing the regional disparities and eradication of poverty. During the thirty years of development planning, the state has

achieved an astonishing growth in the field of agriculture, transport and power. During 1951 to 1979, the gross cropped area increased by more than 50 per cent, whereas, the gross irrigated area increased by more than 150 per cent. The food grains have increased by about eleven times during this period. During this period, every village of Punjab was linked by road. The target of hundred per cent electrification of villages and towns was also achieved.

Most of the population of the state ^{has} concentrated in Ferozepur, Amritsar and Ludhiana districts. In Amritsar, Ludhiana, Jullundur and Gurdaspur district, the density of population increased during 1961-71. The density of population has decreased in Sangrur district during 1961-71. The rate of growth of population has remained almost constant during 1951-61 and 1961-71 for the state as a whole. The sex-ratio of the state is lowest (855) as compared to the other states of India except Sikkim. During 1961-71, the sex ratio increased in all the districts except Ludhiana and Hoshiarpur, where it declined slightly. The literacy rate in Punjab is quite high accounting for 33.67 per cent which is much above the national average. The working population accounts for 28.27 per cent of the total

population of the state. The rest are non-workers and are dependents. The major share of the workforce (63.63 per cent) is engaged in primary sector, whereas, tertiary sector accounts for 23.09 per cent of the workforce. The rest (13.28 per cent) are engaged in secondary sector.

There is a close relationship between the physical and demographic characteristics of the region. The density and growth of population, rural-urban composition is corresponding to the economic infrastructure of the region.

The impact of planning in regional development is quite obvious from the incidence of the indicators of the development in various districts on the basis of which the state can be divided into four economic regions viz., (i) Highly developed region (ii) Developed region (iii) Less developed region and (iv) Backward region. It has been found that the direction of development has been oriented towards the already developed region.

To conclude, the development efforts before partition were only limited to certain area development schemes such as Post-war Development Schemes. These schemes led to the development of certain pocket areas especially around the administrative and military headquarters. The irrigation

canal network and transport were developed by the Britishers to increase the revenue and to facilitate the colonial administration. However, all the development schemes undertaken before partition were sporadic and were guided by the pressing-needs of the region.

After partition, the Punjab government initiated a number of rehabilitation plans to settle the displaced persons. During 1947 to 1952, the development schemes were undertaken to rehabilitate the shattered economy of Punjab.

Since the inception of Five-Year-Plans in 1952, the economy of the region has maintained a steady progress. Although, the development started with the implementation of Five-Year-Plans, but the first three plans saw a very little growth. It was only during the Plan Holidays that the sharp increase in the development of the region took place, which continued in the last decade of planning. It is also observed that strategies of planning in the state tend to shift from primary to secondary sector.

Although, the state of Punjab is highly developed state of India, but the inter-district imbalances are obvious in the state, which reflects the impact of planning on regional development. The districts having lower level of development were given the least attention, whereas, the districts having

higher level of development have further developed. However, at the present level of development, the regional planning for backward and less developed districts would certainly play a significant role to minimize the intra-state disparities.

APPENDIX - I
 DISTRICT-WISE VALUES OF INDICATORS
 1961

DISTRICTS	Urban Population %age to Total Population	Sex Ratio	Literacy Rate
	(1)	(2)	(3)
Gurdaspur	19.5	853	24.86
Amritsar	30.2	856	29.73
Kapurthala	23.1	889	29.60
Jullundur	28.5	883	33.80
Hoshiarpur	9.8	847	29.56
Ropar	17.6	889	27.81
Ludhiana	29.2	846	35.60
Ferozepur	20.1	897	22.58
Bhatinda	21.2	840	18.85
Sangrur	19.1	855	18.65
Patiala	26.1	847	27.62

Contd...

Contd.. APPENDIX - I.

Hospital Beds Per Thousand Population	Intensity of Cropping	Intensity of Irrigation	No. of Tractors Per Thousand G.C.A.
(4)	(5)	(6)	(7)
0.46	20.04	43.5	0.07
1.60	27.09	87.2	0.23
0.45	11.81	62.1	0.15
0.76	18.15	64.1	0.48
0.42	22.83	15.0	0.25
0.34	20.94	17.0	0.27
0.95	20.54	59.3	0.85
0.47	13.88	66.3	0.19
0.30	15.04	55.2	0.19
0.32	27.13	57.3	0.16
1.22	26.64	40.7	0.28

Contd...

Contd. APPENDIX-I

No. of Tube- Wells Per Thousand G.C.A.	%age Population Covered by Co-op. Soccs.	Rd.Mile Per Sq.Km.	No. of Working Regdd. Factories
(8)	(9)	(10)	(11)
4.15	73.76	0.31	314
8.06	46.45	0.25	997
4.30	100.00	0.17	122
16.25	98.94	0.22	634
14.59	100.00	0.18	60
6.69	100.00	0.20	40
11.12	82.49	0.20	862
2.15	62.16	0.14	139
1.46	59.45	0.10	106
4.01	64.47	0.64	86
10.99	62.72	0.18	186

Contd...

Contd. APPENDIX-I

No. of Industrial workers	No. of Banks	No. of Radio Sets	No. of Trans- formers (Electric)
(12)	(13)	(14)	(15)
8,580	25	34	871
22,013	40	66	1,085
7,768	12	15	175
16,752	36	53	812
1,020	25	28	463
6,745	13	33	50
19,579	37	56	796
7,336	32	86	692
2,122	27	23	247
2,428	23	25	539
9,311	30	31	882

APPENDIX -II

DISTRICT-WISE VALUES OF INDICATORS

1971

DISTRICTS	Urban Population %age to Total Population	Sex Ratio	Literacy Rate
	(1)	(2)	(3)
Gurdaspur	20.3	832	34.23
Amritsar	29.1	854	35.32
Kapurthala	22.4	813	35.70
Jullundur	30.3	873	41.30
Hoshiarpur	22.3	848	40.88
Ropar	15.2	886	37.17
Ludhiana	35.0	855	42.63
Ferozepur	19.9	803	27.79
Bhatinda	20.0	836	23.60
Sangrur	20.4	863	24.23
Patiala	26.3	828	31.51

Contd...

Contd. APPENDIX-II

Hospital Beds Per Thousand Population	Intensity of Cropping	Intensity of Irrigation	No. of Tractors Per Thousand G.C.A.
(4)	(5)	(6)	(7)
0.50	28.92	55.1	0.67
1.59	33.78	94.0	0.47
0.67	14.83	82.2	1.23
0.65	27.91	81.8	0.54
0.52	29.68	35.0	0.66
0.35	39.67	35.5	0.75
1.00	35.77	81.7	1.74
0.52	23.62	82.3	0.71
0.34	25.80	75.2	0.85
0.34	29.29	81.4	0.81
1.23	29.76	69.4	1.97

Contd...

Contd. APPENDIX-II

No. of Tube- Wells Per Thousand G.C.A.	%age Population Covered by Co-op. Socs.	Rd. Mile Per Sq. Km.	No. of Working Regd. Factories
(8)	(9)	(10)	(11)
12.92	80.28	0.36	316
12.43	54.64	0.32	968
14.29	100.0	0.25	173
23.62	100.0	0.31	3,764
22.07	100.0	0.23	76
18.77	100.0	0.23	54
44.34	88.86	0.30	1,333
8.57	72.59	0.18	190
9.57	62.88	0.14	194
19.67	72.73	0.17	152
26.34	70.90	0.23	251

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Contd. APPENDIX-II

No. of Industrial workers	No. of Banks	No. of Radio Sets	No. of Trans- formers (Electric)
(12)	(13)	(14)	(15)
8,053	45	66	1,513
21,584	87	112	1,820
8,179	23	29	888
18,373	101	91	1,764
1,000	41	51	729
4,916	27	25	675
28,401	94	106	1,902
6,509	62	98	1,895
2,673	42	54	814
3,275	38	49	922
13,842	55	76	1,598

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