CHAPTER I
THE CONTEXT

Agriculture is the science or art of cultivating the soil, growing and harvesting crops, and raising livestock. Agriculture means, a science or practice of farming, which includes the cultivation of soil for the growing of crops and the rearing of animals to provide food, wool and other products. For long, agriculture has been associated with production of crops. However, as economic development proceeded, many other occupations allied to farm production began to be considered a part of agriculture, and at present, it includes, besides production of crops, forestry and animal husbandry. Thus, milk, meat and wool are as much agricultural products as are wheat, rice and cotton. We therefore, use the word ‘agriculture’ to include every industry, which aims at producing crops and vegetables or rearing animals by the cultivation of the soil.

The most encompassing use of the word-agriculture also includes the processing, distribution and service industries; i.e., food manufacturing. The study of agriculture and agrarian life includes among other things; geographical features-land form, soil, fertility, climate, and production; zamindari system; agriculturist classes and their changing relationships; standard of agrarian living; indebtedness; migration trends; rural unemployment; methods of cultivation; implements; irrigation system; agricultural technology; mechanization; commercialization of agriculture; prices; transport; trade in agricultural produce; expanding markets; growth of mandis, retail food stores, grain elevators; and

4 B.V. Narayan Swamy and P.S Narsimhan, The Economics of Indian Agriculture, Rock House and Sons Publication, Madras, 1934, 1.
As a general term-agriculture includes most of the activities associated with cultivation, exploitation and breeding of plants and farm animals and also the scientific and technological study of agricultural processes and the means of increasing production.

Agriculture has always been the principal occupation of the Indian people. From very early times it has been regarded as an important branch of ‘Archa’ (economics), the other being trade and cattle rearing. The term ‘Verta’ (livelihood) was well known, and although there were many references to officers, merchants and artisans, the economic life of northern India was chiefly agriculture in the ancient period, as it is even today. The importance of agriculture was recognized in both religious and secular society. According to Kalidasa, even the ‘rsis’ utilized land for the purpose of cultivation and produced different kinds of corn for their own maintenance in the fields adjoining the ‘Asramas’. Agriculture was an integral part of the Vedic economy. The very word ‘Arva’ is said to be connected with krishi. In early times the word ‘karsi’ was used for cultivating the soil. ‘The word ‘karsi’ is derived from the root ‘krs’ meaning to till by plough. Nevertheless, its meaning is not confined to tilling or ploughing, sowing, reaping, and threshing alone.’ Agriculture products came to be used as currency in the Vedic period and

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7 There is a dictum in ‘Bhagwadgita’ about agriculture, ‘Krishi, Goraksha, Vanija, Vaishyakaram Shawbawjam, which means, agriculture, animal husbandry, trade and industries are the pillars of rural economy. C.B. Mamoria, Agricultural Problems of India, 279.


9 Sachindra Kumar Maiti, Economic Life in Northern India in the Gupta Period, Moti Lal Banarsi Dass, Delhi, 1970, 96-100.

formed an important part of the Vedic economy in ancient India.\textsuperscript{11} Indian geographical conditions were so suitable that every sort of crop could grow. Agriculture was the main stay of Indian economic life. India was, as she continues to be, an agriculture country, and a vast majority of her population depended on agriculture whether directly or indirectly. The land was extremely fertile and its productivity was extra-ordinary. It was equally vast and almost limitless in extent. The great-cultivated expanse of plains, valleys and hills-slopes of India has been created in the course of a stubborn struggle against nature, which the Indian peasant has carried on for thousands of years. Forest and waste have been treated, recovered and again retreated, in an endless cycle, before his hoe and plough. Every period in Indian history has had, therefore, its forest line and desert frontier, besides it political and military boundaries. For the study of Indian history in any of its aspects, this boundary line between man’s domain and nature’s is obviously of great importance.\textsuperscript{12} It has been rightly observed ‘at the head of all science and arts, and the head of civilization and progress stands not militarism, the science that kills, not commerce, the art that accumulates; but agriculture the mother of all industries and the maintainer of human life.’\textsuperscript{13}

Agriculture is the one great occupation of the people. India gives 71 out of hundred persons to agriculture or pasture. “In the early twentieth century, the soil supported 226 out of 315 millions, and 208 millions of them got their living directly by or depend directly upon, the cultivation of their own or others fields”.\textsuperscript{14} This proportion was 65 percent in 1872, 61 percent in 1891, rose to 66.5 percent in 1901, to 72 percent in 1911 and in 1921, was about 73 percent. In 1931, 75 percent of the peoples derived their livelihood by cultivation. In 1951 too, more than 70 percent of the people were agriculturists.\textsuperscript{15}

\textsuperscript{12} Irfan Habib, \textit{Agrarian System of Mughal India, 1556-1707}, Oxford Press, London, 1999, 1, (Reprint, originally published in 1963)
\textsuperscript{13} \textit{The Indian Central Banking Enquiry Committee}, n---p, 1931, 39.
\textsuperscript{14} R.P. Dutt, \textit{India Today}, People’s Publishing House, Bomboy, 1847, 117.
\textsuperscript{15} \textit{The Agricultural Administration Committee}, n---p, 1958, 1.
A brief review of existing literature on agriculture would serve as a good starting point for the present work. The existing secondary sources can be broadly categorized into four groups. In the first category are the books of modern Indian history and regional studies, which have some brief references to agriculture, like Sumit Sarkar, R.P. Dutt, Ian Talbot and Richard G. Fox. The second category is of those works, which have chapters on cultivation and associated themes like D.R. Gadgil, Bipan Chandra, G.S. Chhabra and B.S. Saini. In the third category, are books directly related to agriculture and agrarian history like C.B. Mamoria, George Blyn, H. Calvert, M.L.Darling, Himadri Banerjee, Mufakharul Islam and Imran Ali. In the last category, theses, dissertations, and research articles are included, which relate specifically to the south-east Punjab, the area which is the focus of the present research.

By way of an illustration of the first category, we may take up Sumit Sarkar’s, *Modern India* (2001) which focuses on political developments from 1885-1947 and refers to commercialization of agriculture, production and some legislation, but on India as a whole and rather briefly, since it is not the main theme. R.P. Dutt in *India Today*, (1947) talks of the over pressure on agriculture, stagnation and deterioration of agricultural activities, the British capitalist policy, neglect of development, low level of production but again it is a picture of India as a whole and does not provide detail for an overall study. Ian Talbot in *Punjab and the Raj, 1849-1947*, (1984) refers to the Punjab and its people, the Unionist Party and Punjab politics, the British desertion of their allies, but he focuses on the political relations and there are only some minor references to agriculture in the region. Richard G. Fox in his book namely *Lions of the Punjab: Culture in the Making*, (1985), primarily a social anthropologist, shows how the capitalist world system penetrated the economy of the Punjab and how it led to the emergence of a class of petty commodity producers. He discusses colonization and its socio-economic results namely migration and the emergence of wage labour but does not take up a study of agriculture as such.

In the second category, are books like D.R. Gadgil, *Industrial Evolution of India, 1860-1939*, in which few chapters on 'agriculturists' in four phases are taken up, 1860-69, 1880-95, 1895-1914, 1914-39. It also refers to agriculture. He is taking up some aspects of agriculture like, agrarian standard of living, growth of cotton cultivation, agricultural produce, prices of crops, poverty and debt, land tenures, effect of famines, agricultural improvements, communication, limited government action and legislation, agricultural statistics and brief reference to Punjab, United Provinces, Central Provinces and Bombay.\(^{19}\) Bipan Chandra, in his book, *Rise and Growth of Economic Nationalism*, (1977) refers to the main aspects of agriculture like British policy, transformation, and legislation as part of the theme, but covers the period 1880-1905 only.\(^ {20}\) G. S. Chhabra's *Social and Economic History of the Panjab, 1849-1901*, (1962) which analyses, the resources of the Punjab, people, their life and manners, education, industries, communication, trade, the financial system and general prosperity. In a chapter on agriculture he discusses the land revenue system, indebtedness, uneconomic holdings, but he covers only the period between 1849-1901.\(^ {21}\) B. S. Saini's work *Social and Economic History of the Punjab, 1901-39*, (1975) begins with an account of the natural resources, and then moves on to give information of the social institutions, industry, trade, co-operative movement, agriculture and irrigation, indebtedness, communication and finance.\(^ {22}\) By and large, both the works on the Punjab region uncritically reproduce government sources, and give a general view of the social and economic conditions of the Punjab, but barely touch upon the agriculture of the south-east region.

In the third group of works, we may look at C.B. Mamoria *Agricultural Problems of India*, (1976) which gives some information regarding irrigation, mechanism of agriculture, agricultural marketing in India and rural unemployment. The work is not concerned with the Punjab, but India as a

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whole, and emphasizes on the post partition period. 23 George Blyn’s, Agricultural Trends in India, 1891-1947; Output, Availability and Productivity, (1966), analyses agricultural trends in India for the period 1891-1947.24 He takes up eighteen crops and shows how increased agriculture production, especially in the Punjab, was the outcome of extensive cultivation and how the development of irrigation and introduction of new varieties resulted in an increased yield. The work focuses on a particular aspect of agriculture and once again, has an all-India context. H. Calvert, in his book, the Wealth and Welfare of the Punjab: Being Some Studies in Punjab Rural Economics, (1936), takes up development of the region and shows how the construction of canals, communications and irrigation, stimulated production, increased trade and brought into existence a wealthy professional class.25 He presents some inter-related aspects of agricultural development but not a complete analysis to underline the situation of the Punjab. The work focuses largely on central and western Punjab and leaves out the south-eastern tract from any detailed discussion. From the point of the present work therefore, there are several limitations of this work. M. L. Darling, in his major work, The Punjab Peasant in Prosperity and Debt, (1934), studies the nature, extent and causes of agricultural debt, and the specific condition of different regions. He highlights agricultural development, underlining what he calls ‘close connection between prosperity and debt’, in situations where peasants live in primitive or backward conditions. He regards indebtedness for unproductive purposes as evil, and in some other situations holds prosperity as the cause of debt while laying stress on the ‘increasing expropriation of the peasant proprietor by the moneylender’. He tends to overlook the exploitative nature of British rule itself.26 Darling also focuses on the central and the western part of the Punjab in his work and rarely

discusses the south-east tract. In his second work, *Wisdom and Waste in Punjab Villages* he gives some description of the south-east region but largely concentrates on the rest of the Punjab.

More recently, Himadri Banerjee in *Agrarian Society of the Punjab, 1849-1901*, (1982), gives an account of the agrarian situation at the outset of British rule and traces the changes in the social framework of the agriculturists. He discusses the programme of land settlement, commercialization of agriculture, canalization and colonization, the growing predominance of moneylenders and the changing relationship between peasant groups and the *kamins*. The work however, does not go beyond 1901 and concentrates on the central and western Punjab in its details, generally leaving out the south-eastern areas or providing brief information on them.\(^{27}\) In a work on *Irrigation, Agriculture and the Raj: Punjab*, (1997) A, Mufakharul Islam, a Bangladeshi scholar, has made a detailed study of irrigation by canals and the other sources, including their financial aspects. He refers however, to cash crops only cotton, sugarcane and oil seeds. Furthermore, his work is limited to irrigation and cropping pattern, with no account of the agriculture in south-east Punjab.\(^{28}\) Imran Ali, *Punjab Under Imperialism, 1885-1947* (1989) describes canalization and colonization of the Punjab in some detail with no references to the south-east Punjab except in a few tables.\(^{29}\)

In Chattar Singh’s book, *Social and Economic Change in Haryana*, the author deals with factors of social change, social and occupational mobility, changing social relations in rural community, factors of economic change, changing agrarian relations, British experiments in Haryana and, emerging new life style. Based on archival source material, it is a pioneering research work. However, the limitations of this work are that agricultural production, the indebtedness, system of agriculture; agricultural implements remain untouched.


After all, the period, taken by the author, was only nineteenth century. In a 
recent publication, Mridula Mukherjee, in Colonializing Agriculture deals with 
the peasantry, in four chapters. These are as peasants as tax payers, peasants 
as debtors, peasants in the market, peasants as classes. She also highlights 
capital accumulation and investment in the Punjab and eastern India. By a 
comparison of both regions the author reveals the basic colonial policy was the 
same. The south-east Punjab does not find much mention except in tables. 
There are no references about the irrigation system of this region. This 
pioneering research work however, raises important issues about the British 
agrarian policies.

In the fourth category K.C. Yadav, in his book, Haryana: Itihas Evam 
Sanskriti, 1803-1966 (1982), refers to economic development, indebtedness, 
Punjab Land Alienation Act, Unionist Party, and provides information on social 
and cultural spheres of the south-eastern region, which can be informative for 
the present work. He does not however, take up a detailed discussion on 
which focuses on the agriculture production of Haryana but does not talk about 
irrigation, agricultural technology or agrarian society. The period studied in the 
twentieth century only and it provides limited information. Tajinder Kaur 
describes the Famines in the South-East Punjab but does not take up a 
discussion of agricultural development, irrigation, agricultural technology and 
covers only the period 1901-47. Among short studies, the most relevant is by 
Prem Chowdhry on “Customs in a Peasant Economy: Women in Colonial 
Haryana”. In this article, Prem Chowdhry discusses dominant caste and 
peasant ethos, socio economic conditions: their significance for women, and 
colonial view of women of the south-eastern part of the Punjab province. In her

(Reprint, originally published in 1982).
31 Rajpal Singh, Agricultural Production in Haryana, 1901-66, Unpublished Ph.D. Thesis, 
Kurukshetra University, 1995.
32 Tajinder Kaur, Famines in the South-East Punjab, 1901-47, Unpublished M Phil Dissertation, 
33 Prem Chowdhry, ‘Customs in a Peasant Economy: Women in Colonial Haryana’, Kumkum 
second article, on ‘Advantages of Backwardness: Colonial Policy and Agriculture in Haryana’, Prem Chowdhry highlights the agrarian policy of British rule in Haryana. Animal Husbandry and recruitment policy is also discussed. However, she does not touch cultivated area, production, and agrarian life of the south-east Punjab. Though important and useful in their respective themes, these works are limited to studying one specific aspect of the agrarian scene in the south-eastern tract during the colonial period. Nevertheless, they contribute significantly to the study of social and economic aspects in Haryana region.

III

The Punjab strictly speaking, refers to the country between the rivers Jehlam in the west to river Satluj in the east. The Punjab as an administrative unit under British rule was much larger. The territory which remained in the province most of the time extended from the Sulaiman Range in the west, which separated it from Afghanistan, to the western bank of the river Jamna in the east, and had a long boundary with the North-Western Provinces which later on came to be known as the United Provinces. Rajputana and Sindh adjoined its southern boundary: while on the north and north-east was the state of Jammu and Kashmir, which up to 1877 remained under the control of the Lieutenant Governor of the Punjab. The territory of the Punjab stretched up to and beyond the peaks of the central Himalayas and embraced the valleys of Lahul and Spiti. With its geographic and strategic location, the Punjab was endowed with abundant natural resources. The region, barring the mountainous zone, and parts of the sub-mountainous tracts, was in the main a vast level plan of alluvial origin. In composition, the soil was generally a sandy soil, which was deficient in humus, but well supplied with essential mineral constituents.

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35 The name of the province, Punjab, is composed of the Persian words ‘panj’ and ‘Ab’ meaning five waters or five rivers.  
The south-east or 'Haryana' region had poorer resources than most other parts of Punjab. This region was located away from the perennial rivers Punjab and the river Jamuna's course was along the eastern boundary of the state. The non-perennial river Ghaggar, which passed through the northern parts of this area, caused considerable yearly damage to agriculture. Small rivulets, mostly dry except during the monsoon, caused more damage. Rainfall was low and erratic, and in the peak period, July to September, there were often early local and wide spread floods. The soil was sandy and light in texture. Irrigation through wells was extremely limited. In most parts there was a paucity of sub-soil water; the level of which water was considered to be roughly about 25 feet. In many cases the water was brackish.

The present study attempts to focus on the agriculture of the south-eastern part of the Punjab province between 1858 to 1947, and includes the districts of Ambala, Karnal, Hissar, Rohtak and Gurgaon. This south-eastern area (now called Haryana) was constituted as a separate state on 1st, November 1966, as a result of the bifurcation of the bilingual state of Punjab. It therefore, demands a separate study in order to understand the developments specific to the area both economically and socially, and to recreate a 'history' of this tract. 

It is situated between 27°3' to 31° north latitude and 74°5' to 77°6' east longitude; and it is practically a level plain, 700 to 900 feet above the sea level, and with an area of 44212 square kilometers. Uttar Pradesh bounds it on the east, Punjab on the west, Himachal Pradesh in the north and Rajasthan to the south. It has the Shivalik hills in the north and the river Yamuna in the east. The river Ghaggar provides a kind of boundary to the west of the state. The area is situated towards the depressions of the Indo-Gangetic region and the soil is formed almost entirely of alluvium. Standing on the watershed of the two rivers, Indus and Ganga, the region is a vast level plain. The entire state has alluvium.

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38 Karnal District Handbook, 1961.18
39 The area of these five districts of British time presently form 19 districts of Haryana.
TYPES OF SOIL IN THE SOUTH-EAST PUNJAB

Category Nomenclature

- Loam (Changer/nordak)
- Light Loam (SEOTI)
- Silty Loam Khaddar
- Clayey Silt (SET)
- Silty Clay (Naili and Chhachra-Dakar)
- Sandy and Lomy Sand (Bagar)
- The relatively Sandy Loam
- The Sandy Soft Loam (ROHI)
- Coarse Loam (Dahar and Cheknote)
- Siwaliks (Pahar)
- Piedmont (Ghar and Kandi)
- Rocky

MAP NO 2

UNITED PROVINCE

PUNJAB

MAHENDER
of the old type, consisting of sand and clay, silt and hard calcareous concentrations, which are sometimes as big as nuts, known as "kankars".41

South-East Punjab lies almost 300 miles north of the Tropic of Cancer, and its climate is of the extreme kind, with two main seasons—winter and summer. The temperature remains low in winter up to 2°C and the climax of the season is reached on May and June when the season is hot like a furnace with maximum temperature at Hissar, 50°C. About 80 percent of the overall rainfall in this area falls between July and September, the monsoon time.42 Wind currents bring rainfall in south-east Punjab from the east and south-east. A proverb here says that 'East wind brings rain'. The winter rains, which fell around January, although some time insignificant in amount, affected very materially the prospects of the spring harvest and cultivation in the south-eastern districts suffered periodically from insufficient rain.43

Ambala district lay on the north-eastern edge of this south-eastern tract, between 30° 02' 35" and 30° 55' 45" north latitude and 76° 32' 45" and 77° 36' 20" east longitude.44 The river Yamuna in the east and the Saharanpur district of Uttar Pradesh bound it to the South-East. Prior to the independence of India, Ambala district had six tehsils, named Nalagarh, Ropar, Kharar, Ambala, Jagadhri, and Naraingarh.45 The total population of the district was 8,65,300 by the Census of 1891, and was 8,48,000 in 1941,46 and the total cultivated area was 7,25,000 acres in 1887, which increased to 7,35,107 acres in 1921-22.47 The district was named after the town of Ambala said to have been founded during the fourteenth century by an ‘Amba Rajput’, from whom it derived its name. Still another version is that the town has taken its name after the

42 Tajinder Kaur, Faminies in the South – East Punjab, 1901-47, 9, 10.
46 Census of India, 1941, Vol. VI, Punjab, 1942, 8-11.
'goddess' 'Bhawani Amba', whose temple still exists in the town. The district is usually described as submontane, and the description is correct enough as regards the Ropar, Kharar, Naraingarh, and Jagadhri tehsils; which all adjoin the Shivalik range and include a considerable area of hilly country. The soil of these tehsils is generally speaking good alluvial loam, similar in character to, though not so rich as, the soil in the corresponding tehsils of the Hoshiarpur district across the Sutlej in the north. Non-perennial streams mainly drain the district. The drainage system of the district comprises the Yamuna, and its tributaries, the Chaulang, Rakshi, Saraswati, the Markanda, Dangri and Ghaggar. There has been no problem of alkalinity or salinity in the district. The fluctuation in the frequency of annual rainfall during 1901-50 ranged from 500 mm–900 mm.

Karnal district lay on the north-eastern edge of the south-eastern part of Punjab, between, 29° 09' 50" and 30° 15' 15" north latitude, and 76° 10' 10" and 77° 17' 05" east longitude. Jind and Patiala bound the district on the east and Saharanpur, Muzaffarnagar and Meerut district, on the west. The district was comprised of five tahsils, before partition namely, Karnal, Kaithal, Panipat, Thanesar, and Gula (Guhla). It was an irregular area, rhombus, and covered an area of 3124 square miles in 1904-09. The cultivated area of Karnal was 6,52,998 acres in 1867-68, which increased to 11,11,680 acres in 1922. The population of Karnal was 8, 63,000, which increased to 9, 95,000. The district is named after the town of Karnal, which according to legend, owes its foundation to Raja Karan, the mythical champion of the Kauravas in the epic

50 Haryana District Gazetteers, Ambala, Controller Printing, Chandigarh, 1984, 4, 386.
51 Haryana District Gazetteers, Karnal, 1976, 1.
52 Ibid., 1.
54 General Report on Administration of the Punjab, for the year of ending 30th June, 1913, Superintendent Government Printing, Punjab, Lahore, 1915, 176.
56 Census of India, 1941, Vol. VI, Punjab, 1942, 8-11.
The war of ‘Mahabharata’. The eastern side abuts on the River Jamna for the southern half of its length. Yamuna and Western Jumna canals provide irrigation. The soil is silt loam, loam, and light loam. The average rainfall in Karnal, in the extreme north-eastern parganah, is about 28 inches. The fluctuation of the frequency of annual rainfall during 1901-50 was between 201mm-700 mm.

The district Hissar, lay on the western part of the south-eastern tract, between 28° 58' and 29° 49' north latitude and 75° 13' and 76° east longitude. Population of the district was 7,76,000 in 1891, which increased to 10,07,000 by 1941. The cultivated area of Hissar was 13,50,319 in 1867-68, which increased to 26,50,327 in 1922. The district comprised five tehsils namely, Hissar, Bhawani, Tosham, Hansi and Sirsa. The district derives its name from its head quarters the town Hissar, founded by Firoj Shah Tughlak in the fourteenth century, He named it after himself as ‘Hissar’ Feroza’, the fort of Firuz. It is predominantly an agricultural district. The district of Hissar is part of the alluvial or Ghaggar-Yamuna plain and its southern and western portions mark a gradual transition to the Thar Desert. The soils of this district are generally sandy-to-sandy loam in texture. In some areas, however, these are loamy and clay loam. On the basis of soil structure, the area is generally divided in three tracts; viz. Bagar, Hariana and Dadri. The fluctuation in the frequency of rainfall was between 101-500 mm.

The Rohtak district lay in the central part of the south-east Punjab, between north latitude 28° 19’ and 29° 17’ and east longitude 76° 17’ and 77°. The

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57 Reports of Revenue and Rates of Karnal District, n—p. 1878, 77.
58 Ibid., 77.
60 Census of India, 1941, Vol. VI, Punjab, 1942, 8-11.
63 Haryana District Gazetteer, Hisar, Controller Printing Chandigarh 1976, p.140
64 Tajinder Kaur, Famines in the South-East Punjab, 1901-47, Unpublished Dissertation of M. Phil., Department of History, Panjab University, Chandigarh, 1988, 8-9.
65 Haryana District Gazetteers, Hisar, 276.
district comprised four tahsils named Rohtak, Jhajjar, Sampla, and Gohana. The total population was 5,53,609 in 1881,\textsuperscript{66} which increased to 9,56,000 in 1941.\textsuperscript{67} It was situated on the confines of Rajputana, beyond the southern boundary of the Punjab proper. The district length was 62 miles, and its breadth, in the center, 40 miles. Though, Rohtak possessed no grand scenery yet the canals with their belts of trees, the lines, and a few small rocky hills in the south-west, gave the district more diversified features than were met with in many of the plains tract of the Punjab. The center of the northern parganah and extending down to Delhi and Hissar high road, run a well marked broad depression called locally the \textit{`nai nuddi}, (new river) and which was once, no doubt, an arm of river Jamna. The west of the Gohana tehsil was irrigated by the Butanah canal, while the villages on the eastern border and in the north-east of Sampla, received water by means of long courses dug from the Delhi branch.\textsuperscript{68}

The Gurgaon district was situated in the extreme south-east corner of the Punjab province. The district lies between 27° 39’ and 28° 32’ north parallels of latitude and 76° 42’ and 77° 33’ east meridians of longitudes. The name of the district is believed to be a corruption of Guru Gram, i.e. village of spiritual leader. The traditional account is that Yudhistra, the eldest of the Pandavas, gave his village to his Guru, Dharonacharya.\textsuperscript{69} The district was comprised of tehsils, Rewari, Palwal, Nuh, Firozpur and Gurgaon. It is of very irregular shape with a total area of 1946.87 square miles. The total population was 6, 88,310 in 1868, which decreased to 6,41,753 in 1891 (minus 7 percent) and increased to 7,46,208 in by 1901. Several spurs of the Aravali range traverse the district and the only tehsil, which has no hill, is Palwal. The general direction of the hills is from south-south-west to north-north-east and they exercise considerable

\textsuperscript{66} Gazetteer of Rohtak District, 1883–84, Punjab Printing Press, Lahore, 1884, 1,2,7.  
\textsuperscript{67} Census of India, 1941, Vol. VI, Punjab, 1942, 8-11.  
\textsuperscript{68} Gazetteer of Rohtak District, 1883–84, Punjab Printing Press, Lahore, 1884, 1,2,7.  
\textsuperscript{69} Haryana District Gazetteers, Gurgaon, Controller Printing, Chandigarh, 1976, 34, and see Gurgaon District Gazetteer, n—p, 1910, 1. In whose memory a tank still exists on the west Side of the road to the railway station.
influence on the agriculture of Gurgaon, Nuh and Ferozpur tehsils. The district has all types of soil, right from clay to sand dunes. They are classified into heavy of hard clay (chiknot, dakar and rohi), clay loam (narmot), sandy loam (magda), and sandy (Bhur). The soil suffers from erosions by wind and its shifting nature makes the raising of crops very difficult. In general, the soils are deficient in nitrogen and organic matter, but the phosphatic content ranges from low to medium. The rainfall is so uncertain that adherence to any fixed rotation of crops is impossible, and the crop to be sown is determined not so much by the preceding one as by the character of the season. The fluctuation of the annual rainfall was 101-500 mm.

The south-eastern region was geologically rich. The kankars were found in all districts of this sub-region, except Rohtak. Lime stones were in the Ambala and Hissar districts only. Kilns were erected only in Ambala. Nausadar was famous in Karnal while, salt, saltpeter, in Rohtak, Gurgaon and Hissar. Iron ore, copper, mica, and plumb were found in Gurgaon. Gold was the only precious metals, which was found only in Ambala and Gurgaon district in minor quantities. The only mineral products were ‘kankar’ and sal ammonic; the former was plentifully found in most parts of the Karnal district, generally in the nodular form. Sal ammonic was or ‘nausadar’ was, and has been for ages, manufactured by ‘Kumhars’ or potter of the Kaithal and Guhla ‘ilaqas’ (areas) of Karnal. The villages in which the industry was carried on were as follows: -

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71 Haryana District Gazetteers, Gurgaon, Controller Printing, Chandigarh, 1976, 34, and also see the source of footnotes of 49.
72 Ibid., 768.
73 Scientific study of the Earth, including its composition structure, physical properties, and History. Geology is commonly divided into sub disciplines concerned with chemical make up of the Earth, including the study of mineral (mineralogy) and rocks (petrology); the structure of the Earth (structural geology) and volcanic phenomena (Volcanology); landforms and the processes that produce them (geomorphology and glaciology); Britannica Ready Reference Encyclopedia, Britannica Encyclopedia Pvt. Ltd., New Delhi, 2006, 143.
Manas, Gumthala, Karnal, Siyana, Saiyadan, Barna, and Bundrana. About
2300 maunds (84 tonnes) valued at Rs. 34500 were produced annually.74

The Administration Report showed the following mines in Rohtak District:
"Labadpur and Silanah, 1315 beds for evaporating 125000 maunds of *khari*
salt, and 313 pans for making 31300 maunds of crude saltpeter. Singhpura,
two mines yielding 600000 maunds of soft banker of superior quality used for
making lime. Mindra, Shadipur, and Buria were quarries of building stone."
Saltpetre was extracted from the earth of old sites in all parts of the district.
The mineral wealth of Rohtak consisted almost solely of *kankar*, which was
found in most parts at a moderate depth below the surface, and proved a fatal
enemy to the growth of trees in most parts.75

There were ten clusters of villages' south-west of Delhi, situated partly in
the Gurgaon district and partly in the Rohtak district, where manufacturing of
salt by the evaporation of brine raised from the wells had been carried on from
a period long antecedent to British supremacy. They were known as the
Sultanpur Mahal, were spread over an area of 20 square miles, comprised the
villages of Sultanpur, Saidpur, Muhammadpur, Sadhrana, Kaliwas, Ikhalpur,
Mobarikpur, Bassirpur, Zahidpur, and Silanah. The salt was called Sultanpuri
and was of good quality, containing about 90 to 95 percent of sodium chloride.
Iron ore existed in the hill range near Firozpur and at Patan Udepuri, a few
miles south of Firozpur; in the time of the Nawabs of Firojpur the on the hills
were rigorously preserved and the ore was worked and smelted at Firozpur,
there were 22 furnaces at work, each of which could turn out two maunds of
iron in 18 hours. Traces of copper existed in the range east of Firozpur on the
road to Rewari. Mica was found near Bhundsi, and was occasionally extracted.
In 1861, the late Dr. Thomson, Civil Surgeon of Gurgaon, reported the find of a
deposit of plumbago near Sohna. Mr. Hacket, Geological Surveyer, described,
"When examining the schist's, the Sohna lambardar told me that after every
rain, small quantities of gold were discovered in the sand, mud, and co., of the
little water-courses at the bottom of the hill."76

The minerals included Kankar, or argillaceous lime-stone in nodules, was found in many localities throughout Hissar district. Soft Kankar, fitted for making lime, was dug in villages Barawa, Rawasa, Chhapar Kalan, Katwar, Dhana Narsiyan, Kharkhari, Sindhar, and Ratiya. Saltpetre was manufactured by evaporation in the villages to Talu, Muhammadpur, Mahamra, Shakarpur, Himmatpura and Bahuna. The Saltpetre was not refined in the district, but exported in the rough, just as it left the pits.\(^{77}\)

Gold was said to be found in minute quantities among the sand washed down by some of the streams in the Kharar tahsil in Ambala district. Lime was the only mineral product of any practical importance. Lime stones were brought down by the streams from the hilly and deposited, which were collected and burnt for lime. The kilns were erected in the lower hills, where wood and stone were abundant.\(^{78}\) In some places, the kiln consist merely a hole dug in the ground.\(^{79}\)

The south-eastern region had a rich fauna and flora.\(^{80}\) There were several trees, which were common in all parts of south-eastern area: The kikar (Acacia Arabia), pipal (Ficus religsa), tut (Mulberry), faras (Tamarix), am (Mango), nim (Melia azadirachta), jaman (Sizygium), dhak (Butea frondesa), dab (Sacred grass), khajur (Wild date palm) and nagphani (Cactus indicus).

The Ambala district was considered to be among the best in the Punjab for the sport of several kinds. Game may be readily found in every part of it, but was especially plentiful in the neighbourhood of Kalesar, in the jungles of the Pipli tahsil north of Thanesar, and the Morni forest of Kutaha. Tigers were even found in the lower ranges of the Siwalik Hills. Leopards and wolves were common in the same locality. Hyenas and wolves were only too common everywhere. Sambhar were as great a plague to the Kutaha hill villages as were black-buck in the plains. Chitals, ‘kakar’ or barking deers were found in the

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\(^{77}\) Gazetteer of the Hissar District, 1883-84, Arya Press, Lahore, 1884, 6-7.

\(^{78}\) An oven for baking or drying clay or bricks.

\(^{79}\) Gazetteer of the Ambala District, 1883-84, Arya Press, Lahore, 1884, 13 (cited hereafter DG).

\(^{80}\) All species of plants that are found in a particular region, period, or special environment. Encyclopedia, Britannica, 55.
districts. As to fishing, ‘mahasir’ abounded both in the Sutlej and the western Jumna Canal. Rewards were also given for killing wild animals.

The flora, in the Ambala district, included the Mango, common in the southern portion of the districts. The other indigenous trees were *siris* (*Acacia Sirisa*), *sal, bargat* (*Ficus indica*), *simbhal* (*Bombax peptaphyal*). The *sal* was found in the Siwaliks. The Chhachhara jungle was formed exclusively of *dhak* trees, the Morni jungles of rough scrub with a few bamboos and chil (*Pinus Longifolia*).

In the Karnal district, the dense jungles in the northern parts, and the presence of the canal, made Karnal an unusually good sporting district. Black buck, ‘nilgae’ and ‘chikara’ were found in all parts of the district. Grey partridge swarms were found throughout the jungles. Duck and snipe were also found. Tigers were uncommon whereas wolves were common all over district. The common red monkeys were also there. ‘Saras’ and ‘Kulan’ cranes were found in the cultivated tracts. In spite of this, crocodile and snakes were also found. Fish were also found in the Jamna and in the village ponds.

The flora included, the shrubs included the ‘jai’ and ‘kair’ grew gregariously all over the higher poor parts of the tract. The fruit of the former was called ‘pilu’. The *jand, hing* and *hingo, ami, thchar*, also found there. The best fodder grasses, in order of merit, included, *dubh, polwan, gandh, sarala* and *rus*.

The fauna in the Rohtak district was famous one. Animals were also the same as there in the adjacent districts. Camels were fewer, horse was not common, and horse breeding was rare. Among the wild beasts, wolves were some times seen; foxes, jackals and wild cats abound in jungles. Snakes were cobra and karait the former of great size. Of game, black buck, ‘chikara’

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82 During the last five years 1865-70, the amount of Rs. 620 have been given for the destruction of 2 tigers, 16 leopards or panther, 1 bear, 136 wolves and 271 snakes.
83 DG Ambala, 1883-84, 13.
84 DG Karnal, 1883-84, 1884, 12-14.
85 Ibid., 14.
(ravine deer), and ‘nilgae’ (called by the people rojh), black partridge, peacocks, pigeons, were also found in this tract.\textsuperscript{86}

In the fields, the commonest trees were almost self sow, and \textit{shisham} usually required to be planted. \textit{Jand} (Prosopis spicigera), \textit{nim-bhur or nim bher} (Zizyphus), \textit{jal} (Salvadora oleoides) \textit{khair} (Acacia catechu), \textit{hingo} (Balanitis aegytiaca). The grasses were locally called \textit{chapur}, \textit{sanwak}, \textit{makra}, \textit{palua} and \textit{gandhi}.\textsuperscript{87}

In Hissar district, leopards were occasionally met with, hyenas, wolves, jackals, foxes, and porcupines were common. \textit{Nilgae}, blackbuck, ravine deer, and pig were prevalent throughout the district, especially in the government \textit{bir} (farm). Hares were also found everywhere. Peafowl, half-domesticated, were common around the villages. Altogether Hissar was one of the best shooting districts in the province.\textsuperscript{88}

\textit{Siras} and \textit{shisham} were also to be met with here and there. The shrubs in the brushwood, which covered so great a portion of the district, were the \textit{jal} and the \textit{kair or karil}. The fruit of these shrubs, called respectively \textit{pilu} and \textit{tend berries}, played and important part in the diet of the common people. \textit{Jharberi} was a useful shrub in this tract.\textsuperscript{89}

The Gurgaon district, however, it was not well wooded, and some portions of it, such as the low-lying tract in Nuh, were peculiarly bare of trees. The \textit{kabli kikar} (Acacia Farnesiana) were also common. The \textit{imli} (Tamarindus Indica), \textit{am}, the \textit{bakain} (Melia sempervirens) and the \textit{amaltas} (Catharto-Carpus fistula), the \textit{ber} (Zizyphus jujupa) were in the list of fruits. \textit{Jharberi} was the most characteristic plants of the district. The \textit{Jhau} (tamarix dioica), \textit{bathua} (chenopodium album) and \textit{chaulai} (Amaranthus) were common. Nagphani (Cactus Indicus), which formed a thick hedge round many villages in Rewari was known to this area.\textsuperscript{90}

\textsuperscript{86} DG Rohtak, 1883-84, 1884, 12-15.
\textsuperscript{87} DG Rohtak, 1883-84, 1884, 14-15.
\textsuperscript{88} DG Hissar, 1883-84, 6-7.
\textsuperscript{89} Ibid., 7.
\textsuperscript{90} Ibid., 10-19.
Tiger, the panther (*taindua*), wild cat (*banbilla*), Hyenas (*jarag*), wolves (*bheria*), foxes (*lomri*), and jackals (*gidar*) were common in all parts of the district. A nilgae was also common in Rewari. The birds included, water fowl, the *saras* (cranes), the comb nuck (nakta), pea-fowl, wild or blue pigeon, wood pigeon, the *lik* or painted florican. Tortoises were also found in the Jamna. Snakes appeared only in the hot and rainy season. Lizards were also there. Firozpur had a few species of small fish of the *ophiscipali* (*saol*) and macrons (*tengra*) species peculiar to muddy and stagnant waters.91

IV

The south-eastern tract, of the Punjab was included in Mughal territory up to early nineteenth century.92 On December 30, 1803, Daulat Rao Scindia ceded the region of ‘Haryana’ to the British East India Company through the Treaty of Sarjairjangaon.93 The British organized this region under two heads- as assigned territory under direct rule, and the territory given to the ‘feudals’.94 Assigned territory was by the side of the Yamuna and lay 60 km in north and 60 km south from Delhi. It comprised, in the north of Panipat, Samalkha, Ganaur,

91 DG Gurgaon, 1883-84, 1884, 10-19.
92 The origin of the name of Haryana is traced to different sources and has been explained in several ways. According to one view ‘Haryana’ is derived from ‘Hari’, which indicates that at one time it was a rich and fertile land. The name may have originated an account of the fact that dense forests (Haryal-Ban) at one time covered this region. G.C Avasthi gave the opinion that Varuraja who ruled over this tract used, ‘Haryana’ as a qualifying objective and the areas came to be known as such. Rahul Sankritiyana, a reputed scholar, held the name to be corrupt for of ‘Hari dhankya’ a term used in ancient literature for this area. Budh Prakash connects ‘Haryana’ with ‘Abhirayana’, as the region was populated by the Ahirs during the post Mahabharata period. H.R. Gupta defines ‘Haryana’ is a corrupt form of ‘Aryana’ the home of the ‘Aryanas’ as Rajputana is the land of inhabited by the Rajputs. D.C Verma, *Haryana*, National Book Trust, New Delhi, 1975, 12-13.
Hawely Palam, and Sonipat, and in the south of Palwal, Nuh, Nagina, Hathin, Ferozpur-Jhirka Bhada (big), Tapu Kada Sohna and the parganahs of Rewari. By this arrangement, the British had two benefits, firstly the friendship of the 'feudals' was maintained and secondly, a buffer state was created between British territories and those of the Sikhs and the 'kings' of Rajasthan.  

After 1809, the administrative system was placed under the Resident. In 1819, civil administration was entrusted to a Commissioner and the assigned territory was then organized into three divisions, where the assistants of the commissioner worked. In 1825, civil administration was again given to the Resident, but four years later a bifurcation again became necessary. This administrative system carried on up to 1833, when British possessions in India were broadly divided into two parts, Bengal and North West Province, with Agra as its head quarters. It had six divisions, one of them being the Delhi division, comprising of the six districts, called Panipat, Hissar, Gurgaon, Rohtak and Delhi, each under a District Magistrate' cum- Collector.  

After 1857, the area was re-organized. In February 1858, when the Act of 1858 No. 38 was passed, this region was separated from the regulation districts and joined to the Punjab under the administration of Sir John Lawrance. With this Act, the British Crown directly assumed the administration of this region. A Chief Commissioner at the Provincial level, assisted by a Financial Commissioner and Secretaries, organized the administrative arrangements under the crown; three upper Secretaries, a Registrar and a Mir Munshi assisted the Revenue Secretaries. At the local level, the administration was organized by a Division Officer, assisted by an Administrator for the maintenance of Peace, Health and Education Officers, and assisted by a Tehsildar. At the village level, there were the villages Lambardars, Patwaris and Chowkidars.  

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In the early nineteenth century, agriculture was the chief means of livelihood of the people of south-east Punjab and land revenue was the chief source of income for the government. The government, therefore, took a serious interest in agrarian conditions soon after they assumed power. Land revenue was fixed arbitrarily and was generally half of the total produce, or even more. The farmers were neither consulted nor their consent obtained in any way. In fact, with the Settlement Officers, at that time, the law of compulsion mostly worked its way. The testimony of the later Settlement Officer admits that when the early Settlements were made, headmen of villages were virtually imprisoned till they agreed to the terms offered and furnished security for payment. The people of this region depended largely on rainfall in agricultural pursuit, and were not able to pay the land revenue at a high rate.

The District Gazetteer of Hisar gives interesting details about that district:

“The demand of the first settlement from 1815-25 was so high that is exceeded by almost 20 percent the revenue which has in 1890 been fixed for the same villages; but all though it was and

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though the actual collections came to have decreased, the demand was increased in the second and Third Settlements to such an extent that the assessment fixed the same tract in 1890 is 32 percent less that the average demand for the last five years of the Third Settlement, viz Rs. 488609.”

Lack of resources and the means of irrigation constrained the efforts of the cultivators in the south-eastern Punjab. Only 34.9 percent area was irrigated by canals, wells, and ponds etc., as compare to the Punjab of 57.5 percent. This made the condition of the peasants still worse, with the result that many of them were ‘obliged to leave their hearths and homes’. The position at Thana Kalan in Rohtak district in the late 1820s, clearly illustrates this situation. The Government’s share in the Kharif harvest was equal to that of the peasant while at the Rabi harvest, it exceeded that of the farmer. In fact, the government’s annual share by way of land revenue was more than the peasant’s share.

Table: 1.1

<table>
<thead>
<tr>
<th>Crop</th>
<th>Land Production</th>
<th>Price Production</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acres</td>
<td>Maund</td>
<td>Maund</td>
</tr>
<tr>
<td>Kharif</td>
<td>869</td>
<td>5913</td>
<td>7503</td>
</tr>
<tr>
<td>Rabi</td>
<td>668</td>
<td>7279</td>
<td>7134</td>
</tr>
</tbody>
</table>

In spite of applying coercion of the worst type, the Government could not collect their full dues. Consequently, between 1811 and 1818 the amount of the land revenue increased in the south-eastern area by 74 percent, while the outstanding balance by 2568 percent. As seen in the following table covering the period from 1811-1818.


103 This table presents the statistics of 174 agricultural families whose income is 5018. It means the income of a ‘family’ is approximately 23 Rs. per annum i.e. less that 2 Rs. per month.
Table: 1.2  
Land Revenue Increase in South-Eastern Districts, 1811-1818.

<table>
<thead>
<tr>
<th>Year</th>
<th>Land Assessment in Rupees</th>
<th>Outstanding balances</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rs.</td>
<td>Annas</td>
</tr>
<tr>
<td>1811-12</td>
<td>987030</td>
<td>11</td>
</tr>
<tr>
<td>1812-13</td>
<td>1039560</td>
<td>0</td>
</tr>
<tr>
<td>1813-14</td>
<td>1256502</td>
<td>12</td>
</tr>
<tr>
<td>1814-15</td>
<td>1215470</td>
<td>13</td>
</tr>
<tr>
<td>1815-16</td>
<td>1388978</td>
<td>0</td>
</tr>
<tr>
<td>1816-17</td>
<td>1701663</td>
<td>0</td>
</tr>
<tr>
<td>1817-18</td>
<td>1723691</td>
<td>0</td>
</tr>
</tbody>
</table>

For many poor farmers the accumulated revenue debt proved to be an unbearable burden. Consequently, they became defaulters and had to visit jail four to five times, in a matter of a few years.104

The south-eastern districts like Hissar, Rohtak and Karnal presented a different picture largely because of the abundance of cultivable waste and scarcity of population. Zamindars had larger holdings and there were general cries for cultivators to bring this waste under plough. Occasionally zamindars were rewarded with a bumper harvest, but ‘good years were few and bad years were many’ Above all, there was frequent anarchy leading to desertion of cultivators from their ancestral holdings.105

The government stand was that from the earliest times, public assessment had never been fixed and according to established usage and system, ‘the rulers have exercised a discretionary and despotic authority’, and the tenants and cultivators of the soil have been exposed to rapacity and oppression.106 The British Government had, therefore, decided that in order ‘to induce the cultivators to feel secure and extend their efforts, a three years

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106 S.R. of Rohtak District, Lahore, 1872, 101-03.
settlement was made with them which was to be later followed by a second, for the same period and then by one of four years. The British, therefore, manipulated the practice of earlier times to consolidate their position and loot the resources of this region.

V

The present research work is about the regional context because region is the most powerful cultural identity. It represents a community, which broadly shares a common history, language, culture and ethnicity. Regional and national consciousnesses are two sides of the same coin, and complement each other. Regional studies have long been neglected by historians who were primarily interested in subjects of wider sweep. The importance of regional studies specially for a people who have suffered so long continue to struggle to find their identity can not be gainsaid, but this has to be pursued not in isolation but in relevance to the general historical growth of the country. Haryana’s contribution to the main stream of Indian History and culture has been remarkable. To the literary and historical tradition it has always been the land of plenty and ‘very heaven on the earth.’ Regional history therefore, is a very fruitful exercise as it affords full opportunities for the exploitation of regional source material of multifarious nature. All the same an objective approach and disciplined methodology (which tried most in this work) of historical research might caution against parochialism and chauvinism. The historical canvas might be much wider wherein regional diversities and identical features with the neighborhood and on India level have to be clearly underlined. The regional concept is an essential part of a landscape and of a large whole. Not withstanding regional bias, elements of a continuity and change in the socio-economic formation from one phase to another may be equally discerned.

This work is an attempt to study the agriculture in the south-east Punjab and identify the broad trends in agricultural development. The south-east Punjab, has a distinct geographical identity as a sub-region, and has been

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107 SR of Rohtak District, Lahore, 1872, 101-03.

predominated by agriculture; it has generally been seen as 'backward' in comparison to the rest of the Punjab. The study of agrarian social groups, policy of the government, and agricultural progress of the south-east Punjab during the period of 1858-1947, is the primary focus.

The present study is focussed on five districts, namely, Ambala, Gurgaon, Hissar, Karnal and Rohtak. No systematic and detailed study of this region during this period has been undertaken hitherto. Hence, the present humble attempt and a detailed study of this area is imperative to complete our understanding of the social and economic history of the Punjab, especially south-east Punjab. Three maps and over fifty tables and graphs illustrate the study. Some additional information is appended.

The present study on 'Agriculture Agrarian Life in the South-East Punjab' is organized in seven chapters. Chapter one introduces the theme in terms of a brief review of literature, a district wise geography, politico-administration, background and the policy of the Company rule at the initial stage. The second chapter focuses on British agrarian policy in India, then in Punjab and lastly, in south-east Punjab in a comparative framework. The third chapter takes up the agricultural growth in the south-east Punjab. The cultivated area, cropping pattern, system of cultivation, implements and variations over time, are the main focus. The fourth chapter takes a look at the water resources of the south-east Punjab, the growth in the system of irrigation, government policy, the role of Sir Chhotu Ram, changes in water resources, and their impact. The fifth chapter deals with the agrarian relations in the society of the sub-region. The land rights, land tenure system, social background of agriculturalist castes, relations and conflict believed agricultural groups, the position of moneylenders, and the artisans and menial castes are the main focus. The sixth chapter is about the village life of the south-east Punjab. It includes, layout of village settlement, social organization, and life style: dress, food, customs, rituals, ceremonies, beliefs and superstitions, and factors of social change. The concluding chapter underlines the significant development in agriculture and agrarian life of the south-eastern part of the Punjab province.