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**Common Lands in Colonial Punjab:
Continuity and Change**

by

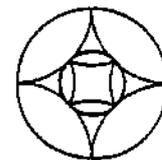
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Common Lands in Punjab

This paper will examine the history and transformation of common lands in the Punjab in the nineteenth and early twentieth century. Common lands in the nineteenth century were a category of long fallow or banjar kadim held and managed by the proprietary body or the malikan deh in the Punjab villages mainly for the purpose of pastoral and non-pastoral activities. They were therefore central to a system of village management which arranged the cultivated land in scattered strips and held on shares by the biswadars on a private, individual or family basis; and the waste in compact large holdings as communal property again held on shares. The biswadars thus held the entire land of the villages as members of the proprietary body. The common lands in the Punjab underwent change both as a category of land-use and as a class of property in the nineteenth century as a consequence of pressure on the villages exerted by factors external to them and due to internal change.

The changes in the nature and use of common lands that we will examine here are: (1) reduction in the area kept as long fallows in the village; (2) conversion of the long fallows used for pastoral activities in compact areas to one of fragmented arable or non-agripastoral use; (3) transformation from a system of communal management and control to one of private ownership and exclusive use.

The reasons for these changes will be grouped into those which provided external pressure like the institutional changes brought on by the Colonial revenue settlements, by the establishment of a system of customary law and a modern judiciary which replaced the indigenous one, and a change in the market conditions by British investments in canals and railways. Another set of pressures worked within the villages by way of population

increased cattle numbers and structural change in the relationship of the various categories of land-users within the village.

Delhi became a part of British Punjab in 1858 and continued to be so till 1911 when it became the capital of British India. The entire Province was contained between two immense river systems between the Indus and the Sutlej-Jumna Divide. Within this region the Cis-Sutlej area lying between the Sutlej and the Jumna was fairly dynamic both physically and culturally. We will take up this region for closer examination for two reasons: (a) it was chronologically controlled by the British in the first part of the nineteenth century and its pattern of settlement was influenced by the officers of the North West Provinces who later took on the governance of Punjab; and (b) the pattern of revenue administration in the Cis-Sutlej established the village community with its joint control over common lands and the institution was introduced in the Punjab after its annexation.

The Cis-Sutlej region will be divided into three broad zones running parallel to the Himalayan range in a North-West to East direction. Each of these zones contained wide variations in the pattern of village settlements at the time of British entry, hence they responded in a variety of ways to the same external stimuli.

First we will examine the impact of the Government's revenue administration and policy between 1803 and 1911. Second, we will analyze the system of customary law adopted by the Government and the manner in which the disputes over common lands were resolved by the judiciary. And third, we will conclude our analysis of continuity and change in one cluster of villages in North West Delhi between 1880 and 1986.

My story begins in 1977. I go back into history to be able to explain the background

of the series of incidents that occurred in a cluster of villages in North West Delhi.

Land-use in the Punjab varied greatly between different regions of the river systems in colonial Punjab. This variety led to a considerable degree of interdependence of areas peculiarly suited to either arable or pastoral activities. The complementarity of resources and of geographical conditions induced pastoral movements between regions. These movements were a major characteristic of certain pastoral districts like the hills of Kangra and the plains of Sirsa. The village waste was not the only source of grazing land but was supplemented with long fallows outside the village, in distant forests and riverain lands. The village itself was not an integrated eco-system but linked to the larger waste in close proximity and to those of not so near location.

The physical variety apart, it is difficult to give a uniformly detailed picture of cultivation and land-use practices simply because information is scanty and scattered. Common lands existed in the Punjab villages in the nineteenth century and then almost disappeared in some areas and persisted in others, but we do not have the data to conduct rigorous testing. We have therefore looked at the village level data from the Jamabandi files and the Khasra Girdawri Records for the cluster of villages in Delhi for information over one hundred years: 1880-1986.

The neglect to look at common lands as a category of resource in the past has resulted in a rather narrow outlook on land-use pattern within a village and over a region in contemporary India. The waste both within the boundaries of villages and those outside them have been treated as surplus land available for cultivation. This attitude towards the waste has been responsible for mistakes in policy. For example, the Rajasthan Canal has

displaced people dependent on uncultivated land for traditional grazing activity in the entire tract through which the canal is constructed. The pre-canal pattern of land-use has been ignored in favour of cultivation. This is more or less reminiscent of the developments in the Punjab Canal Colonies in the late nineteenth century where the natural land users of the Doabs were transfixed between boundaries laid down by the British Canal Officers.

Another example of treating common lands of villages as surplus land available for cultivation is the policy of making grants from the shamilat land of villages in Delhi. The grazing banjar or the long fallow in the village of Kanjhawla was steadily reduced by the Poverty Eradication Programme in the rural areas. As many as 123 grantees of common lands were allowed to lease one acre each in the 1970s, which considerably reduced the grazing lands of the village and led to an agitation by the Bisagama farmers.

The question here is not of a few acres deducted from the banjar but one of (a) tampering with a communal system of resource management and (b) insensitivity to the balance between the waste and the cultivated in the village.

State intervention here has tampered with the communal management of resources which had succeeded in the past in evolving rules to use and conserve the long fallows. The history of the Bisagama cluster shows that the common lands were a part of the organization of the village system in which the proprietary body or the Malikan deh was the custodian and manager not only of single villages but virtually of all the villages in the cluster. Kanjhawla and its twin village Ladpur had been part of an irrigation system which distributed the canal water from the Bawana cut ever since it was constructed in 1916. This has broken down since there is a lack of community arrangements. The situation is akin to

an "anarchical water regime" (Bardhan, the Political Economy of Development, 1984) which State intervention has only abetted.

Findings of the Study:

The colonial administration in the Punjab drew increasingly sharp distinctions between the arable and the uncultivated and between what was the village waste or *shamilat* and what lay outside it. Such a land revenue settlement policy cut across the waste at large whether grasslands, scrub lands or forested and established revenue estates or mauzas which were given a certain proportion of waste to the cultivated land as commonlands and in return imposed joint revenue liability on the biswadars or shareholders. This resulted in the enclosure of vast areas of waste which henceforward became a part of the circumscribed mauzas.

The legal boundaries between the waste and the cultivated area bore little relation to the technical properties of the soil or the requirements of the agricultural and village economic systems. Then artificial boundaries prevented the villages from resorting to the nearby fallows in the scrublands, grasslands and forests in normal times, and especially to long distance riverain fallows during droughts. This affected the nomadic movements in the dry tracts of Sirsa and Hissar and transhumance in the hills of Kangra. Consequently there was increasing pressure on the village waste which led to the village proprietary bodies seeking to reserve common lands for exclusive use and frequently to law courts. Pastoral districts which tried home-breeding of cattle had to abandon the attempt, while mainly pastoral areas started to combine arable with dairy farming.

Land Settlement policy was made uniform by the Punjab Land Revenue Act of 1871 and amended in 1887. This laid down the procedure of recording rights of revenue payers and other residents of the village in the common lands. The proprietary body was allowed to retain its distinctive character of revenue distribution and inheritance. This meant that each village was recorded as having any of the three tenure types -- zamindari which meant revenue paid by single landowner; pattidar which meant shareholders paying revenue according to ancestral shares and bhaiachara which involved payment by either customary shares or in proportion to the amount of land actually held. The mode of sharing the revenue burden also determined the share in the income from common assets and the share in commonlands when partitioned. These rights and liabilities were recorded in two documents called the Wajib-ul-arz and the Riwaj-i-am and they became the basis of the system of customary law initiated by the Colonial judiciary and administration.

The Revenue policy recognized communal management of resources by the village proprietary body but it also recorded the user rights of the tenants and the service groups, therefore the proprietary bodies increasingly found themselves restricted by the conditions which they had accepted in the first settlements of the village. Thus the malikan deh attempted to rectify the situation either by seeking the reservation of common lands for themselves or asking for partition of the common lands. Increasingly as the demand from the non-proprietary members of the village grew there was a move towards privatization of the common lands. They were not always successful in their attempts especially where the occupancy tenants had been able to seek the protection of section 9 clause 2 of the Punjab Tenancy Act of 1860 amended in 1887 which prevented the occupancy tenants from being

evicted in case they cultivated the shamilat.

This trend towards privatization was so universal the Malcolm Darling, writing in 1928, held that "the old communal life of the village, with its joint cultivation for subsistence rather than profit, its common pasturing and its sharing of mill, bakehouse and wine press, prevented the cultivator from being exploited, and made him to a large extent independent of the outside world. But with its collapse, in the early part of the nineteenth century, the peasant found himself caught between the capitalist farmer on the one side and the shop-keeper, half trader, half usurer, on the other." Paul Paustian, writing in 1930, asserted that he had not "been able to discover in the Punjab any definite case of village lands owned in common by all the villagers. ...these common lands are available for use only to the owners of specific portions of the remainder of the land which the village tills and the rights to use the village common lands are parcelled out in proportion to the amount of land owned in the cultivated tract."

The Government's revenue policy towards the waste became restrictive and sharp in the course of the last part of the nineteenth century. A differential revenue rate was imposed on all those villages which kept large areas fallow and those that cultivated to the maximum. Consequently concessions were given to villages in Ludhiana because there was no grazing left while elsewhere large fallow areas in villages were penalized with higher rates of revenue on the ground that profits were made from cattle. It was apparent that the value of the waste to the Government lay in extending cultivation which it could tax. Consideration such as this was bound to encourage expanding cultivation. As cultivation increased, the amount of waste receded within the villages and outside it. What is more, as

the increase in farm families, number of holdings and livestock took place there was a geometric decline of the waste in relation to the other productive factors it complemented.

The Waste land policy was initiated by the famous Wasteland Minutes of Lord Canning in 1861. This was a culmination of the debates over forest rights of the traditional users of the Himalayan ranges, stressed in the settlements carried out in the Kumaon Garhwal ranges by Beckett in the fifties and Barnes' settlement in the Kangra, 1850. Both the officers argued that the hill forests were not "howling wildernesses" available for use by European planters. However the coming of the railways in the fifties alerted the Government to preserve forests in the hills and in the plains. The prospect of canals in the sixties in the doabs had a similar effect on the attitude of the Government towards the waste in the plains in Central Punjab. The Forest Act of 1878 stated an additional reason for forest preservation, namely that of conservation and control of erosion. In reality the demand for timber for the railways and urbanization continued to be high, while the plans for afforestation were baulked for several reasons.

The construction of railways and canals through the second half of the nineteenth century led to the extension of cultivation in the large areas of waste where new villages had been set up, and in the villages there was a reduction in the area kept as long fallows for grazing. The opening of the markets by the railways and urban demand made it possible to replace inferior crops by those which would fetch better prices like sugar cane and cotton. Land used for single crops were now more intensively used while the duration of the fallows both long and short were reduced.

The Famine Commission of 1880 deplored what it called mindless extension of

cultivation without consideration for the grazing needs of cattle which made recovery from famines slow. It also led to later Famine Commissions to realize that dry districts like Hissar, Sirsa and Karnal (Nardak) depended on long distance and external fallows not in the immediate vicinity of the villages. What is more, this was necessary not only in times of drought but also in normal times.

In summary, the legalization of boundaries of villages and the removal of forests as traditional grazing areas put tremendous pressure on the village common lands. This made it very difficult for the proprietary body to evolve new rules or to maintain the customary control over the use of grazing resources in the village. Thus the British Settlement operations prevented the villages from striking a balance between the cultivation of crops and the conservation of all the other complementary resources like fodder, fuelwood, timber and a whole host of edible and industrial produce of the Punjab wastelands.

The Punjab Revenue Department was ably supported by the judiciary especially after the Chief Court of Punjab was set up in 1866. A very large part of early legislative activity of the Government was due to this apex court. The Punjab Laws Act of 1872 owed its origin to the Chief Court expressing concern at anomalous situations created in a Province where a large part of the rural population was guided by the customs which it followed. The Punjab Government therefore opted to govern by the customs of the people, hence the laws of inheritance and ancestral property were those obtained by the declarations of tribes at times of revenue settlements. Common lands came under the purview of customary law and the customs of both ownership and user were recorded in the documents for the village and the tribe in the Wajib-ul-arz or the Village Administration Paper and the Riwaj-i-am or

the *lex loci* of the tribal customs in the districts.

In the course of the nineteenth century several court cases came up in appeal to the apex court of the province which indicated the importance of property rights in land. Common land cases decided by the Chief Court bear testimony to the degree of importance attached to rights in common land. The increasing trend towards partition of common lands and the frictions involving the different sections of the village clearly indicated the growing pressures exerted by expanding population urbanization, rising land values and changing patterns of land-use. The Chief Court supported the village proprietary body in its attempt to manage the common lands, but there was a discernible sympathy for the individual rights of all classes in the village. However the Court took care not to allow the complete partition of common lands if that threatened to affect the principle of joint revenue liability settled by the revenue officers.

The impact of a modern legal system even though based on customary law reduced the indigenous system of law and decision-making to the recorded and fixed points of law and precedents. This process made customary law less flexible and the judicial authority of the panchayat in matters of common land management almost negligible.

Canals and Common Lands:

We will now take up one aspect of British Government policy in order to demonstrate its influence on those aspects of land-use which built up pressures on common lands in the villages of Punjab. We will examine the Government's wasteland policy in the context of its own investments in canals and railways in the latter part of the century.

The British investment in canals and railways led to the colonization of vast tracts of waste both in the Cis-Sutlej and the Doabs of Central Punjab. This required large movements of population from the densely populated tracts of the sub-montane to areas where the semi-nomadic tribes had eked out a semi-pastoral existence. The Western Jumna Canal was re-aligned in 1883 and the Sirhind Canal was ready by 1887. There were other major canals which irrigated the great Doabs of Central Punjab. Several inundation canals from the Sutlej and the smaller rivers were also able to provide irrigation to the districts of Karnal, Sirsa, Hissar, Ferozepur and Jhang towards the end of the nineteenth century.

These districts were desolate at the time of British entry in 1803 in the Delhi region and in Punjab in 1847. They were peopled in large parts by semi-nomadic tribes as in Sirsa and in the central parts of the doabs. There was settled agriculture particularly along the riverain areas of the Ghaggar, Sutlej, Chautang and Nye, and the temporary settlements of the semi-nomadic pastoralists. In the settled villages there was cultivation in strips individually held with compact large holdings for grazing. In some districts like Gurgaoan there was a practice observed in some villages known as the pana palat whereby the good and the bad fields were exchanged every few years among the holders.

Generally the Jats settled down to agriculture, although their origin too was said to be pastoralist, while the Rajputs and the Gujars and the Bhattis were pastoralists in the main. The east was important to both sedentary agriculture and to the nomadic pastoralists and since the boundaries of settled cultivation was not very sharply defined, large movements of cattle in the waste at large and in the riverain areas was noticeable, particularly in the south West and in the Doabs of the river systems.

As has been said earlier the waste in these districts were demarcated and settled on cultivating communities. At the first settlement of districts like Sirsa the people had hardly come out of their pastoral background and usually put in a demand for large areas of waste intervening patches of cultivation which was claimed by them as being in their possession for long. But the waste was assigned to them as a percentage of the cultivated land in their possession. This resulted in the grounding of the Mussalman grazier who took to sedentary agriculture. The waste was limited to the village common lands but the long distance fallow continued to be important especially in times of drought.

The introduction of canals in the late eighties and the nineties made a dramatic impact on the expansion of cultivation in the dry districts and thereby to a reduction of the waste at large and that held in common in the villages. The Government's policy with regard to the waste became more sharp and restrictive. Consequently there was a general move from the pastoral to the arable but there continued in certain areas a movement towards adjustments in pastoral activity to suit the conditions of restricted grazing common lands. In times of famines such adjustments became sharper.

The large-scale canal construction in the Punjab was feasible because of the differential distribution of the waste and the population. The sub-montane districts of Hoshiarpur, Gurdaspur, Ambala and Jullundur had high densities of population while the average size of holdings was small, therefore, the large holdings "offered" in the Canal Colonies in the nineties attracted migration into them and to also the areas which received canal irrigation like Karnal, Ferozepur, Sirsa and Hissar. As a result the less densely settled areas saw rapid population growth, and a fall in density took place in the sub-montane areas.

Thus there was a tendency to develop a rough equalization of population density through the Province.

The canals had a large influence even before they were actually constructed. The Government became conservative in its leases of waste to individuals in the hope of making large-scale settlements in the waste. This was especially so in the central districts like Lahore where the Government had acquired large areas of waste for colonization amounting to 201,351 acres in 1865-69, all of which was grazing land capable of cultivation. Also the reservation of the excess waste of villages in districts like Jhelum was done with similar intentions in the early settlements, thus reducing the grazing in the forested areas.

But these were small in comparison to the large amounts of waste acquired by the Government for the Chenab Canal (Jhang and Gugera branch). This canal commanded 1.5 million acres in 2 vast camel breeding tracts of Jhang and Montgomery (known earlier as Gugeira). Nomad grazers and Biloch sawars lived there. These tribes' grazing land was encroached upon by extending cultivation provided by canals. Therefore when the canal was completed and the land was to be auctioned in the area, Thorburn suggested in 1898 to the Government of Punjab that the time was ripe to give these nomad graziers grants of land on service conditions; the intention was to obtain "fit camels and fit sawars" and that too "without paying a rupee."

The most dramatic and at the same time the most well organized acquisition of land for the canals was executed by the Punjab Government in Dera Ismail Khan in 1898. The wastelands in this district had been for the large part granted as common lands to the villages in the Leiah and Bhakkar tehsils of the Thai, in the settlement of 1872-79 made by

Tucker. The Government of India helped the Punjab Government legislate for the acquisition of 1.5 million acres of common lands for the Sind Sagar Doab Canal.

Colonization of these wastes by the provision of irrigation meant settled cultivation; hence for the camel graziers and other semi-nomadic users of these wastes as in Sirsa it meant changing their entire style of operation.

In the Canal colonies, as for example in the Jhang branch colony, 1897, the peasant villages got arable land in killas or consolidated squares, while the grazing land had to be 20% of the total area by Government orders. All peasants were allowed to graze their animals without hindrance. The colonists were allowed to exchange their allotted squares with unallotted ones, hence they exchanged with the best ones leaving only the worst land for common lands.

The fate of these common lands was evidenced from a village survey of Kala Gaddi Thaman in Lyallpur in 1928 by the Punjab Board of Economic Inquiry. The common grazing land was reduced from 323 acres in 1903 to 218 acres in 1926-27 and of the latter some 47 acres were available for sale. This area was the worst in the village, high lying, with the poorest vegetation even in the rains. The cultivated land in the village irrigated as it was from the canal was considered so valuable that no conditions were laid down in the leases reserving part of the land under tenancy for grazing.

In still another village, Gaggar Bhana, in the Amritsar district (the Upper Bari Doab branch Subraon provided irrigation), the area that was kept as banjar kadim increased no doubt from 5 acres in 1900-01 to 26 acres in 1923-24 but it was totally inadequate for either keeping good animals or for breeding. The tenants had to use buffaloes to plough as they

could be stall-fed from the fodder.

This was true of a village, Gijhi, Rohtak district, which received canal irrigation. The common grazing banjar kadim or common lands declined from 136 acres in 1899-1900 to 116 acres in 1924-25 to 99 acres in 1957-58. The condition of the land was no better than grassless waste and yet the tenants were not allowed to fallow any part of their holdings for grazing.

Canals were introduced in the course of the last decades of the nineteenth century and districts received sufficient water by the early years of the twentieth century. This led to an extension in cultivation which meant that in areas like the Nardak and the Bangar, grazing land was increasingly broken up. Such a loss was made up by the fact that grass grew on the irrigated fields and also allowed a double crop to be raised which was invariably fodder.

The effect was borne out by the increase in cultivation and population in the district:

Cultivation and population: Karnal Pareana

Year	Area cultivated	% irrigated	Population
1881	99,680	25	820,041
1909	134,471	32	883,225

8% increase

In Hissar and Sirsa too there was similar increase in both area cultivated and population. In

Hissar:

Year	Area cultivated	acres irrigated	Year	Population
1880	1,736,665	73,213	1881	515,714
1906	1,822,350	238,118	1891	597,348
			1901	622,975

In Sirsa, increase of cultivation was by 37% due to the various inundation canals and the extension of the Western Jumna Canal and the Sirhind canal in Fazilka. The population increased from 253,275 in 1881 to 314,220 in 1891.

This increase in cultivation in the various districts was not uniform. Tracts which had valuable waste continued to retain them. The Naili or low-lying riverain tracts in both Karnal and Sirsa continued to have large areas of waste. In Sirsa, the Naili tract showed in fact a decrease of 7% in wheat. Thus the culturable waste in the Naili did not show much of a decline, it was 87,774 acres at settlement in 1872-80, and it became 87,226 acres in 1899.

The extension of cultivation in the waste in these districts was on to virgin soil which had been used for grazing as in Karnal. In Sirsa, Hissar and Ferozepur large areas had been kept for catchment areas called uprahan johad before the canals came in, and now they were sought to be cultivated. The wajib-ul-arz of the villages in these districts had strict rules for their preservation and fines were imposed if any of these were encroached upon. The canals made them redundant except in certain tracts in Hissar where irrigation had not been extended. In these latter areas the tenants had demanded that the landlords be prevented from encroachment into the johads and the settlement officers had responded by invoking article 150 of the Punjab Land Revenue Act 1887 to prevent such incursion.

Thus in Ferozepur, Sirsa and the Rohi circle of Fazilka saw "lands which were formerly kept as uncultivated shamilat waste as catchment areas for rain-water were broken down in every village." The villagers preferred to feed their cattle on chari (fodder) grown with canal water than gain subsistence by grazing on parched grass which was all that was

obtainable from the shamilat lands. The new land was in no case inferior to the earlier cultivated area and hence could not grow a double crop.

The substitution of diminishing grazing by fodder was apparent in all the districts which received canal irrigation. Thus the cropping pattern changed in the pastoral areas where increasingly fodder crops were cultivated.

This trend was even more noticeable in cattle breeding tracts of Jhang and Hissar, than in other canal-receiving districts. In Jhang for example, canal irrigation increased the area which was secure from water shortage by about 10% between 1896-1904, and an increase in cultivation in the same period of 7%, but even though commercial breeding of cattle was not a predominant feature of the district nevertheless the area under fodder increased whereas the area under valuable crops like wheat and cotton declined.

This expansion of fodder was an unavoidable feature of the increased cultivation. More and more cattle had to be stall-fed as large herds of cattle could no longer be let out to graze in areas that were formerly pasture land.

In the other major breeding tract - Hissar - this dependence on fodder was damaging. Canals made it possible for growing not only more fodder but cotton as well, therefore the less productive crop or fodder was driven out by a commercial crop like cotton. As a result famine in fodder brought death to cattle as in 1896-97. This happened because in drought years the grass did not keep. Besides, over-grazing had reduced the quality of the grass. Dhaman was found abundantly in Hissar in the early years of settlement but this disappeared under the plough in the sixties.

The combination of reduction in common lands, increase in fodder crops and increase

in cattle numbers led to several strategies adopted by the different canal irrigated tracts. In Karnal, canal irrigation led to increased cattle for ploughing as more land was brought into cultivation. Thus the district had to supplement the locally bred cattle with imports from Rohtak and Hissar. As a result a very distinctive type of bullocks bred in Karnal before the canals came in, disappeared. Besides, stall-feeding was never the same as grazing, and "however much to the individual cultivator it may be to break the waste, the village community as a whole regretted the disappearance of its grazing grounds." Accordingly, in Karnal in almost all villages the owners agreed in 1909 to reserve certain areas as charand (pasture). Even in leased Government land, Douie as the settlement officer had set apart grazing land which was not to be broken up under penalty of a fine. Thus the officers in the revenue department started to appreciate the importance of the reserved grazing ground in a cattle-breeding tract. Stow settling Karnal in 1912, admitted that it was difficult to prevent private individuals from breaking up the waste for private benefit, but he was willing to lend support to community preservation of waste by using the provisions of the Punjab Land Revenue Act of 1887.

There was yet another impact of canals on the pastoral districts which took to growing fodder and stall feeding, and that was a change in the composition of herds. There was a general move away from cows to buffaloes. The trend was more visible in districts which showed increase in dairy farming where the cow buffalo trained better on stall feeding.

Ferozepur:

Year	Bulls	Cows	Male buff	Cow buff	Camels
1898-99	229,646	96,858	13,510	90,295	13,430
1903-04	203,410	92,496	17,812	99,417	16,461
1908-09	230,377	109,749	22,659	137,979	27,123
1913-14	230,597	112,581	18,801	151,703	20,773

Famine and drought continued to plague the South West in the nineties, particularly the cattle rearing districts. Some districts gave up pastoral activity in favour of cultivation particularly if canals also were accompanied by a reduction of the long fallows in forests which usually supplemented the common lands in the villages. In Muktsar the Lakki forests had been able to support large herds of cattle at the time of British entry into Ferozepur but increasingly these jungles, as also in the Jhajjar area of Rohtak, gave way to increased cultivation. Therefore increasingly the district moved away from the arable to the pastoral. The process was aided by famine and droughts. In such seasons the number of cattle was reduced either by sale or by sending them away to riverain tracts where an aug shumari or tax had to be paid. In districts like Jhelum increasingly in the latter part of the century the number of plough cattle was reduced. In the Chakwal and Talagang tehsils cattle were bought at the time of ploughing and sold after the work was over.

In Hissar the effect of famines was invariably to reduce the capacity of the cattle breeder to reduce his stock during the emergency and shift away from "being a store house of cattle" to rely as best it could "on scanty profits from agriculture." This is made clear from the figures of the famine years (1896-98-1901) when the landowners disposed of their cows and young stock at low prices.

Hissar:

Normal years: 1894, 1907, 1908, 1909			Famine years 1896, 1899, 1901		
Year	Bulls	Cows	Year	Bulls	Cows
1894	3,771 Rs150-100	64 Rs22	1896	6,800	170
1908	4,735 Rs200	53 Rs21	1899	22,840 Rs77-16	314 Rs8
1909	6,200 Rs150-60	61 Rs27	1901	18,846 Rs113-40	120 Rs15

Railways in the same period expanded from 530 miles in 1876 connecting Delhi with the Cis-Sutlej and the central districts of Punjab like Lahore. By 1896-97 the Rewari-Ferozpur and the Southern Punjab Railways had helped the Sirsa district to fight famines. It also helped to develop towns like Abohar and Ferozepur to develop. Consequently land prices, cash rents and prices in general rose. In Sirsa cash rents rose by 50% and 25% in Fazilka and prices rose by 15% to 20%. Land prices, as is seen from the Gaggar Bhana village, rose from Rs188 per acre to Rs267 per acre between 1895-99 and 1905-09, that is, by 40%. This rise induced the Government in Punjab to undertake the re-assessments of several canal irrigated tracts with a view to tap the increased profits made possible either by renting of land, or by pastoral profits in which case the waste of the village was also made to pay a higher revenue.

This brings us back to the pattern of land-use in scattered strips in the arable and compact common lands for grazing. As the grazing lands were encroached upon and less was left for common grazing with canals, one would expect the members of the village

proprietary body to give up scattering and accept consolidated holdings. In Karnal, canal irrigation led to attempts by the Government to introduce consolidated holdings by the Killabandi system, but it failed. This was in spite of the fact that the Killabandi system had succeeded in the Canal Colonies of Jhang and Gujranwala.

In Karnal, as in most parts of East Punjab, the self-cultivating owners were not disposed to accept a system which partitioned their fields and obliterated the boundaries of their ancestral fields, offering them only in return the remote advantage in having fields of a uniform size for calculation of the rents. Thus the attempt was abandoned in 1905.

The evidence of pressure on common lands is obtained from the disputes that came into law courts. The number of suits involving common lands was characteristically large from those areas where extension of irrigation led to pressure of population and cattle numbers. Disputes from Ferozepur, Jhang, Hissar and Sirsa were increasingly for rights of partition and shares in the shamilat. Legislation like the Punjab Tenancy Act of 1868 abetted some of the disputes over the rights of the occupancy tenants in common lands and these came in from Ferozepur as the wajib-ul-arz of villages gave the occupancy tenants the right to share in the shamilat of the village.

Generally the solution in the majority of the disputes became a move towards privatization of the commons through partition. This served to put a lid to the immediate problems while the basic situation of scarce grazing resources continued.