

GAZETTEER OF INDIA



PUNJAB

MOGA



PUNJAB DISTRICT GAZETTEERS



MOGA

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FOREWARD

The expression "Gazetteers" has seemingly been derived from the Italian word "Gazetta" which literally means a treasure of news. Over the time, the scope of its meaning has assumed wider dimensions which, inter alia, covers information on diversified subjects like history, ethnicity, religions, languages and culture of the people living in a geographical region or a political entity, their socio-economic life and a description of their natural and physical environment. Viewed in this perspective, Gazetteer may justifiably be called a mini-encyclopaedia and is undeniably of great help as an authentic reference document for researchers, academicians, planners and administrators of not only the present times but in the future as well.

In our country, the concept of "Gazetteer" is not new. Right from earliest times attempts have been made by the scholars as well as court historians to compile relevant data for the guidance of the rulers. In this context, '*Arthshastra*' of Kautliya and '*Ain-I- Akbari*' of Abul Fazal may rightly be regarded as precursors of a gazetteer. However, the concept of gazetteer in the real sense developed and assumed significance during the British Period when the alien rulers were faced with complex problems in dealing with Indian affairs, and the need for affective governance made it imperative for them to know more and more about their subjects. Attempts were, therefore, made under auspices of the Government as well as through private initiatives of scholars/researchers to compile the gazetteers of the country. In 1881, the first edition of "Imperial Gazetteer of India" was published by W.W.Hunter, which was later on revised and enlarged into 25 volumes.

After the dawn of Independence, the significance of 'Gazetteer' continued to be recognized and Gazetteers units were established in

almost all the States and Union Territories of India in 1956. In our own State, the Gazetteers Organization was established in 1960.

This is the first edition of Moga District Gazetteer. This work is the culmination of the combined endeavours of the staff of Gazetteers Organization over past many years. It is a comprehensive document and dilates on various facets of the region, its history from early times, evolution of the region as an administrative unit, its physical features, climate, river systems and water resources, geology, flora, fauna, demographical features, languages, social customs and culture of its people. The description is supported by statistical data, photographs and maps so as to make it more interesting and authentic.

It is indeed my great pleasure to record my appreciation for the excellent work done by the whole team of the State Gazetteers Organization over a period of time to compile this gazetteer. I sincerely hope that interest of users of this document will find it of immense value.

Chandigarh
21 June 2010

ROMILA DUBEY
Financial Commissioner, Revenue,
Punjab

PREFACE

Gazetteer has been defined by several scholars in several ways. It is a repository of authentic information reflecting the life in the district from its geographical, demographical, social, historical, economic, administrative, developmental and cultural aspects. It is of immense value as a reference book to scholars, administrators and general public alike.

The present edition is the first edition of Moga District and seventeenth in the series of Punjab District Gazetteers published under the scheme "Revision of District Gazetteers". This volume comprises statistical data upto the year 2002-2003 and a good deal of important information ranging from early time to the recent past has been incorporated in it. However, some additional statistical and census figures concerning developmental activities have been appended upto the year 2002-2003. It has been compiled, incorporating present political, social and economic conditions. It covers the history of the district from the ancient to the modern period. The account of physical features is rewritten to suit the altered boundaries.

The compilation of separate gazetteer for Moga District was necessitated consequent upon its creation as a separate district on 23 November 1995 by bifurcating the Moga and Nihalsinghwala Subdivisions of Faridkot District. Moga remained subdivisional headquarter of Faridkot District till its formation as a new district. On 23 December 1997, 57 villages of existing tahsils/subdivisions viz. Moga and Nihalsinghwala of Moga District were excluded and a new tahsil/subdivision namely Bagha Purana was created with its headquarter at Bagha Purana. Again on 5 November 1999, due to some

territorial changes, 92 villages (45 villages of Zira Tahsil and 47 villages of Makhu Sub Tahsil alongwith Dharmkot Sub Tahsil) of Zira Tahsil of Firozpur District were transferred to the Moga Tahsil/Subdivision of the Moga District. On 21 December 2001, Badhni Kalan Sub Tahsil of Nihalsinghwala Tahsil was created as a new sub tahsil of Moga District. In short, at present the district comprises three tahsils/subdivisions viz. Moga, Nihalsinghwala, Bagha Purana and two sub tahsils namely Dharmkot and Badhni Kalan.

Two villages of the district has attained prestigious position in history. Khota village is in importance due to the introduction of first Anand Marriage (the ceremony according to Sikh rites) initiated by Guru Ram Singh and Dhudike village is in importance being the birth place of great martyr and national leader Punjab *Kesri* Lala Lajpat Rai.

In the preparation of this volume, the Gazetteers Organization has benefited immensely by the able guidance and encouragement given by the Financial Commissioner, Revenue and other officers of the Department from time to time. I owe my deepest gratitude to them, but for whose encouragement and cooperation this gazetteer would not have been brought to the level of publication.

The publication of a volume of this nature is a team work for which a wholehearted cooperation from the colleagues becomes a necessity. Hence I place on record the sincere and relentless efforts of all my colleagues of the Gazetteer Organization. I extend my thanks to Sarvshri Neeraj Kumar Singla and Ranjiv Kumar Editors; Smt. Gurbachan Kaur and Shri Harinder Pal Singh Compilers and Shri Dinesh Bedi Draftsman-cum- Artist for their strenuous efforts and high sense of devotion in the preparation of this volume. My thanks are also

due to other staff members of the Gazetteers Organization for unstinted cooperation in completing this work.

Thanks are also due to the various Heads of Departments and Officers in the State, especially the Deputy Commissioner, Moga and other officers under him for extending wholehearted cooperation in supplying the requisite information and data for the compilation of this volume.

Thanks are also due to Dr. Buta Singh Brar, Reader in Punjabi, Punjabi University Regional Centre, Bathinda for preparing language portion. I acknowledge my sincere thanks to Dr. Joga Singh, Professor and Head of the Department of Anthropology, Linguistics and Punjabi Language, Punjabi University, Patiala for his remarkable contribution in the language portion of the gazetteer. My thanks are also due to Shri Avtar Singh Matharoo, Lecturer, Department of Geography, Punjabi University, Patiala for his full cooperation in supplying the material on topography of the district.

Lastly, I am deeply grateful to the Controller, Printing and Stationary, Punjab and his staff for the excellent set up they gave to the volume, the punctilious care they bestowed to this publication and more than all the expedition with which they completed its printing.

Chandigarh
Dated 12 July 2010

GURDIP KAUR KHOKHAR
Senior Editor Gazetteer
Punjab

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CHAPTER I

GENERAL

(a) Introductory

(i) **Origin of the Name of the District.**- The district has derived its name from the town Moga which was inhabited by the Gils. According to local dictum Moga Singh and Joga Singh were two brothers. Joga Singh's successors established two different villages called Moga Mehla Singh and Moga Ajit Singh. By mingling these two villages a new village called Moga was created which had five *pattis* on the names of Moga Gil's sons viz Chirag *Patti*, Sangali *Patti*, Ausang *Patti*, Bagha *Patti* and Rupa *Patti*.

(ii) **Location, General Boundaries, Total Area and Population of the District.** - Moga District falls in the Ferozpur Division. It lies between $30^{\circ} 29'$ to $30^{\circ} 53'$ north latitude and $74^{\circ} 54'$ to $75^{\circ} 25'$ east longitude. The district lies in north-west of the Punjab State and is surrounded by Jalandhar District in the north, Ferozpur District in the north-west, Faridkot District in the west, Ludhiana District in the east, Sangrur District in the south-east and Bathinda District in the south.

Moga, the headquarter of the district administration lies on the Ferozpur-Ludhiana railway line. It is also connected by road with Chandigarh (168 km), Ferozpur (63 km), Faridkot (63 km), Ludhiana (68 km) and Jalandhar (83 km).

As per 2001 Census, the total geographical area of the district was, 2,235 sq.km., whereas according to Director Land Records, Punjab, Jalandhar the area of the district was 2,234.10 sq.km*. In terms of area the district stands 11th in the State. The tahsil wise area of the Moga District is given in the following table:

Serial No.	Tahsil	Area (Sq.Km.)
1	Moga	1,231.74
2	Nihalsinghwala	418.43
3	Bagha Purana	583.93
	Moga District	2234.10

According to 2001 Census, the population of the district was 8,94,854 persons (7,16,214 rural and 1,78,640 urban) comprising (4,74,139 males and 4,20,715 females).

*A slight difference in the area of the district was due to two different sources

(iii) **History of the District as an Administrative Unit and the Changes in its Component Parts.-** Moga was formed as tahsil of Ferozpur District during the second half of the 19th century and it remained so till 1972. On the formation of Faridkot as a separate district on 7 August 1972, it became tahsil/subdivisional headquarter of Faridkot District. Moga remained subdivisional headquarter of Faridkot District till its formation as a new district. Moga was created as a new district on 23 November 1995 with its headquarter at Moga by carving out Moga and Nihalsinghwala Subdivisions of the Faridkot District¹. On 23 December 1997, 57 villages of existing tahsils/subdivisions viz. Moga and Nihalsinghwala of district Moga were excluded and a new tahsil/subdivision Bagha Purana (District Moga) was created with its headquarter at Bagha Purana². Again on 5 November 1999, due to some territorial changes, 92 villages (45 villages of Zira Tahsil and 47 villages of Makhu Sub Tahsil) alongwith Dharmkot Sub Tahsil of Zira Tahsil, district Ferozpur were transferred to the Moga Tahsil/Subdivision³. On 21 December 2001, Badhni Kalan, Sub Tahsil of Nihalsinghwala Tahsil was created as a new sub tahsil⁴.

(iv) **Subdivisions, Tahsils, Villages and Thanas.-** According to 2001 Census, the district comprises 329 (321 inhabited and 8 uninhabited) villages spread over in three tahsils/subdivisions viz. Moga (226), Bagha Purana (56) and Nihalsinghwala (39). The number of towns in the district is 4.

The tahsil wise list of police stations and police posts in the district is given in Chapter- XII 'Law and Order and Justice'.

(b) Topography*

The knowledge of topography is indispensable for understanding the personality of any area in terms of socio-cultural attributes and levels of economic development. Viewed in this perspective, Moga District is characterized by flat alluvial plain formed by river deposition in recent geological past. It is part of interfluvial tract between Satluj and Ghaggar rivers. Thus, it shares the characteristics of Punjab plains or whole of Indo Gangetic plains. Macroscopically, surface topography appears to be

1Vide Punjab Government Notification No. 2/53/95- RE-II (1) 10725 dated 23.11.1995

2Vide Punjab Government Notification No. 2/16/97- RE-II(1)/6103 dated 23.12.1997

3Vide Punjab Government Notification No. 2/36/98-RE-II(1)/6405 dated 5.11.1999

4Vide Punjab Government Notification No. 12/4/2000- RE II (1)/8213 dated 21.12.2001

*Material supplied by S. Avtar Singh Matharoo, Lecturer, Department of Geography, Punjabi University, Patiala.

flat featureless surface, but microscope analysis may yield some variation in topography even over a small area covered by Moga District. However, distinctive geomorphic regions may not be delineated, yet micro geomorphic variation may be highlighted which is result of changing course of river Satluj in last many centuries.

Slope of the ground is from north-east to south-west as evident from different values of elevations above sea level. Highest elevations are found in north-east where elevations cross 227 metres and lowest elevations are recorded in south-west i.e. about 209 metres. Thus the range of elevational change is 18 metres.

Moga District is part of upland plain between Satluj and Ghaggar rivers and more precisely it is part of south-west Punjab where large part of upland plain is covered with sand dunes or sand. Moga District forms an exception that there is no continuous tract of sand or sand dunes. However, some small sand ridges characterized the topography but now most of them have been cleared.

It may be noted that micro-relief variation in topography of the Moga District is the result of changing courses of river Satluj towards north and north-west during recent few centuries. These shifting courses of river Satluj have produced different levels of terraces parallel to the course of river. The edges of these terraces have been quite distinctive. The upper terrace in Moga District is called *Rohi* (meaning firm land). The shifting of river course has also given birth to oxbow lakes or depressions. One such depression in southern part of Moga is said to be related with old courses of river Satluj. Thus, it can be summarized that topographically Moga District is a fluvial plain whose geomorphology is shaped by shifting course of river Satluj during recent past. Agricultural utilization of land is fading away the palaeogeomorphology of the area, but certain evidence still persists in the topography of the Moga District. The increasing semi-arid conditions in south-western Punjab have also having some impact on topography of the district.

(c) River System and Water Resources

No perennial river passes through the district, however in earlier days or during last many centuries Satluj used to cross this area, which has now taken northerly, turn and joined with river Beas. The palaeo channel of this river can be seen in this area. Moga *nala* is one such old channel of the river, which is filled with water during rainy season. Moga *nala* enters the district from Ludhiana District near Ajitwal. It flows westward through Moga city and then passes into Faridkot

District. Its course is almost parallel to the course of river Satluj. It originates in Ludhiana District.

Canals.- Abohar Branch of Sirhind Canal passes through Moga District and it enters into the district from Ludhiana side. Sirhind Canal is Largest Canal System of Punjab, which provides irrigation facilities to large part of Malwa region. It is a perennial canal constructed by British People in association with Princely States. It takes its birth near Rupnagar from Satluj river. The Abohar Branch of Sirhind Canal crosses the Moga District. Distributaries/channels have been constructed to provide water to agricultural crops.

Apart from the canal irrigation, wells are being used and now the traditional types of wells have been replaced by tubewells run by either electricity or diesel engines.

(d) Geology

Geology and Mineral Resources of Moga District

(i) Geological Formation

The area forms a part of Indo-Gagentic alluvial plain. Quaternary sediments comprising both fluvial and aeolian sediments are exposed in the area. Fluvial deposits are classified into Older Alluvium and Newer Alluvium. The Older Alluvium designated as Ludhiana Formation (Middle to Late Pleistocene in age) covers large tract of the district. Older Alluvium disposed as a flat, peneplained terrain. It is represented by buff to brownish colour, sand, silt and clay sediments. In the absence of deep sections and cuttings, definite data on its lithology below 40 metres could not be ascertained.

(a) Older Alluvium.- Lithologically, the Older Alluvium comprises horizontal beds and lenses of fluvial sediments, mainly consisting of polycyclic sequence of sand, silt and clay with or without calcareous concretes locally called as "Kankar". The lateral facies variation in the sediments is quite common. The upper part of Older Alluvium is generally brownish to yellowish and shows fairly high degree of oxidation. Clay occurs as 2 to 10 metres thick bands of light grey, pink and yellowish colour. These are generally sticky in nature and these places contain *kankar*. Locally, these clays are known as "Pandoo". In Dagra area, "Pandoo" development has been noticed upto 40 metres depth. In Moga-Dala areas thick bands of pinkish red

clay with minor amount of sand, silt intercalations has been observed in bore well sections. In Zira area, Granitic basement (part of Delhi Super Group) has been encountered at 700 metres depth (ONGC). On that basis it could be postulated that in Moga area the thickness of Older Alluvium could be around 700 metres.

(b) Newer Alluvium.- Newer Alluvium of Holocene age occurs in the northern part of the district, which runs parallel to the Satluj River, is divisible into Terrace Alluvium and Channel Alluvium. The Terrace Alluvium is exposed along the terrace of Satluj River and can be distinguished from Older Alluvium by its conspicuous light grey colour. It comprises of grey micaceous sand, silt and clay. These sediments have not undergone much oxidation unlike Older Alluvium and as such retain their original colour. Channel Alluvium consists of coarse to fine grained micaceous sand, silty clay and mud exposed along the active flood plain of Satluj River.

(c) Aeolian Deposits.- Aeolian Deposits comprise brownish to golden brown, well sorted, fine sand or silty sand occurring as sand dunes or sand sheets on the sandy or silty clayey facies of Older Alluvium. The Aeolian Deposits are mainly concentrated near Bhallur, Bagha Purana and Nihalsinghwal, Sand dunes are also noticed around Dharmkot. These have been modified and peneplained to a great extent. The sand dunes have been classified as stabilized, semi stabilized and Newer dunes on the basis of consolidation. The stabilized dunes are highly calcareous and contain "Kankar". The semi stabilized dunes are moderately calcareous with or without "Kankar" granules. The Newer dunes on the contrary are invariably non calcareous and generally overlie the stabilized or semi stabilized dunes. The sand dunes are of various shapes and sizes. The sand sheet occurs as thin canopies around sand dunes. Minerologically these dunes are made of rounded to subrounded quartz, opaques and flaky minerals. The sand sheets vary in length from 5 to 10 km, have been noticed in the area.

Four geomorphic units recognized in the area are (i) Older Alluvial Plain (Punjab Plain) marked by Palaeochannels and swamps (ii) Aeolian Surface represented by sand sheets and sand dunes (iii) Older Flood Plains represented by terrace (T1) and (iv) Active Flood Plain (To) of Satluj river, developed in the form of point bars and channels bars.

The significant Palaeohabitation sites (locally called 'Theh') in the area are noticed near Janer, Ajitwal and Dharmkot, which contain

fragmentary bones, pottery pieces, stone implements and carbonaceous material.

(ii) Mineral Resources

The important mineral resources of the area are Saltpetre, Sand and Clay. Saltpetre occurs as thin yellowish encrustations on the surface of Older Alluvium. It also occurs as thin encrustations of yellowish colour at old inhabitation sites. Its occurrence is known from Janer, Moga and south-west of Bagha Purana. Saltpetre is an important source of potassium nitrate and used for the crackers, matches and fertilizers industries. Grey micaceous alluvial sand is being mined along the Sukar *nala*. It is being used for construction purposes. Top silty clay of Older Alluvium up to 1 to 1.20 metres depth provided a very good raw material for the brick industry and is exploited at a number of places. Large number of brick kilns occurs near Bagha Purana, Nihalsinghwal and Moga.

(iii) Groundwater

Groundwater in the area occurs both under confined and unconfined conditions. In general the depth of water table varies from 6 metres to 19.65 metres. It is, in general suitable for drinking and irrigational purposes but in certain sectors, it is saline with little or no carbonate.

The major natural geo-environmental hazards of the area are annual floods and waterlogging along the left bank of Satluj River. The anthropogenic hazards include land degradation due to brick manufacturing and soil as well as water contamination due to release of untreated effluents from industries.

Seismically the Moga District is situated in Zone III and IV i.e. region prone to slight to moderate damage due to earthquakes. Major earthquakes of high intensity, originating in the Himalayan region are felt in the area.

Fluoride content is higher around Nihalsinghwal and Moga, which may be causing fluorosis.

(e) Flora

The Moga District lies towards west of Punjab adjoining the boundaries of district Ferozpur in the west, Ludhiana in the east, Jalandhar in the north and Bathinda in the south. The climate is very hot

in the summer and markedly cold in winter. Relative humidity is lowest in April-May and highest in August. Winds are generally stronger over the western and south-western arid and semi-arid regions. The area in general has alluvial and sandy soil. The flora of the Punjab State is as such not rich due to its geographical position, climatic condition and biotic interference. The State has broadly three botanical divisions viz Shivalik Hills, Moisture Plain Country and Semi-Arid Region.

The general floristic composition of Moga District belongs to semi-arid region as a major part with scattered tree species of deciduous elements. The district also represents a desert topography due to its close proximity towards Ferozpur bordering the international boundary. Patches of rippled sandy areas are abundant which are unproductive.

The vegetation is broadly divided into three categories.

(i) Vegetation of Loose Sand Dunes.- Sand is piled up into dunes depending on the direction of the wind. As a result hardly any plant can obtain a footing. The plants species represented in the area are *Calotropis procera*, *Zizyphus nummularia*, *Crotalaria burhia*, *Leptadenia pyrotechnica*, *Cenchrus biflorus*, *Eragrostis ciliaris*. *Citrullus colocynthis* with long trailing branches remain green throughout the year. Tree species are rare in these sand dunes area. The characteristic *Prosopis cineraria*, *Balanites roxburghii*, *Acacia nilotica* and *Tecomella undulata* are also noticed.

(ii) Vegetation of Stabilized Dunes.- Once the vegetational cover forms the sand dunes get stabilized which gradually support good vegetation. The floral elements found in the loose sand are also found here but the tree species of *Acacia nilotica*, *Prosopis cineraria* and *Tecomella undulata* are of considerable size. Other herbs and shrubs are *Capparis decidua*, *Calligonum polygonoides*, *Clerodendrum phlomoides*, *Boerhavia diffusa*, *Maytenus emarginatus*, *Salvadora oleoides* and *Acacia jacquemontii* are also seen.

(iii) Vegetation of Spreadout Sand.- Due to spreading of loose sand the species of *Zizyphus nummularia*, *Blepharis linearifolia*, *Cenchrus biflorus*, *Aerua persica* and *Citrullus colocynthis* are easily colonized. Occasional large tract show pure stands of *Calligonum*, *Leptadenia* and *Acacia*. Wherever some organic matter accumulates the open thorny scrub elements are encountered viz, *Prosopis cineraria*, *Capparis decidua*, *Acacia nilotica* and *Salvadora oleoides*.

Vegetation of Marshes.- Wherever the water accumulates for a short or long period and forming water bodies, the aquatic and marsh species are seen growing. These are *Typha angustifolia*, *Sagittaria sagittifolia*, *Veronica anagallis-aquatica*, *Hemarthria pressa*, *Fimbristylis dichotoma*, *Bacopa monnieri* and *Vetiveria zizanioides*, *Chenopodium ambrosioides*, *Gomphrena celosoides*, *Tephrosia uniflora*. The tree species found near these marsh are *Phoenix sylvestris*, *Acacia nilotica*, *Butea monosperma* and *Tamarix aphylla*. The climbers particularly among hedges, thorny bushes and plantations are *Abrus precatorius*, *Pergularia daemia*, *Tinospora cordifolia*, *Cocculus hirsutus* and *Leptadenia reticulata*.

Avenue trees.- The common wayside and avenue trees in plantation are *Albizia lebbek*, *Azadirachta indica*, *Delonix regia*, *Cassia fistula*, *Acacia leucophloea*, *Dalbergia sissoo*, *Polyalthia longifolia* and *Ficus racemosa*, etc.

Ruderal plants.- The plants found in such places which are subjected to change from time to time such as waste places in the periphery of villages, along railway tract and roads. The species found in these area are *Xanthium strumarium*, *Solanum surattense*, *Cannabis sativa*, *Argemone mexicana*, *Euphorbia hirta*, *Croton bonplandianum*, *Ricinus communis*, *Amaranthus spinosus*, *Erigeron bonariensis* and several weeds like *Lantana camara*, *Parthenium hysterophorus*, *Cassia tora*, *Ageratum conyzoides*, etc.

Medicinal plants.- The region in Moga District mainly represents semi arid condition with desertic condition. Some overlapping of floristic elements from adjoining region are also observed due to seasonal change in climatic condition. The plant species of medicinal and economic importance found in the area are *Abrus precatorius*, *Caesalpinia bonduc*, *Adhatoda zeylanica*, *Tinospora cordifolia*, *Boerhavia diffusa*, *Solanum surattense*, *Aegle marmelos*, *Cannabis sativa*, etc. It is worth to mention that the district Moga does not comprise any rare, endangered and threatened species.

Grasses.- The common grass species represented in the area are *Cynodon dactylon*, *Bothriochloa insculpta*, *Dichanthium annulatum*, *Heteropogon contortus*, *Imperata cylindrica*, *Iseilemalaxum*, *Eragrostisatrovirens*, *E.ciliaris*, *Paspalumscorbiculatum*, *Paspalidium flavidum*, *Oplismenus compositus*, *Saccharum benghalense*, *Thysanolaena maxima*, *Vetiveria zizanioides*, etc.

(f) Fauna

Wild animals and birds are priceless gifts of nature to mankind. They contribute enormously to our welfare by maintaining the ecological balance of nature. They also help in protecting crops by preying upon insects harmful to crops. The Wildlife (Protection) Act 1972 and Wildlife (Protection) Amendment Act, 2002 have been framed for the protection and preservation of wildlife. Under the Act, hunting of wild animals is totally prohibited. Restrictions also exist on illegal trade of wild animals and any product made there from.

Being a predominantly agricultural and heavily populated area, Moga District does not have much natural vegetation and forested land. The district does not have a wildlife sanctuary or zoo.

The different types of zoological species found in the district are detailed below:

(i) Pisces (Fish).- The different varieties of fish available in the district are: Rohu (*Labeo rohita*), Bata (*Labeo bata*), Catla (*Catla catla*), Ticker (*Puntius*), Dolla (*Channa*), Kinger (*Mystus*), Mullee (*Wallago attu*), etc.

(ii) Amphibians (Frogs and Toads).- Under this category, frogs and toads are included. Indian Bull Frog (*Rana tigerina*), Indian Burrowing Frog (*Rana (Tomopterna) breviceps*), Common India Toad (*Bufo melanostictus*) are common in the district. The frogs generally inhabit ponds, ditches, roadside pools, *nalas*, etc., whereas toads mostly remain under stones, old logs and are active at night.

(iii) Reptiles (Lizards and Snakes).- This group is represented by snakes and lizards. Among them are Indian Rat Snake (*Ptyas mucosa*), Common Wolf Snake (*Lycodon aulicus*), Garden Lizards (*Calotes versicolor*) and House Lizard (*Hemidactylus flaviviridis*) are found in the district.

(iv) Aves (Birds).- The birds found in the district are: Little Grebe (*Tachybaptus ruficollis*), Little Cormorant (*Phalacrocorax niger*), Little Egret (*Egretta garzetta*), Cattle Egret (*Bubulcus ibis*), Indian Pond-Heron (*Ardeola grayii*), Black-crowned Night-Heron (*Nycticorax nycticorax*), Black Francolin (Kala Teetar), *Francolinus francolinus*, Grey Francolin (Brown Teetar), *Francolinus pondicerianus*, Indian Peafowl (Mor), *Pavo cristatus*, Blue Rock Pigeon (*Kabutar*) *Columba livia*, Spotted Dove (*Ghuggi*) *Streptopelia*

chinensis, Black Kite (*Milvus migrans*), Egyptian Vulture (*Neophron percnopterus*), House Crow (*Corvus splendens*), Black-shouldered Kite (*Elanus caeruleus*), Spotted Owllet (*Athene brama*), Barn Owl (*Tyto alba*), Indian Roller-Neelkanth (*Coracias benghalensis*), Rose-ringed Parakeet (*Psittacula krameri*), Koel (*Eudynamys scolopacea*), Red vented Bulbul (*Pycnonotus cafer*), Common Myna (*Acridotheres tristis*), Purple Sunbird (*Nectarinia asiatica*), etc.

(v) **Mammals.**- Mammals found in Moga District are: Gray Musk Shrew or Chachunder (*Suncus murinus*), Indian Flying Fox (*Pteropus giganteus*), Common Pipistrelle (*Pipistrellus pipistrellus*), Five-stripped Palm Squirrel (*Funambulus pennantii*), Common House Rat (*Rattus rattus*), Common House Mouse (*Mus musculus*), Indian Hare (*Lepus nigricollis*), Common Mongoose (*Herpestes edwardsii*), Rhesus Macaque or Bandar (*Macaca mulatta*), Jungle Cat (*Felis chaus*), Jackal (*Canis aureus*), Blue Bull or Nilgai (*Boselaphus tragocamelus*), Wild Boar or Jungli Suar (*Sus scrofa*).

(g) Climate

(i) Climatic Divisions and Seasons and their Duration

The climate of Moga District is on the whole dry and is characterized by a very hot summer, a short rainy season and a bracing winter. The year may be divided into four seasons. The winter season is from November to March. This is followed by the summer season which lasts upto about the end of June. The period from July to the middle of September constitutes the south-west monsoon season. The later half of September and October may be termed as the post monsoon season.

(ii) Temperature and Humidity

Temperature.- There is no meteorological observatory in the district. The description is based on the records of the observatories in the neighbouring districts where similar climatic conditions prevail. Summer season commences by about the end of March when temperatures increase rapidly till June, which is generally the hottest month with the mean daily maximum temperature at about 41.0°C and the mean daily minimum temperature at about 26.5°C. It is intensely hot during the summer and the dust-laden winds, which blow especially in the sandy parts of the district, are very trying. On individual days, the maximum temperature may reach upto 47-48°C. With the onset of the

monsoon by about the end of June or early in July there is an appreciable drop in the day temperatures but nights in south-west monsoon season are warmer than summer season. Due to the breaks in the monsoon in August and sometimes in July, the weather becomes oppressive due to increase in day temperatures. By about the second week of September, when the south-west monsoon withdraws from the district, both the day and night temperatures begin to decrease. The drop in the night temperatures even in October is much more than the fall in day temperatures. After October both the day and night temperatures decrease rapidly till January, which is the coldest month. The mean daily maximum temperature in January is 20°C and the mean daily minimum temperature is about 5°C. In the winter season the district is affected by cold waves in the wake of passing western disturbances and the minimum temperatures occasionally drop down to about two to four degrees below the freezing point of water.

Humidity.- Except in the brief south-west monsoon season when the air is fairly humid, the atmosphere is generally dry. The driest part of the year is summer season when the values of the relative humidity in the afternoons are about 35 per cent.

(iii) Rainfall

Records of rainfall in the district are available for only one station at Moga. The details of rainfall at this station are given in Tables I and II. The average annual rainfall in the district is 466.3 mm. About 69 per cent of the annual rainfall in the district is received during the south-west monsoon months July to September, July and August being the rainiest months. Some rainfall occurs during the summer months, mostly in the form of thundershowers. In the winter season, in association with passing western disturbances, some rainfall occurs. The variation in the annual rainfall from year to year is large. In the 49 years period 1951 to 1999, the highest annual rainfall, which was 240 per cent of the normal, occurred in 1962. The lowest annual rainfall, which was only 24 per cent of the normal, was recorded in 1968. In the same period annual rainfall in the district was less than 80 per cent of the normal in 10 years out of 30 years for which data for the whole year is available. There were two occasions when such a low rainfall occurred in two consecutive years. It is seen from Table II that the annual rainfall in the district was between 201 and 600 mm in 21 years out of 30.

On an average there are 27 rainy days (i.e. days with rainfall of 2.5 mm or more) in a year, in the district.

The heaviest rainfall in 24 hours recorded at Moga was 335.0 mm on 5th October 1955

(iv) Atmospheric Pressure and Winds

Cloudiness.- Skies are moderately clouded during the south-west monsoon season and for short spells of a day or two during the cold season in association with the passing western disturbances. During the rest of the year the skies are mostly clear or lightly clouded.

Winds.- Winds are generally light in the district and are northerly to northwesterly throughout the year. But in the summer and monsoon season winds from south-east also blow on many days.

Special Weather Phenomena.- In the cold season western disturbances affect the district causing occasional thunderstorms accompanied with hail. Thunderstorms and more frequently dust storms occur during the hot season. Rain during the south-west monsoon season is also sometimes accompanied with thunder. Occasional fog occurs in the winter season particularly in the wake of passing western disturbances.

TABLE I

Normals and Extremes of Rainfall in the Moga District

Station	No. of Years of data	Annual Rainfall: As		Annual	Highest	Lowest	Annual	Dist										
		% of normal & Years **	in 24 hours*						(mm)	(mm)								
Moga	13	20.8	13.5	153	19.0	16.2	34.5	125.8	133.0	63.8	22.2	3.4	7.8	46.3	240	24	351	05 Cr.
	6	1.6	1.6	1.8	1.1	1.3	2.4	6.1	6.4	2.8	0.7	0.3	0.7	26.8	(1967)			95

(Source: Additional Director General of Meteorology (Research) (1968))

a: Normal rainfall in mm

b: Average number of rainy days (i.e. days with rainfall of 2.5 mm or more)

* Based on all available data up to 1999

** Years of occurrence given in brackets

Table II

**Frequency of Annual Rainfall in the Moga District
(Data 1951-1999)**

Range in mm	No. of years	Range in mm	No. of years
101-200	3	701-800	2
201-300	4	801-900	0
301-400	6	901-1000	1
401-500	7	1001-1100	0
501-600	4	1101-1200	1
601-700	2

(Source: Additional Director General of Meteorology (Research), Pune)

CHAPTER II

HISTORY

Moga was carved out as a separate district on 23 November 1995 by bifurcating the two subdivisions viz. Moga and Nihalsingwala Subdivisions of the Faridkot District. Before the formation of Faridkot as a separate District on 7 August 1972, Moga was subdivision of the Ferozpur District. So, the history of the district relates to the history of Ferozpur District.

(a) Ancient Period

The history of the Moga District pertaining to the ancient period has been traced to the Indus Valley Civilization. A few sites explored in the Moga Tahsil, link it with Indus Valley Civilization sites explored in the Rupnagar District. A vast area, including the present area of Faridkot District was under the influence of Indus Valley Civilization. This Civilization is also known as the Harappan Culture as the sites of ancient culture excavated at Harappa (now in Pakistan) have proved that the Indus Valley Civilization was much advanced.

The sites explored¹ in Moga Subdivision have been classified into pre-Harappan, Harappan and late-Harappan period. The various types of pottery found here from the mounds explored lead to these conclusions.

Pre-Harappan period

- 1 Inewala *Theh* (Himmat Pura)
- 2 Raja Sirkap

Harappan

- 1 Inewala *Theh* (Himmat Pura)
- 2 Raja Sirkap

Late-Harappan

- 1 Dagru
- 2 Inewala *Theh* (Himmat Pura)
- 3 Sosan

The main characteristics of pre-Harappan culture were that the bricks used by the people were unbaked and smaller than those of the

¹ B.B.Lal, S.P.Gupta, *Frontiers of Indus Civilization* (Delhi, 1984) pp 520-527

Harappan period. They used copper to manufacture their implements and ornaments.

The main characteristics of Harappan culture were good town planning, careful layout of streets, elaborate drainage system, organized municipal Government and on the whole a developed urban life.

The late-Harappan culture shows unmistakable signs of all round decadence. New houses were built and drains laid out in utter violation of the municipal rules. Kilns were sometimes built in the heart of the town. This urban type of Harappan Civilization was destroyed by Aryans, who were basically a rural tribe. The appearance of the Aryans on the soil of the Punjab in about 1500 BC seems to have coincided with the destruction of the Great Indus Cities. Hordes of these invaders seem to have descended into the Punjab plains from the north-west in several successive waves between BC 1500 and 800. The Punjab in turmoil witnessed, perhaps for the first time, a state of fierce and constant warfare for several centuries. The wars between the invading Aryans and the placid pre-Aryans of the land ended in the victory of the Aryans over the non-Aryans.

The area of Moga District is almost entirely destitute of ancient buildings and contains no places mentioned in early records. None of the present villages or towns, date from an earlier period than the reign of Akbar, mainly because the entire western side of the district has, within the last four centuries, been overrun by the River Satluj, by which all relics of antiquity that might have existed have, of course, been effaced. Along the top of the upper bank large mounds of earth and brick or pottery rubbish, called *thehs*, are often found, which mark the sites of former villages and show that the bank of the river was inhabited in ancient times. A list of the coins found from some of these *thehs* is given in the Appendix I on page 34.

The present area of Moga District falls in the Malwa region of the Punjab State. The territory between the Ghaggar and the Satluj in the Punjab is called Malva and its people Malvais.² The Malvas were the descendants of the Indo-Iranian tribe of the Madras having close relations with the Salvias. They settled to the east of the Ravi and occupied the Cis-Satluj region which is still known as Malwa. Their modern descendants in this region are the Malva Sikhs of the districts of Ferozpur, Ludhiana, Patiala, Jind and Malerkotla.³

At the time of the rise of Poros in the early fourth century B.C., the southern Punjab was dominated by the Kshudrakas and Malavas. Of

² Buddha Prakash, *Glimpses of Ancient Punjab*. (Patiala, 1966) p. 31

³ *Ibid.*, pp. 51-52