

TOPOGRAPHY AND AGRO CLIMATIC CHARACTERISTICS

Topography

The district is situated within the Sutlej-Ganga plain. The soil is sandy to clay loam in texture and sand dunes are conspicuous in TalwandiSabo and Sangat blocks. The industrious farmers of the district have changed the profile of the district from the desert to a thriving green fields and made it one of the leading agriculture district.

Agro-climatic region

The state of Punjab is divided into six agro-climatic regions namely Sub-Mountainous undulating region, undulating plain region, central plain region, western plain, western region and flood prone region. However district Bathinda falls under western plain and western region. The district lies in the Southwestern regions of the state and is far away from the Shivalik ranges in the North of the state. It is the nearest to the Thar Desert of Rajasthan and also far away from the major river lines that run through the state. Therefore, climatically the district Bathinda experiences extremes of climate situations. Summers are extremely hot and winter is very cold. The year may be divided into three seasons. The cold winter (November to February), hot dry summer (March to June) and mild rainy season (June to September). Dust storms are a regular feature in summer seasons. The monsoon is scanty and meager which generally starts in the first fortnight of July. The major part of which is received during the month of June, July, August and September with a few showers of rain during winter months.

The detailed information regarding average rainfall of district is given below:-

Average Rain fall (mm) in district Bathinda

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
2008	7.0	-	-	14.7	27.3	176.4	30.2	123.6	56.8	3.2	-	-	439.2
2009	13.3	19.0	3.0	4.3	3.3	2.4	99.4	25.6	74.9	-	0.8	-	246.1
2010	5.0	23.9	1.4	1.3	1.3	30.8	133.5	84.0	103.2	-	-	8.3	392.9

2011	-	40.0	-	4.2	14.5	46.2	87.3	163.9	271.0	-	-	-	626.9
2012	4.3	-	-	11.1	-	11.3	56.2	102.6	47.1	5.4	-	5.1	243.2
2013	4.7	60.03	9.66	3.67	-	106.1	102.06						

Agro-Ecological Situations

For the identification of AESs the soil texture, topography, underground water quality and crop-rotation factors were considered.

List of representative Villages and Blocks covered under Each Agro-climatic Situation and Respective Type of Soil in District Bathinda.

Agro-Ecological Situations	Name of Blocks	Remarks
AES-I	Rampura Phull Nathana	Sandy to Loam Soil Fit to medium quality underground water Plain topography Paddy-wheat crop rotation
AES-II	Bathinda Maur	Sandy to Sandy Loam Soil Medium to unfit quality underground water Plain topography Cotton/paddy-wheat crop rotation
AES-III	Talwandi Sabo Sangat	Sandy to Loam Sand Soil Medium to unfit quality underground water Undulating topography Cotton-wheat crop rotation