

Champhai District profile

DISTRICT IN GENERAL

Champhai district is one of the eight districts of Mizoram state in India. The district is bounded on the north by Churachandpur district of Manipur state, on the west by Aizawl and Serchhip districts, and on the south and east by Myanmar. The district occupies an area of 3185.83 km². Champhai town is the administrative headquarters of the district. Major towns are Ngopa, Khawhai and Khawzawl. It is a fast developing venue on the Indo-Myanmar border. The famous Rihdil Lake is only about 50 km away from the town of Champhai.

A. Climate:

Champhai District has a pleasant climate. It is generally cool in summer and not very cold in winter. The temperature varies between 20 and 30 degree during summer and between 11 and 21 degrees in winter. Pre-monsoon rains are experienced from March to May while regular south-west monsoon commences from June till October. The averages monthly rainfall is 254cms. However, the southern region receives relatively higher rainfall than the northern region. Despite such high rainfall, prolonged dry spells and occasional drought conditions are noticed. Crops are grown mostly rain-fed depending upon the monsoon rainfall. Annual rainfall of the State is about 2500mm with 124 numbers of rainy days, but is concentrated between June to September. Except in the month of October and November when rainfall of <200mm and >70mm, respectively is received, there is practically no rainfall (>30mm) in the subsequent months (December –January). Although the pre-monsoon (February – January) rainfall is more than 700mm, the distribution of rainfall in February and March is scarce (<110mm). This prevent raising of pre-Kharif crops. Therefore, adequate irrigation facilities during post-monsoon as well as pre-monsoon seasons are essential to raise more than one crop in a year.

B. Topography:

The area is characterized, apart from several minor ridge lines, by six main ridgelines and intervening valleys and less prominent ridges. On the western flank of the study area, runs Tuivawl River flowing for a distance of about 46.50 km. It flows along a relatively small valley and dissected terrain and has practically no large flood plain. On the eastern side of Tuivawl river runs a highly dissected ridge line, which starts from Chhawrtui tlang towards northwest till Sahmulatual tlang. This ridge line passes through Puilo, Kawlkulh and Tawitawkawn villages, whose total length is 42.30 km. This ridge line varies in height. It attains a height of 1257metres at Kawlkulh village and 1147metres at Tawitakawn. This ridge line attains a height of 1587metres at melkhat tlang, 1548 meters at Bualpui tlang, and at Sahmulatual the ridge line continues in the northern side from Meitei tlang (16220metres) and continues towards Aiduzawl village (1553metres) and Hmawngzawl village (1172metres) and extends all the way to Kawnzawr tlang (1182metres), Khumzawl tlang (1109metres) and Phalte tlang (1178 meters). This ridge line is terminated by Tuiphal lui, whose total length is about 15.50 km.

On the eastern side of these two main ridges, runs Tuiphal lui which originates near Khuanglam village in the east and flows through the central part of the district towards North West direction before it drains itself into Tuivai river. The total length of the Tuiphal lui within the district is about 36.20 km. On the northern side of Tuiphal lui, which is the central part of the district, another major ridge line starts from behliang tlang (1681meters) and Pamchung village (1180metres) upto Pamchung tlang (1196metres). The ridge is terminated by Tuiphal lui. The total length of this ridge is about 17.50 km. Another ridge runs in the northern side starting from Sialkal tlang towards eastern side and passes through Selam village (1665metres) and ends at Takzang tlang (1272metres). The total length of this ridge is about 13.76 kms. Just west of the ridge, another ridge line starts near Tuimai lui which joins with the Sialkal tlang, and extends through Lengteng tlang whose peak is called Neuzuarzo (2141metres). This ridge is terminated by a small stream. It then continues towards northern direction for a short distance through Ngaikham tlang (1895metres) before ending at the peak of Mutelen tlang (1432 metres).

On the north-western part of the district, another ridge line extends from Vanchungbung tlang (1190 metres) and passes through Tingahmun tlang (1258 metres), chawrahmun tlang (1266 metres), Ngopa village (1249 metres), khawdungsei tlang (1200 metres) and Khawkawn village (1280 metres) before ending near Tuivai lui towards north before ultimately draining itself to Tuivai river in the northern boundary of the district. The length of the Tuivai lui is about 31.43 kms. To the east of the Tuitla lui, runs another ridge line which starts from Mimbung tlang whose peak is about 1627 metres high. The ridge line terminates in the northeastern side of the district. The length of this ridge line is about 7.37 kms.

On the easternmost side of the district, run two ridges almost parallel to each other. These two ridges are separated by Tangkawng lui. One of them starts from Khuangphah tlang (1508 metres) and passes through Zopui chip (1618 metres) and continues through Tangkawng mual until it is terminated by tuisa lui. The total length of this ridge is about 14.80 kms. The other ridge starts from near Khuangphah village and passes through New Vaikhawtlang village (1185 metres) and extends all the way to Vaikhawtlangdung whose height varies from 1066 to 1172 metres. This ridge terminates near Vaikhawtlang village, after extending through a length of about 17.03 kms. These two ridges are sandwiched by Tuisa lui in the west and Tuimang lui in the east. Tisa lui originates after five small strems join together near Buagzung tlang (1286 metres). It then flows towards the northern direction for about 62.38 kms. before emptying itself to Tuimang lui in the north. Tuimang lui, on the other hand, originates near Khuangphah village and flows towards northern direction, forming eastern boundary of the district for about 24.32 kms.

To the south of these two ridges, runs another ridge line named Dil tlangdung, almost in northwest direction and joins another ridge extending in the north-south direction. The later bifurcates

into two ridges at bualzang tlang. The eastern side of this ridge passes through Hnahlan village and extends through Hnahlan tlangdung, while the western ridge straightly runs in the north to south direction before terminated by Tuisa lui in the north. On the south of this ridge, flows Tuitho lui originating near Khuanglam village. It flows in the south-east direction until it drains itself in the Tiau river in the east.

The Tiau river in the east forms the eastern and southern boundary of the district as well as the international boundary of India with Myanmar. The Tiau river originates to the north-east of Khuangphah village and flows southwards direction. The total length of the river within the district is about 148.06 km. Another important river within the district is the Tuipui river which originates near Khankawn, located within Champhai town area. It flows eastward for a short distance before making a left-turn near Zotlang village and then flows through champhai plain in the northward direction, until Keilungliah lui joins it near Zote village. It then flows in the north-west direction before changing course in the southward direction near Tualpui village. It flows in the central part of the district and ultimately drains itself in the Tiau river in the south. The total length of the river within the district is about 110.96 km.

To the west of Tuipui river, runs another major ridge line towards north starting from Chawngtlai village (1420 metres). It extends through Khawzawl village (1303 meters) and ends at Darngawn tlang (1449 metres). The length of this ridge is about 20 km. In the south western part of the study area, run two ridges almost parallel to each other. These two ridges are separated by lungva lui. One of these two ridges, named tlangpui tlangdung starts near tlangpui village (1392 metres), and continues towards north. It passes through Vaisam tlang (1463 metres), Tlangpuite village (1309 metres), Lungtan village (1307 metres) and terminates near Saichal tlang. The total length of this ridge is about 20.30 km. The other ridge named Khawhai tlangdung, starts from Tinghmun tlang (1474 metres) and continues towards north. This ridge passes through Sialhawk village (1408 metres), Leithum tlang (1388 metres), Khawhai tlang (1592 metres) and Khawhai village (1568 metres). The length of this ridge is about 18.87 metres. In the southern part of the study area, runs another ridge line starts near Khuangthing village and runs towards north. It passes through Bunghmun tlang (1247 metres), Zawlsei village and Khawbung village. To the east of this ridge extends another ridge line from Samthang tlang (1740 metres), Lianchhiari Lunglentlang (1694 metres), Dungtlang (1708 metres), Sakeibuksuk tlang (1558 metres), Puruar tlang (1521 metres) before ending at Khuang Mual (1143 metres). This ridge is terminated by a small stream (Thangai lui). The total length of this ridge is about 19.12 km. In addition to the aforesaid ridges, there are also several minor ridge lines located in various parts of the district.

The Tuichang river, which forms an important major river within the district originates near Darngawn village and flows in the north-west direction before flowing in the southward direction near Mangpui tlang in the central part of the district. It flows through the central part of the district before

forming the south-western boundary of the district. The total length of the river within the district is about 81.01 km.

Some areas like Tan tlang and its surrounding, hlumte tlang, Ralvawng tlang, Sahmulatual (Mawmrang tlang), Vanchungbung tlang and Sur tlang are characterised by many spectacular scarps. These scarps are generally very steep, and made up of hard rock units. It has been observed that these scarps are mainly confined to the southern and northern part of the district, while the central and western part are lacking in these scarps. The spurs are mainly running in east – west directions. The spurs on the eastern side of the main ridge are relatively long and gentle than the spurs on the western side.

C. Forests:

Champhai district has 2785sqkm of forest cover. The forest cover type of Champhai district is mainly subtropical forest especially in the eastern side of the district, where the altitude is higher. There is tropical wet evergreen forest mixed with semi evergreen and tropical moist deciduous forests comprising mainly of bamboo on the western side. The vegetation consists of a mixture of several species. Depending on the density of the canopy cover, the forests have been divided in to dense, medium dense and less dense forest.

Dense forest/closed forest:

This class includes natural forests, which are not disturbed by any biotic factors like shifting cultivation and other human activities. It covers an area of 663.99 sq km, which accounts for 20.84% of the area of the district. The crown density of this class is very thick. Subtropical forest, evergreen and semi evergreen forests covers major portion of this area. Vast dense forest are near lamzawl, Bungzung, khuangphah, Buang, rabung, Kawlhem and NE Diltlang villages.

Medium dense forest:

The forest that have a crown cover neither too thick nor thin are classed under this category. It covers an area of 577.77 sq.km, which accounts for 18.14 % of the total area of the district. It is distributed throughout the district and found in close association with dense forests. The only differences lies in the crown density of these forests.

Less dense forest:

As the name of this class implies, the forest under this category has a thin crown cover. This type of forest includes forest, which were once disturbed and affected by biotic factors like shifting cultivation and human activities. These forests are characterized by those lands where shifting cultivation had been practiced and then left fallow for over a year, the resultant new vegetation of

which, regenerated to form new forest. It cover an area of 805.19 sq.km, which accounts for 25.27% of the total area of the district.

Bamboo:

Moist delicious bamboo forests is not as abundant in Champhai district as compared to other district. They are found concentrated at the western part, northern part and along the banks of river Tiau on the eastern side of the district. It is mostly found in low lying areas near streams and river. In some places it is found on the hill slopes. It covers an area of 307.30 sq. km, which accounts for 9.46% of the total area of the district.

District	Geographic Area (sq. km.)	Forest Cover Assessment (in sq. km.) 2011 (Revised) (State of Forest Report - 2011)				Proportion of Forest Cover to District Geographic Area (%)	Proportion of Forest Cover to State Geographic Area (%)	Proportion of Forest Cover to Sate Total Forest Cover (%)
		Very Dense Forest	Mod. Dense Forest	Open Forest	Total			
Champhai	3185	57	1096	1632	2785	87.44	13.21	14.57

D. Water resources:

Champhai district has a number of rivers which flow towards the north like Tuisa, Tuivai and Tuivawl rivers and the south flowing rivers like Tiau, Tuipui and Tuichang rivers. The drainage systems of Champhai district are dendritic and sub-dendritic pattern in nature. However the major rivers are the Tiau, Tuipui, Tuiphal, Tuisa, Tuivai Tuivawl and Tuichang, out of which the Tiau is the biggest and most important river. The Tiau river starts from north towards the southern direction and then enters Chhimtuipui. The Tuivai river runs in the northern part of Champhai district and flows towards western direction and then enter Assam in the north. Rivers are rich in fertile river valleys. Besides these rivers, Champhai district is interspersed with numerable streamlets and brooks.

E. Demography:

According to the 2011 census Champhai district has a population of 125,370, roughly equal to the nation of Grenada.^[4] This gives it a ranking of 610th in India (out of a total of 640). The district has a population density of 39 inhabitants per square kilometre (100/sq mi). Its population growth rate over the decade 2001-2011 was 16.01%. Champhai has a sex ratio of 984 females for every 1000 males, and a literacy rate of 95.91%

Area and Population of Champhai District:

Area	Population			% decadal growth rate of population (2001-11)	Sex Ratio	Population Density (per Sq. Km)	Literacy Rate (%)		
	Persons	Males	Females				Persons	Males	Females
3185	125745	63388	62357	16.01	984	39	95.91	97.21	94.59

AGRICULTURAL SCENARIO OF THE DISTRICT

Agriculture plays a vital role in the life of the people. Champhai District consists of steep hill ranges separated from one another by narrow valleys. It is blessed with diverse topography and congenial climate which makes it conducive for growing varied type of horticultural and agricultural crops.

als	Rice is grown in the valleys and in the cultivated plots on the mountain sides. Varieties grown include upland Rice and Maize.
s	Rice bean, French Bean, Black Gram and more.
y vegetables	Mustard, Cabbage, Cauliflower and more.
vegetables	Potatoes, Carrots, Reddish and more.
sh	Different varieties of Squash grown on trellises on the mountain sides.
ed	Soya bean, Mustard, Sesame.
s	Turmeric, Ginger, Chilies
ellaneous	Cotton, Sugarcane.

A.Crops:**i) Agronomical crops:**

The economy of Champhai District is largely dependent on Agriculture and its allied Sector. The District has diverse topography and favorable climate to support this enterprise even to a commercial level for some crops. Paddy is a major crop grown in the District which is also a staple food of the local people.

The cropping system throughout the District is diverse since it is dependent upon soil, micro-climatic conditions and socio-economic status of the total area only 21 per cent is put Paddy and seasonal crops as high as 63 per cent of the total crop area is under Jhum cultivation.

The major land use/ land cover classes in the area were broadly classified into built-up land, agricultural land/horticultural land, forests (dense and open), bamboo forest, forest plantation, jhum land (current and abandoned jhum/shifting cultivation), scrubland and water body. The land use/ land cover statistics is given in Table

Use/ Land Cover Categories	Area in Sq.km	Area in %
up	17.19	0.54
	39.93	1.25
Horti Plantations	21.93	0.69
e Forest	663.99	20.84
Forest	1393.15	43.73
st Plantation	10.22	0.32
oo	307.3	9.65
oland	31.65	0.99
er Body	8.85	0.28
ent Jhum	130.18	4.09
andoned Jhum	561.44	17.62
	3185.83	100

Land Use/ Land Cover Statistics of Champhai District Area in Sq.Km

The actual area of permanent rice cultivation is 3993 hectare. However, paddy also is cultivated in shifting cultivation areas of about 5900 hectares. The cropping system throughout the district is diverse since it is dependent upon soil, micro- climatic conditions and socio-economic status. Various horticulture crops like bananas, oranges, papaya, hatkora, Assam lemon, vegetables, spices like ginger, oilseeds, pulses and areca nut are grown in the district. Of the total area only 21 per cent is put on the paddy and seasonal crops. As high as 63 per cent of the total crop area is under Jhum cultivation. The net sown area is 22,059 hectares and gross cropped area is only 22,569 hectares. The cropping intensity is only 120%. The cropping intensity is to be increased to attain self sufficiency in food production. According to the Agriculture Department's figure of 2012-2013 total production of paddy stood at 15,195 MT. During the same year the area under fruits was 5100 ha. The Forest production is mainly timber, bamboo, broom-stick etc. The forests are continuously under great pressure of shifting cultivation