



General Resource Of Paschim Medinipur District, West Bengal: A Glimpse

Gourhari Guchhait Research Scholar, Department of Geography, Dr. A.P.J. Abdul Kalam University, Indore, M.P., India.

Dr. Suruchi Pachori Assistant Professor, Department of Geography, Dr. A.P.J. Abdul Kalam University, Indore, M.P., India.

ABSTRACT:

In this article, the natural resources of Paschim Medinipur, West Bengal were investigated through historical accounts and prevailing mitigation aspects due to its geographical importance in West Bengal as well as India. A preliminary integrated perspective was evaluated based on several sources. This approach may be helpful for general resources available at the district.

Keywords: Resource, Paschim Medinipur, District, West Bengal

PASCHIM MEDINIPUR-AT A GLANCE:

Paschim Medinipur, in the south-western section of West Bengal, was formed on January 1, 2002, when the previous Midnapore district, India's largest district at the time, was partitioned. The Jhargram subdivision was elevated to the status of a district on April 4, 2017. In terms of geographical area, Paschim Medinipur district is second only to South 24-Parganas among the state's districts. It is followed by South 24-Parganas (5.82 million) and Murshidabad (5.13 million) in terms of rural population (4.58 million). In 2011, it placed fourth in terms of tribal population percentage (14.87), after Jalpaiguri (18.87), Purulia (18.27), and Dakshin Dinajpur (16.12).

The district's soil structure includes light, medium, and heavy types in various areas. The Chotonagpur Plateau runs through the north and north-western parts of the district, which are covered in hard laterite stone. Laterite Alluvial soil can be found in the western and eastern parts.

In general, the district is divided into two natural divisions. From Bankura to Balasore, NH 14 and NH 16 (old numbering NH 60) go through the area, roughly splitting the two natural divisions. The soil is fertile alluvial and the region is flat to the east of this route. The Chota Nagpur Plateau descends down to the west, forming an undulating expanse of barren laterite

rocks and soil. From dense dry deciduous forests in the west to marshy marshes in the east, the scenery changes dramatically.

The alluvial portion can be divided further into two halves. To begin with, it is a strip of fully deltaic terrain closer to the Hooghly and the Rupnarayan, intersected by various tidal-influenced rivers and watercourses. Second, it is the remainder of the district's eastern half. It's boring rice plain with a lot of canals and tidal creeks running through it. The fields are protected from floods by embankments along the tidal creeks. Water has logged much of the area.

The district's agriculture relies heavily on river water. Rivers run in either a north-south or a south-east direction. Kangsabati, Shilabati, Kolaghai, Haldi, Rasoolpur, Subernarekha, Tamal, Parang, and Dulang are the major rivers.

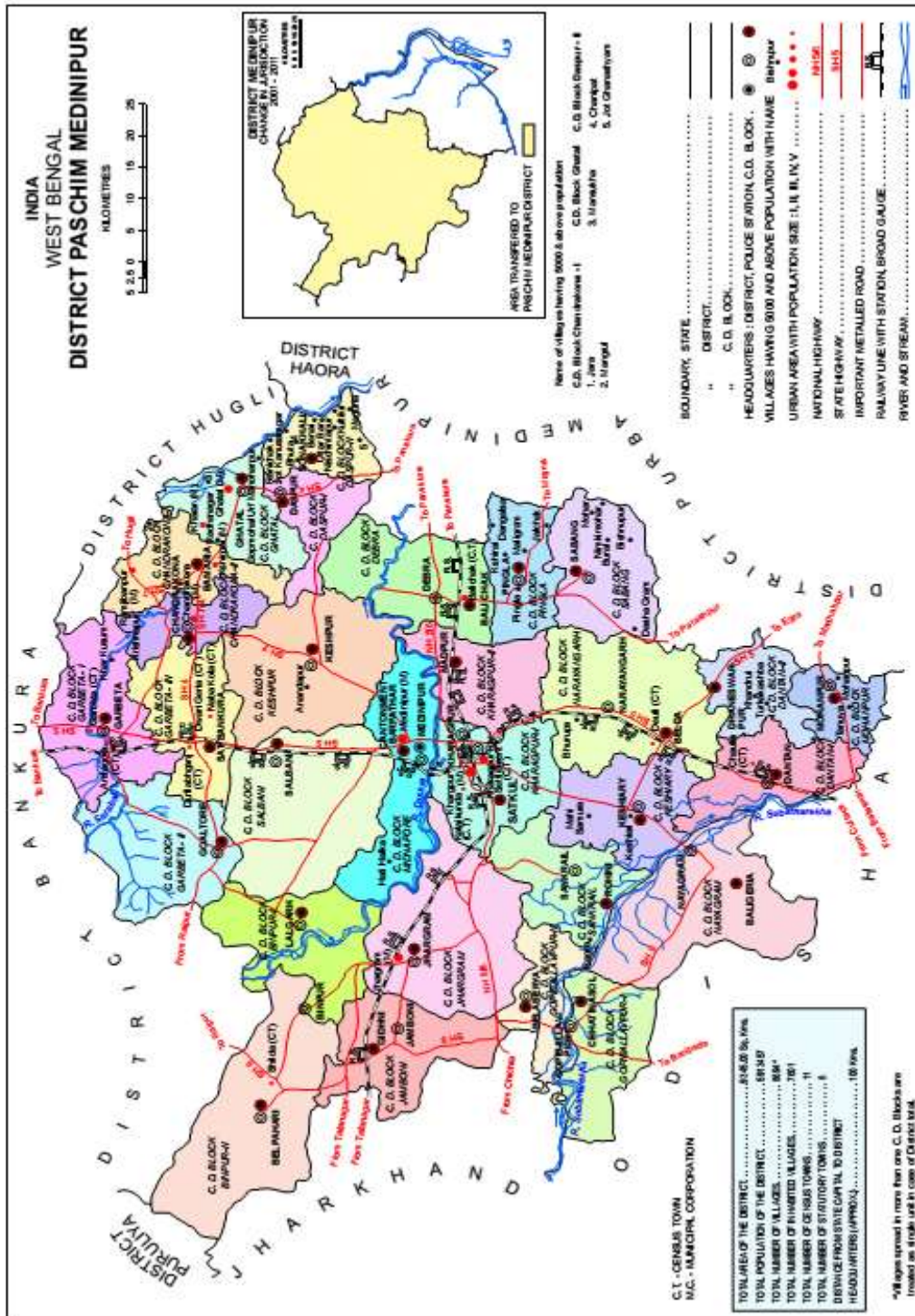


Figure: 1. District Paschim Medinipur, West Bengal India

Table 1: Salient Features of the district

S. No.	Items	Statistics
Geography		
1.	Area	9368 Sq. Km.
2.	Coverage (Latitude and Longitude)	220 57'10" N 800 12'04" E
3.	Average Elevation	-----
4.	Major Rivers	Rupnarayan, Keleghai,
5.	Soil Type	Alluvium and coastal
Demography as per Census		
6.	Population	
7.	Male Population	3,007,885
8.	Female Population	2,905,572
9.	Sex Ratio	966/1000
10.	Population Density	631 per sq.km
11.	Literacy	78 %
12.	No. of Villages	--
Agriculture		
13.	Total Area	928.58 Thousand Hectare
14.	Major Product	Tea, Timber
15.	Non-Agriculture Land	156.588 Thousand Hectare
Administrative Structure		
16.	No. of Block	29
17.	No. of Sub Divisions	4

18.	No. of Municipality	8
19.	Panchayat Smiti	28
20.	Gram Panchayats	--
Climatology		
22.	Rainfall	1550 mm
23.	Temperature	8 to 36 ° C
24.	Annual Humidity	55-65 %
Socio-Economic		
25.	Language	Official- Bengali, English Regional- Hindi, Nepali, Bodo
26.	Tribe	Boro, Mech, Toto, Santhal.
27.	Livelihood	Collecting Tea leaf and forest product, wood industry, Agriculture.
Public Health		
28.	b). Primary Health Centers	102
29.	c). Private Hospitals	123

Source: Brief Industrial Profile of Paschim Medinipur District West Bengal

LOCATION OF THE DISTRICT:

This district falls under Survey of India Topo Sheet No. 73N/1, 73N/2, 73N/3, 73N/4, 73N/5, 73N/6, 73N/7, 73N/8, 73N/9, 73N/10, 73N/11, 73N/12, 73N/14, 73N/15, 73 O/1, 73 O/5.

BOUNDARY:

The district of Paschim Midnapore is located in West Bengal's southwestern portion. It is bordered on the west by the Jhargram district, and on the south by the Mayurbhanj and

Balasore districts of Orissa. The Purba Midnapore district is to its east, and the district Bankura is to its north. Midnapore is the district headquarters.

ADMINISTRATION DIVISION:

The district comprises two subdivisions: Medinipur Sadar and Ghatal. Medinipur Sadar subdivision consists of Midnapore municipality and six community development blocks: Medinipur Sadar, Garhbeta-I, Garhbeta-II, Garhbeta-III, Keshpur and Shalboni. Ghatal subdivision consists of five municipalities (Ramjibanpur, Chandrakona, Khirpai, Kharar and Ghatal) and five community development blocks: Chandrakona-I, Chandrakona-II, Daspur-I, Daspur-II and Ghatal. Midnapore is the district headquarters. Other than municipality area, each subdivision contains community development blocks which in turn are divided into rural areas and census towns.

RAILWAY:

With regard to railways, Kharagpur is very important junction of the South-Eastern Railways. Kharagpur junction has the world's third longest railway platform with a length of 1,072.5 metres. From Kharagpur the railway lines are extended to many important cities of the country. Presently 5 important lines pass through Kharagpur which are Howrah-Nagpur-Mumbai line, Howrah-Chennai main line, Howrah-Kharagpur line, Asansol-Tatanagar-Kharagpur line and Kharagpur-Puri line.



Fig 2: Indicative Location of Railway Stations In Paschim Medinipur District

ROAD:

The district is well networked with other part of the State through roadways. National Highway (NH-6) passes through the district connects other cities like Surat in Gujarat; Dhule, Amarawati and Nagpur in Maharashtra; Durg and Raipur in Chhattishgarh; Sambhalpur in Odisha . The district is well connected with other districts like Purba Medinipur, Bankura,

Birbhum and Murshidabad through National Highway (NH-6). Besides the National Highway, few other State Highways also passes through the district. State Highway (SH)-4 connects Sarenga, Goaltore, Chandrakona, Ghatal and Panskura. SH-5 connects Banspahan, Narayanpur, Silda, Lodhasuli, Kharagpur (via NH-6), Keshiary and Belda.



Fig 3 : Roads Source: www.mapsofindia.com

MINING ACTIVITY:

Availability of Minerals:

Paschim Medinipur district is abundant in minerals. Fragments of phyllite, pebbles and gravels occasionally lateralized. Laterite occurrences are found in many parts of the district. Sands and Silts in alternate layers are found in different part of West Medinipur. North-west region of the Paschim Medinipur district is rich in potstone, which is mainly used in the manufacture of household utensils.

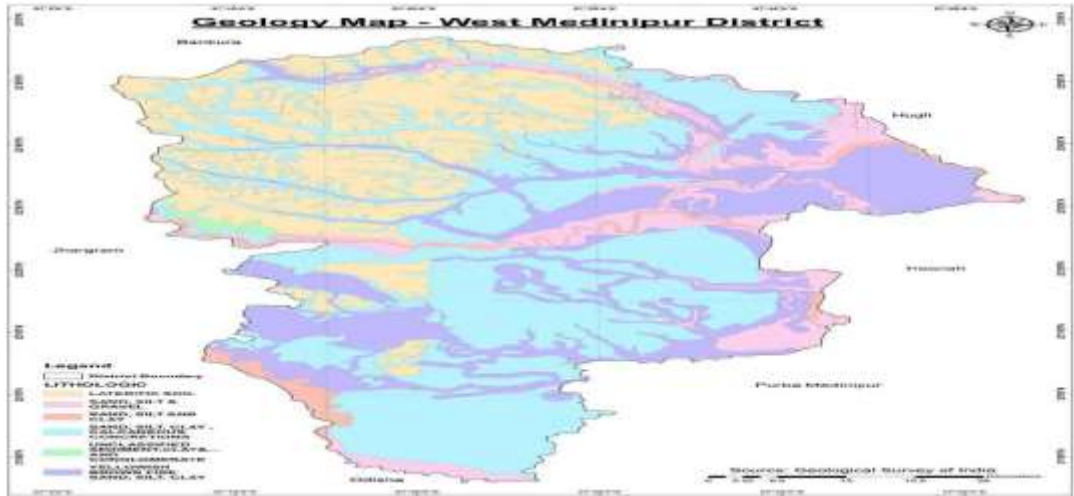


Fig. 4. Geology

RIVER MAP (DRAINAGE SYSTEM):

The major rivers are Kasai, Subarnarekha and Rupnarayan, Rivers like Silai, Tamal, Betai, Kubai, Parong, Palasal; Dulung etc. are the tributaries to the major rivers. Kasai Rivers flows in a meandering course but mainly NW-SE transverses through Medinipur town and ultimately it meets the Hugli tiber near Haldia Anchorage it Purba Medinipur district. Rupnarayan River, which flows by the Northern-Eastern border of the district marketing its border with the district of Hoogly and Howrah. Subarnarekha, the other major river, enters in the south western part of the district from Mayurbhanj district, Orissa and flows through the towns of Gopiballavpur and Nayagram.

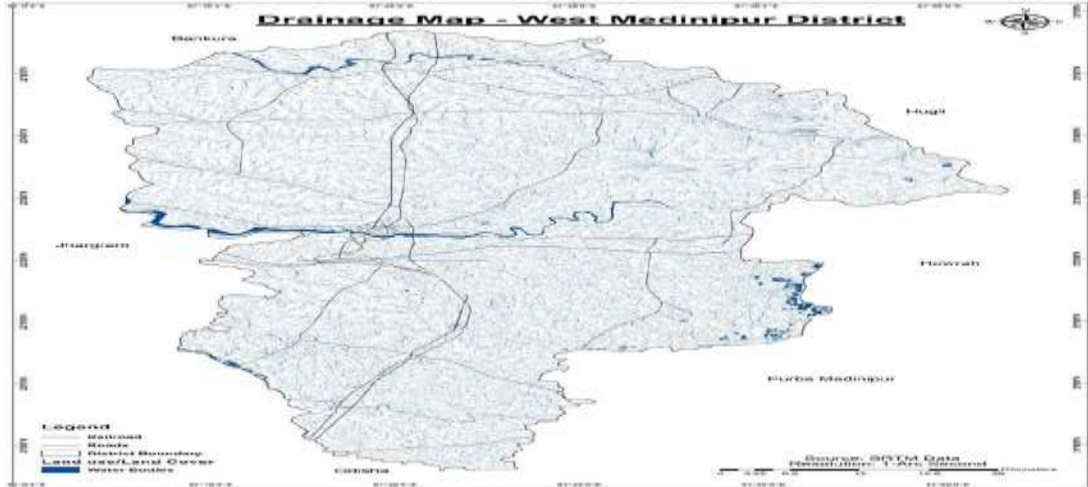


Fig. 5. Drainage Map

1. Rupnarayan River:

River Rupnarayan is one of the most important river channels of district Paschim Medinipur. Rupnarayan is generated from the combined flow of river Dwarakeswar and river Shilabati / Shilai / Silai. These two main courses meet at Bandar near Ghatal and the combined flow is known as Rupnarayan. Beyond Ghatal, Rupnarayan flows in South- South-Easterly direction creating the boundary of district Paschim Medinipur with districts Hugli and Haora to the East respectively, to ultimately join river Hugli (Hooghly).

2. Subarnarekha River:

River Subarnarekha is a transboundary river flowing through the states of Jharkhand, West Bengal and Odisha. Being originated near Nagri Village in Jharkhand in the Chhota Nagpur Plateau region, Subarnarekha enters district Paschim Medinipur near Bhatandiha in C. D. Block Gopiballavpur I, creating the borders of C. D. Blocks Gopiballavpur II with Gopiballavpur I; C. D. Block Sankrail and Keshiyari with C. D. Block Nayagram and Dantan and then exits the district to enter State of Odisha. Floods are common in the course of Subarnarekha and causes havoc during Monsoon.

3. Shilabati River:

River Shilabati is the largest tributary of river Rupnarayan and as the main contributor in formation of the river Rupnarayan. River Shilabati emerges from the confluence of several smaller river streams generated from the Chhota Nagpur Plateau like Purandar, Shalad, Joy-Ponda, Parang, Betai, Donai, Amlagura etc. Shilabati has a comparatively broader drainage basin with substantial agricultural activities. The main course of Shilabati is originated in district Puruliya, passes through district Bankura and enters district Paschim Medinipur after meeting river Joy-ponda at village Kenja in C. D. Block Garbeta II. It then flows in West – South-West direction and passes through C.D. Blocks Garbeta I, Chandrakona II, Chandrakona I and Keshpur. From Keshpur, river Shilabati moves in North- North-East direction through C.D. Blocks Debra and Dantan.

4. Kangshabati River:

River Kangshabati is one of the most important rivers of district Paschim Medinipur. Like other important rivers in the district, it's origin is in the Chhota Nagpur Plateau in near Muruguma in Jhalda II C. D. Block of district Puruliya. It then passes through district Bankura and enters district Paschim Medinipur near village Basantapur in Binpur I C.D. Block. Several important towns of district Paschim Medinipur like district Head Quarter Medinipur, Kharagpur are located near or on the banks of river Kangshabati. Kangshabati Irrigation Project and Kangshabati reservoir is built in the upper course of the river to utilize the river water for irrigation purpose across the Western districts of West Bengal.

5. Kaliaghai River:

River Keleghai is originated within district Paschim Medinipur at Baminigram and flowing in an Easterly direction it receives river Kangshabati inside Paschim Medinipur to form river Haldi which is a right bank tributary of river Hugli (Hooghly).

6. Kapaleswari River:

River Kapaleswari enters district Paschim Medinipur in C. D. Block Sabang. The flow of the river inside the district is from North-West to South-East direction. Kapaleswari joins river Keleghai/ Kaliaghai as a West bank tributary near village Jagannath Chak in C. D. Block Sabang.

CLIMATE:

The district experiences a humid sub-tropical type of climate with minimum and maximum temperature varying from 70C in the winter to 450C in summer respectively. Humidity in this district is quite high particularly in the monsoon months and shows an upward trend from January onwards. Rainfall fluctuates widely over years and concentrates over a few months of a year under monsoon.

GEOMORPHOLOGY:

Broadly speaking, there are two natural divisions of the district. NH 14 and NH 16 (old numbering NH 60) from Bankura to Balasore, cuts across the district and roughly is the dividing line between the two natural divisions. To the east of this road, the soil is fertile alluvial and the area is flat. To the west, the Chota Nagpur Plateau gradually slopes down creating an undulating area with infertile laterite rocks and soil. The landscape changes from dense dry deciduous forests in the west to marshy wetlands in the east. The alluvial portion may be further subdivided into two divisions. First, it is a strip of purely deltaic country nearer to the Hooghly and the Rupnarayan, intersected by numerous rivers and watercourses subject to tidal influences. Second, it is rest of the eastern half of the district. It is a monotonous rice plain with numerous waterways and tidal creeks intersecting it. The tidal creeks are lined with embankments to prevent flooding of the fields. Much of the area is water-logged. Geomorphological setting of Paschim Medinipur district can be divided into following units:

- i) Laterite covered platform sedimentary areas underlain by deposits of older alluvium bearing rolling plains.
- ii) More or less Flat Alluviul Plain of Recent Age to the East and South-East.

The district presents a gradually sloping topography. The highest altitude is 132 m above M.S.L. near Daspur in the east and 18.06 m above M.S.L. near Sansankha in the South East.

LANDUSE PATTERN OF THE DISTRICT:

Table 2. Land use Pattern

Category	Area(sq.m.)	Percentage
Forest	701302016	11.12969559
Cropland	256325344	4.067895125
FallowLand	1774083072	28.15478082
BuiltupLand	326543392	5.182258811
WaterBodies	135347072	2.147964324
ScrubLand	2852535808	45.26987587
Sand	4602546.5	0.073042627
BarrenLand	250439520	3.974486824
Total	6301178771	100

Source: Sentinel 2A Imagery Data, 9th May 2020

SOIL:

The soil structure of the district is found light and medium and, in some places, heavy types. North and north eastern part of the district is a part of Chhota Nagpur Plateau and covered with hard laterite stones. In western and eastern part, laterite alluvial soil persists.

Alluvial soils and brown soils are found in the southern part while brown and red sandy soils are found in the northern part of Paschim Medinipur district. This soil is good for the cultivation of oil seeds, millets and maize.

In low land plain region paddy is being cultivated. In the lower Kasai Plain region alluvial soil is found which is highly suited for paddy cultivation. Besides, the river Kasai is flowing through this region which makes the soil more fertile and suitable for crop cultivation. Laterite rocks are also found in the north western part of this region.

The Upland Medinipur region is found in the north-west part of this district. This region is not ideal for cultivation. The Sandy soil found in the upper part of the district which is unproductive and therefore Sal trees and other jungle scrubs are found growing in this region.

PHYSIOGRAPHY OF THE DISTRICT:

Geographically, the north and north-west regions of Paschim Medinipur district are a part of Chhota Nagpur Plateau in its eastern end and covered with hard laterite stone.

Geographically the district may be divided into three sub-micro regions:

Plain of Silai: This plain land is found in the northern part of the district bordering Bankura district and is a portion of East Chhota Nagpur plateau. Most part of the region recent alluvium and laterite. Due to irregular alluvial deposition, the river bed causes floods in this area. Alluvial and brown soil is found in southern parts of this plain area. The Garbeta-I and Garbeta-II C.D. Blocks are included in this region.

Lower Kasai Plain: Lower Kasai plain is located either side of the Kasai River. Navigability of this river is negligible due to alluvial deposition. Huge depression is formed in the west and north-west area on the Kasai and Kaleghai rivers confluence and causes flood. This region is also known as 'Mayana Basin'.

Upland of Medinipur: This region is found in the north-western part of the Paschim Medinipur district and lies close to Odisha and Jharkhand. This upland is 2,029 sq. km. with sloping is from north-west to south-east. This is part of Chhota Nagpur Plateau which is formed with laterite. Some hills which are found in the extreme north are 82 meters to 223 meters in height. The Subarnarekha is the controlling river in this upland region. This river flows from the state of Jharkhand and flows towards south-east and empties at Bay of Bengal in Odisha.

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