

Name and Situation

This working plan deals with the forests of the districts i.e. Dhanbad and Baokaro. Dhanbad Forests Division is delimited on the North by the river Barakar, on the West and the North-Est by the Giridih District, on the South and the East by the district of Bokaro, Purulia (W. Bengal).

The present Dhanbad Forests Division is a part of the old Manbhum Forests Division of West Bengal, which was constituted by the Govt. Sanction no. 6566 R. dated 11.07.1946 and become functional from 01.11.1946.

Being an offshoot of the old Manbhum Forest Division, Dhanbad Forest Division was created in consequence upon the transfer of territory of Purulia Sadar to Bengal synchronising with the creation of the Dhanbad District from 1st Nov. 1956.

A separate Bokaro Forest Division has been created by govt. order no. Yo BUDGET- 170/97-4376 V.P. dated 31st Dec. 97 which will be working under the Bokaro revenue district, comprising forests area from Hazaribagh East division and Giridih division. Chas range of Bokaro remains with Dhanbad Division.

Distribution of area:-

The total forests area of the forests covered by this plan is 26810.415 hectares (66251.15 acres). Details of the distribution and area of the forests have been given in **APPENDIX-1**. Summary of the above appendix has been shown in TABLE-1

The forests are widely scattered throughout the present revenue districts of Dhanbad and Bokaro. It is spread over 7 thanas namely Tundi, Govindpur, Nirsa, Jharia, Topchanchi, Chas and Chandankiari. However the forests in Tundi and Topchanchi thanas are in compact sate having the best in the Division.

The forests of Division lies between 23 26 'N Latitude and 86 E and 50 "E Longitude.

Distribution of Area :-

Sl. No.	Range	Thana	Reserved No of vill.	Forest Area Ha.	Protected No. of vill.	Forest Area Ha.	Total No. of vill.	Area Ha.	Remarks
1	Chas	Chas-2 Chandankiari	-	-		4771.867	108	4771.867	
2	Tundi	Tundi Govindpur Jharia Nirsa	128 - - -		45 28 5 54	1713.492 576.189 239.054 1443.190	260	11445.403	
3	Topchanchi	Tundi Topchanchi Govindpur Jharia	16 13	2182.401 1272.838	8	644.726 4920.078 854.272 719.809	213	10594.124	
		7	157	10928.717	424	15882.677	581	26811.394	

Geology rock and soil:-

Details of the Geology of the Dhanbad Division has been provided by the Director, Bihar (E) circle Geological Survey of India, Rajendranagar, Patna-16 vide this no. 191/BC /(E)/s/M/Tech/ 74, dated-9th Sept./74. It was further revised after due consultation with Indian School of Mines, Dhanbad.

From Geological point of view, Dhanbad district falls in to two distinct geological groups i.e. Pre cambrians (Igneous metamorphic) & Gondwanas (Sedimentary). Pre cambrian rock formation is representative of the oldest rock types formed on the earth corresponding to the Satpura organic cycle (95 million year.) Pre Cambrian by & large are hard compact rock comprising mainly of Schist & gneisses with comparatively less compact consisting sand stone & coal. It yields immature soil.

These formations are coal bearing & support potential coal fields. The Gondwana belt shows an approxiamte E-W to ESE-WNW trend is passing almost through middle of the District.

Tundi, Govindpur, Topchanchi area comprises Pre combrian rock, the country rock being quartz-Felsparic schist intruded rather profusely by a number of Igneous bodies viz metadoerites, amphiboiite, metadolorite. Near Govindpur a samll intrusive body of epidorite occurs within quartz Felspathic schist country rock. Granite geniss,

Garnet-Mica-Schist, Clac-Schist and magnetite bodies occur as small exposure here and there. The prominent hill & hillock in the area comprise mostly of dark colour, hard & compact intrusives (mainly amphibolite & metadolerite). The low lying terrain is formed usually of schistose rock at few places, highly silicified brecciated rock occurs within quartz- feldspathic schist. The brecciated rock also because of its hardness and toughness, stands as prominent ridges in the area. The Soil and alluvium are derived largely from gneisses and quartz-feldspathic schist.

In the area around Topchanchi the hill features 1571 ft. (altitude of the hill top), 1280', 1967', 1260', 1206' and other adjoining hill rocks are composed of meta-dolerite and amphibolite intrusives, Highly silicified brecciated rock prevents a zone of faulting and occurs mostly within the schistose country. Brecciated rock forms sharp ridges and contains well developed quartz veins along sheared and brecciated walls. Going further North the main rock type is quartz. feldspathic schists with monometa-dolerite, amphibolite and quartzite. To south of G.T. road in Topchanchi area all conspicuous geomorphological feature e.g. hill features 1930', 1406', 1867', 1527' are composed of intrusives mainly amphibolites with some meta-dolerite and meta-norite. Few small exposures of magnetite also occur.

Geological Structure:-

Axial plane foliation is the major planar structure trending NW to NWSE dipping 20 to 70 towards NS and or SW respectively. deformation accompanied by movements have caused faulting characterized by brecciation and silicification along with fault planes, strike joints, transverse joints and sheet joints have developed throughout the schistose and gneisses country rock.

In the area around Jharia, Chas and Nirsa, Gondwana rock formation occur. These formations belong to lower gondwana group of rocks and contain the most important coal seams of the country. Lower Gondwana here are largely formed of alternative sandstones and shales with a number of potential coal seams. Barakar sandstones and shales have been intruded by aillies and dykes of mica-period tite and dolerite. These sandstones are generally hard and coarse forming poor cut soil.

Jharia is the most potential coal field and is roughly sickle shaped, being about 24 miles (E-W) by 12 miles (N-S), Gondwanas have been through faulted against pre-cambrians to N and S of Jharia, Chas and Nirsa coal field areas.

In Cghandankiari (SW to Jharia, Topo sheet 73/1/6), the country rock comprises precambrian gneisses. About one mile east of Chandankiari police station, barren

measures (Gondwanas) composed largely of sand stone and shales (without coal deposition). The out crop just NE of Bikram village is fairly large. Few small lens shaped out-crops of hornblende- schist and mica-schist occur within gneisses (mainly granite gneisses, medium to coarse grained.")

The soil formation in the forests area is to shallow to very shallow, depth on plain to undulating land rarely exceeds 24 inches (60cm.) It is generally red-loam with pockets of clay in Chas area Evidence of erosion is present everywhere in varying degrees. Humus is absent except in remote areas and Rajdaha reservoir catchment areas where the forest cover is well protected. Due to annual fires, and constant trampling by a large number of cattle that freely roam in the area, the top soil is hard and compact.

Configuration of the Ground:-

Expect for the Chas-Chandankiari area where the ground is plain to undulating suffering from varying degrees of erosion, the forests are chiefly confined to hills. These hills are of varying forms. The Topchanchi hills at the North-West are the east ward prolongation of the famous Parasnath hill the top of which is situated in Giridih District. Next in importance in the North is the range of Tundi Pahar. It is nearly 15 km. in length and 3 to 5 km. in width spreading from North-West to North-East with Damunda hill having two heads (tops) on its northern half of the district. There chief aspects of the important hills are North and South. Elsewhere in places where isolated hills stand out from the country side, all aspects are present.

The District is drained by the river Damodar which passes throught the district flowing west to est. The river Barakar flows along the Northern and North-Easter boundary of the district before it joins the river Damodar in the east. A number of smaller rivers originating in the district finally drain into these two big rivers. The Damodar valley corporation has constructed two big dams, one at Maithon across the river Barakar and another at panchet across teh river Damodar there by creating large reservoirs known as Maithon reservoir of 41.00 eq. Miles (106.19 sq. kms.) and panchet reservoir of 59 sq. Miles (152.81 sq. kms) respectively. The entire district thus directly drains into either of the two reservoirs which have multipurpose use like flood protection, hydroelectric generation, etc. Conservation of soil in situ has assumed special significance to check siltation of these two reservoirs.

Water Supply:-

the Damodar along with Barakar river is the principal source of water supply in the Division. The Barakar is the most important tributary of the Damodar River. The Ijri, the gohai and the Uvla are other important tributaries of the Damodar. Except for the Damodar & the Barakar river all the other streams dry up in hot and cold weather. Even these river which are the main sources of drinking water for village cattle and

washing get reduced to near trickling in summer. These rivers are not navigable during any part of the year except Damodar river at certain points.

Damodar divides old Dhanbad district from sadar subdivision of the old Manbhum district (now named Purulia in west Bengal) and at its entry in to the district it received from the north the water of Jamunia river, which marks the boundary between Hazaribagh & Dhanbad. Damodar flows nearly 77km. through the district.

The Barakar is the northern most river in Dhanbad district separating Dhanbad from Giridih & Deoghar district. It runs of about 76.8 km within this district.

At Topchanchi a stream has been dammed by Jharia water Board at Rajdhato to form a big reservoir from where water is supplied to Dhanbad and its suburbs. This reservoir is famous as Topchanchi lake attracting thousands of tourists around the year.

There are quite few small springs scattered in the rural areas which form sources of water supply to the villages. They are commonly known as Darhis. Some of them are perennial and if the water discharge is sufficient, villagers put small earthen dams for storing water for irrigating their lands.

Climate:-

The area enjoy typical monsoon type climate with three marked seasons, the hot, the rainy & the cold. Humidity is very high during the rains and very low during the hot weather.

The hot season extends from Feb. to middle of June. The max. temp. rise above 45C & hot wind known as "Loo" blows frequently during the months of April to June till the onset of monsoon. Thunder storms usually occurs in May, accompanied by temporary fall in temperature by few degrees. Due to heavy industrialization and mining activities lots of dust particles is found in the atmosphere during this season.

The monsoon generally breaks in the middle of June & continues till the end of September. Showers called 'Hathia' rains do occur some times in the beginning of October. The average rainfall is between 1200 to 1300 mm. The rainfall around Parasnath hills is reported to be more than the average.

The climate of Dhanbad district is very pleasant especially in the winter from November to February. Fog. is not so common except in the industrial coal belts where heavy coal burning smoke hangs over the area. Forests is rare and not yet recorded. Usually there are few winter showers.