THE WEST SINGHBHUM DISTRICT:

GENERAL DESCRIPTION

The West Singhbhum district carved out of erstwhile Singhbhum District forms the south-eastern portion of Chotanagpur. Old district of Singhbhum extended over 11456 square Kms and had a population of 24.80 lakhs according to the census of 1951. Presently the population of carved out district of west Singhbhum is 20.83 lakhs as per 2001 census of which ST population is 53.40% and SC population is 4.9%. There are a total of 4.05 lakhs households.

Public Facility Available in the District :

According to census report public facilities availed by people of Jharkhand are 27% household use drinking water, 15.4% use latrine - Govt. of India, survey report says that only 12.1% flush latrine used by people of Jharkhand, 84.6% depend upon open fields. According to survey report (1991) only 18% people live in pucca house, 82% have no pucca house, 14.6% house are not fully pucca. Two third population live in huts.

75-80 percent people of districts like Godda, Gumla, Deoghar, Palamau, Giridih, Hazaribagh and Lohardaga have neither proper house and nor safe drinkable water. Only 23.6% of the population have electricity facility. 75% population of Ranchi district, 94-95% population of second capital city Dumka and 96% population of district Gumla have no electrity.

Dist. Singhbhum

(Drinking water, electricity & latrine facilities) - Dist. West Singhbhum

	Population Owing a House	Electricity	Drinking Water	Toilets	Percentage Having no facility
Rural	295680	6.79%	45.78%	2.47%	51.28%
Urban	52895	59.44%	70.29%	50.68%	14.81%
Total	348575	14.78%	59.50%	9.79 %	45.74%

Statistics of West Singhbhum District (including new district of Saraikela Kharsawan):

Geographical Area: 9907 Sq km

Population

Total Population	:	17,87,955
Population Density	:	180
Women Ratio	:	965

Social Classification

Social Class	Population	Percentages
General Caste	2,67,489	14.96%
Backward Caste	4,52,901	25.33%
Scheduled caste	89,496	5.01%
Scheduled Tribe	9,78,069	54.70%
Religion by population		
Hindu	10,18,492	56.96%
Muslim	42936	2.40%
Christian	52960	2.96%

Population Density and Growth of West Singhbhum (including Saraikela Kharsawan)

Population Density	Growth Rate - 1991-2001		
2001 - 1991	Total	Rural	Urban
210 - 180	16.35	14.88	24.17

Birth Rate & Fertility Rate

West Singhbhum	Birth Rate	Fertility
	33.88	4.46

Ration of Women/1000 Men

West Singhbhum	1901	1951	1961	1971	1981	1991	2001
	1026	1014	1009	983	977	965	976

Agriculture Scenario of Singhbhum District (Undivided Dhanbad)

Total Geographical Area	1344000 ha	
Land use under Residential (non Agricultural)purpose	7575 ha	0.56 %
Land available for Agriculture	913308.50 ha	67.95%
Waste Land	88199.50 ha	6.56%
River & Pounds	8372.00 ha	062%

Crop by land distribution

Land for Kharif	866877 ha
Land for Rabi	23923 ha
Two crops	23923 ha
Cultivated Land	866877 ha
Gross cultivated land	840800 ha
Density of crop	94.92

Literacy Scenario of District West Singhbhum

District West Singhbhum	Literate Pupation (in lakhs)			Percentage		
	Total	Male	Female	Total	Male	Female
Rural	6.32	4.35	1.97	44.65	61.38	27.85
Urban	2.40	1.41	0.99	78.92	87.61	69.17
Total	8.72	5.76	2.96	50.70	66.23	34.81

Schools & Colleges

District	Primary	Upper Primary	Secondary	Higher Secondary	Total	Degree College.
West Singhbhum	1855	389	97	10	2351	8

ROADS & RAILWAYS :

N.H. 33 connects Chaibasa with Ranchi, the state capital of Jharkhand. Other N. H. 75 connects Chaibasa with Jainthgarh. Other Highway, which is prominent, is Chaibasa Saraikela Road. HOWRAH-NAGPUR main line of the S.E. railway traverses the region from east to west. While CHAIBASA-GUA railway line is used mainly for mineral transportations.

THE OLD DISTRICT OF SINGHBHUM :

In 1949, the feudatory States of Saraikela and Kharsawan, which were part of the State of Orissa, were integrated to Singhbhum. Singhbhum district had four administrative units. The Kolhan, a Government estate occupied the whole of the south and the revenue-free estate of Porahat on the north-west of the district. Most of Kolhan was in the Sadar subdivision with headquarters at Chaibasa. Jamshedpur is the major town near Chaibasa.

The administrative headquarters of the district was at Chaibasa but this was shifted to Jamshedpur owing to the great importance of Jamshedpur in the Second Great World War, due to the Japanese threat to bomb the works. The administrative headquarters was again shifted to Chaibasa in September, 1953.

The old district was bounded on the east by Midnapore district of West Bengal, on the west by Ranchi and portions of Orissa State, on the north by the districts of Ranchi and Purulia, and on the south, by portions of some of the districts of Orissa State (Mayurbhanj, Keonjhar and Bonai). Presently Jamshedpur (East Singhbhum) form eastern boundary, and in north-east part new district of Saraikela Kharsawan has been created recently.

The boundaries for the most-parts follow the crests of unnamed hill ranges which wall in the district; but the river Subarnarekha marks a portion of the northern and southern boundaries, and with one of its tributaries, the Godia, separates Singhbhurn. from the former feudatory estate of Mayurbhanj which is now a district in Orissa, for some distance on the south-east. Farther west, the Baitarani river forms the boundary between Keonjhar district in Orissa and the district of Singhbhum, while one of its tributaries, the Kongera, separates it from Mayurbhanj. On the extreme northwest the North Karo and Phuljhur rivers form a natural boundary between Singhbhum and Ranchi.

The name Singhbhum, that is, the land of the Singhs, is most probably derived from the patronymic of the Rajas of Porahat, to 'whom the north of the district was once subject. Another theory is that the name is a corruption of Sing Bonga, the principal god-head, of the Hos, the Adivasis of Singhbhum district. In the early accounts the name Singhbhum is applied to the territory originally ruled over by the Singh Rajas of Porahat (that is, the Porahat estate and the estates of Saraikela and Kharsawan), as distinguished from the Kolhan and Dhalbhum.

CONFIGURATION

The district forms the part of the southern fringe of the Chotanagpur plateau and is a hilly, upland tract. There are hills alternating with valleys, steep mountains, deep forests on the mountain slopes, and, in the river basins, some stretches of comparatively level or undulating country. In the north-west the highest peaks have an altitude of more than 2,500 feet and in the south-west; there is a mass of hills, rising to a height of nearly 3,000 feet, around Saranda, which is famous for the best Sal forests in Asia.

The centre of the district consists of an upland plateau enclosed by hill ranges. To the west they approach to within a few kms of Chaibasa, but to the east, north and south they are more distant with higher hills beyond them. This central strip, extending from the Subarnarekha River on the east to the Angarbira range to the west of Chaibasa, is one of the most fertile parts of Singhbhum. It consists mainly of well cleared open country. The area wherein the most of Chaibasa South Forest Division falls is, to the south of Chaibasa

and is a higher plateau of similar expanses of rolling country, the level of which rises to 1,500 feet at Gamharia and falls to 1,000 feet in the Baitarani valley in the south.

In the extreme south-west the country is fairly open, while the south-eastern extremity is a fertile alluvial plain. To the west the rolling uplands give place to a hilly, almost mountainous tract in places clothed in virgin forest. Porahat to the north-west consists of hills, valleys and plateaus, with hill ranges and outlying spurs running in all directions. There is a fairly open belt of country stretching from north-east to south-west, through which the South Eastern Railway runs; but with this exception there is no level tract of any size, and where it is not hilly, and the surface is undulating. In the south-west, in the Saranda, the hills culminate in a massive mass of hills and mountains covered with forest and jungle. This area is very thinly peopled, containing only a few small villages scattered on the hill slopes or nestling in deep valley.

To the north, there is a fairly extensive undulating plain formed by the Sanjai valley, flanked on the north by a mountain chain, which contains part of Porahat, Karaikela, Chakradharpur, a part of Kera, and about two-thirds of the former Kharsawan State. These all lie to the north of the Sanjai, which forms the boundary between them and Kolhan.

Porahat :

Except for the North Karo valley and some 20 kms in the Koel valley, the Porahat area is a hilly tract extending to the Chotanagpur plateau, which is reached in the area of Bandgaon. On the extreme north the Phuljhur river comes down from the plateau in a cascade, which forms a pool supposed to be unfathomable and the subject of many legends. The only level or gently undulating land of any extent is found in the upper valley of the Sanjai near Sonua and Goilkera on the South Eastern Railway, and in Chakradharpur, an outlying portion of the Porahat area on the north bank of the Sanjai.

Kolhan :

The Chaibasa South Forest division is a part of Kolhan. The Kolhan consists of an upland tract sloping gently up from the Sanjai and Kharkai rivers on the north and north-east, as far as Gamharia, 34 kms south of Chaibasa. Then there is a downward trend to the south and south-east, towards the boundary of Keonjhar and Mayurbhanj districts in Orissa, which reaches its lowest point on the Baitarani river at about 1,000 feet above the sea level. The north-western portion of the Kolhan is occupied by a mass of hills extending from near Chainpur on the Sanjai, 20 kms north-west of Chakradharpur, to the South Karo river, which is the boundary between Kolhan proper and the Saranda .

In Chaibasa South Forest Division, to the east another range of hills extends from the Singhasan Hill, north-east of Gamharia, in a south-easterly direction to the Mayurbhanj border. For the most part, however, the surface consists of undulating ridges, between which the drainage runs off to join the larger streams, such as the Sanjai, Roro and Kharkai to the north, and the Kongera and Baitarani to the south.

The physical features of the Kolhan vary greatly. To the north and north-east the country is for the most part open and gently undulating, covered with numerous prosperous villages, and well cultivated, with hardly a trace of jungle. The southern portion of it is flat, open country, almost devoid of hills, also thickly populated and well cultivated. The south-western part is very rocky and is covered with jungle, while the east-central portion is open and undulating, and is well cultivated. The western and south-western parts of it are mountainous and thickly covered with jungle, and are very sparsely inhabited. The south-west of the Kolhan is known as Saranda Pir. It is a mountainous country with practically no undulating land except along the railway line in the valley of Koel, and in some groups of villages in the Koina river valley. This scenic area is fondly described as "Saranda of the Seven Hundred Hills", it had a formidable game preserve.

Water Resources & Utility In Jharkhand :

Jharkhand is full of forest. Forest needs water, and 11 rivers run in the State of Jharkhand. On an average 1200 mm rainfall is recorded in the State, better than the states like Rajasthan, Punjab, Haryana etc. Frequently many Districts of Jharkhand suffer from draught. In the year 1769-70 to 1860 In India country wide draught occurred and lakhs of people died, but in Jharkhand death by scarcity of food or draught was not recorded thanks to good water management in Jharkhand.

The major 10 rivers across the Jharkhand are as follows:-

	Name of the River	Major River / Bay being the mouth of the River
1.	Gumani	Ganges
2.	Mayurakshi	Bhagirathi
3.	Ajay	Bhagirathi
4.	Shankh	South Koel
5.	South Koel	Brahmani
6.	North Koel	Sone
7.	Barakar	Damodar
8.	Kharkai	Suwarn Rekha
9.	Suwarn Rekha	Bay of Bengal
10.	Damodar	Bhagirathi

Availability of Water

1.	Total Surface water available	260162 lakh cubic mtrs.
2.	Total Underground water available	49924 lakh mtrs.

Water availability for AGriculture from various sources

Big & Middle Irrigation Projects - 33727.80 lakh cu. mts

Minor Irrigation Projects	-	5915.8 lakh cu. mts
Use of surface water	-	39643.60 lakh cu. mts
Use of ground water	-	7715 lakh cu. mts

Used by Households

Surface water	-	824 lakh cu. mts
Ground water	-	5561 lakh cu. mts

Use by cattles

Surface water	-	585 lakh cu. mts

Use for Industries & Railways

Surface water	-	6713 lakh cu. mts
Ground water	-	1.00 lakh cu. mts

Total Non Irrigation purposes

Surface water	-	8122 lakh cu. mts
Ground water	-	5562 lakh cu. mts

Surface water

Use by own Basin	-	54670 lakh cu. mts
Use by other Basin	-	8375 lakh cu. mts

Surplus Water

Surface	-	197117 lakh cu. mts (inside Basin)
		2090 lakh cu. mts (outside Basin)
Ground surface	-	36641 lakh cu. mts

Only 23.4% surface water used in State and unused 76.6% water runaway to the sea. 26.6% of ground water used and rest 73.4% ground water has been stored.

Water Resources & Utility In the District:

West Singhbhum (Chaibasa)

1. Chaibasa, 2. Tant Nagar, 3,. Manjhari, 4. Kumardungi, 5. Majhgaon, 6. Jagannathpur, 7. Jhikpani, 8. Nowamundi (Barajamdah) 9. Tonto, 10. Khuntpani, 11. Chakardharpur, 12. Goyalkera, 13. Manoharpur, 14. Sonuah, 15. Bangaon

Suwarn Rekha- Kharkai River Basin

Suwarn Rekha River starts 15 km away from Ranchi (South East near Bandhia Village and run through West Bengal, Orissa and meet to the way of Bengal, cover 395 km., 269 km travel in Jharkhand by the Suwarna River touching Ranchi (54%), West Singhbum 16.26%, East Singhbhum 79.07% and Hazaribagh 0.83% of the land.

Kharkai River

Kharkai River starts traveling from Simlipal forest (Orissa) and join River Suwarn Rekha near Adityapur (Jharkhand) total distance cover by Kharkai River is 57 km in Orissa, 11 km Jharkhand Orissa border 98 km in Jharkhand. Kharkai River cover over West Singhbhum (42.01%) East Singhbum (0.36%) and Ranchi (0.52) basin area.

Kharkai River Basin in West Singhbhum

1.	Bandgaon	52.1%	10.	Khuntpani	100
2.	Chandil	2.4	11.	Kuchai	8.00
3.	Saraikela	94.00	12.	Kharsawan	100
4.	Gobindpur	92.00	13.	Majhgaon	24.3
5.	Kumardungi	42.8	14.	Gamharia	46.8
6.	Jhikpani	17.00	15.	Manjhari	100
7.	Goyalkera	10.10	16.	Tonto	36.5
8.	Chaibasa	100	17.	Sonua	43.4
9.	Tant Nagar	100	18.	Chakardharpur	100

Suwarn Rekha River Basin

East Singhbhum (Chaibasa)	West Singhbhum	Hazaribagh
1. Chakulia - 45.70%	1. Kuchai - 92%	1. Gola - 27%
2. Dumaria - 100%	2. Gobindpur - 8.00%	
3. Dhalbhum - 100%	3. Saraikela - 6.00%	
4. Ghatshila - 100%	4. Chandil - 97.60%	
5. Golmuri - 98%	5. Nimdih - 95.70%	
6. Bahragora - 68.30%	6. Gamharia - 53.20%	
7. Potka - 99.00%		
8. Mosabani - 100%		
9. Patamda - 30.20%		

River basin covers as follows:

East Singhbhum

Block		area under basin in Blocks
1.	Baharagora	31.70
2.	Chakulia	54.30
3.	Patamda	69,80

West Singhbhum

1.	Jagannathpur	61.30
2.	Manoharpur	12.70
3.	Majhgaon	75.70
4.	Noamundi	7.30
5.	Kumardungi	57.20
6.	Nimdih	

Large & Middle Irrigation Projects

				Irrigation capacity (thousand ha)
1.	Suwarn Rekha Project (Multipurposes)	fifth/ commission	Singhbhum-	288.106 ha
3.	Jharjhara water Reservior	Singhbhum		-
4.	Sonua water Reservior-1982	-do-	1.50 hac	
5.	Suru water reservior		Singhbum	-
6.	Nakati - do-	1983	Singhbum	-
7.	Surangi - do-	1982		
8.	Satpotka - do-	1982		

RIVER SYSTEM:

Singhbhum is drained by three river systems, those of the Subarnarekha, Baitarani and Brahmani. The watersheds of these three systems originate near Gamharia in the Kolhan and radiate north-west, south-west and east respectively from their common, centre. These watersheds divide the Subarnarekha and its feeders from the Baitarani and its tributaries, and the latter again from the South Karo and Deo rivers, which feed the Brahmani through the South Koel. The tunnel on the South Eastern Railway pierces the narrow divide between

the Subarnarekha and Brahmani systems, and at this point the watershed leaves the Kolhan, continuing in a northerly direction through Porahat and finally merging in the Ranchi plateau between the Bicha and Tatkora hills. Of these three great rivers the Subarnarekha alone flows through the district. The Baitarani forms for about 12 kms the boundary between the Kolhan area and Keonjhar (in Orissa State) while the Brahmani drains the west of the district through its tributary, the South Koel, and its feeders, the North Karo and the South Karo, and the latter of which in its turn is fed by the Deo river.

All the rivers are fordable throughout the year except for-a few hours at a time during the rains when they rise and fall suddenly after heavy rain. The banks are generally steep, and the beds are almost always strewn with boulders or consist of coarse shingle. None of the rivers dry up altogether in the hot season, but in most of them the water is very low in the hot season. In particular, the Sanjai though it rises in forests, runs very low in the hot season, and so does the Roro. The Koina, however, contains plenty of water in the height of the hot season even when no rain has fallen for many months. It has many more feeder streams than the Sanjai which may account for the difference. The catchments area of the Roro and its feeders, on the other hand, is almost entirely deforested.

The main perennial rivers that drain this division are Baitarni in the South, the South Karo and Deo in the South West and West and KHARKAI on the North East. In addition to these rivers there are numbers small nallas and rivulets, which are mostly dry during summer but are subject to heavy floods during monsoon or after a heavy shower.

The rain, which the area receives, drains out rapidly in all directions from the Centre of the tract, by these small nallas and rivulets causing floods in the main rivers. This causes heavy Soil erosion in the area, which needs immediate attention and careful study.

Kharkai:

The principal tributary of the Subarnarekha is the Kharkai, which is formed by the junction of two mountain streams rising in the eastern Kolhan range of hills,, namely, the Terlo and the Koranjia, of which the latter forms for about 30 kms the boundary between the Kolhan and Mayurbhanj. The Terlo joins the Koranjai on the boundary, and some 7kms lower down at the trijunction point of Seraikela, Mayurbhanj and the Kolhan, the river is known as the Kharkai. It continues in a north-westerly direction, forming the boundary of the Kolhan and Seraikela with several sharp bends one of which brings it within 8kms to the north-east of Chaibasa. A few miles further north, it enters Seraikela running north and then east in the Subarnarekha. It is joined by the Sanjai near Lengtasai about 8 kms south of Gamharia station. The length of the Kharkai proper is about 80 Kms and it is fed by several streams from the Kolhan, among which may be mentioned the Iligara, the Jamiragara and the Roro. The Roro or Raro is about 58 Kms in length and is joined by the Jamira just outside Chaibasa, which is situated on its eastern bank.

The Sanjai rises in the forest clad hills of Porahat, north-west of Sonua. It flows in an easterly direction forming for about 48 Kms the boundary between the Kolhan on the south and Porahat and Kharsawan on the north. It passes out the Kolhan and falls into the Kharkai near Lengtasai.

Baitarani :

The Baitarani for 13 Kms of its course is the boundary between the Kolhan area and Keonjhar. It drains about 1024 square Kms of the Kolhan estate through a number of feeder streams, the chief being the Kongera which also forms part of the boundary between the Kolhan and Keonjhar.

The Brahmani drains about 3072 square Kms in the west of the district mainly through the Koel or Koil, which is called the South Koel to distinguish it from the river of the same name in the Palamau district.

The Deo river rises in the Kolhan on the western side of the Gamharia plateau and flows into the South Karo river after a course of about 35 miles. It receives the Puilgara, a fair-sized mountain stream, from the Santara forest block.

General Vegetation in the District:

The hillocks on the plateau mostly form part of the dolerite dykes that run criss-cross all over the plateau. They are very low and in chains. Their top boulders are exposed. The thin soil has scrubs and bushes, chiefly some chasmophytes.

The hills fringing the central plateau are granitic in nature, low and covered with a few small trees or are completely barren. Lantana and other exotic weeds are seen. The wooded hillocks show sal or a mixed forest of deciduous species or bamboos. The hills in other areas like North Seraikela, North Kharsawan, North Porahat and North Dhalbhum are made of sedimentary rocks and by weathering have collected some soil. They are covered with thick forest and have been excessively and unscientifically exploited in the past. More and more of the level lands were brought under cultivation by deforestation. Such areas are prominent by the presence of lots of young Butea plants and Phoenix acaulis, Khajur, Tar, and bamboos being left over. In these areas because land is under upland crops and no bundhs are made in the fields erosion is progressing rapidly and in places the rocks lying below have been exposed.

The jungle lands taken over from the zamindars show a mixed forest, the predominant species in which is Butea frondosa, either in pure stands or mixed with Diospyros species, Bassia latifolia, Schleichera trijuga, Shorea robusta, or with Phyllanthus emblica. neem, Bombax and Dalbergia sissoo. Vitex negundo, Gymnosporia montana, Anona squamosa. Acacia arabica, Zizyphus jujuba, Holarrhena antidysenterica, form the under shrubs especially towards the fringes. The climbers are Ichnocarpus, Combretum decandrum,

Aganosma caryophyllata and Zizyphus oenoplia. In these jungles the immediately useful species like those used for cultivation of lac insect or silk worm are encouraged but it is these species that are at a disadvantage being shorn off of their leaves and branches. Pure stands of sal are seen here and there, but most of them are young saplings or poles.

The tanks in Chaibasa town and elsewhere are many and kept fairly clean. In town private plantation are seen. Casuarina equisetifolia, Qupressus spscies, Michelia champaca, Eleodandron serratus, Swietenia mahogany, Mimusope elengi, Pith-ecolobiurn dulce, Albizzia lebbek, Ficus religiosa, F. bengalensis, Melia azidarachta, Pongamia glabra, Cassia glauca, Tecoma stems, Plumeria acutifolia, Stereosp&nnum suaveolens, Salrnalia malabarica Tectona grandis, Ponciana regia, as also Citrus aurantium, Ficus carica, Carica papaya and mango, etc.

The major part of the plateau is occupied by cultivated fields surrounding isolated villages, which are located mostly near the roads and railways. The northern and western faces of the hills are covered over with almost pure stands of sal and other species described in the chapter on Forest.

The North Kolhan area and the South Porahat area : The condition here is bad so far as the vegetation is concerned. There has been much cutting and grazing. On the slopes of the hills are seen, sal with Gardenia species, Dillenia aurea, Phoenix acaulis, Termi-nalia chehula and Anogeissus latifolia. In the undulating valleys, sal with Gareya arborea, and Dillenia pentagyna, asan harm, Itusum and Pterocarpus marsupium. On the even lands, a few salai, dhaura, Cleistanthus collinus, Lannea grandis, Sterculia urens, Co-chlospermum gossypium, bamboo and khajur are seen. Self-introduced herbs like Scoparia dulcis, Ageratum conyzoides, C'lerodendron infortunatum are seen. More land has been brought under cultivation and therefore there has been much deforestation. Though the fields are giving good crops, there has been much erosion.

The salient features of the vegetation of the district.-Singhbhum lies in the Central Indian sal tract and everywhere it shows broad leaved trees of which palas and mahua are the main. Thorny species are rare, and are seen only on the southern slope of the hills accompanied by the white barked trees with gouty stems and deciduous foliage. On the northern slope and the valleys are seen evergreen trees. Sal is present everywhere in a smaller or larger numbers. The plateaux are cleared of the jungles and cultivated. The lower hills and the undulated lands are now being protected and gradually coming under forests, chiefly the immediately useful species being encouraged.

The Gymnosperm, Gnetum scandens is found in this district in the valleys. The stemless palm, Phoenix acaulis, though seen elsewhere also on the Chotanagpur and Palamau plateaux is abundant. Especially in the area south of Tatanagar, Gassytha fillijormis, the green thread like parasite, several species of loranthus and several epiphytic orchids are seen here. The white barked gouty stemmed trees of Sterculia urens and Boswellia serrata are very conspicuous against the background of the black rocks.

CLIMATE :

The year may be divided into three seasons; the cold season from November to February, the hot season from March to May and the rainy season from June to October. In the cold season, the early mornings and nights are cold, making huge camp fires most enjoyable. The thermometer touches a minimum of 39°F. or lower. Hoar-frost may be seen in the valleys but little or no fog and mist occur in the district during winter. This season is very delightful, the nights being invariably cool and the air invigorating and exhilarating.

It is unpleasantly hot in the summer season with the hot westerly winds prevailing. On account of the barrier of hills in the south-east no sea breeze can penetrate and the atmosphere is generally dry. Very low values of humidity of the order of 15 percent or lower may not be uncommon in these months during the afternoon. Even during the hot weather, the air being dry has not the same exhausting effect as the heat near the coast. During the period February to June violent storms from north-west, called nor'wester, accompanied by thunder, lightning, rain and sometimes hail occur occasionally.

The maximum tempteture 43.90C (111EF) or more rises in the month of May. The hot westerly wind locally known as "Loo" causes desiccation, but inspite of these nights are generally pleasant in the forest area. By the second fortnight of May the area is subjected to occasional thunder storms with rains. This brings down the temperature by a few, degrees, affording relief to all. This premonsoon thundershower helps the sal seeds to germinate and take up rest firmly on the floor or the forests. The monsoon breaks in usually in the first week of July and continues untils the end of September. In the beginning of October again there is a Short spell of rainy Season (10 days known as HATHIA, which is beneficial to the paddy crop. There is also a short spell of winter rains around Dec/January.

The winter is generally mild and it extends from October to the end of Feb. Fogs are uncommon except in deep Valleys. Frosts are not of Common occurrences except in some remote corners of the forest.

Rainfall :

The annual average rainfall of the district is 56 inches. The central belt of the district receives 50 inches to 55 inches and the rest of the area more than 55 inches. Some places in the western hilly area record more than 60 inches.

The main rainy months are May to October. Rainfall over 1 inch is also received in February and April. The southwest monsoon sets in, in the middle of June and withdraws by about the middle of October. In the months June to September, the district receives 30 per cent or more of the annual rainfall, July is the rainiest month in the district. The rainfall measured over consecutive year's shows considerable variation from year to year. December and January are the coldest months of the year. The lowest temperature in the district recorded is 39° If. to 40° P. Temperature begins to rise towards the end of February.

April and May are the hottest months of the year.

The district is characterized by large diurnal variation in the winter and summer months. In these months the highest daily range is about 40 °F. The variation is least in the monsoon months. The summer months March, April and May are the driest in the year.

Geology and Mineral resources:

Of all the geological formations which occur in the district the following three are the most important : (a) granites and gneisses of Archaean age intrusive into the oldest sedimentary rocks, now highly metamorphosed, and known as the Singhbhum granite and gneiss, the Chotanagpur granite-gneiss, and the Chakradharpur and Akarsani granophyric granite-gneiss; (b) the Iron-ore Series which are mostly metamorphosed, ancient sediments with contemporaneous basic igneous rooks and are equivalent to a large part of the Dharwar System of Indian Geology, and (c) the volcanic lava flows of the Dalma hill and its adjoining ranges.

The greater part of the district is covered with rocks of the Iron-ore Series and granitic rocks occur ill the south-east over a considerable area and along a small patch north of Chakradharpur. The plains of Singhbhum are partly on granite and partly on the schist and shales of the Iron-ore Series. The shales, which mostly form the central and southern parts of the Singhbhum plains, merge into the hills of the Kolhan in the south and into those of Porahat to the west. Towards the west they gradually change to phyllites, and towards the north to mica-schists which extend to the Tamar plain of the Ranchi district. The mica-schists form low ridges and undulating hills in the west in Porahat. A series of shale and quartzite hills extend into the Singhbhum plains to the south-east of Chakradharpur and connect the southern outcrops of the Iron-ore Series with the outcrops in the north. The Akarsani granite-gneiss forms a prominent hill across the mica-schist plains to the east of Kharsawan village.

The third most important formation is the series of basic lava flows known as the Dalma volcanic flows after the prominent hill mass of Dalma north of Jamshedpur. The lavas form precipitous hills and ranges extending for over 100 miles.

South of the Subarnarekha in Dhalbhum, lava flows cap the Dhanjori range and other hill ranges adjoining Mayurbhanj. Here the plains are formed either by the Iron-ore Series of rocks or by a soda rich variety of granite.

In the Kolhan area of South Singhbhum, the Iron-ore Series of rocks reach their maximum development and the rich banded haematite-quartzite rocks of this series are the most important source of the iron-ores on which India's iron and steel industry is based. The prominent Angarbira Hill, south-west of Chaibasa, is made of basic lava flows of Dalma age.

Here and there are younger dykes and older inclusions of ultra-basic igneous rocks belonging to the peridotite family. The most important among these which have intruded the Iron-ore Series of rocks as small laccoliths have given rise to the chromite deposits of Jojohatu, some 10 miles west-south-west of Chaibasa, and others occurring in the granite-gneiss have yielded the asbestos deposits of Seraikela and Dhalbhum.

These older rock formations are overlain by a younger series of unmetamorphosed rocks consisting of conglomerates, sandstones and limestones in the Kolhan basin from Chaibasa southwards. They are known as the Kolhan Series in Indian Geology and are considered to be of the same age as the Cuddapah System of South India. Lastly, the granites rocks are cut by a remarkable system of reticulating dykes of dolerite which form characteristic elongated ridges marked by rounded boulders of a dark rock. This dolerite has been named Newer Dolerite owing to its younger age. Their age is uncertain but they may be of Cuddapah age since dykes of younger age than the Dharwar and older than the Deccan lavas, occur associated with the Cuddapah rocks of South India which are younger than the Dharwar System.

STRUCTURAL FEATURES:

The most important structural feature of the geology of the district is a series of great anticlines and synclines which veer round from west-east to north-west-south-east in the northern part of the district. A series of highly metamorphosed rocks form, a great geoanticline which commencing from the east in North Singhbhum extend through Seraikela, turning south-east near Jamshedpur. It thus forms a great curve in the north-eastern part of the district which turns southwards near the Mayurbhanj border. North-west of Kharsawan, a north-westerly branch of the anticline forms an almost closed dome known as the Sonapet anticline.

Another remarkable structural feature is a great shear zone which has formed along the overfolded southern limb of the geoanticline as a zone of overthrust. This shear zone follows the same trend as the latter. From west to east trend in the western part of the district in the north, it takes a decided turn to the south-east along the north-east foot of the hills of the Dhanjori range through Rakha Mines and Badia. It then cuts across the Dhanjori quartzite farther south-east and disappears in the schists towards Singpura (22°22' N. 86°35' E.). Along this thrust zone the rocks have been highly sheared and even granites have been mylonitised.

This zone almost bisects the rocks of Singhbhum and forms a broad arc convex towards the north as it again swings to a west-south-west-east-north-east trend in the Koihan. Its westerly section is marked by the valley of the Sanjai and the railway line.

It would thus appear that the Iron-ore Series of sedimentary rooks were folded into well defined anticlines and synclines over-folded towards the south, and formed a great

mountain range, extending east to west across North Singhbhum and South Ranchi to North Dhalbhum. South of this main axis of folding, earth movements were less intense and the rocks of Central and South Singhbhum are generally less metamorphosed than those of North Singhbhum.

The rocks of the Iron-ore Series show a rapid change in the degree of metamorphism across the strike from phyllites to mica-schist and a similar but gradual change towards the west along the strike. Tongues of soda-granite and granophyre have been injected along the zone of thrusts east and west of Chakradharpur, Seraikela and Musabani. The shearing movements must have continued from the post iron-ore stage to the end of the period of granitic injections, since the granitic rocks have been sheared into sericite-quartz schist and felspathic schists.

The shear planes have been the main structural features which have controlled the localisation of the ore-bearing fluids. The copper belt, for its most part, follows this zone of overthrust. The apatite-magnetite veins and the copper lodes are genetically related to the soda-granite and granophyre which were intruded along the copper belt. The shear zone in other places consist of epidiorites which are often completely altered to chlorite-schists and talc-schists; phyllites, mica-schists, quartzites and conglomerates.

North of the geoanticline there is a large geosynciine of volcanic rocks known as the Dalma lavas. The northern end of this geosynciine has been overfolded, and in places been overthrust, by the rocks to the north which form part of another geoanticline which extend across the southern parts of the Ranchi and former Manbhum districts.

SOUTH SINGHBHUM :

The sequence of beds in the Iron-ore Series in the Koihan area is yet conjectural. The banded haematite-quartzites crop out as ridges, the most important of which are arranged in the form of a narrow horse-shoe open to the north and closed to the south in Keonjhar and Bonai. The ridge forming the western side of this horse-shoe is known as the Iron-ore range. It extends for nearly 30 miles. The main basin of deposition of the younger Koihan Series lies across the northern end of the eastern side of the. horse-shoe. The Noamundi mine is at the northern end of the eastern rim. There is a wide area of lavas with an occasional thin zone of phyllites intervening between them and the banded haematite-quartzite. On the western side of the horse-shoe also there is a wide area of lavas with a zone of phyllites between them and the haematite-quartzite. The lavas on the east side and the west side continue round the southern closed end of the horseshoe. The area inside the horse-shoe also consists of phyllites with tuffs, lavas and some cherts, and occasional outliers of Kolhan rocks. AH the formations dip persistently to the north-west. The lava, therefore, overlies the banded haematite-quartzite on the western margin of the horse-shoe, and underlies it on the eastern margin. It is not clear from the field work so far done as to whether this horse-shoe represents a geosyncline pitching to the north or a geoanticline pitching to the south. In the former case the sequence along the eastern rim

with lavas at the bottom is the normal one and the sequence at the. Western limb is inverted due to overfolding. If, on the other hand, the structure is that of a geoanticline, the eastern limb is overfolded and the sequence on the western limb with lavas at the top is the normal one. The lavas are then comparable in stratigraphic sequence to the Dalma lavas. Petrographically the two lavas are similar.

The lavas on the east side of the horse-shoe consist of a number of flows with a bedded appearance and amygdaloidal lava. The lava is haematitised in many places even to the extent of forming an- iron-ore. The lavas had also undergone contemporaneous alteration to sericite-rocks, talc-rocks and clay resembling phyllitie tuffs. The volcanic tuffs vary from coarse fragmental accumulations to fine-grained material. The latter is more common and has been altered to a normal phyllite.

IRON-ORE IN PHYLLITES :

The normal phyllites have a slaty cleavage and phyllitie sheen. They have been subjected to close folding. Although they are of a variety of colours, p-urple, ferruginous phyllites are more common which sometimes pass into an ore with over 60 per cent of iron.

MANGANESE-DEE IN PHYLLITES :

In many places the phyllites are manganiferous and here leaching has given rise to enriched zone of nodular psilomeiane and pyrolusite within the phyllites, or to lateritic manganese at the surface with gradations between them. ' Ttetrital material from these have also been mined. Between Jarnda and Gua, manganese deposits are disposed along at least four north-east,-south-west belts. Another association, of manganese-ore deposits which yield better-grade ore is with the cherts which are of widespread occurrence in the Iron-ore Series and are associated with the phyllites and lava in the Kolhan. Red, green and mottled jaspers are also common. Dolomite and chert occur with manganese deposits south of Nalda and dolomite occurs near Chaibasa.

BANDED HAEMATITE-QTTABTZITE :

The banded haematite-quartzite is a very striking rock formation consisting of interbanded layers of iron-oxide and silica. Owing to their great hardness these rocks resist weathering and form steep cliffs with characteristic conspicuous bands of different colours. The Iron-ore range is formed mainly of this rock. It extends for some 30 miles from Gua to Rontha in Bonai with a breadth from 400 to 1,000 feet and rising to 1,500 feet above the surrounding plains. The bands are of varying colours such as grey, brown, black, bright red owing to the nature of the iron-oxide, and are very irregular, crumpled and contorted. They vary in thickness from mere partings to several inches and are commonly quarter-inch thick. The silicious bands are of fine-grained quartz or red jasper.

The iron-oxide is usually haematite, but cubes and octahedra of magnetite and pseudomorphs or haematite after magnetite (martite) also occur. A few crystals of iron-carbonate or siderite also occur sometimes pseudomorphosed by silica. The thickness of the stage is not determinable owing to folding and faulting but is not likely to exceed 1,000 feet. It is very like the jaspilite of the Lake Superior region and can be matched with the pre-Cambrian ores of Venezuela and Brazil. By local replacement caused by circulating waters the interbedded ferruginous shales have been converted to iron-ore to some extent here and there.

The whole of the ore mined is almost entirely haematite (massive steel-grey type) with 69 per cent iron, varying through a porous shaly type produced by the leaching out of the sillicious layers and carrying 60 per cent iron, to a fine soft powder with up to 69 per cent of iron. The reserves of 60 per cent or more ore in Singhbhum are estimated at 14,70,00,000 tons within 200 feet from the surface. Recent estimates made by Percival amount to more than double this figure.

GRANITES AND GNEISSES:

There were at least two periods of intrusion of granitic rocks, the one known as the Singhbhum granite and the other as the Akarsani soda-granite. The Singhbhum granite shows considerable variation in texture, from an extremely fine-grained to a rather coarse-grained and somewhat porphyritic rock -with felspar crystals in places up to six inches in diameter. The texture increases in coarseness away from the boundary, xnuseovite becomes abundant and the rock becomes more acid with increasing coarseness. The plagioclase content is so high that the rock may be classed as an adamellite varying to granite through granodiorite. Near Seraikela town, the granite is sericitised with a banded structure and granulation. It is more basic and may represent an earlier, more basic border phase, and might have absorbed the overlying shales. It is identical with the Chakradharpur granite-gneiss to the west.

In the Girga Reserved Forest, 15 miles west of the Chakradharpur gneiss outcrop, is a small granite mass related to the Chotanagpur gneiss. It has abundant inclusions of mica and hornblende schists and has injected the mica schist in lit-par-lit manner.

APLITE, PEGMATITE AND QUAETZ VEINS :

Pegmatite and aplite veins occur throughout the metamorphic rocks particularly in the vicinity of the main granite masses, numerous quartz veins of different ages occur in the schistose rocks of the Singhbhum and the adjoining districts and in the younger Kolhan phyllitic shales. There are two principal types of veins. In one, which is regarded as older, the veins are ferruginous and disintegrate more readily. They have little continuity and are indicated by scattered patches of translucent, blue or dark-grey quartz. The other type of vein is continuous and comparatively undisturbed, and is pure white and opaque. They are sometimes very wide.

KOLHAN SERIES :

The group of unmetamorphosed shales, lime stones, and sandstones with conglomerates at their base, which lie uncomfortably upon the old eroded surface of the Singhbhum granite or the Iron-ore Series, has been constituted into a younger series called the Kolhan Series after the main area of its deposition. The main basin stretches south-south-west from Chaibasa. The basal beds dip gently away from the Singhbhum granite; in places they are quite horizontal and undisturbed, but they become increasingly folded towards the west and over the phyllites they are as closely folded as the older series. Steeply folded synclinal outliers of the basal beds of the Kolhan Series are found within the Iron-ore Series outcrops. Faulting is common.

MANGANESE-ORE :

The basal beds of the Kolhan Series, south of Chaibasa, have been replaced by manganese-bearing solutions, and altered to incoherent sericite-quartz rocks in which lenticles and veinlets of workable manganese oxide have been formed. The lavas and tuffs below the basal Kolhan conglomerate have been altered in places to massive haematite before the deposition of the conglomerate.

The youngest rocks in the Singhbhum district are the numerous intrusions of the basic rock dolerite which have been called the newer dolerites in order to distinguish them from the older dolerites now metamorphosed to epidiorites, associated with the Dalma lavas. The dykes have penetrated the Singhbhum granite along joints, a major set striking north-north-east-south-south-west, and a minor set north-north-west-south-south-east. The dykes form characteristic ridges marked by innumerable dark-colored boulders which extend as narrow low ridges across the country.

LATERITE :

Laterite is widespread over rocks of the Iron-ore Series, particularly in South Singhbhum and specially over ferruginous rocks. It has been denuded away from much of the northern area by stream erosion. The greater part of the Manganese-ore in Singhbhum, Keonjhar and Bonai is of lateritic origin, and overlies the Iron-ore Series rocks. Lateritic manganese overlies Kolhan shales near Chaibasa and near Balijori (22°17' N. : 85°45' E.)

MINERAL OCCURRENCES:

ATOMIC MINERALS :

The earliest reference to a uranium mineral in India appeared in a German publication in 1860, a hydrated phosphate of uranium and copper, also known in Indian literature as "Uranium mica", at Lopso Hill in Singhbhum. The Department of Atomic Energy Commission, Government of India, is exhaustively prospecting and drilling the whole copper belt for the development of atomic minerals.

CHROMITE:

In the Singhbhum district the ultrabasic intrusions into the Dharwars, near Jojohatu near Chaibasa, which have been largely serpentinised carry veins of chromite particularly on the walls of the serpentine, which are up to three feet wide. The veins are lenticular and may extend sometimes to 100 feet along the strike or dip. The deposits are primary magmatic segregations. The chromite mines are at Kittaburu where chromite is worked at the surface as well as underground. There are small mines at Karkatakuti and Roro near Chaibasa.

COPPER-ORE:

The occurrence of copper in Singhbhum was first surmised from the large number of ancient mine workings throughout the copper belt. As there is hardly any surface indication of copper now, the old workings serve as a guide to the presence of copper lodes. The ancient miners who worked and smelt the copper ores more than 2,000 years ago have left no workable copper down to the ground water level where they ceased working except in the pillars for holding up the hanging walls. They had no doubt considerable skill and occasionally their tools and some utensils made of soap-stone and pottery have been found in the workings.

Copper was discovered in modern times in 1847 by Captain J. 0. Haughton, Assistant to the Governor-General's Agent in the south-west frontier in a hill near Narayanpur in Seraikeia which was called Tamadungri (copper hill) by the local villagers. Tama-dungri was a centre of copper industry in ancient times, but at the time of the discovery of copper in 1847 the villagers had no idea of the association of copper with it. Another hill called Tamapahar near Rakha Mines and a village called Tamajuri are reminders of old mining centers.

The Hindustan Copper Company commenced operations at Rajdoha in 1862 and although royalties were fixed at half the previous amount, the company became defunct in 1864 after striking copper pyrites at Rajdoha.

The copper belt received further attention from the Geological Survey of India when V. Ball, an eminent Geologist of the Survey, undertook a systematic survey and a summary of the mode of occurrence of copper was published in his Memoirs on the Geology of Singhbhum and Manbhum.

The copper belt extends from Duarparam to the north-east of Chakradharpur, through Regadih, Kharsawan, Sini and Turandih, Rajdoha, Rakha Mines, Kendadih to Sinda, and then through Musabani and Badia ending near Baharagora for a, distance of about 80 miles. The Indian Copper Corporation is now carrying on mining at Munaltimi (Mushabani), Badia and Dhobani. Drills operated by compressed air and explosives are used in mining. Crushing plant, workshop and. foundry are located on the surface at the site of the mine at Musabani.

IRON-ORE:

The Indian Iron and Steel Co., Ltd. have their mines at Gua and Manoharpur where large reserves are available with an average content of 60 per cent of iron. The Tata Iron and Steel Co., Ltd., have their mines at Noamundi which are being worked since 1925. The deposits occur chiefly on two parallel ridges running roughly north to south, each about two miles and a half long and half a mile wide at the north, becoming wider to the south and extending into the Keonjhar district of Orissa. There are two grades of ore: the first grade has 59.65 per cent and the second grade 66.90 per cent of Fe.

LIMESTONE:

The limestone found in the Singhbhum district are generally impure and not suitable for industrial purposes such as flux in the steel industry, chemical and cement industries.There is a zone of limestone immediately overlying the basal sandstone in the Kolhan Series where outcrops extend from Chaibasa to Jagannathpur (22°13'N. : 85°39'E.), a distance of about 30 miles. The Associated Cement Company, Ltd., are working the Kolhan limestone at Jhinkpani. It is a high grade material with over 48 per cent CaO and is used in the manufacture of Portland cement. It is a pink, grey or greenish limestone often containing thin lamellae of phyllite, shale or chert.

THE PEOPLE

According to the census of 1951, the population of old Singhbhum district was 14,80,816, out of which 7,52,424 were males and 7,28,392 were females. There had been two accretions to the area of the district since 1951. In 1954, 39 villages from Tamar police-station of Ranchi district were transferred to the district of Singhbhum. In 1956, the areas of Chandil, Patamda and Ichagarh police-stations from the district of Manbhum were integrated to the Singhbhum district as a result of the recommendations of the States Reorganisation Commission.

Due to an enormous expansion programme of the Tisco concern in Jamshedpur there had been an influx of an additional population. The growth of population according to the census from 1872 to 1951 was four and half times i.e. almost 365 percentage of increase in population. From 19321 population growth shot up- increasing on an average of almost by 25% in each decade. The real increase in the population had started taking place since the decade 1901-11. The increase was largely due to emigration from other districts within Bihar and from other provinces to meet the demands of rapid industrial development. The Tatas had established their Steel Factory in the district in 1907 and other industrial concerns followed the suit of the Tatas in exploiting the mineral resources of the district. The intensive exploitation of the mineral resources had led to a rapid industrialization of the district. The integration of Seraikela and Kharsawan to this district in 1948 had also led to an increase in the population which was noticeable in' 1951 census.

The incidence of emigration has a particular feature of the district. An exclusive feature of the population of this district is the presence of a very sizable cosmopolitan population in the urban areas. This is due to the rapid industrialization of the district which has attracted skilled hands from various parts of the world. Initially Jamshedpur had attracted experts from England the United States of America and a good sprinkling of Germans, Russians and other nationals who had come to Jamshedpur in connection with the expansion of the industries. There is hardly any part of India from where men have not come to Jamshedpur to earn their bread. This unique cosmopolitan feature is a great social factor. In spite of the rapid industrialisation of the district, agriculture remains the most important occupation for the majority of the population.

A number of towns namely Chakradharpur, Noamundi, Musabani, Seraikela, Manoharpur, Gua, Maubhandar and Kharsawan have developed and are connected with trade and commerce for the exploitation of the mineral resources. The bulk of the population, however, still remains rural. After agriculture, the cottage industries form the main occupation of the rural population. A large number of other allied industries, besides the Steel Factory of Tatas, have grown in Jamshedpur and each one of them maintains a large labour population in addition to the supervisory staff.

Chaibasa is the headquarters of the district administration. The population of Chaibasa in 1868-69 was 3,123. The population was 16,474 in 1951 as recorded in the census. Chaibasa has no industry of importance in the town itself. Besides this, the rapid growth of Jamshedpur nearby has affected the growth of Chaibasa. Although Chaibasa is the headquarters of the district, it still retains the rural characteristics and differs materially from Jamshedpur.

Noamundi was a small village before. But in 1941 it had already grown into a township with a population of 6,389 persons. In 1951 census the population had gone up to 7,227 with 3,869 males and 3,358 females. The township has grown because of the exploitation of the iron-ore at Noamundi by the Tatas. Manoharpur is considered to be the centre for timber trade.

The languages in Singhbhum mostly come from three distinct stocks. One is the Munda family of languages which includes Ho, Mundari, Santhali, Mahili, Bhumij and Kharia. The other is the Dravidian family of languages which includes Oraon, Telugu, Tamil and Gondi. The rest are of the Indo-Aryan stock which includes Hindi, Urdu, Bengali, Oriya, Gujrati, Nepali, Marwari, Punjabi, etc.

From religion point of view Next to Hindus, the majority of the population in the district of Singhbhum belongs to Tribal religions. The Missions working for the propagation of the Christian faith in Singhbhum district are the German Evangelic Mission, Lutheran Mission, the Society for the Propagation of the Gospel and a Roman Catholic Mission. The Lutheran Mission was established in Chaibasa in 1864. The Roman Catholic Mission started its work at Chaibasa in 1868. The Missions maintained some schools and dispensaries.

The mankis and mundas has tremendous influence in the Ho community. Without their help it is difficult to make much headway among the tribals.

According to the census of 1951, the population of the Scheduled Castes and the Scheduled Tribes was 49,768 and 7,13,522 persons, respectively, The number of females was very much less than the number of males in the Scheduled Castes, whereas the number of females was higher in the case of Scheduled Tribes. The Scheduled Tribes are distributed throughout the district but are primarily rural in character. This district has the peculiar feature of a slow change in the ratio of female population to male population. These figures will indicate that the mining and manufacturing industries in the district have attracted a large male population who do not live with their families.

Rice is the principal food. Use of vegetable and dal is not common, mainly among tribals where sag takes the place of dal and is the principal vegetable.

Tribes of Jharkhand :

There are 30 Tribes found in Jharkhand According to Census 1991 the population of Tribals are 60.90 lakh. 94% Tribals lives in country side and only 6% avail urban life. Main tribal population are Santhal 20 lac, Oraon 8.75 lac, Munda 7.32 lac & Ho- 5.50 lac.

Scheduled tribe of Jharkhand may be divided into two classes followed by 22 main tribes and 8 Adim tribes. Birhor, Korwa, Asur, Parhia, Birjia, Sauria, Paharia, Mal Paharia & Sawar are known as Adim tribes. They follow hunting and depend for food on forests by their inherited sanskara. In present situation it is difficult to continue their ancient sanskara because of aculturization or outsider interference. Scheduled tribe divided into two according to language, like Astric (Munda) and Dravidian. Oraon's (Kurukh) and Salria paharia's (Malto) comes under Dravidian. According Race, tribals of Jharkhand comes under Proto-Austrolied. Feature of Proto Austrolied are short height, large forehead, broad & flat nose & dark skin.

Birhor of Hazaribagh divided into two groups like Ulthu & Janghi. Ulthu is migrated heather and thither in forest. But Janghi blow stable life and form a village. Janghies are also known as Paniya. Paniya means where there is water resource. Birhor have 23-24 Gotras like Topwar, Induar, Baswar, Dhanwar, Kerketta, Hembrome, Kachhua, Kher, Lakur, Chatta, Machhali, Barah, Kaua, Gidha, Bhuiyan, Gerua, Gundari, Tiriwar, Kenchua, Ludijal, Sigpurra, Toriyar, Mahali, Suiya, Bhurum.

The Tribes of the District of West Singhbhum :

The term Adivasis literally means 'Original settlers', 'earliest settlers' . It is known that from time to time various groups of people have come and settled in Singhbhum, among whom it is difficult to single out the first comers in the time-scale. In Singhbhum many of them like the Hos, the Bhumij, etc., have the tradition of being the first settlers in the district.

The nature of earlier population distribution of the different tribal communities the 1931 census table gives as follows :-

Hos.		Bhuiyas		Santhals	
Singhbhum	301158	Singhbhum	18273	Singhbhum	10890
Kolhan	224888	Seraikela and Kharsawan	7195	Ghatsila	103023
Seraikela	25963			Seraikela	30006
Kharasawan	11706			Kharasawan	1214
Total	**338827**	**Total**	**25468**	**Total**	**140110**

Oraons		Bhumijis		Kharrias	
Singhbhum	10111	Singhbhum	53058	Singhbhum	5879
Seraikela	558	Ghatshila	47794	Dhalbhum	5456
Kharasawan	551	Seraikela	11390		
		Kharsawan	2398		
Total	**11220**	**Total**	**66846**	**Total**	**5879**

Mundas		Gonds		Bathudis	
Singhbhum	50963	Singhbhum	7026	Singhbhum	998
Chakradharpur	32278	Sadar	5591		
Seraikela	885				
Khasawan	5602				
Total	**57450**	**Total**	**7026**	**Total**	**998**

Birhors		Savars	
Singhbhum	12	Singhbhum	762
		Dhalbhum	751
Total	**12**	**Total**	**762**

The following castes or groups of the Singhbhum district were notified as Scheduled Tribes under the Constitution of India, 1950 :-

(1) Asur
(2) Baiga
(3) Bathudi
(4) Bedia
(5) Binjhia
(6) Birhor
(7) Birija
(8) Chero
(9) Chik Baraik
(10) Gond
(11) Gorait
(12) Ho
(13) Karmali
(14) Kharia
(15) Kharwar
(16) Khond
(17) Kisan
(18) Kora
(19) Korwa
(20) Lohara
(21) Mahil
(22) Mal Paharia
(23) Munda
(24) Oraon
(25) Pahariya
(26) Santhal
(27) Sauria Paharia
(28) Savar
(29) Bhumji

In district Singhbhum distribution of Tribal population is as follows :-

Tribals	Total	Male	Female	Tribal population of 1971	1981
Bathurhi	1595	828	767	0.02	0.03
Bedia	60446	30336	30110	0.97	1.04
Bhumij	136109	68353	67756	0.53	2.35
Gond	96574	48711	47863	1.99	1.66
Ho	536523	264852	271671	10.24	9.23
Sawar	3014	1495	1519	0.07	0.05

Percentage of Tribal population

1971		1981	
Population of Tribal	% of Tribal Population	Population of Tribal	% of Tribal Population
11243317	46,12	1261504	44.00

The languages of the Hos, the Mundas and the Bhumij have a high degree of similarity; the Santhali language, though belonging to the same linguistic stock is slightly different. According to Colonel Dalton, as well as later writers like Mr. S. C. Roy, the Hos, the Mundas and the Bhumijs originally belonged to a single tribe living in the Chotanagpur plateau. Subsequently, they became differentiated in course of migration to different areas.

Except for the so-called wild Kharias of Dhalbhum and the wandering Birhors, who live principally by hunting and collecting wild produce, the majority of the tribal communities, namely, the Hos, the Santhals, the Bhumijs and the Mundas live a settled agricultural life. The Kharias and the Birhors, on the other hand, choose the neighbourhood of jungles, for their life is more closely tied to the forests.

Agriculture, is by far the most important source of living among the majority of the communities in this area. The principal crop is paddy. Besides paddy, maize, various types of millets (gundli, mama, sawan, etc.), barley (tilegangai) and pulses (mainly rahar) are also planted. The winter crops include oil-seeds like mustard, sarguja, etc. Besides agriculture, there are a number of subsidiary sources of income for the average farmer. These are cultivation of lac on kul, kuaum and palas trees; cultivation of cocoon on asan leaves ; live-stock and poultry including cattle, buffaloes, sheep, goats, - fowl, pigeons and rarely ducks ; fishing and hunting.

As the forests are gradually disappearing economics based on the forest also tend to become rarer and rarer. The forest provides the people with some important articles, namely, wooden poles for building and agricultural implements, leaves for making leaf cups and plates, various types of roots and tubers used both as food as well as for medicine.

The tribals do not make baskets, earthen pots, iron implements or handloom products themselves. The wandering Birhors form an exception to it. They procure part of their necessities of life, including paddy, in exchange of baskets and ropes that they make from bark fibres. There are a number of weekly markets throughout the district where various local communities make their purchases and sales while merchants from outside have also come in to ply their own trade.

Singhbhum district with its rich mineral wealth has given rise to important mining and industrial centres, namely, the iron mines of Gua, Noamundi, the copper mine at Musabani, the great Tata Iron and Steel Factory at Jamshedpur and the cement factory at Jhinkpani, etc. These centres have attracted a substantial number of labourers.

With regard to ownership of property, the tribals seem to be perfectly conscious of the right of the individuals and of the family. Ownership of any object in common by a group larger than family is not known, except for the public places in the village like the sacred grove, dancing area and so on. But there is a good deal of co-operation in economic matters. Exchange of agricultural labour is very common and communal hunting and fishing with equitable distribution of the spoils indicate their collective spirit. In thatching a new house it is customary that the adult males in the hamlet or tola are to co-operate in the work in return for a traditional treat. With regard to agriculture, fragmentation of holding and pressure on land are growing more acute The population has become divided into roughly four classes, namely, the wealthy mankis and mundas, substantial cultivators, poor cultivators and landless labourers.

THE HOS

In Singhbhum district, the Hos, otherwise known as Larka kols, are mainly found in the Kolhan area. They form the largest group among the different tribal communities residing in the district.

The Hos as a group more or less fully satisfy the definition of a tribe by occupying a contiguous territory, speaking a common dialect of their own . The society is divided into a number of exogamous clans known as killis. In the clan, title descends patrilineally. In the Ho society today the simple family is even more important than the killi. The family is patriarch cal with the father at its head.

Though the factor of kinship bond is supreme in their social organisation, there is some definite social consciousness due to life within the limits of a village. The village or hatu has its own sacred grove, tutelary deities, headman or munda and the priest or deuri. The

village has its council or panchayat and the major festivals are organized communally. Further the inhabitants of the village are also often genealogically related. All these factors together make the inhabitants strongly conscious of the village affiliation.

The Hos are a typical patriarchal people having patrilineal descent in clan title, patrilocal residence and patrilineal succession to village offices like headmanship and priesthood. The property is divided equally among the sons. Women cannot hold property, except when they have no male relations; but widows and unmarried daughters have a right to maintenance. With all these

limitations of right the women have considerable freedom and fairly high status in society. Women contribute substantially in economic operations and play a vital role in communal festivals with dancing and singing.

Hunting, which was probably in the past a regular means of livelihood, is today at least a favourite pastime in those parts where patches of jungles still persist. The grand season of hunting is between January and June.

To quote from Colonel Tickell's amusing account : They also indulge into the burning of the grass till the new crop becomes too high, i.e., between January and June, the Hos scour the Jungles, in large parties and at uncertain periods for wilder game, surrounding and driving to a centre the deer and other animals. But the grand meeting is in May, about the Chait parab, when people of all sects and classes repair to the hills north of Singhbhum. The preliminaries of the drive are arranged by ambassadors and emissaries from Singhbhum, the Kolhan, and the Jungle Mahals, and vast multitudes draw in from every quarter from Sikharbhum, from near Bankura and Midnapore on the east, and from the borders of Chotanagpur on the west. On the given day these crowds, extended in lines, draw towards a common centre, sweeping the Jankiburu hills and other ranges which reach from Chotanagpur to the Subarnarekha river, separating Tamar from Singhbhum; as the lines approach each other, the slaughter commences.

"The uproar is difficult to describe, and the scene the wildest imagination can picture. Those deep secluded villages, those barely pervious dells, the huge solitary hill-tops, buried in one vast sheet of pathless jungle, which except on this annual occasion, are never visited by man, now swarm with countless hordes. In front of them the different animals pass and repass, bewildered by opposing hosts. The huge gaurs, roused from their noonday retreats, stalk with stately steps along the hillside, till infuriated by the increasing din, they rush through the forest, heedless of rock or ravine, and rending the branches in their ponderous flight; the wild buffaloes thunder across, brandishing their immense horns, stamping and wheeling round their young ones; nilgais gallop fast like a charge of cavalry. The stately samber, the beautiful axis, the barking deer or mantjak, dash along, clearing the copsewood with flying bounds, and suddenly stopping with erect ears and recurved neck, as the tainted gale warns of danger ahead. The fairy-like orey, or small red-deer,

with noiseless feet comes skimming over the tangled underwood, stepping in wild starts ' to the right and left, and sorely bewildering a host of Rajas, Thakurs, and their bodyguards, who perched upon machans (scaffolds), in vain try to bring their lengthy matchlocks to bear; with snort and puff a 'sounder' of pigs scurry through. The redoubled uproar from without attracts the attention to something which has excited the beaters. The reeds and grass are seen to wave, as if some bulky form were sliding through them; and at length, loath to leave the haunts which had concealed him so long, out comes the tiger, with a lumping, stealthy trot, crouching to the earth, with ears quivering, and turning to catch every sound. He has soon passed on into the leafy depths, from which his hollow growl may be occasionally heard. And last of all, as the peacocks begin to mount into the air, and the jungle fowl with noisy cackle take wing, a loud sonorous grunt or shout ushers in the sturdy old bhaluk (bear), who forced from the friendly shelter of rocks, comes bundling over the ground and shaking his sides in a heavy gallop, oft stopping, wheeling round, and threatening his enemies.

"The reports of matchlocks, the 'click' of the arrows striking against trees, the shouts of the multitude, the roars, the screams, and groans of the animals, the piping of flutes, the beating of drums, the braying of trumpets reach their climax, and the multitude, composed of all classes and sorts, meets near the Raja's machan to compare notes of the sport. Here are the ever-dancing and singing Santhals, dressed out in flowers and feathers, with flutes ornamented with streamers made of pith; the wild Kharias or hillmen, from the Lakhisinni hills in Barabhum; the Kurmis, Tantis, Sunris, Goalas, Bhumijs, etc., with sonorous dammas or kettle-drums, and other uncouth music, armed with swords, balwas, and bows and arrows of every description; the Hos, simple and unpretending, but with the heaviest game-bags; the little ill-featured Tamarias, with spears, shields, and matchlocks; the Nagpur Mundas, with huge ornaments stuck through their ears, indifferently armed with bows and arrows, clubs, or balwas; the southern Kols and the far-comers from Saranda, with their chain earings and monstrous pagris; the Bhuiyas, with their long bows ornamented with horse tails or the feathers of the blue jay, and their immense barbed arrows; the paiks of the Rajas, Thakurs, Kunwars and other zamindars, with their shields, talwars, powder-horns, and immense matchlocks with rests, dressed out in all colours."

Other Tribes :

The Santhals are almost entirely confined to Dhalbhum. THE BHUMIJS Within Singhbhum district are principally concentrated in Dhalbhum, Seraikela and Kharsawan while a few are also scattered in Kolhan area. They have been identified by Colonel Dalton and Sir Risely as a direct offshoot of the Mundas of Ranchi plateau.

The Mundas of Singhbhum belong to the large Munda tribe of Ranchi plateau. They have mainly their residence in Porahat; three-fourths of their total number are found in the thana of Chakradharpur. In physical features, language, social organisation, social customs

and religious rites the Mundas resemble the Hos very closely. They have also practically the same annual cycle of festivals as the Hos with the difference that whereas among the latter the Maghe Parab is most important, in the case of Mundas, it is the Ba-Parab instead.

According to local tradition the Bhuiyas are among the oldest inhabitants of Singhbhum. It is said that when they were oppressed by the Hos they called in the help of the Rajput soldiers of Man Singh, who subdued the Hos and named the country they conquered, i.e., modern Porahat, Singhbhum. The Bhuiyas used to offer tilak to the Raja of Porahat on his investiture.

Birhor, which literally means people of the jungle and this fits in very well with the wandering hunters and collectors' life which these people lead. The Birhors move about mainly along the line of hills running from the Ramgarh in the Hazaribagh district on the north along with Urmanjhi, Angara, Ranchi and Bundu thanas on the east of the Ranchi plateau. A few scattered groups have strayed into Singhbhum district.

According to their economic habit the Birhors are classified into two groups-the wandering Birhors or uthlus and the settled or jaghis. The Birhors of Singhbhum mostly belong to the former class. Except in the rainy season, uthlu Birhors constantly move about from jungle to jungle. The settlements whether temporary or permanent are known as tondas which consist of usually half a dozen or more huts. The huts of the ulhlus are more improvised leaf sheds (kumha) in the form of low triangular tents with conical spaces. The individual house in a jaghi ' tonda is of a more permanent nature and is comparatively more commodious with rectangular ground plan and two sloped roofings. The uthlu Birhors do not practise any form of agriculture and are entirely dependent upon the collection of forest products for their living. Occasionally they also do a little bit of fishing with small basket traps. From the forests they collect edible roots, fruits, honey and barks of Bahunia (for the manufacture of rope baskets, etc.). They also hunt birds, deer and monkeys. The Birhors are noted for their love of monkey's flesh and skill in trapping these animals. They procure their staple food, i.e., rice from the neighbouring agriculturists in exchange of forest products like fruits of the jungle, wild potatoes, honey and manufactured goods like net, cattle tying rope (tether), hunting nets (hupa) and baskets used in oil press. They have constant contact with the agriculturist folk for procuring rice, cloth, and some essential manufactured articles like earthen pots, iron implements, etc., in exchange of forest products and their special manufactures. The Bir hors have an established reputation of being law abiding and honest.

The tribal Women in the tribal Society :

Tribes of Jharkhand are mainly patriarchal families. Father is head of the family. Tribal Women are laborious than a man. Women are pillar of tribal society. Women of tribal society do marketing (sale out vegetables, grains etc.) in hatia or hat, participate in agriculture,

but they do not plough. Hunting & share in panchayats meeting, is not allowed to women in general. It is highly objectionable, for the tribal women to touch the plough (Hal). Women of tribal society take food or help her matriarchal side and her husband family but she has no right to the property. Women have no right to sale out her family property.

Records are witness to decrease in the women population from 1971 to 1981. According to census 1951-61 & 71 ratios of women was more than 100%, per thousand male. In the year 1981 ratio dropped down to 993, again in the year 1991 ratio came down 975 per thousand men. These are the consequences of unemployment & migration and displacement owing to increase in mining and industries in Jharkhand.

HISTORY :

In the seventh century of the Christian era, Sasanka, of unknown lineage, must have ruled over this territory. From the Harsha Gharita, we learn that Rajyavardhana was killed by the king of Gauda. But, according to Yuan-Chuang, Sasanka, the king of Karna-Suvarna, in eastern India, killed the Thaneshwar king. A seal of Sasanka was found engraved on the hill of Rohtasgarh and Ganjam Plates of Madhavaraja the II dated in 619-20 A. D. mentions him as Maharajadhiraja, that is, the suzerain lord of Ganjam. Two copper plate records of Sasanka's reign found at Midnapore, establish that the jungle area too was under his control. Therefore, Sasanka probably ruled from Shahabad to Ganjam in the early half of the 7th century A. D., when" Singhbhum in all possibility came to be included within his empire.

In the 10th century of the Christian era, Rajendra-Chola the Great invaded Orissa and lower Bengal; his route was through this territory and we may safely assume that Singhbhum being quite near to Beimsagar and Mayurbhanj did not escape his attention. The conquest of Rajendra-Chola was, however, not permanent; and Mahipala I of the Pala dynasty was able to establish the second Pala Empire, when this area must have passed into his hands. This is confirmed by the mention of the various feudatories who helped Ramapala, a descendant of Mahipala I, in crushing the Kaiyartta rebellion in Bengal; and establishing the third Pala Empire. The Bamacharita of Sandhyakaranandi gives a list " of loyal feudatory princes; and amongst these, is mentioned Lakshmisur of Apara-mandara, who is described as the head of the group of feudatory chiefs of all the forest countries; and whose territory was in the neighbourhood of that of Surapala, ruler of Kujabati, which is about 14 miles north of Naya Dumka in the Santhal Parganas and Rudra- Sikhara ruler of Tailakampa (Telkupi, in the Manbhum district). All these show that Lakshmi- sura headed all the Mankia in the forest tract. He was possibly the medieval chief Manki, a custom which was prevalent in Chota-nagpur division during the advent of the British rule in Bihar. It is also possible that his territories included Singhbhum.

The medieval remains in Singhbhum are few and far between, due solely to the lack of proper survey, except that carried on by Mr. J. D. Beglar, during the seasons 1874-75 and 1875-76. Among the sites, most important for studying the culture of the tract in pre-

Islamic times, Benusagar comes first. Benisagar or Benusagar is a small village, on the border of the Singhbhum and Mayurbhanj districts of Orissa; situated at a distance of 53 miles from Chaibasa, the district headquarters of Singhbhum. The archaeological remains of the place consist of low mounds, ruins of bricks and stone temples, phallus and stone images. The mounds are scattered all over the area, but miscellaneous remains are to be met with at a particular spot, known as 'Devasthan' on the eastern embankment of a large tank, from which the modern village has probably derived its name. The available evidence, therefore, makes it quite clear that-Benusagar was a place of worship for the Saivas, possibly a place Ashta-Sambhu. In medieval eastern India, a practice had grown up to establish places of worship, with 8 phallic emblems of Siva-Mahadeva; and several places shared this feature with Benusagar. These are Bhubaneshwar in Orissa, Kiching in the Mayurbhanj district, a place only five miles to the south of Benusagar, Khekparta near Lohardaga in the district of Ranehi. Since, none of the temples have survived, it is difficult to opine about the style of temple architecture that was prevalent at Benusagar; but, the examples of such places, as Khiching and that they followed the Nagara style of temple architecture; or according to the Orissa canon Relclia type of temples. The local tradition assigns these temples to King Sasanka of Gauda and Karusha.

MUSLIM PERIOD :

There are neither reliable Muslim remains nor records that can establish Mohammadan conquest of Singhbhum. To the Mohammadan historians the whole of modern Chotanagpur and the adjoining hill states were known by the name of Jharkhand or forest country. It appears to have remained independent throughout the Turco-Afghan period (1206-1526 A. D.) in India. Tarikh-i-Firuz-Shahi of Shams-i-Siraj tells us that Sultan Firuz Tughlaq, after his second campaign against. Bengal (1359-1360 A.D.), marched from Jaunpur against the Rai of Jajnager (modern Orissa) and after making peace with him returned by some route through Jliarkhand.

The accession of Akbar to the throne of Delhi in 1556 A.D. is a landmark in the history of Jharkhand or Jungle country. To the Mughals it was known as Kukrah. It excited the cupidity of the Mughal Emperors by the reason of the report of the diamonds to be found in its rivers. The river Subarnarekha, which means streaks of gold, must have been known to the Mughals. Akbar in 1585 A.D. sent an expedition commanded by Shahabaz Khan Turbati who reduced the Raja of Chotanagpur to the position of a tributary.It is mentioned in the Ain-i-Akbari that Chotanagpur or Kukrah was included in the Subah of Bihar. It is said that the ancestors of the Raja of Porahat were three brothers in the bodiguard of Akbar's general Man Singh, who took the part of the Bhuiyas against the Hos and ended by conquering the country for themselves. In 1616 A.D., Ibrahim Khan, the brother of Queen Nurjahan, and the then Governor of Bihar, under Jahangir invaded Kukrah which had, it seems regained, independence during the disturbance that followed the death of Akbar in 1605 A.D., defeated and captured Durjan Sal, the 46th Raja of Chotanagpur.

In 1742, the Maratha nemesis overwhelmed Bengal, Bihar, and Orissa and their inroads became a common feature. The contemporary narratives the Sair-ul-Mutakharin and JRiyaz-us-Salatin throw ample light on the history of the period under review. It is stated that Bhaskar Pandit, the general of the Maratha army, entered Chotanagpur through Chattisgadh and fell upon the Midnapore district through Mayurbhanj and the Hos are believed to have migrated from the Chotanagpur plateau and overcome the Bhuiyas, who then held part of Singhbhum. They found a hilly fastness in the south of the district, where they successfully maintained their independence, The north of the district came under the rule of the Singh family of Porahat, who claim to be Rathor Rajputs and whose head was formerly known as the Raja of Singhbhum. At one time the Singh Rajas also ruled over the country now included in the States of Seraikela and Khar-sawan. and claimed suzerainty over the Kolhan, a claim, however, which the Hos denied. According to Colonel Dalton, old Hos told him that they honoured and respected the Singh chiefs, but regarded them, till they quarreled, rather as friends and allies than as rulers. Even if they ever were subjects, they had achieved their liberty in various hard-fought fields. Three formidable but abortive attempts to subjugate them have been recorded-one made by Dripnath Sahi, the Raja of Chotanagpur, assisted by the troops of the Raja of Singhbhum; the second by Raja Jagan-nath Sahi of Chotanagpur, in 1770 ; and a third in 1800 an invasion from the Mayurbhanj side, headed by a chief called the Mahpatra of Bamanghati.

On the first of these occasions the Hos drove their assailants out of Singhbhum with immense slaughter. The second invasion was no more successful. Some authorities are of opinion that the Hos owing to their military prowess maintained their independence in the wake of Muslim conquest, by whom the whole of their country was included in the vast unexplored tract, called Jharkhand which stretched from Rohtasgarh to the frontier of Orissa.

BRITISH PERIOD

British relations with Singhbhum date from 1765, when a punitive British force marched against the then Raja of Dhalbhum, or as he was called in the early records of Midnapore, the Raja of Ghatsila. The district of Midnapore had been ceded to the British, in 1760, and soon they succeeded in obtaining the submission of the zamindars to the west of Midnapore, of Chatna, Supur and Ambikanagar in Bankura and of Barabhum in Manbhum. The zamindar of Dhal-bhum, however, held out. On the 22nd March, 1767, British reached Ghatsila and later succeeded in capturing the Raja, who was sent down a prisoner to Midnapore; and his nephew, Jagannath Dhal, was installed in his stead on promising to pay yearly revenue.

But Singhbhum was far from subdued and in 1768, there was fresh trouble. The Raja fell into arrears, constantly evaded compliance. Apart from political settlement in 1800 with the British Government, the extension of Permanent Settlement to Dhalbhum was

done. At that time it formed part of Midnapore but in 1833 it was transferred to Manbhum and in 1846 to Singhbhum.

The whole of the country of Singhbhum was nominally subject to a Raja who resided, at Porahat. The Kuer of Seraikela and the Thakurai of Kharsawan had for years, preceding 1818, became quite independent of him, and had succeeded by force and other means to get into their possession in addition to which they originally received from the Singhbhum Raja, extensive tracts of land, which formerly belonged to the estates of Rajas of Tamar, Patkum, Barabhum and Mayurbhanj.

The first expedition against Dhalbhum brought the British into contact with the Raja of Porahat, or as he was then called, the Raja of Singhbhum. The Raja at that time (1767) was Jagannath Singh who seeing the success of the British, thought it a favourable opportunity to make overtures to them, especially as he was kept in confinement by his cousin. George Vansittart, the Resident of Midnapore, wrote in December, 1767 to then head of the Government in Calcutta - "Singhbhum formerly-contained nearly 14,000 villages, but only 500 are at present in the Raja's possession; of the others some are gone to ruin, and the rest are in the hands of the Kols. Singhbhum was never reduced under the dominions of the Mughals, but has for 52 generations been an independent district in the possession of the present family. If you approve of taking the country -under the Company's protection, four companies of sepoys, I believe, will be quite a sufficient force and it will probably open an easy intercourse with Sambalpur."

In 1803, war was declared against the Marathas and the Governor-General, Lord Wellesley, invited the Kuer of Seraikela to render assistance against them, assuring him that the British Government would respect his right to hold his territory free of revenue. No attempt appears, however, to have been made to enter into closer relations with the chiefs of Singhbhum, and the interior remained a closed land. The Hos would allow no-strangers to settle in, or even to pass through, the Kolhan. By 1820 the lord of Seraikela and Thakurai of Kharsawan willingly agreed to place themselves under the protection of the British Government and Raja Ghansham Singh of Porahat followed suit, agreeing to pay an annual tribute.

On the 17th February, 1821 under some compelling circumstances, it was deemed necessary by British to send a considerable force, which entered Singhbhum. The Ho leaders after a month's hostilities and encouraged by a proclamation, surrendered. They earnestly prayed at this time to be taken under the direct rule of the British, but unfortunately their wishes were not complied with, and they were compelled to enter into agreements to pay tribute to the chiefs.

In 1831 the Hos joined the rebellion (commonly called the Kol rebellion) of the Mundas of Chotanagpur. There had long been smoldering discontent among the latter, owing to the way in which their villages were granted away to foreign farmers in suppression of

their headmen. The explosion was actually occasioned by the treatment of the Mundas resident in or to the north of Singhbhum. Harnath Sahi, the brother of the Maharaja of Chotanagpur, gave farms of some of the villagers in his estate to personal favourites, Muhammadans, Sikhs and others, in utter disregard of their ancestral occupants. Twelve villages bordering on Singhbhum which had been held by a manki called Singrai, were thus given to the Sikhs. A similar complaint was made against the Muhammadan farmers.

The Munda population on the borders of the Ranchi and Singhbhum districts rose en masse, the Hos of Singhbhum coming to their aid in defense of human rights and forming the most formidable division of the rebel army. The insurrection quickly spread over practically the whole of the present district of Ranchi and overflowed into Hazaribagh, the Tori pargana of Palamau, and the western portion of Manbhum. To put down the rebellion, military operations on an extensive, scale were found necessary. The Kol revolt was indeed a national movement of the aboriginals. It is to be regarded as a freedom struggle by the jungle folks. It was a widespread revolt of different sections of aboriginal people in Singhbhum, Chotanagpur and the adjoining territories as a protest against the inequities, inefficiency and maladministration by the British.

THE KOLHAN :

Sir Thomas Wilkinson,remembering the assistance rendered by the Hos in the rebellion of 1832 and their defiance of Government, represented the necessity of thoroughly subjugating them, and the futility of forcing them to submit to the chiefs of Porahat. He therefore proposed that the Kolhan should be occupied by an adequate force, and that when the Hos were thoroughly subdued, they should be placed under the direct management of a British Officer to be stationed at Chaibasa. These views were accepted by Government, and a force composed of two regiments of native infantry, a brigade of guns, and. the Ramgarh Battalion, commanded by Col. Richards, entered the Kolhan in November, 1836. Altogether 620 villages with a population estimated at the time at 90,000 of whom two-thirds were Larka Kols or Hos, were thus brought under the immediate control of the British Government; and simple rules for their administration of this new acquisition were drawn up and promulgated.

T. Wilkinson drew a directive to be strictly followed in the newly annexed areas of the Kolhan. He suggested that Hos should be compelled to pay Malguzari and the collections should, be made through the mankis and mundas whose appointment should chiefly depend on the popularity and influence they had. All criminal and civil justice should be administered by the officer in charge who should be required to make extensive use of panchayats composed of the mankis and mundas held, in high, estimation among the Hos. The success of this measure would depend, much on the personal character of the officer first appointed to the charge. He tried to ban the evil practice of witch-craft and sohhaism in consequence of which murders were frequent among the Hos. The murders were not confined to the person supposed to be the witch but all near relations of the supposed witch killed so that none may remain to retaliate on the parties who committed the murders.

Lt. Tickeil was posted as the first British administrator at Chaibasa in 1837. He was a great naturalist and extremely sympathetic to the Kols. His compilation on birds and social customs of Singhbhum which was published in the journal of Asiatic Society of Bengal, 1840 is an authoritative document of l9th century A. D. Among the administrative measures taken by Lt. Tickeil, special mention could be made of an attempt to open up communication, establish schools, hats, melas and jail. The rules of Wilkinson emphasized on direct contact with the Hos and to depend less on the Dobhasis or interpreters and the local chiefs. The integrity of the mankis and mundas was sought to be maintained and the local administration was carried on through their help.

The history of the district from 1858 up to 1947 was the history of the other districts of Bihar- the consolidation of the British administration, the administrative changes. The history of this period is practically the history of the other States as well along with Bihar. As mentioned above there were significant administrative changes in the matter of jurisdiction which was vital for the district. Seraikela and Kharsawan were States before and were merged to the State of Bihar and amalgamated with Singhbhum district.

AGRICULTURE :

Agricultural conditions vary considerably in different parts of the district. The northern and eastern portions of the district consist chiefly of a strip of country which, where not hilly, is undulating with an elevation of only 400 to 700 feet. Beyond this the ground rises till it becomes an elevated plateau, covering some 700 square miles of country, 1,000 feet above sea level, which extends southwards until it meets the lulls of the Orissa feudatory estates, now merged in Orissa. The rest of the district, to the west and south-west , is a wild mountainous tract. The land reclamation work was started in the year 1951-52 and up to 1956-57 an area of 10,854 acres has been reclaimed through loans and otherwise. Out of such reclaimed lands an area of 1,010 acres has been converted into paddy fields with the help of subsidy given by the State Government for the reclamation of waste land having laterite soil.

For practical purposes, the country may be divided into three tracts, first comparatively level plains, then hills alternating with open valley and lastly, the steep forest-clad mountains. In the past, cultivation was nomadic, the clearances being abandoned after a single crop had been harvested from the virgin soil, but this has been discouraged and extensive areas have been formed into forest reserves. The plains are embanked for rice cultivation; in the intermediate tract the valleys are carefully leveled where rice is grown while the uplands are roughly cultivated with millets, oil-seeds and occasionally with paddy. The people have changed their nomadic habits and have taken up cultivation on a more permanent basis. There has been a remarkable change in the outlook of the people and now there is an appreciation of the more modern methods of agriculture and need for irrigation.

The main agricultural seasons are rabi, aghani and Jcharif. Bcibi operations commence in the latter part of October and ter minate by the middle of March. Kharif season commences in the latter part of May and terminates by the end of September; the aghani season begins simultaneously with the kharif crop and terminates by end of February. During rabi season wheat and gram are grown and harvested. During kharif season paddy, maize and pulses are grown and harvested. During aghani only winter rice is harvested.

Types of Land :

There are three kinds of lands namely, gora, bad and bera. Bera lands are those, which are at the bottom of the valley and in depressions, which receive the washings of the slope and are naturally irrigated. They are richest of all the lands, yielding good crops of winter rice followed occasionally by linseed, khesari and other pulses. The lands just higher up the slopes are called Bad Lands and grow early rice, cereals, pulses and miscellaneous crops. The uplands, which are composed of light soil, are known as gora lands, which are situated close to villages. Owing to their proximity to the village they are well manured and cultivated to give two crops annually while those situated at a distance from the village is more or less meant for pasture. Crops as surguja, mung and urid are grown on these gora lands. There is a further practical distinction that the bera and Bad Lands are embanked, and the gora lands are not embanked.

Embanked rice land is called don and is classified according to its character and quality into bera or garha, nali or adhgarha, and badi. Bera or lands of the first quality are embanked lands, which being in the bed of the stream are copiously irrigated, and contain water practically all the year round. Nali are lands on the slopes of watercourses, which receive a certain amount of irrigation and are intermediate in yield between bera and badi. Badi is practically embanked upland growing a precarious crop dependent on the rainfall. Each embanked field or khet usually consists of several plots called kearis or aria, and the embankment round each plot is called ar, ail or ari. Gora, is upland soil, and usually represents an intermediate stage between jungle and don.

Due to the hilly condition of the country side the level varies from 1,500 to 500 feet above the sea level. The rapid flow of the water is responsible for soil erosion. The 'denudation of the forests has made the problem of soil erosion more acute. The soil, which is prepared each year, is liable to be washed away. On the sloping land the cultivators raise upland crops once in a year or once in two years and allow the soil to build up itself during the recess as t.he frequently ploughed land is more liable to erosion. Both Jtinds of erosions, namely, gully erosion and sheet erosion are common. Contour bunding is essential to stop sheet erosion of the soil. High-level bunds along with contour bunding may stop gully erosion. Individual cultivators make bunds and ahars for their own lands and try to prevent erosion. The principal crops are Paddy, Wheat, Gram, Maize, Masoor, Arhar, Khesari, Peas etc. which are described below.

Paddy

Both early and aghani paddy are the principle crop of the division. Aghini paddy is sown in bera lands by both broadcasting and transplanting. Early paddy is sown in Bad Lands.The character of paddy cultivation is determined by the physical features of the

division. The character is entirely different to the character in the plains of North Bihar and South Bihar. The countryside is undulating and broken by alternate ridges and depressions, which for the most part form the channels of small streams. In most areas, the land has to be made available for paddy cultivation by opening out and terracing the depressions and utilising the springs at their sites. For this dams are often constructed at the heads of the sites. With this support paddy is grown at the bottom or on the site of the shallow saucer-shaped hollows. In the latter case a certain amount of leveling has to be done and plots are cut out of the site of the ridges or slopes. The fields thus rise one above the other in a. series of long low steps, but each step is gene-rally broad and the ridge is very gradual. Small embankments are made to hold water round each plot and the water is retained until the crop ripens.

The poorer quality of paddy is grown on the uplands at the top of ridges and on the land, which is not leveled or embanked at all and depends on the moisture of the rainfall alone. There are three crops of paddy. Early paddy is sown broadcast in Bad Lands after the first fall of rain in June and reaped in August and September. The bhadai and autumn paddy is sown in June in Bad Lands and is reaped towards the end of October and November. This crop is either sown broadcast or transplanted. Winter paddy crop is sown in nursery early in July, and is transplanted in bera lands in the latter part of July and early August and reaped in December. There is also a small crop of early paddy called tewan, which is mainly grown in the mountainous region. It is planted in embanked terraces in March and cut in July and August.

Rabi

Very little of rabi crops are grown. Gram and wheat have been introduced in the last few decades. They are grown in the same fields after the harvest of paddy crops. With the construction of minor irrigation works, bundhs and tanks the area under rabi could have been rapidly increased but due to the acute problem of stray cattle very few people venture to sow rabi seeds. Unfortunately people of this division let loose their cattle just after paddy is reaped with the result that no second crop is grown. Mung and urid grow on gora lands and their yield is not bad especially on the lands near the villages. The other rabi crops are jo,war, gondli, khesari as catch crop and common peas.

Maize

Maize is grown in small patches near homesteads and its yield is quite satisfactory. The cultivation of maize could have been easily taken up in larger areas, but the people in this division have not yet taken to maize.

Oil-seeds

The principal oil-seeds are surguja, rape, mustard, til and linseed. They are grown on uplands. Mustard is mostly mixed up with surguja for extraction of oil. Oil is also extracted from the seeds of kusum and the fruits of mahua. These are edible oils. Oils extracted from karanj and neem seeds are used for anointing the body and are said to have medicinal value. The Hos also sometimes use mahua oil in cooking.

Vegetable

Cauliflower, cabbage, tomato, radish, carrot, beet are some of the new vegetables that are being grown now. Ten years back these vegetables were practically unknown. But now started to grows all kinds of seasonal vegetables, namely, bottle gourd, lady's finger, tomato, cauliflower, etc. They have a ready market at Chaibasa and other small mining settlements.

METHODS OF CULTIVATION

Methods of cultivation employed are rather backward. To quote from Mr. Taylor's interesting description in the Porahat Settlement Report: -"The Kol is a very poor cultivator compared with the ryats of Orissa and other parts of Bengal. The fact is that he has never entirely outgrown the state of his prehistoric ancestors. He is a hunter who has been forced to agriculture by the contraction of the forest areas and a consequent decrease of game. The Kol's ideal cultivation is jhuming, pure and simple, and as he is probably inferior to none .in the clearing of forest and the felling of trees, he stands pre-eminent as a pioneer, but there his value as a cultivator ceases. He will put in some labour in the damming of nullah beds and the construction of embankments, but once the field is roughly made, he is careless of keeping it in repair. He will prefer to spend his leisure moments in cockfighting, hunting and dissipation to the leveling of his cultivation field."

The physical capacity of the cattle is very poor. The ploughs employed are of very small size, and the result is that only 5 inches of soil is turned over. Mechanized cultivation needs more finance and consolidated blocks of land. The physical contour of the division also makes mechanized cultivation rather expensive. As regards mechanised irrigation, rahats and lift engine pumps are slowly finding their way. Lift engine pumps have proved quite popular with the people and more than one hundred of them are now in use.

Rotation of crops and crop combination are prevalent. In uplands due to deficiency of soil, two years are taken to prepare the land when the land is left fallow but in the third year cereals are grown. In lowlands paddy is the single crop, and except that some paira crops like khesari, kalai and gram are grown each year. In bari lands and vegetable gardens, in the first year winter vegetables and maize are grown while in the second year vegetables common in the rainy season and peas are grown.

SEED SUPPLY

The cultivators usually keep by a stock of seeds sufficient to meet their requirement. The methods of storing seeds are indigenous and cannot be said to guarantee proper germination always. If the harvest is not sufficient there cannot be any storing of seeds. The Agriculture department through seed Banks and Co-operative Societies have started grain galas for the supply of seeds to the cultivators. Improved seeds, mostly of maize, paddy, Arahar, wheat, gram, vegetables and papaya on the average are sold per year. Through demonstration units of the Agriculture Department the cultivators are shown the utility of improved seeds in comparison to the output of the adjacent blocks where local and inferior types of seeds are used.

Agricultural Operations

Ploughing: -

Generally two ploughings are done -one for the kharif season crops and the other for the rabi season crops. In some cases hot weather ploughings are also done to grow hot weather crops, namely, some vegetables like brinjal, gourd, spinach, etc. The ploughings for the kharif crops begin just after the break of monsoon, i. e., in the latter part of May or in early June. Ploughings for rabi crops begin in the second fortnight of September and last up to November. Hot weather ploughings are usually done from the second part of January up to February in the areas where good irrigational facilities are available. The depth of the furrow is usually near about 5 inches and the furrow width varies from 4 inches to 6 inches. Deep ploughing is not possible partly due to hard soil and partly because of the ill-fed and short stature bullocks. The deshi ploughs are not efficient at power manipulation of the soil. Recently some improved ploughs, as already mentioned earlier, have been introduced which are responsible for the sufficient inversion and stirring of the soil.

Puddling: - Puddling is not carried' on a large scale as transplanted cultivation is done on a limited scale.

Sowing: - Mainly there are two sowing times, viz., kharif and rabi. For the kharif, sowing begins from June lasting up to the middle of July. Sowing of rabi crops begins from November lasting up to middle of December.

Water draining: - Generally crops in the kharif season require draining off the. Water when there is abundance of rainfall and subsequent water stagnation in the plots.

Harvesting and threshing: -

After sowing harvesting and threshing are important agricultural operations in addition to the minor agricultural operations like water-draining, weeding, etc., which precede harvesting. Sickle made by the village blacksmith is the instrument with which harvesting is done. Modern harvesting machines are used by only a few gentlemen who have organized their farms on the modern lines. Harvesting is followed by threshing. It is done with the help of cattle. The gathered crop is spread on the threshing floor and a batch of four to five cattle is tied to a pole, around which crop has been spread and they are made to go round the pole till the grain is separated from the straw.

Storing: -

Storing is carried out still on primitive methods. Generally the seeds are put in gunny bags and stocked one above another. In some cases, seeds are stored in special earthen or iron structures made like bins. In some places seeds are stored in straw, which is locally called pura. Insecticides are seldom used in storing seeds.

Crop Destruction, Pests and Diseases:

The common crop diseases prevalent are ganahi bug, kharika and dadhina in paddy. Rust in wheat, stem borer and caterpillar in vegetables, and wilt in maize and red-rot in sugarcane. Rat nuisance is prevalent. Wild animals, such as elephants, boars are responsible for a considerable amount of loss of crop. As usual with the other places the nuisance of stray cattle is common. Cattle are accustomed to be let loose in the forest areas for grazing. Now they are not only allowed to graze in the forest areas but also with the result of accustomed wandering they graze on cultivated plots as well.

The markets are both of primary and secondary types but the former predominates the latter. Various weekly hats are held where the commodities of necessities of life are sold invariably at a cheaper rate than in the regular market price. Chaibasa, Musabani, Gua, Noamundi are the important markets of the area where all types of commodities are sold.

LIVESTOCK:

Buffaloes, oxen and cows are employed for agriculture, but the cattle are on the whole poor, the Hos taking no interest in improving the breed. Pasturage is generally ample, for there are wide stretches of jungle and hilly country, and there is usually enough rain at intervals throughout the year to keep the grass and other vegetation fairly green. In addition to the grass in the jungles and on the wastelands, cattle get pasturage in the rice fields, where few second crops are grown.

Bullocks and he-buffaloes are mainly domesticated for the heavier agricultural work on the farm, and cows and she-buffaloes are mainly kept for purpose of breeding and milk products. It is peculiar that the Hos, who constitute the majority of Adivasi population, are allergic to milk and its various preparations. Bullocks are the common animals in use in the agricultural operation and their high number indicates their relative importance in agricultural farm work and rural transportation. The he-buffaloes are also employed for agricultural operations. The local cattle are mostly seen in the rural areas and they are short in stature. The bullocks are costlier than the he-buffaloes. In the towns the cows and she-buffaloes are kept mainly for milk production. This poor milk yield is partly because of the fact that the Hos who form the majority of the population do not milch the cattle and partly owing to the poor breed of the cattle itself. The cattle also provide fertile farmyard manure.

In addition to cattle, sheep and goats are kept on a large scale. These animals are valuable assets as they produce wool, and skins and in the case of goats, also milk. Hides are exported from the division to other parts of the country. There is a good trade in meat within the division. Sheep are also sent out from this division.

Poultry is an important cottage industry in rural areas; especially among the aboriginals, and eggs, fowls and ducks are regarded as valuable kinds of food. A poultry farm exists at Chaibasa.

CHAIBASA SOUTH FOREST DIVISION:

Introduction:

The Chaibasa Forest Division was created in 1906 as a Separate Division Covering an area of 564, 617 Sq Km. (218 Sq miles) The forest of the Saraikella and Kharsawar estates were added this Division during 1958-59. Again in 1964, that Forest Division was again split up into Chaibasa South and Chaibasa North Division Vide Govt. Notification No. - C/F-1 (A) 14/64- 3757 dated 30.10.1964. The original Chaibasa Forest Division became the new, Chaibasa South Forest Division, Consisting of 156 old PF's and One RF. Block of the Kolhan estate.

The forests of Chaibasa South Forest Division falls within the civil Jurisdiction of the Sadar Chaibasa sub-Division, which is the part of the demarcated protected forests of the kolhan Govt. estate. The Forests comprise 156 solaced PF's block varying in sizes from 2.832 (7Ac.) to 8712.464 Ha. (24,000Ac.) and one reserved forest block. The Division Comprises 53730.608 Ha. of P.F's and 31.367 Ha. of Reserved forest . The total area of the Division is 564.614 Sq. Km. (218 Sq miles). These are bounded by Saraikella and Chaibasa Goilkera road in the North, Mayurbhaj district of orissa and Saraikella Sub- Division in the East, Mayurbhaj and Keojhar district or Orissa in the South and the Kolhan and Saranda Forest Division in the west. This Division lie between 210 57' 30" to 220 32' North Latitudes and 850 20' to 860 02' 30" East Longitudes. Except few forest blocks all are isolated from small hillocks in the midst of cultivation and Villages. Ten blocks covers the jurisdiction of the division in which Population in chaibasa is highest followed by Noamundi, Jagannathpur, Jhinkpani, Kumardungi, Khuntpani, Manjhgaon, Manjhari, Tonto and Tantnagar.

Range wise area distribution :

Range		
Chaibasa	Novamundi	Hatgamharia
15990.70 (848- mines)	17238.50	51250.60

The area of Chaibasa Range is highest followed by Hatgamharia and Novamundi Range. The coppice selection working circle covers almost 60% of the total forest area next to plantation working circle almost 20% of the forest area. The division has also nominal

area under Tasar plantation, salai and under mining also. The forest comprises mostly small hills with varying altitudes, rising from 121.60M (400 ft) to 608 M (2000 ft) form M.S.L. The general slope of the country is gentle.

SOIL

The Soil of the division is formed from Dharwar rocks, which come under latosol group of soil. It may be further classified as follows on the basis of colour and fertility: -

(a) **Rocky soil :** - Approximately 20 percent of the area comes under this. It is not actually under cultivation. This type of soil is found throughout the division, wherever we come down the hills and hillocks and mostly in the southern, western and northwestern portions of the division.

(b) **Red soil :** - After rocky soil comes red soil, which is spread throughout the division. It covers nearly 35 percent of the soil area. The texture of the soil is sandy and loamy in upland and midland respectively. Its fertility is poor and it is acedic. Only kharif crops and vegetables could grow. In lowlands or where irrigational facilities are available paddy is also grown. The average Yield of paddy in uplands is 2 to 3 maunds, in midlands 5 to 6 maunds and in lowlands 6 to 8 maunds per acre.

(c) **Yellowish grey and grey soil :** - Soil in the uplands is yellowish grey in colour while in the lowlands it is only grey Soil in the uplands is less fertile than in the lowlands but on the whole this kind of soil is more fertile than red soil. However, this type of soil is deficient in organic matter as well as in other major soil nutrients. At places alkaline patches are also found, locally known as khirni mitti. They do not allow crops to grow.

The average yield of paddy in uplands of this type of soil is 5 to 6 maunds, in midlands 8 to 10 maunds and in lowlands 12 to 15 maunds per acre.

(d) **Black soil :** - This type of soil is rich in organic matter. Its colour is black, probably due to the deposit of organic matter coming with rainwater from forest. The texture of the soil is loamy and clayey. It is very fertile and is found only in patches in several villages.

Mostly paddy is grown on this soil, but where irrigational facilities are available wheat and gram are also grown. The average yield of paddy is 20 maunds per acre.

As the lands of the division is not plain and are in terraces, fertility in each type of soil varies from plot to plot.

WATER SUPPLY:

The principal rivers that drain the forest are perennial, but the flow becomes very meagre during the hot months. Wells for drinking water are not found everywhere, though efforts to have wells in every village are being made as Govt initiatives.

GRAZING:

There is no restriction on grazing even in the newly coppiced areas and thereby causing considerable damage to the forest crop Grazing is one of the factors responsible for the creation of rooted wastes.

MAN :

Man has become the greatest enemy of these valuable forests as they have lost the fear of the rules and regulations. The concession to the villagers to take unrestricted dry firewood on ad load is one of the main causes for the creation of the rooted wastes.

These villagers are not allowing the coppice growth to develop into poles as they are cutting them down for their need and also for the sale in the local HATIA. There is very little respect for the forest by these villagers. If something positive is not done to check and control this then in course of time the forests in and around the villages is bound to vanist. Illicit felling and illicit removal of forest produce under the banner of Jharkhand Agitation I now days become burning problems for the forest Department.

NATURAL CALAMITIES :

This division has been immune from any natural calamity like flood and famine. Some time storms do some damage to the forest crop but the record of incidence is not available.

HEALTH :

This portion, is somewhat open and dry, hence it is less malarious. The most dreaded black water fever has now become a thing of the past due to improvement of health by Govt. Anti malaria Scheme of the Govt. has done Considerable good work in this part.

STATE OF BOUNDARIES :

There are both artificial and natural boundary lines in this division, which is about 3605 Km. Major Portions of the boundary lines, are artificial. The State of boundary lines is fairy satisfactory. The Width of the boundary lines maintained is 20 feet on the exterior edge of the forest with stone or earth pillars of regular intervals.

RIGHTS AND CONCESSIONS :

It permits the villagers to take whatever forest produce they require for their own bonafide use but not for Sale, gift or exchange.

The following rights are in practice since the creation of the division.

i) Any bonafide recorded tennants of any land or building in the Kolhan Govt. estate who resides in a village which is actually contiguous to a protected forest may within the limits of such forest and without payment: -

a) Cut and remove to his own home for his own domestic use but not for any kind of transfer.

(i) Any green tree other than, Mahua, Kahua and Herra of a species declared to be reserved by notification no 3589 dated, 17.7.1894, the girth of which at R.H is not less then 2 1/2 feet it such tree is required for his own private use.

(ii) Any other green trees or timbers.

(iii) Any dry trees or timber.

(iv) Any other forest produce.

b) **PASTURE:**

(i) Not more than six sheep or goats.

(ii) Not more than four cattle.

(iii) Any buffalos or Cattle which are bonafide his own domestic and agricultural purposes.

c) Any person may lop branches of Aasan, Kusum and Palas or any where trees or shrubs or bushes of an unreserved spp for the feeding of Cater- Pillars or for the collection of Cocoons or the Collections or better propagation of LAC.

These rights are regulated according to the provision of the working plan. In addition, Govt. forms time to time have allowed the following privileges to the villages irrespective of their rights in the forests.

1) To collect any quantity of dry fire wood, on head load on bahangi load free of charges vide Revenue Deptt, Govt. of Bihar Cattle No-C/F- 5075/54-67 R.T. dated the 8.5.1954

This concession is misused very badly by the villagers, at the cost of the forest preservation. They are permitted to carry axe hence they cut green Saplings and allow them to dry in the forest to evade the rules. This is creating large-scale rooted waste in and around the villages, as the crop over such areas is not getting a chance to establish.

2) Rights to graze Cattle in the forests irrespective of rights. This is also is a Cause for deterioration of the forests specially the newly Coppiced area.

3) Rights to collect edible fruits and flowers including Mahua for his own domestic use.

But these Concessions are misused and villagers have turned into professional traders in forest produce. They are selling both firewood and minor forest produce in the HATS although rights do not permit them to sell the forest produce.

COMPOSITION AND CONDITIONS OF THE FORESTS :

The forest of this division conforms broadly to Champion type 58/C 1c Dry Peninsular Sal forest. But these are small patches of moist peninsular valley Sal type C 20(iii). The principal Spp is Sal (SHOREA- ROBUSTA) and at place sits preponderance is so much that other Spp do not count. But the distribution of Sal is limited by availability of Soil moisture, aspects as well as the configuration of the ground. The quality varies from II to V but mostly IV and V. The predominant quality is Coppice 'B'. The common associates of Sal are Aasan, Dhaura, Kend, Bija, Karam. Mahua Sidha, Jamun etc. In addition the Spp also found in misc. patches are of Aam, Arjun, Bhelwa, Galgal, Thingan Karla, Salai etc. The under storey consists of the following Spp Tili, Dhadki, Ber, Harsingar, Singhuri, Koraiva, etc.

The common climbers are Millatia anriculata (hehel), Acacia Pinnata, Smilx marophylla, Ficus Scandens, Butea Parriflora etc. The common grasses are Imperate cylidrica (Syn arundinacca) Cheru. Heteropogan Contortus, Aoludo mutica. etc.

For the purpose of general description, the forests of this division can be divided into three main types according to locality.

1) The Western Region.
2) The South - Eastern Region.
3) The Central and North- Eastern Region.

THE WESTERN REGION:

The forests of western half of this division being remote from habitation and situated on better soil derived form haematite quartzite deterital formation and ferruginous loan are definitely better than the rest of the region. The example are forests of the following area- Noamundi, Tamda, Raika, Kantoria, Dudhlilla, Bomlasai, Tonto etc.

The full stocking in this area in due to sparse population. Sal usually forms the principal species with common associates as Aasan, Bija, Karam, Dhaura, Kend, Jamun etc. In moist Valleys, pure miscellaneous forest patches occur with common Spp like Am (Mangifer Indica), Termination Arjuna (Arjuna), Semal, Jamun, Chatwan (Alstonia scholaria) etc. The hilltops are dry and support miscellaneous Species of poor growth. The undergrowth varies from place to place and depends upon the moisture content of the locality & upon grazing and fire. Regeneration of the principal and miscellaneous species is fairly good.

SOUTH EASTERN REGION:

The quality of the forest deteriorates in the eastern region. The Crop is open and inferior in quality, although Sal is the principal species. The Soil in this region derived as it is from the parent rocks of granite and gneiss is infertile and hence the crop is of poor quality.

The area is densely populated, and the pressure on the forests is very great which has resulted in the denudation on mature and big size tree. Examples of such forest are Demodarsai, Ratanasai, Goraband, Dhobadhalia, etc. The quality of Sal is generally Q IV. Its common asssociates are Pterocarpus marsupium (Bija), Terminalia tomentosa (Aasan), Anogeissus latifolia (Dhaura), Madhuca indica (Mahua), Lageratroemia parviflora (Sidha) etc.

The undergrowth is negligible due to excessive grazing and fire. At places pure dry miscellaneous crop occur in small patches with principal species like Anogeissus latifolia, Gleistanthus collinus (Karla) etc. In this type Salai is the most important and valuable species.

THE CENTRAL AND NORTH EASTERN REGION:

In this region the crop consists of very open Sal pure dry type of miscellaneous forests. These forests are in isolated block surrounded by numerous heavily populated villages and therefore subjected to heavy illicit felling. The examples are the forest of Jaintgarh, Daubera, Maluka, Debrasai, Kendposi, Dhansari, Silpungi, Gitilpi etc. Common associates or Sal are Terminalia tomentosa, (Aasan), Anogeissues latifolia (Dhaura), Diospyros malapoxylon (Kend), Madhuca indica (Mahua) Lagerstroemia parriflora (Sidha) etc. In some patches pure dry miscellaneous forest also occur such as in Talaburu, Bidri, Joranokhar etc. The common species are Dhaura, Amla, Galgal and Char Jhinga Kend etc. There are numerous rocky blanks with scanty or no vegetation.

FIRE:

Fire is the real enemy of these forests; things have deteriorated due to increase in population and opening of numerous mining leases. The forest of this Division is susceptible to fire being surrounded by numerous heavily populated villages.