

## **CHAPTER—I**

### **SUMMARY OF FACTS ON WHICH THE PRESCRIPTION ARE BASED**

#### **The Tract Dealt With**

**Name and Situation:** The forests of Kolhan Division which are being covered in this working plan are situated in the West Singhbhum District, Jharkhand. To the north and west, the main line of the South-Eastern railway separates them from Porahat Division. To the east of Koihan Division, there is the area of Chaibasa South division and the open cultivated plains of Kolhan.. On the south west the Karo and Koina rivers form the boundary between those forests and those of Saranda Division .The tract is situated between 22° 15' to 21° 45' 15" North latitude and 85° 15' to 85° 41'15" east longitude.

The division comprise 58,600.14 ha. of reserved forests (R.F.) and 11, 406.094 Ha.of protected forests (P.F.). Thus the total forest area of this division is 70,006.15 ha.or 700.06 sq.Kms. of reserved and protected forests. Except for occasional occurrence of villages of some 3 to 5 Kms. wide in the centre and more limited else where, the reserved and protected forests form an almost continuous block with a few scattered villages within the division. Total area includes three forest villages, namely Rajabhasa, Tumbahaka and Rangamati within the area.

#### **Configuration of the Ground:-**

A part from the Sitaba group of hills which are 2000' to 2500' above M.S.L, the area consists of a series of hills seldom exceeding 1800' high and having fairly consistent north-east to south east strike. The lowest elevation is about 750' at Kararbera in Kolhan valley and the highest being 2550' on Hararango-buru in the Saitba block. In the north-east of the Koihan division the valleys are generally narrow with the hills rising sharply on their flanks but those of the Karo and Deo rivers are generally more open. Except for the, Saitba hills , the topography on whole is, less rugged than that in the neighboring division of Saranda and

#### **River System of the Division:**

Division lies in two drainage systems separated by a watershed 1000 feet in which runs south from Goilkera to Lajra, Kendbai, Lambari Bura and riwta then east through the north of Santra block to Saitba ;and thence south to Jaganathpur . The important rivers of the division are Karo ,Koina, Deo,Sanjay etc. The catchments area of Karo Deo and Koina rivers lies to the south and west of this lines and the bulk of the division is drained by these rivers and their tributaries.

The Koina joins the Karo just outside the division at Manoharpur and drains only the west portion of Ambia block of Kolhan range Surguiagara is the 'important feeder of this river.

Deo river joins the Karo at Patung and is responsible for the greater part of Santara, Latua and the south east part of Leda blocks its more important feeders are the Sangajata gara from Santara, the Patung gara from Leda and the Malsukua ,Jharjar Karanta and Udalkam natas from Latua blocks .The Banki and Rajabasa garas joins the Karo direct just over its confluence with the Deo river is at Patung Mo other direct feeders of the Kayo river from Latua block being perennial

### *Configuration of the Ground:*

The Karo itself drains into the western half portion of Ambia block and its main feeders from Ambia are Tamba garas .This is the only truly perennial ( during the field survey Tamba gara is found dried in March,1997 ).Stream in Ambia and Leda blpcks flowing directly into the Karo. The remainder of the division, consisting of a small area in the north of Leda and Santara and the whole of Saitba blocks lies in the basin of Sanjay river and with the exception of Tuia gara , the drainage is to the north and east Important streams a reet he H amsada gara Rukwef gara and Buru Sarbil gara from Leda block,the first two are the perennial streams in the forest

### *Geology Rock & Soil.*

The rocks of the Koihan division (West Singhbhum district of Jharkhand) have ieen classified as Dharwar Rocks and are generally considered to have been deposited in the following order (Reference: Memoirs of the G. S. I. volume LIV & LXIII part 2 records of the G.S.I. volume LIV parts 2 ; Transactions of the and Geological Institute of India;volumeXXVI).

1. Newer Dolerite-dykes and sills, cuddapah or earlier.
2. Granite Rocks.
3. Ultra basic igneous intrusive Rocks.
4. Shales With epidiorites and ash beds.
5. Banded haematite —quartzite with Iron-ore bodies.
6. Shales with occasional thin sandstone and calcareous bands
7. Limestones (inplaces).
8. Purple sandstone with (Local) based conglomerate.

9. Homblende and mica-schists and quartzite.

Mr. H.C. Jones has placed the ultra basic rocks above the granite rocks, as he found several cases where they appeared to be intrusive into the granite. But Dr. J.A. Dann and Mr. H.C. Jones regards the ultra basic rocks of Singhbhum as definitely older than the granite rocks.

After a field survey Dr. Dann has however found it necessary to re-classify the rocks of the Iron-ore-series. He considers the “basal conglomerate” not the base of the series which contains the banded-haematite-quartzite, the main country rocks of the iron-ore, but as the base of a much younger system, which he

calls the. “Koihan series” . The granite is not found intrusive into the Iron-ore series and the following shows the classification according to Mr. H.C. Jones & J.A. Dann.

<i>Ore Series</i>	<i>Mr. Jones</i>	<i>Dr. Dann</i>
Newer Dharwar	Uppershales lavas and ash beds, Banded Heematite quartzite lower shales.	Kolhan Shales, Koihan Sandstone conglomerate. (Unconformity)
	Limestone, purple sandstone conglomerate.	Iron-Ore, Phyllite banded haematite-quartzite, tuff dikes and lavas.

No rocks of the older Dharwar system occur in the division although abundant just outside its eastern limits. Neither does the basal bed of the Newer Dharwar outcrop, limestone is only met with in two or three deposits, and banded haematite — quartzite is limited to very small areas in the west of Latua block, but contains no ore-bodies. No granite rocks are found in the area dealt with [a part from a few insignificant outcrop of quartz porphyry in Santara block] through occurring to the north and east of it. The newer Dolerite only occurs in a very few small dykes in Latua block.

The commonest rock types met with are metamorphosed shales and phyllites which are fairly universal in their distribution. They have a consistent NE-SW strike and generally dip at about 30° -40° to the north west, although the dip is often as steep as 70°. There is a tendency to show signs of alteration to chlorite schists and chlorite mica-schists along the north of the division.

The epidiorites are represented by a series of flows in Ambia, Santara blocks where the “Ongabira Trap” represents a phase in the Dalma volcanic flows of Porahat and north-east Singhbhum. The ultra basic rocks (epidiorites) outcrop extensively in Saitba block. With the exception, therefore, of these and the periodites the rocks of the Kolhan division belong exclusively to the Iron-ore series.

A brief description of the distribution of the petrological types in each block is given below:

**Ambi:** Phyllites occur throughout the block. They are mostly grey normal phyllite but salty (illaceous) phyllites are often found underlying the quartzite as the east of the block, and are sometime indistinguishable from the latter. Chloritic phyllites occur to a limited extent in the west and locally into chloritic schist. Carbon phyllites are found in compartment 22 and also in compartment 4 and 7 in all which places they appear close to the outcrop of basic rock. Shales are not common but shaly phyllites (often buff in color) are to be found towards Henua.

Soil formation in the northern half of the area is very largely influenced by quartzite which outcrops along the crest of many ridges especially in compartments 10 and 11.

Rather a feature of Ambia block is the series of parallel outcrops of epidiorite representing lava flows contemporary with the deposition of the shales. The strike across the southern half of the block, mainly in the west in compartment 15, 16, 17, 18, 19 and 24 following the strike of interceded phyllites.

Quartz is common especially in association with the epidiorite and quartzite. It also occurs with the phyllites but not so extensively. It is found outcropping along the crest of many hills and ridges and considerable scree of quartz boulders occurs in the H.B. Gara in compartment 23.

**Leda:** The north-west portion rests on a succession of parallel epidiorite flows with interceded carbonaceous phyllite outcrops without the basic flows and passes into normal phyllite towards the centre and south of the block. Quartz is abundantly associated with the epidiorite and phyllites. A small deposit of manganese yielding a second grade ore occurs in Leda Buru and travertine in compartment 15. In the extreme south near Patung the Phyllite passes into siliceous shale, which appears to be calcareous to the west of Patung.

**Latua:** The geological formation in this block consists of the shales with interbedded sandstone and quartzite, the latter often forming quite prominent outcrops. The shales which are normally purple or grey are very frequently silicified, especially to the east and south east and occasionally cherty (near Pokhriburu). They are locally calcareous and also the quartzite towards Luia. The quartzite is most conspicuous on a line from Rajabasa passing south of Banki, Pokhriburu and Luia. The outcrops are largest in the east towards Borta and Torito where the angle of dip of the strata is less than in the west of the block. The quartzite is frequently highly ferruginous and of the nature of Limonite. On a few flat topped hills in the south (Paipi Buru) laterite occurs as a result of the weathering of the ferruginous shales. Purple and grey phyllites are abundant south of Lula towards Masuriburu. In the south-west of the block banded haematite quartzite outcrops intermittently for about 6 miles from Jhirjor village to the Karo river near Ghatkuri, where it is faulted from the main Ghatkuri Range with much resultant breccia conglomerate. The best exposure of the banded haematite quartzite is in the Hakuyum Gara between Pokharia and Jhirjor villages.

Basic Igneous rock is not abundant. There are two small exposures in the Karo river north, west of Raika and few small outcrops where seen on the line Raika-Masuribera. These are very small and unimportant, the rock being apparently dolerite. The rock is more extensively in Masuribera, Udalkam and Borta villages where the outcrops continue into the forest to the east in compartments 13 and 14.

**Santara:** The main formation which occupies the south and centre of the block is metamorphosed shales. These are met with further north but are generally more or less altered in the vicinity of the epidiorite flows which occurs extensively to the north of Hangajata in the vicinity of Dupogarh Buru and which extend along the north of the block towards Saitba.

A few small outcrops of quartz-porphry represent the granite mass of the Chaibasa. and Chakradharpur plains, but they are unimportant. They most conspicuously occur to the west and south - west of Husipi village and north of Sarjamburu.

**Saitba:** The rocks found in this block are predominantly ultra basic and often of a gabbroidal type. Chromite is mined near Anjitbera. Quartzite forms some conspicuous ridges in the block especially towards the north.

The soils of the division may be roughly classified under the rocks from they are derived—

- (a) Soft carbonaceous phyllite weathers to a soft powdery consistency and is the most infertile soil met with, although the shale and phyllite-cumquartz ridge are not much better.
- (b) The shale and phyllites yield a clay which if exposed is very hard on the surface and is commonly covered with quartz fragments. However, the soil derived from these rocks when it collects in the valleys and is of good depth and higher moisture content than on the ridges often carries the best type of forest in the division, especially where the sub-soil contains detrital quartzite boulders and is moderately well drained. In these localities the soil is generally a ferruginous clay or loamy clay. It is not infrequently calcareous. Some of the calcareous clay are very stiff and infertile.
- (c) The quartzite in the north of Ambia yield a rather poor stony soil as they outcrop along ridge; in the valleys below the some conditions are met with as described in sub-paragraph "b" above. *Cleistanthus qollinus* is often abundant on this rock type and on quartz; but more usual on the silicious phyllites below it. The chief factor determining its presence appears to be the Quartzites in Latua often give rise to a light loam and sandy loam: a good soil if moisture is present.
- (d) The basic phyllite and Schists (usually chlorites) whether readily and generally give rise to very deep fertile soils in the valleys, which usually support mixed forest of moist type with a varying proportion of sal which reach large dimensions on these sites specially watered by a perennial stream. These soils vary from loam to clay loam. On dry slopes, they carry

dry mixed forests and bamboo show a preference for the chlorite-mica schists in the North West.

- (e) The epidiorite so common to the north and west weathers to a buff or reddish stiff ferruginous clay where the rock lies near the surface, dry mixed forest occurs; elsewhere on soil of moderate depth sat forest of medium\_ to poor quality is found on this rock in the west of ambia block and again in the north-west of santara but not in large quantities.
- (f) The ultra basic rocks yield a stiff ferruginous clay but in the saitba hills where this rock type occurs the steep slopes are often extremely rocky and carries little or no soil.

**Climates :** There are usual three seasons, the hot, the rainy and the cold. The first lasts from the middle of March to about the middle of June, with a few thunderstorms in April May. The monsoon breaks about the third week the of June. and continues till about the end of the September with occasional showers ,very useful for paddy, coming till about the middle of October. The cold weather extends from the middle of October to about the middle of March and is characterized by middle warm days and cool nights. Fogs are common in the valleys of Karo, Koina and Deo from November to JanUary. Frost is of very rare occurrence.

**Storms:** Thunderstorms in April, May and June are often accompanied by high winds, mostly from the north-west. These are usually very local in their distribution and effect and on .the whole are not severe and do little damage.

**Water Supply:** The Division is not so well watered as the Sararida area. art from the Karo, the Koina and the Deo which carry a good flow of water t but there are a very few significant perennial streams . The Tumbagara in Ambia block, the Patung and Juisgaras in Leda, the Banki and JhiiJor in Latua and the Sangajata Gara in Santara only carry a very small of water after February and are generally reduced to a series of Intermittent perennial pools. The flow of streams has been noted in the rtment histories.

**Natural Calamities and health of the Peoples:** This tract has not to contend with any serous natural calamity. The fare of the local inhabitants may be frugal and their means of sustenance is limited; but actual famine rarely touches the dwellers of the Jungle. Through the many years of hard and difficult living, the inhabitants have imbibed unique resilience and are capable of carrying on without ostensible grudge with an unsubstantial meal a day. During the days of need mother nature comes to their aid and besides Mahua Flowers, Kend, Mango and Piar fruits the forest supplies a fair quantity of edible roots and leaves. Vitlage sanitation and the urihygienic habit of the people need a lot of improvement. The aversion of these people towards the modern science and their belief in the cure of all diseases by propitiating evil spirits, furter help the propagation of the diseases. The Malaria conditions are notoriously prevalent in this tract resulting in a partial immunization of the local population, a very high percentage of whom are, therefore carriers. B lackwater fevers o ccUrs s poradically I n the district. Its incidence is greater near the iron mines and this may be attributed to the greater susceptibility of imported labour to this disease.

In recent years a good deal has been done to improve the health of the local people. For the employees of Forest Department suitable quarters have been constructed and facilities for drinking water have been improved. The general improvement in the communications due mainly to the efforts of the Forest department have largely contributed to the improved standard of living. Under the different Welfare Scheme, provisions for drinking water, facilities for loan of seeds, setting up of Primary schools and hospitals, as also the establishment of Mobile dispensaries have gone a long way in improving the condition of the local people. The results, however, have not been to the expectations partly because of the unwillingness on the part of the people to take to scientific methods of cultivation and living in preference to their age old habits.

**Distribution and Area:**

The following table gives the area statement of the division:

<b>1) RESERVED FOREST</b>			
<b>SL.NO.</b>	<b>BLOCK</b>		<b>AREA IN HA.</b>
	AMBIA		7429.3808
	LEDA		9587.6163
	LATUA		16613.5168
	SANTARA		15647.5111
	DLMBUU		566.2849
	SAITBA		8755.8300
	<b>Total</b>		<b>58600.1400</b>
<b>(II) PROTECTED FOREST</b>			
<b>SL.NO.</b>	<b>BLOCK</b>		<b>AREA IN HA.</b>
<b>1</b>	GANMORE PF		5070.8215
<b>2</b>	RAIBERAPF		33.184
<b>3</b>	PANTAPF		21.4488
<b>4</b>	DER WAN PF		7.1793
<b>5</b>	ANANDPUR	PF No.- 14	112.5051

6	ANANDPUR	PF No.- 13	6024686
7	KARRA	PF No.- 9	252.1246
8	SONUA	PFNo-25	413.6058
9	AGRUAN PF		150.9510
10	HINUA PF		413.5977
11	GOILKERA	PF No.- 19	330.9551
12	KURKUTIA	PF No -22	503.8527
13	BORAI	PF No -24	110.1821
14	GUTUHATU CHIRUBERA .	PF -1	750.3035
15	DOPAI	PF -2	85.7952
16	HIRUBERA	PF-3	874.5447
17	TWA	PF-4	160.6637
18	KADALSUKUA	‘	48.9680
19	SANGAJATA	PF-23	291.2829
20	BILA	PF -21	105.0506
21	JHILRUAN	PF -20	107.8875
22	AMRAI	PF -8	252.9340
23	MOHANSAI	PF -7	147.3088
24	KUIRA	PF-6	427.7620
25	ICHAHATU	PF-5	130.7163
26	<b>TOTAL</b>		<b>11406.0947</b>

**State of Boundaries.:** There are about 164 miles of external and about 132 miles of internal artificial boundary lines. Similarly there are about 29 miles of external and 25 miles of internal natural boundary lines. The width of the boundary is 40’ in Irimbia and Leda and 50’ in Santara and Latua blocks. The boundary lines of Saitba blocks are 20’ wide. The boundary pillars erected in the cleared lines consist largely of wooden posts supported by cairns of stones, Subsequently a

regular sequence of reinforced concrete post have been introduced at intervals, to replace the wooden ones, During the field inspection by the working Plans Staffs a number of cases were noticed in which pillars were incorrectly numbered in relation to the 4” Survey Maps.

During 1899-1903 a forest survey was carried out by the Imperial forest survey on 4” = 1 miles scale for the Reserved and Protected Forests and H the maps àovering 19 sheets were published during 1903-05. This survey apart from the usual to pographicals and other ground features, included the disposition of all external boundaries with their boundary posts and numbers fire- lines, roads, foot-paths, and Forest Department building sites.

These were brought up-to-date in 1930. during 1911-1913 a district survey was made by the Survey of India on a scale of 2=1 mile zand this included the Reserved and Protected Forests areas. Maps covering 8 sheets were published in 1918. Another district survey was made by the survey of India in 1=1 mile scale in which the external boundaries of Reserved and Protected Forests were s hown with some d etails of road and foot-path in 5 sheets. The sheets on the various scales which cover the forest of the division are indicated below:-

**List of Maps in the Scale 4” = I Mile.**

126 SEI3 & 4, 127SE/1, 127NE12, 127NE/3, 127NE/4,127SE/1 127SE/2, 127SE14, 157NW/4, & NE/3, 157 SW/2, 157 **SEII**, 157 SW/2, 157 SE/1, 157 SW/3, 157 SW/4, 158 NW/I, 158 NW/2, 158 NWI3 158 SW/i, 158 SWI2, & SE/I, 158 SW/3.

**List of Maps In the Scale 2” = I Mile.**

**73 F16 N, 73 F17 N, 73 F/7 S, 73 FII0 N,73 F/I OS, 73 F/II N, 73 F/II S, 73 F114**

**List of Maps In the Scale 1” = I Mile.**

73 **F13**, 73 **F16**, 73 Ff7, 73 F/IO,73 **Fill**, 73 F/14.  
 In the year 1933-34 a detailed survey was made up of 8 forest villages \.he cr o the “&‘scale cadastra sheets. This was carried out the Sihar’Survey Department on behalf of the forest Department.

**Legal Positions:** The following statement gives the notifications under which

Forests were reserved:-

<b>Name of Block</b>	<b>Notification Details</b>	<b>Remarks</b>
Leda, Santara, Latua	Under Section 19 of I.F.A by Notification date 26th Novermember, 1880	Demarcation of Leda was complited in 1881-82 and of all other blocks in 1884.
Saitba	Under Section 19 of I.F.A. by Notification dated 27th April, 1882.	
All other	Under section 19 of I.F.A. by Notification dated 4th	

	September, 1884.	
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The Kolhan Protected Forest Blocks Nos. 9, 25, 27 and 28 were first notified under Government of Bengal notification no.3374, dated the 5 September 1892 which declared as Protected forest and waste lands in Chota Nagpur not already Reserved Forests or used for cultivation, certain trees being declared reserved. This was superseded by notification no. 3586-For., dated the 7th July, 1894. Subsequently notifications appeared in 1903 and 1904 and finally notification no. 904 — for, dated the 23 May, 1905, declared demarcated forests as Protected forests. Rules to regulate rights were published in notification no. dated the 22nd December, 1906.

The P.F. Block Nos. XIX to XXV were declared Protected Forests in Bengal notification no. 3630 dated 22

December, 1906. A statement of the boundaries as they now exist was published under Bihar and Orissa Government notification no. 2861- IIF-86-R, dated the March, 1926 [relevant extracts included in Appendix IV]. Rule under section in respect of these Blocks were framed by Government notification no. 2109 the 21st July, 1906.

The Protected forest Block nos. I to 8 was also notified in Government of Bengal notification no. 904- For. Dated the 23 May, 1905. Under Government notification no. 904-For 23 May, 1905. Under Government notification nos. 4540 — IIF dated the 17 July, 1920 and 2694 — IIF-60-R dated the 28 March, 1935 further areas of 400 acres and 297 acres were declared Protected forests and included to P.F. nos. I and 3 respectively.

Dimbuli forest belonging to Sri Bir Kishori Singh Deo of Manoharpur Estate were declared forest in Government notification no. 4726-VIF-68/42-R dated the 28 September, 1942. Originally this was held by Govt. under lease by agreement under section 38, of Indian Forest act but has now been vested in Govt. by notification no. 5338-LRI Jan., dated the 10th May, 1955 under the Bihar Land Reforms act.

The Anandpur PF Block XIII and XIV belonging to thakur Amarendra Pratap Singh Deo were notified in Govt. Notification no. 1189-IIF-3- H, dated the 11th February, 1935. These too were originally under lease but have now vested in Government. The protected Forests of Panta, Derwan and Raibera were declared Private Protected Forests under sect.30 of The Bihar Private Protected Forests Act under Govt. notification nos. 111 84-VIF-70/48-R dated the September, 1948 and 4663-VIF-1 51/48-R dated the 19th April, 1948. These now also vested in the Govt.

Right and Concession: No right exists in Reserved forests except in Saitbé Block where the residents of 138 Kolhan Villages are enlisted to give supplies of firewood, thatching grass, bamboo, and certain minor on payment of an annual fee fixed at six pias per rupee of the land due payable by them. In addition they are allowed the privilege of grazing Their cattle free. The Govt. of Bihar in the notification No. 8990-R-IIF-23/30, dated the 11th December 1939 approved

of following concessions to residents of adjoining the Reserved Forests.

(i) Any bonafide recorded tenants of any land or building who resides in a village 'h is actually contiguous to a Reserved or Protected Forests may, within the of such Forests and without payment:

(2) If the villagers abuse the previleges allowed to them and willfully damage the forest, the Conservator of Forests may suspend the exercise of the privileges for such time as he thinks fit. If after repeated warnings and suspensions the villagers continue to damage the forest the matter should be referred to Government for orders.

In their letter no. 1226-R dated the 14 October,1940 the Government of Bihar further clarified the position in relation to grazing under 1(b) above as "The of grazing is a concession and not a right, and it must not be allowed to r- ride the primary object of Conservation and protection of forests, i. c., grazing can only be permitted where and when it can be done without danger to the forest.

The rights and concession of Government tenants of the Kolhan in the protected Forests contiguous to their villages are governed by notification no. 3961-R, dated the 16 April1926. Under these rules, the bonafide recorded tenants of the contiguous villages have the right to obtain free for their domestic use timber and firewood, from dry tree of all species and green trees of the non-reserved species. They have also the right to collect minor forest produce free. They can pasture in the forest a limit number of sheep or goat or any number of buffaloes or cattle which are his own bonafide property and which are used for his own domestic and agricultural purpose . they are also authoried to lop branches of **asan**, kusum and palas or any other trees, shrubs or bushes for rearing of silk worms.

**Forest' village:** There are four forest villages in this division. Out of hese Rangamatumbahaka and Rajabasa were taken over from the Civil )epartment in 1910 and constituted forest villages ,vide Bengal Govt. notification dated the 17th August,1910 .1-lusipi forest village was founded in 1924 in Santara block.

In the statement below is the lastest recorded information available of the ivated acreage and distribution of population in the existing villages.

<i>name of village of the ...age</i>	<i>No of Household</i>	<i>Forest Block</i>	<i>Area of the Village</i>
Tumbahaka	14	Santara block	214.20 Acres
Rajabasa	10	Latua block	209.73 Acres
Husipee	14	Santara block	471.93 Acres
Rangamati	19	Saitba block	440.00 Acres

Of late there has been agitation of abolishing the forest village and allowing them to revert to the common status of civil villages.

All these forest villages have been declared as Revenue villages by Govt. of Bihar's notification but central Govt. has raised objection over it in the light of Forest Conservation Act 1980. Due to this the legal position of these villages is unchanged.