

Revised Working Plan For The Forests Of Garhwa North Division
From 2003-2004 to 2012-2013

Part—I

Summary of facts on which the proposals are based.

Chapter-I

The Tract Dealt With.

1. Name and situation:

The areas dealt with in this revised working plan comprises of all the protected forests of Garhwa North Division. These forests lie within the civil jurisdiction of Garhwa district and are situated within the territorial unit of Garhwa , Majhgawan , Bhawnathpur, Dhurki, Meral and Nagar police stations.

The old Palamau Forest Division created in the year 1875 contained all the forests of Palamau district A sub-division under this forest division known as Garhwa Forest Sub-division was created in the year 1949 vide Revenue Department notification no. 002-VIF-416/48R dated 19th March,1949. This sub-division was elevated to the rank of a forest division known as Garhwa Forest Division in 1952 vide Revenue Department notification no.C/F7011/52-2231 dated the 23 May ,1952. There were seven ranges in Garhwa Division. Two ranges, namely Chhatarpur and Mohammadganj were subsequently transferred to the Palamau Forest Division in the year 1954 at the time of its split and creation of Latehar Forest Division vide Revenue Department notification no.C/F-10107/54-4199 dated the 30 Sept., 1954. Garhwa Forest Division comprising of five ranges was further split into two divisions viz Garhwa North and Garhwa South Division vide Revenue Department notification no.c/f-1 (a) 044/62-497. dated the 29th March ,1962. Garhwa and Bhawnathpur ranges were allotted to Garhwa North Division . Subsequently Garhwa Range was split into Garhwa and Nagar range. Thus the present Garhwa North Division consists of three ranges viz Garhwa ,Nagar and Bhawanathpur. Garhwa North Division is a part of Chhotanagpur Plateau. The summer is very hot.

Geographical Location:-

The division stretches between 24-0' to 24-32' North latitude and 83-32' to 83-52' East longitude.

This forest division is bounded on the North by Sone river, on the East by North-koel river, on the South by Garhwa South Division and Kanhar river, on the West by Mirzapur district of U.P.

There are 163 villages in Garhwa range ,114, villages in Bhawnathpur range and 80 villages in Nagar range. Range wise forest areas as per demarcation register of Garhwa North Division are given below:

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Area in			
Name of range	Acres.	Hectare	Sq.k.m.
Nagar.	62770.70	25413.24	254.14
Garhwa.	50315.72	20370.74	203.70
Bhawnáthpur	83546.07	33824.12	338.24
Total:-	196632.49	79608.10	796.08

3. Extent & Jurisdiction:-

Garhwa North Division is in Garhwa district. There are two sub-divisions in garhwa district namely Garhwa and Nagar but the forests are concentrated mostly in Nagar sub division. Following table gives the area statement.

SI. No	Division	District	Subdivisio n	Block	Area(ha)
1	Garhwa North	Garhwa	1 .Garhwa	1 . Garhwa	3037.57
				2. Meral	6110.46
				3. Dandai	2883.01
				4. Kandi	2617.11
				5. Majgaon	6115.96
				Total :-	20764.11
			2.Nagar	1. Ramna	8212.00
				2. Dhurki	15229.57
				3. Nagar	8455.30

				4. Bhawnath pur	22908.49
				5. Kharaudhi	4038.63
				Total-	58843.99
				Grand total-	79608.10

Description of land and forest area: - The Total geographical area of district is 404422 ha. or 4044.22 sq. km. There are two revenue sub-division, namely Garhwa & Nagar, in the district. The forest of Garhwa North Division are located mainly in Nagar sub division. The forest area of the division is 82703.42 ha or 827.03 sq km. as per notification issued under IFA (9.2) but as per demarcation register the total area of the division is 79608.10 ha or 796.08 sq km. The total 101.559 ha has been leased out to different agencies by Forest department the working prescriptions have been prescribed for 79506” ha or 795.065 sq forest areas. Details are given in annexure 1&2.

Boundaries:- Total length of forest boundaries is 2342.92 km

Distribution of area :-

i) Legal status of forests-All the forest of the division were the property of private land lords till 1946-47 when gradually these were taken under the state management under the provision of Bihar Private Forest Act and declared “private protected forests” under the provision of section 30 of the said Act. There after the land reform (ACT XXX of 1950) came into force and with it’s implementation the B.P.F. Act. ceased to apply and Chapter IV of I.F.Act 1927 was applied to the vested private protected forest by notification in the official gazette when these became” protected forestsjrhe details of the notifications are given in Appendix-I.

ii) **Distribution of area is given in following table:-**

Sl. No.	Range	Block	Beat	Sub beat	Area (ha)
1	Garhwa	Garhwa	Garhwa	Garhwa	311.70
		Meral		Meral	437.80
		Dandi		Oraiya	1278.70
		Ramna		Beichampa	295.03
		Dhurki		Khonhar	373.50
		Nagar		Peska	913.32

		Majhgaon		Chama	1245.48
				Amwar	942.56
				Sikaria	1245.64
				Mahudand	891.05
				Nawadih	1506.03
			Ramna	Ramna	253.91
				Bahiar	1843.16
				Saro	166804
				Patagara	1630.01
				Banka	948.71
				Latadag	760.92
				Jaharsarai	1856.07
				Jirua	1971.74
	Nagar	Nagar	Nagar	Nagar	1032.64
		Dhurki		Dheriya	2275.60
		Ramna		Koraiya	3066.31
		Dandal		Garbandh	1436.59
				Garda	1702.72
				Bailiya	1083.74
				Lolaki	2312.16
			Dhurki	Dhurki	1572.11
				Ambakhoriya	1461.38
				Raksi	1541.09
				Bhumphor	1392.29
				Phatpari	3347.74
				Kadwa	3192.25

3.	Bhawnathpur	Bhawnathp ur	Bhawnathpur	Bhawnathpur	170025
		Majhgaon		Amrora	2086.87
		Kandi		Bansani	2148.17
		Kharaudhi		Arsali North	1302.93
				Arsali South	1302.94
				Hudru	1308.26
				Raji	696.89
				Sisari	1535.82
				Chhatakund	1637.62
				Ketar	1709.97
			Bardiha	Barhikhanr	1153.34
				Gangtariya	378.44
				Chataniya	1452.88
				Bardiha	1502.36
				Kailan north	1821.12
				Kailan south	1821.12
				Sukhnadi	1339.45
				Karui	829.81
			Hariharpur	Majhgaon	1632.19
				Phulwar	1611.94
				Gurur	1115.35
				Tall	1773.02
				Konmandra	1963.38

iii) RF-0.00, PF 79608.10 ha, unclassified —0.00, Total-79608.10 ha.

iv) Deserved areas — 0.00

v) Leased areas-

Range	Village	Area (ha)
Nagar	Tulsidamar	51.32
Garhwa	Silidag	0.24

Configuration of the ground:-

- (i) The forest areas of Garhwa North Division are plain to undulating. There are many isolated and scattered hills in this division. The elevation varies from 184 m. in Dhaoyardh in Bhawanathpur range to 593 m. in Kochea in Garhwa range above M.S.L
- (ii) Drainage. Generally the drainage is from South to 'North. The major rivers and their tributaries which form the main drainage system are given below:-

The Sone river originates from Amarkantak in Madhya Pradesh and flows east wards through Mirzapur district of U.P. and touches Palamau near Dudhi (U.P.) . This river forms the common boundary of Rohtas and Palamau districts and joins the river North-koel near Japla. It becomes nearly three kms. broad and sandy towards the northern limit of Garhwa North Division and shrinks into thin flow in dry months but during rains for short duration high floods with massive water flow occur. The northern part of the division drains directly into Sone through its main tributary Pandu river which originates from U.P. Rafting was used to be done through this earlier but it has been abandoned now.

(iii) The river North-Koel starts from the district of Ranchi and enters Palamau below Natarhat while flowing north wards. It changes its course to West near Ramandag R.F. and continues in the same direction up to its confluence with Haraiya Nala nearing through a gorge with rocky bed at Kutku. There after it takes a turn towards north again and flows more or less in the same direction till it joins the river Sone 256 kms. Downwards. Its principal tributary Auranga meets it at Kechki. The bed of river Koel above this junction is rocky but it is sandy downwards. Its important tributaries falling in Garhwa North Division are Banki and Danro. In hot weather the river and its tributaries shrink into disjointed pools and only some of them hold water during this period. A concrete dam is coming up at Kutku.

(iv) The Kanhar river originates in the district of Sarguja (C.G.) and forms a common boundary between the district of Palamau of Jharkhand and Sarguja of Chhatisgarh. It flows northwards till it reaches the boundary of the district of Mirzapur (U.P.) and finally meets the river Sone. Its bed is mostly rocky with small water falls at places. It carries a large volume of water during rains but thins down to a trickle flow during the hot weather. Dhengra and Mangardaha Nalas are its important tributaries falling in Garhwa North Division. These Tributaries are not perennial. They drain out water from low hills and generally flow from east to west

EROSION:-

- (i) The problem of erosion is serious in all the ranges i.e. Garhwa , Nagar and Bhawanathpur of Garhwa North Division where rapid disappearance of vegetation has caused formation of gullies. Minimization of this sad state was expected during the previous plans through scientific forest management. But heavily burdened with rights as these forest are with ever growing human and cattle population in the surrounding villages and paucity of timber yielding forest and uncontrolled grazing have aggravated the situation. Extensive mining operation for lime stone is also causing fresh erosion.

GEOLOGY ROCK AND SOIL:-

- (i) Geological Notes relating to Garhwa District obtained from the Dy. Director General , Geological Survey of India, Eastern Region , Calcutta vide his letter No. 271 1/2/Bihar/En/s/85 dated 21 .6.1988 is reproduced below:-
- (ii) The litho units met with in the Garhwa district of Jharkhand include Chotanagpur Granite gneiss complex, unclassified metasedimentaries Vindhyan , Gondwana and laterites limestone , Basemetal Graphite Phosphorite and laterite occur at different places in the District.

The following succession is suggested in the Area :-

Pleistocene Laterite

Gondwana :- Mahacieva formation: Redsand — stone,

Red clay.

Barakar formation: Silt & shale.

Talchir formation: Boulder bed, sand & stone.

Vindhyan :- Kheinjua lime stone.

Bijawars :- Unclassified Quartzite and quartz schist, micaschist

Metasedimentaries.:- with tremofite-Schist , amphibolite
And hornblende schist.

Chotanagpur granite: Granite gneiss porphyritic granite,&
Gneiss complex hornblende biotite gneiss with enclaves of metamorphite.

(iii) The granite gneiss and associated migmatites are the most predominant rock types in the area. They are generally leucocratic, well foliated and have gneissose fabric.

(iv) They contain enclaves of schists, crystalline limestone and amphibolites. The porphyritic granite appears to be younger than the granite gneiss. Dykes of metaferrous pegmatite and quartz traverse these rocks.

(v) Seemingly younger to these rocks are the unclassified metasediments which is supposed to be equivalent of Bijawars in the adjacent Mirzapur dist. of U.P. and is represented by quartzite and quartz schist, mica schist with tremolite schist and amphibolite and hornblende schist.

(vi) Uncomfortably overlying both the litho assemblages are the lower Vindhyan rocks which are represented by conglomerate, sandstone, calcareous shale, porcellanite, fossiliferous greywacke and limestone. The general strike is ENE-WSW and in places the rocks are moderately folded.

(vii) The Gondwana is represented dominantly by its lower members and consists of boulder bed and sandstone. The boulder bed contains large boulders of arkosic sandstone and few small boulders of granite gneiss, set in a light, yellowish green, medium to fine grained matrix. Also boulders of limestone and hornblende schist are seen in it. The sandstone is olive green in colour, medium to coarse grained, grading at times to siltstone. Gondwana rocks strike WNW-ESE with a very gentle dip towards north.

(viii) In the extreme south laterite / laterite bauxite occurs. Occurs around Ranka Kalan, Phosphorite and Basemetal are reported from around Singhitalli, Hendeo and limestone from area around Bhawanathpur.

Bhawanathpur - 24° 23' 30" N : 83° 35' 00" E

Ranka Kalan - 23° 59' 00" N. 83° 47' 30" E

Sughitalli - 24° 24' 30" N : 83° 33' 30" E

(ix) The following information regarding Geology and rock has been taken from the Dist. gazetteer. The geological formations of Palamau district comprises mainly rocks of Archean, Vindhyan and Gondwana ages. Geologically much of the District of Palamau is yet unexplored except the areas around Daltonganj, Bhawanathpur and Latehar which have coal fields, Magnetite and limestone deposits.

(x) The following archean rocks occurs :-

- a. Deposit of Crystalline lime stone varying from crystalline marble to termolite marble, foresterite marble and serpentine marble.
- b. The amphibotile are dark grey and black colored rocks found in many parts of the forest division. They are inclusions of older rocks in the gneisses would appear from the abundance of small stringers of amphibolites in the granite and the Lit-part-Lit injection granite in the amphibolites near their margins which has produced composite gneiss, and shown beautiful ptygnatic foldings.
- c. The dolerites occurs as dykes and bands and show various degrees of metamorphism. The slightly metamorphosed dolerites are known as metadolerites.
- d. The gneisses and granites show a greater diversity of texture than of mineral composition. The gneisses are generally bonded by the parallel orientation of the ferromagnesian mineral. Among the granites three varieties are distinguished, which grade into each other, normal pink coloured alkali granite characterized by pink potash feldspar, in some places gneiss white coloured oligoclase granite, and porphyritic granite and augen gneiss with large lenticular porphyroblasts of potash and feldspar. The granites are younger than the gneiss and show intrusive relation to the latter

(xi) The Lower Vindhyan System of rocks have been divided into the following stages:-

Rhots stage:- Consisting of lime stone.,and Shales.

Kheinjua stage:- Consisting of glauconite beds, Lime stone and oblique shales.

Porcellante Stages :- Kajrat limestone , Bansal Bansal conglomerate etc.

- (xii) To the south of the 'SONE' there are several scattered & narrow outcrops of Vindhyan rock belonging mainly to the Bansal, Porcollante & Kheinjua stages. Towards the north of Garhwa North division there is a large outcrop of lower Vindhyan strata of 'Sone' Bhawanathpur is situated in the eastern part of the main outcrop.
- (xiii) The important mineral met with in Garhwa North Division is mineral water in the form of hot spring which existing in Phuiwar in Bhawanathpur P.S. It has therapeutic properties in curing rheumatism, goitre, skin diseases & digestive disorders.

10. SOIL:-

The soil derived from various geological formations & in the valley of important river system is very variable. It is shallow loam mixed with quartz pebbles and sand or coarse sandy loam originating from quartzite or gneiss or granitic gneiss where miscellaneous crop with Salai and Bamboos are noticeable. On laterite soil pure sal crop occurs.

In a calcareous soil typical of Bhawnathpur Range thorny Euphorbia species found. The alluvial soil is limited to the flat valleys of koel, Kanhar, Tahale and Danro where Khair is met with.

CHAPTER -II

CLIMATE:-

- (i) Three distinct climatic variations occur viz the cold weather from Nov. to middle of February, hot weather from middle of February to June and rains from July to September, October form the link month between the rainy season and cold weather with features of both. Blistering blasts of wind locally known as “LOO” is very common during April to middle of June and is well known in Palamau for its harmful effect on human beings and, Plantations, causing death to both on the occasions and its influence on the prolific growth of good quality “Bin” leaf on the collection of which depends the livelihood of a large member of wage earners in forests and in Bin industries all over the state. During cold weather forests are subject to frost though it does not occur regularly every year.
- (ii) Minor cyclone & occasional thunderstorms also occur during May & June accompanied by high winds. These are usually local in their distribution with little significance.
- (iii) The rainfall data of different blocks of Garhwa north Division for last five years is given in Appendix:

Water Supply

- (i) The large rivers like Sone, Koel & Kanhar hold water through out the year in pools but their tributaries are not perennial. The lower reaches of these river dry up during the hottest part of the year & the villagers have to collect water from these by digging up sand to make, what is locally known as “Chuanas”.
- (ii) Perennial supply of water is available when long channels are dug in sand in Koel river when it dries up. There is great scope of development of agriculture & electrical energy by harnessing, sources of water supply in these rivers.

- (iii) Except at few places supply of water by digging well at a dept of 9 m. to 12 mis adequate. The depths of wells at the following places with depth of water during month of June 1998 are given below

Sl. No.	Places	Depth Of Well G.L	Depth Of Water In The Well	Remarks
1	R.R.H.Compound At Bhaunathpur.	28'6"	3'6"	
2	F.R.H Compound Bhaunathpur Range at Kailan.	38'6"	4'0"	
3	Range officer Compound at Bhaunathpur	28'6"	3'	
4	F.D.C grs.Coumpound At DrukL	48'0"0	4'	

3. NATURAL CALAMITIES & HEALTH OF THE PEOPLE.

- (i) The tract is not generally liable to heavy floods. Drought conditions prevail generally due to failure of monsoon which causes failure of the agricultural crops. The poor people, then, have no option but to go for edible flowers, fruits, roots, yams which are available in the forests. These are Mahua flowers,fruits, of Kend, Piar etc. and roots of gethi (dioscorea spp.).They not onl;y eat these but also meet their other requirements by sale or bartering them. Villagers are addicted to tobacco and country made liquor. Most of their earnings are spent on the purchase of liquor.
- (ii) The health of the poor people are generally satisfactory but many of them suffer from leprosy, tuberculosis etc. due to their unhygienic living conditions and ignorance.

4. DISTRIBUTION AND AREA:

Survey INo. special survey has been undertaken by the survey of India with respect to the boundaries of the forests and therefore demarcated forests are not shown either on Thana maps or on the 1" - 1/2mile scale topo maps issued by the Survey of India . The territorial staff has shown the limits of forest boundaries on cadastral maps on 16"=1

mile. The district administration has been engaged in survey work for quite a few years. They are preparing maps showing the forest area with forest boundary pillars. Once this is complete the situation will improve in future.

The length of the boundaries as well as the number of boundary pillars in the existing Garhwa North forest Division are noted below: SI.

Sl. No.	Name of Range	Length of boundary				No of boundary pillars
		M.	Ch.	L.	Km.	
1.	Garhwa	501	04	34	806.20	9558
2.	Nagar.	481	33	68	774.60	8959
3.	Bhawnathpur	473	52	92	762.12	7955
	Total:-	1456	10	10	2342.92	26472

MAINTENANCE OF BOUNDARY:

The boundaries or the limits of the forests generally consist of cleared strips about 10' wide with pillars of wooden posts embedded in cairns of stone or mounds of earth. Prior to undertaking the Boundary Consolidation scheme in the forests of Garhwa North Division during the period from 1962 — 63 to 1968 — 69 the boundary pillars were serially numbered. This scheme had been executed under the supervision of a gazetted forest Officer. In this operation survey was conducted for proper checking of boundary lines and actual position of the pillars. Release of forest land had also taken place. Fresh maps of all the forests were then prepared but this time system of putting serial numbers on boundary pillars and in the patches were discontinued.

Under the consolidation of boundary scheme details of constructed R. C. C. and earthen pillars are as follows:-

No. of Forests where consolidation work was taken up	Year	No. of R.C.C. pillars constructed.	No. of earthen pillars constructed.
1	2	3	4
46	1962—63	1216	927

54	1963—64	1870	1545
38	1964—65	2025	1987
100	1965—66	2462	8638
65	1966—67	268	5093
64	1967—68	-	446
65	1968—69	-	64

- (iii) The present state of affairs of the maintenance of boundaries is quite deplorable. The land hunger among the local populace has posed a serious threat to the very existence of forest land. The land grabbing movement is going on in massive scale by shifting the boundary pillars in side the forest. During field visits it was observed that most of the - pillars either of R.C.C or eathern have been destroyed. On the other hand repair of pillars or checking their position in the field is inadequate.
- (iv) Sporadically agaves have been planted indicating boundary lines and boundary pillar positions.

6. RIGHTS AND CONCESSIONS:-

- (I) The principal rights allowed on the basis of Khatian part. — II are summarized as follows:-
- i. Right to take timber for construction and repair of houses, cowshed etc. and for agricultural implements, subject to condition that in any forests the share of right holder shall not exceed one half of the total available forest produce as laid down in rule — 17 (3) of the rules notified vide notification no 1924 VIF — 96/48 R dated the **30th** March, 1949.
 - ii. Right to take fuel by a family up to maximum of 4.7578 M3. (168 cft.) Stacked volume annually from the annual coupe subject to availability and to the extent of half of the total available produce. Dead, dry trees may also be taken.
 - iii. Right to graze cattle in the manner indicated by the forest settlement orders.
- (II) Other right of minor importance are the right to take bamboo and chope, collect mahua and other fruits flowers and yams, rear lac etc.

- (III) The rights allowed are subject to such restrictions as may be expedient and the right holders have to abide by the directions instructions, restrictions and regulations incorporated in the working plan duly sanctioned by the government. The rights can be terminated temporarily or permanently if the capacity of the forest does not permit exercise of rights in full.

The rights are to be exercised with the permission of the forest officer in the administrative control of the forests. Sheeps and goats are not allowed to graze in the forest but removal of fodder has been permitted. Grazing is not allowed in the felled coupes for period of 5 years.

- (IV) Display of fire in exercise of the rights has been prohibited. The right holders have the obligation to help in the Prevention and extinguishing of forest fires and also to help- the staff in connection with prevention of forest offences.
- (V) There are certain rights accrued by custom which do not find place in Khatian Part—II and are known as customary rights. These rights are :-
- a. Right to take wood for cremation purposes.
 - b. Right of way to a place of worship or to a water point through a cast track whenever such demand exists.
 - c. Right to take ‘Jhanti — Jhuri ‘for ghoran purposes.
 - d. Right to take dry fallen firewood on head load by the poor landless residents of villages.

It may be noted that the buffalo grazing in some of the areas is allowed on payment of grazing fee. The nature of the rights allowed differs from village to village in the forest settlement orders.

7. **Encroachments :-**

Forest of Garhwa North Division do have problem of encroachment. It is assessed that 1 % of forest land of the division is under illegal encroachments .As per information furnished by D.F.O. Garhwa North Division, forest area encroached during last three years is stated as below.

Year	Forest area Encroached in Ha	Forest area Recovered in Ha
1999	13.00	0.00
2000	20.00	2.72
2001	6.00	2.42
Total: -	39.00	5.14