

# WORKING PLAN FOR THE FOREST OF THE DALTONGANJ NORTH FOREST DIVISION 1988-99 TO 2018-19

## PART I

### SUMMARY OF FACTS ON WHICH THE PROPOSALS ARE BASED

## **CHAPTER -1**

### THE TRACT DEALT WITH

#### Section -1 NAME AND SITUATION

1. This working plan is for all the forests of the Daltonganj North Division, as it stands at present. It covers an area of 1293.5 Sqkm. The forests are situated in the northern and north eastern portion of Palamau District and lie between 23' 52' N and 24' 38' N latitudes & between 83' 5" E and 54' 26' E longitudes.

According to crop density forests areas of this division have been classified as mentioned in the table below into three categories, dense forests having crop density between 0.4 and above, good forests having crop density between 0.2 to 0.4 and degraded forests having crop density below 0.2

Table -1

Sl no.	Categories of forest	Crop density	Forest area in acres	Remarks
1	2	3	4	5
1.	A	0.4 & above	81,595.22	
2.	B	0.2 to 0.4	1,24,120.86	
3.	C	0.0 to 0.2	1,16,932.23	
		Total	3,22,648.31	

#### Section - II CONFIGURATION OF THE GROUND

2. The terrain is generally hilly with plains along the Koel and the Sone River in the western & south west portion of the Division. These plains stretch along the valleys of other rivers, almost isolating the various hill ranges which travel Hazaribagh district and come to an end in this division- except some small outcrops entering Gaya district. The highest peak in this division is the Manatu pahar (2203') near Manatu village. There are several other smaller peaks of varying height from 1200' to 2100'.

3. The general slopes of the area is from east (Satbarwa -900') to west (Hussainabad-500'). Saraidih (in Chhatarpur Range) altitudes above 900' and located in the middle of the eastern sector, acts as a notable water partition.

The river Chhotki originates slightly to the east of this village and runs to the east. The river Surhar originates little to the south of this village and, after traveling north wards for about to 10 kms. rotates to the east and runs almost parallel to the Chhotki. The river Batane has its sources in the hills to the south of Saridih and runs on its western side going straight north into Gaya district. The river Banki emerges slightly to the south of Chhatarpur and goes west to meet the Koel. Leaving the Auranga, the Koel and the Sone, which fall on the boundaries of this division, the biggest river falling in the area is the Amanat' running east to west and falling into the Koel at a distance of about 15 km from Daltonganj. Another important river, the Jinjoi, also runs east to west and meets the Amanat near its confluence with the Koel.

4. Except for the Koel & the Sone all these are seasonal river and remain dry in the summer. Even in the Koel the flow is confined to one or two very narrow channels during the hot months. These rivers do not help extraction of forest material but are only hindrance because the traffic is disturbed if there in a good shower bringing water in the rivers. They are shallow and their beds are full of sand brought down from their water sheds due to severe erosion.

5. Due to forest fires, overgrazing and unplanned cultivation of uplands, soil erosion is very sever. The practice of extracting timber, firewood etc. by "gohars" (dragging by means of bullocks) has also been contributing to it. Gullies can be seen all over the area. Sheet erosion is rampant. The erinaceous nature of the soil makes it easily erodible, water; even from small streams rushing down easy gradient carried a good quantity of soil with it. All the soil dislodged from the upland goes to big rivers like the Sone & its tributaries and raises their beds. For the benefit of the Sone Barrage at Dehri, it is essential to check erosion here as well as other areas in the watershed of that river.

### [Section – III GEOLOGY, ROCK AND SOIL](#)

6. The characteristic formation of the area dealt with is gneiss. It is of varied constitution and includes granitic, hornblendes and calcareous gneisses.

7. The soil is residual resulting from the alteration of the rocks below. The soil sometime contains a fair percentage of sesquioxides which cause the soil in the dry season to set as hard cement at the immediate surface. Such soils are known as red soils. Kundri R.F. lies on black cotton soil. Elsewhere the soil is generally sandy and having varying proportions of gravels and boulders.

### [Section – IV CLIMATE](#)

#### GENERAL

8. There are four seasons viz. winter, summer, rainy and autumn. The winter season starts from the middle of November and goes upto the middle of February. The summer season starts from the middle of February

and goes upto middle of June. The rainy season starts from the middle of June and goes upto middle of September. The autumn season starts from the middle of September and goes upto middle of November.

RAINFALL

9. This division falls on the leeward side of Ranchi and Hazaribagh plateau. Hence the rainfall is slightly affected. Rainfall is heavier in the southern side of the division because of higher hills, better and more extensive forests.

The following table gives a picture of the rainfall pattern:-

Table No II

Station	No the years under consideration	Average Rainfall (In mms)
Daltonganj	11	1123.50
Manatu	11	1215.90
Hussainabad	11	965.97
Hariharganj	11	905.79
Chhatarpur	11	974.89
Patan	11	1186.01
Panki	10	1024.46
Lesliganj	11	961.60
Bishrampur	10	1405.95

Mamatu, Bishrampur is in the midst of forest while Hariharpur has no forest near by. The influence of forests in increasing rainfall through raining humidity by transpiration is apparent.

The following statement shows monthly and annual rainfall normal for some of the stations distributed in this division.

Table No 3

Name of Block	No. of years	Jan.	Feb.	March	April	May	June
1	2	3	4	5	6	7	8
Patan	11	9.0	20.7	12.9	4.1	28.1	167.1
Manatu	11	9.7	19.5	7.6	2.1	30.8	278.4
Daltonganj	11	6.0	18.6	6.8	4.2	24.3	222.0
Lesliganj	11	4.3	14.7	7.1	2.5	10.6	173.2
Panki	10	5.9	11.6	8.4	0.9	22.9	168.7
Bishrampur	10	4.5	13.1	4.4	0.4	23.6	168.3
Hussainabad	11	6.7	13.5	4.1	2.8	7.4	137.6
Chhatarpur	11	7.1	13.5	2.5	0.1	19.2	145.3
Hariharganj	11	6.5	12.6	4.7	2.8	15.0	120.7

Name of Block	July	Aug.	Sep.	Oct	Nov.	Dec.
Patan	329.9	302.5	237.5	45.6	11.3	17.5

Manatu	348.9	286.4	251.9	44.1	11.9	15.6
Daltonganj	308.2	312.9	173.0	28.4	6.3	12.8
Lesliganj	300.1	237.3	163.2	25.2	8.5	14.8
Panki	289.2	270.9\7	190.7	31.8	8.1	15.5
Bishrampur	321.7	364.0	283.1	64.9	12.9	17.2
Hussainabad	250.3	273.6	235.7	26.2	2.8	5.1
Chhatarpur	263.7	250.8	219.1	33.9	13.4	6.2
Hariharganj	226.9	267.7	106.1	34.2	9.6	8.4

### **TEMPERATURES**

10. The temperature varies to some extent but there is only one meteorological station at Daltongnj. Data for this station will give an idea of the temperature of the tract. Normal temperature based upon record for Daltonganj station is mentioned below:

Table - 4

<b>Month</b>	<b>Time</b>	<b>Mean (of)</b>		<b>Mean (of)</b>		
		<b>Daily max.</b>	<b>Daily Min.</b>	<b>Highest in the Month</b>	<b>Lowest in the Month</b>	<b>Relative Humidity</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Jan	0800	75.9	47.5	84.5	39.1	83
	1700	....	....	....	....	39
Feb	0800	79.9	51.9	89.7	43.3	76
	1700	....	....	....	....	37
March	0800	91.2	59.9	100.0	50.3	57
	1700	....	....	....	....	23
April	0800	101.4	70.0	108.1	61.2	42
	1700	....	....	....	....	15
May	0800	106.2	78.5	112.2	70.1	43
	1700	....	....	....	....	23
June	0800	100.3	80.9	110.0	73.4	63
	1700	....	....	....	....	52
July	0800	91.1	78.1	98.8	73.6	83
	1700	....	....	....	....	77
Aug	0800	88.7	76.9	94.0	73.6	86
	1700	....	....	....	....	78
Sep	0800	89.7	75.4	94.5	71.1	82
	1700	....	....	....	....	75
Oct	0800	89.1	66.5	93.3	57.2	79
	1700	....	....	....	....	54
Nov	0800	82.4	54.1	88.3	46.3	79
	1700	....	....	....	....	45
Dec	0800	76.4	46.5	82.3	39.5	82

	1700	....	....	....	....	45
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April is the month. The relative humidity goes down to 15% in the afternoon and even in the morning it is 42%. Here it may be remembered that Daltonganj is situated on the bank of the Koel river which is not completely dry during April. The humidity of places away from the Koel may be expected to be further low.

### WIND

11. (A) The normal mean wind speed in Km./hours based on records from Daltonganj station from 1990 to 1995 in mentioned below for the various months.

Table – 4 (b)

Mean speed of wind wave in Kilometer per hour at Daltonganj.

	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>
Jan	3.4	3.0	2.8	3.7	2.6	2.8
Feb	3.8	3.7	3.1	3.9	4.2	4.8
March	4.0	3.6	3.5	3.2	3.6	2.9
April	4.8	5.0	4.7	5.1	5.2	4.3
May	5.9	6.8	7.0	7.1	6.8	7.5
June	4.2	7.9	5.6	6.4	8.2	6.8
July	6.2	5.8	4.8	6.3	7.2	6.8
Aug	2.4	3.8	4.7	5.0	3.8	3.9
Sep	3.2	2.7	4.2	3.9	4.0	3.6
Oct	3.1	3.6	4.0	3.7	3.8	4.1
Nov	2.0	1.6	2.1	1.9	1.7	2.5
Dec	3.0	2.6	2.8	2.4	3.1	3.5

The above mentioned figures of wind speed are the average of wind velocity recorded during 24 hrs. ending at 8 A.M. obviously the velocity is much greater in the dry specially in the afternoon.

The dry hot wind of the summer is called loo in Hindi and is responsible for some deaths in the tract every year. Its effect on vegetation is immense because of increased transpiration. Only drought hardy species can grow. Sal (Shorea) is found in some pockets where the soil has a better water holding capacity.

11 (b) The relative humidity at Daltonganj stations from year 1990 to 1995 is mentioned in the following Table.

Table – 4 (b)

Relative Humidity (in percentage) at Daltonganj.

	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>
Jan	86	84	82	85	86	87
Feb	78	76	75	75	74	78
March	50	48	51	52	56	54
April	42	40	42	41	46	45

May	43	40	44	42	44	43
June	63	65	65	69	62	63
July	83	82	82	84	86	84
Aug	66	78	84	88	86	81
Sep	82	64	80	83	78	87
Oct	70	78	72	71	74	81
Nov	80	84	80	82	84	86
Dec	85	86	78	84	83	86

### **SECTION V, WATER SUPPLY**

12 as mentioned above there are no perennial streams in the area. Water may be found in small pools in some of the streams. This affects wildlife because of the limited number of water holes in the summer. Unscrupulous shikaris and poachers take advantage of this and butcher wild life remorselessly. A good forest would have aided in infiltration and percolation of rainwater in the soil and in addition to decreasing the recurrence of floods (in areas far away from this Division), it would have helped in increasing the percolation of water flow in the streams. As it is, the water goes down very low during summer.

13. For irrigation of agriculture fields a number of canals have been constructed but they are mostly seasonal. A low dam across the Jinjol supplies water during the rains to a small canal. Some other projects may also be taken up but the rivers and their watersheds require proper treatment. Nature gives us about 1250mm of rainfall annually in this area and it is a fact for us to utilize it to the best of our advantage. People can enjoy the various shades, colours and pattern of clouds in the rainy season. One can look at the small drops coming down the sky and see the torrents rushing down this terrain. But within a short span of time the area is left as dry as a rock.

### **SECTION VI, DISTRIBUTION AND AREA;**

SURVEY;-

14. The areas have been demarcated by the forest Department and surveyed on 16"=1 mile Cadastral Sheets. One topographic sheet has been enlarged to a Scale 4"=1 mile and the forest boundaries have been shown therein in the working plan office by reducing the same from the 16" cadastral sheets. The forests of this division have also been surveyed by the survey of India. The survey report has been published in 1976 showing forest areas on scale 1:50000. Area details published are as shown below.

TABLE – 5

Sl no.	Name of Range	Forest area in	
		Acres	Hectare
1.	Kundri	64,411.83	26,068.47
2.	Manatu	70,819.68	27,932.53
3.	Patan	40,260.69	16,272.18
4.	Md. Ganj	55,148.86	22,317.56

5.	Chhatarpur East	55,405.48	21,207.67
6.	Chhatarpur West	38,429.85	15,552.17
		<b>3,21,423.19</b>	<b>1,29,350.58</b>

**MAINTAINS OF BOUNDARIES:-**

15. During the last 10 years, the following amounts have been spent over maintenance of boundaries;-

**AREA EXCLUDED FROM FORESTS.**

16. The figures above include the work taken up for exclusion of land from the forest boundary and subsequent reconstruction of pillars. Due to inconspicuous boundary pillars in some forest encroachment take place. Area excluded from forest between 1963 and 1971 is indicated the table No. 7. According to report submitted by the Divisional Forest Officer, Daltonganj North Division, no area has been released for no forestry purpose for period during 1970 to 1996.

**COMPOSITION OF RANGE:-**

17. The names of existing ranges with their beats and sub-beats are given in table nos. 8

**SECTION VII, STATE OF BOUNDARIES;**

Length:

18. The total length of artificial and natural boundary lines to given in table No. 9

**NATURE OF BOUNDARIES**

19. Forest boundaries have been demarcated by means of 4.5m wide clear lines with earthen pillars. The pillars should be about 1.5m high but in some of the areas these are not prominent. There is no demarcation line between forests of many villages.

**SECTION VIII, LEGAL POSITION;**

20. Except Kundri R.F. which was constituted a Reserved Forest in 1923, all the other forests were under Private ownership prior to the enforcement of the Bihar Land Reforms Act. When the Bihar Private Forests Act, 1947 come into operation, all these forests were notified under the same and their management was taken over by Government. Subsequently after the vesting of the Zamindaries under the Bihar Land Reforms Act, these forests were notified under the Indian Forest Act, 1927 as R.F. and the different notification are mentioned below:-

- (1) Gazette notification - Bihar and Orissa No. 8192- iv-F-329- R dated 1-11-1923. Kundri Thana Daltonganj (Thana No. 383) – R.F.
- (2) Gazette notification - Govt. of Bihar no 10154/52/151-

		P\R, Dated 9-1-1953				
		<u>Protected Forests.</u>				
	<u>Name of Thana</u>					
	Daltonganj	33 Forests.				
	Patan	43 "				
	Hussainabad	27 "				
	Chhattarpur	171 "				
	Bishrampur	48 "				
	Total :-	322 Forests.				
(3)	Gazette notification	- Govt. of Bihar no 17029/55-2266 R, Dated 19-07-1955				
	<u>Name of Thana</u>	<u>Protected Forests.</u>				
	Daltonganj	78 Forests.				
	Patan	144 "				
	Hussainabad	58 "				
	Chhattarpur	103 "				
	Bishrampur	27 "				
	Total :-	310 Forests.				
(4)	Gazette notification	- Govt. of Bihar no 17041/56-2271 R, Dated 1-10-1956				
	<u>Name of Thana</u>	<u>Protected Forests.</u>				
	Daltonganj	15 Forests.				
	Patan	04 "				
	Total :-	19 Forests.				
(5)	Gazette notification	- Govt. of Bihar no 1701/58-353 R, Dated 29-01-1958				
	<u>Name of Thana</u>	<u>Protected Forests.</u>				
	Hussainabad	02 Forests.				
	Chhattarpur	01 "				
	Total :-	03 Forests.				
(6)	<u>Name of Thana</u>	<u>Old Protected Forests.</u>				
	Patan	01 Forest.				
	Daltonganj	10 "				
	Total :-	11 Forests.				
(7)	<u>Name of Thana</u>	<u>Khasa Reserved Forests.</u>				
	Daltonganj	08 Forests.				
	Patan	15 "				
	Total :-	23 Forests.				
	<b>Grand Total</b>	:- R.F. K.R.F P.F. OLD. TOTAL P.F				
		<b>1 23 654 11 698</b>				

### **SECTION IX, RIGHT AND CONCESSIONS;**

21. It is practicable to list the rights village wise in the forests which are overburdened with rights of various kinds. These rights have been



considered by the Forest settlement officer and whatever was thought proper has been allowed in the Forest Settlement Order pertaining to very forest. The following rights which are most common have been recorded in the record of right for girth holders:-

(a) Right to take wood for fuel, fencing and roofing under the supervision of forest authorities at some particular time of the year as fixed by the Divisional Forest Officer.

(b) Right to take timber for their reasonable domestic needs in the matter of house building and agricultural implements but not for sale or barter.

(c) The right to graze their cattle in the forests under license grazier permits.

(d) Even people having no rights in the records of right, are allowed to take out fuel wood through head load for their personal use but not for sale or barter.

Restrictions have also been imposed on the exercise of the right by right-holders. The rights allowed can terminate temporarily or permanently if the capacity of the forest does not permit the exercise of the rights in full. The right-holders have to abide by the direction, instruction, restrictions and regulations incorporated in the Working plan of the forest sanctioned by Government. The rights are to be exercised with the permission of the Forest Officer in the administrative control of the forest. Sheep and goats are not allowed to graze in the forest though removal of fodder has been permitted. Grazing is not allowed in the annual coupes for a period of 5 years at least.