

PART – 2
FUTURE MANAGEMENT DISCUSSED AND PRESCRIBED

CHAPTER – 1
BASIS OF PROPOSALS

Object of Management

2.1.1 A reference to the objects of management in the previous plan were stated to be to effect an all round improvement in these forests so that they may reach, in the shortest possible time, the state of maximum productivity. The prescriptions were tailored to suit the above objectives. Though the prescriptions were based on a sound technical base the circumstances on the ground did not provide the proper conditions for the above prescriptions to produce the desired results.

2.1.2 A detailed discussion on the past prescriptions and their results have been dealt at length in Part – I of this document. As has been mentioned the forests have become more open in nature and the process is continuing.

- 1) To manage the forests in such a way that the environment and ecological balance of the area remains undisturbed as far the as follows.
- 2) To obtain maximum forest produce from the forests keeping in view the main objective as mentioned in sub para 1 above.
- 3) Involving the local villagers in decision making in matters of forest management in the degraded forests with a view to enlisting their co-operation in regenerating these forests.
- 4) To give a boost to afforesting more areas with a view to vegetating the area thus increasing the productivity of the land as also protecting it from soil erosion and run-off.
- 5) To restrict felling to a minimum in the sanctuary areas so to create better conditions for the wild life to flourish.

Method of Treatment to be adopted

2.1.4 As mentioned in the objectives of management the plan will have a higher thrust towards conservation than on production. Keeping in view the increasing openness of the forests it is decided that no felling system will be adopted wherein the forest canopy will be left completely open. Hence the present system of coppice with standards system is being replaced and Selection Coppice System is being introduced.

2.1.5 In Khair working each range is being constituted into one felling series to facilitate the working of state trading, which can now work in a consolidated chunk every year instead of at a number of places.

2.1.6 Felling operations in the areas allocated to the Gautam Buddha wild life sanctuary and the Koderma wild life sanctuary are being severely curtailed so that a comparatively undisturbed habitat as can be provided to the wild life.

Constitution of the working circles

2.1.7 For achieving the above mentioned objectives the following working circles are being constituted:-

- 1) Selection Coppice working circle
- 2) Plantation-cum-Rehabilitation working circle
- 3) Bamboo (Overlapping) Working Circle
- 4) Khair (Overlapping) working circle
- 5) Protection working circle.

Area Statement

2.1.8 The range wise allocation of the area to different working circles is as follows:

Range	Selection Coppice working circle	Plantation cum rehabilitation working circle	Bamboo working circle	Khair working circle	Protection working circle	Total
KODERMA	2230.40	1275.96	408.76	622.66	14621.50	18127.86
GAJHANDI	15000.47	4949.10	3821.37	6305.50	-	19949.57
CHAUPARAN	5772.64	11024.99	5861.63	17880.69	-	16797.63

DOMCHANCH	15929.19	7000.95	4837.27	16162.06	367.81	24097.95
	38932.70	25051.00	13679.03	40970.91	14989.31	78923.01

Stock Maps

2.1.8 Stock maps based on ocular observations have been prepared on 4"=1 mile and 6"=1 mile topographical maps. The stock maps indicate the following:

1. Sal (Blue wash)

- a) Over 30 cms (12") dia
- b) 20 cms (8") to 30" cms (12") dia
- c) 10 cms (4") to 20 cms (8") dia
- d) 00 cms (0") to 10 cms (4") dia

2. Miscellaneous (Red wash)

- a) Over 30 cms (12") dia
- b) 20 cms (8") to 30" cms (12") dia
- c) 10 cms (4") to 20 cms (8") dia
- d) 00 cms (0") tio 10 cms (4") dia

3. Areas planted up/fit for plantation - Yellow wash

4. Protection areas - Blue hatching

5. Sal rooted waste - Black dots

6. Bamboo - Black dots

7. Khair

K1 - Over 15 cms (6") dia

K2 - 10 cms (4") to 15 cms (6") dia

K3 - 00cms (0") to 10 cms (4") dia

CHAPTER – 2 SELECTION COPPICE WORKING CIRCLE

GENERAL CONSTITUTION OF THE WORKING CIRCLE

2.2.1 This working circle consists of forest which were under the coppice working circle in the previous plan. The area under this working circle is considerably less as compared to the areas under coppice working circles of the previous plan, mainly due to two reasons:

- 1) General deterioration of the crop resulting in lesser area of forests being available for working.
- 2) Creation of two wild life sanctuaries, namely, Koderma wild life sanctuary and the Gautam Buddha wild life sanctuary.

2.2.2 Forests having a crown density of more than 0.3 or more have been included in this working circle.

2.2.3 The total area of this working circle is 38,932.70 ha.

GENERAL OBJECTS OF MANAGEMENT

2.2.4 The main objects of management are :

- 1) To maintain and improve the vegetative cover by controlling the felling.
- 2) Replenishment of stock by inducing regeneration by natural and artificial means and nurturing the regenerated saplings.
- 3) To meet the requirements of firewood, agricultural implements and household requirements of the right holders.
- 4) After meeting the above needs, the surplus forest produce will be supplied for trade and industrial purposes.

SILVICULTURAL SYSTEM

2.2.5 The silvicultural system adopted is selection coppice system. This is a departure from the coppice with standards system adopted in the previous plan. This change has been prompted by many reasons, which have been discussed in the following paras.

2.2.6 It has been generally observed that after felling in coppice with standards system, the regeneration has not been able to establish itself due to absence of protection against grazing and trampling.

2.2.7 After opening of the canopy due to the coppice system the areas have been invaded by Lantana which has suppressed the growth of the other species.

2.2.8 The Government of India has also issued guidelines that no clear felling system should be adopted in exploitation of forests. The coppice with standards area leaves the area totally open barring the standards.

2.2.9 The forests are overburdened with rights. Apart from exercise of these rights, a large quantity of forest produce in the form of firewood, which is the main source of fuel for the large number of villages around is also removed. It is almost impossible to check the outflow of firewood from these forests. With the ever increasing population this problem is going to worsen with the passage of time. The removal of this produce was not taken into account while formulating the prescription of the previous plans. Hence it is imperative that the outturn of forest produce through regular exploited is controlled.

FELLING CYCLE

2.2.10 Felling cycle will be 20 (Twenty) years.

EXPLOITATION DIAMETER

2.2.11 The main objective of introducing the coppice selection system in to maintain sufficient advance growth so that there is significant opening of the canopy. Keeping this in view the exploitable diameter of various species is fixed as follows:-

(1) Semal, Salai, Paisar (Bija Sal), Kaaj and Karam. The minimum exploitable diameter at breast height is 30 cm (12").

(2) Sal and other miscellaneous species : - The minimum exploitable diameter at breast height is 20 cm (8")

DEMARCATON OF ANNUAL COUPES

2.2.12 A 5' wide strip should be held out along the boundary of the annual coupe and all the shrubs, undergrowth and middle story should be cleared. Two coal tar rings at breast height will be made on trees situated on the boundary strip at suitable intervals. The trees should be so chosen that the boundary is easily identified.

2.2.13 Trees situated at the corners at the coupes should be blazed at breast height and the name of the felling series and coupe no should be written on it.

2.2.14 It should be ensured that the marking of the coupes should be completed before 30th June and the coupes handed over to state trading for felling in October and the completed by March in the following year.

2.2.15 The annual coupes have been marked out on maps of 4"=1 mile and 6"=1 mile.

ALLOTMENT OF AREA

S. NO.	Range	Area
1	Koderma	2,230.40 Ha
2	Gajhandi	15,000.47 Ha
3	Chauparan	5,772.64 Ha
4	Domchanch	15,929.19 Ha

The total area in this working circle is 38,932.70 ha which is 49.30% of the total area.

METHOD OF EXECUTED FELLINGS

2.2.17 The following guidelines are issued regarding marking in coupes:-

- (1) All dead dry and diseased trees should be marked for felling for good sanitation.
- (2) Harra, Bahera, Mahua, Khair, Kusum, Palas, Kend and Ber trees should not be marked for felling.
- (3) Climber cutting in the entire coupe area should be carried out at the time of marking.
- (4) Only trees which have attained the minimum exploitable diameter prescriber in para 2.2.11 should be marked for felling.
- (5) Blaze marks should be given at the base and at breast height of the marked trees and the coupes serial no of the tree should be written at both places. A marking list of all such trees should be made showing the serial no, species and the girth at breast height to be exploited.
- (6) The marking list will be handed to state trading at the time of handing over the coupe for felling.
- (7) The felling should be executed in such a manner that the height of the stump should not be more than 6" from the ground level under any circumstances.
- (8) The felling should be done with a share axe or saw, preferably with a saw. Since the minimum diameter of trees to be felled is 8" the use of saw will result in substantial savings of timber and labour and good coppice. The felling should be carried out so that the stump or the bark is not damaged.
- (9) All pollarded trees in the coupe will be coppiced at the time of felling. For control marking hammer be used at stump by a number, the yield may be shown accordingly in the marking list going for pollarded trees.
- (10) After felling the entire forest produce should be removed from the coupe before June.
- (11) Forest produce should not be left in the coupe as it cold becomes a source of fire and diseases.

YIELD

2.2.18 The yield will be regulated by area

CONSTITUTION OF FELLING SERIES

2.2.19 The felling series in the coppice working circle of the previous working plan have been more or less retained. This has been done with a view to maintain a continuity of units for frequent chopping and changing results in serious difficulties, while laying out coupes. Only areas where the crop has deteriorated have been left out.

2.2.20 Some felling series in Koderma Range felling in Chauparan Range have been left out as they have embrace the Koderma and Gautam Buddha sanctuaries respectively.

2.2.21 The no. of felling series in each range follows:-

Koderma	6
Gajhandi	26
Chauparan	13
Domchanch	25

The statement of the felling series shown at the end of this chapter.

SUPPLY OF FOREST PRODUCE TO RIGHT HOLDERS

2.2.22 The distribution of the forest produce to the right holders will be done by the local Panchayat. For Ban Suraksha Samiti wherever they exists after laying out the annual coupe it will be divided into 4 sections. The section lines will be demarcated on ground by marking the trees along the line with half coal rings at breast height.

2.2.23 The right holders will have first preference over the forest produce in the coupe. The Divisional Forest Officer will decide what portion of the coupe which will he handed over to the Panchayat/Ban Suraksha Samiti to meet their requirements. It should be ensured that the rights of the right holders are fully met while deciding what portion of the coupe is to be given over to the Panchayat. However, care should be taken to that the forest produce is only for bonafide use and is not being used for the purpose of trade.

2.2.24 The list of trees allotted to the right holders should be handed over to the gram Panchayat/Ban Suraksha Samiti. The Range Officer concerned will obtain a receipt after handling over the coupe.

2.2.25 After handing over of the right holders coupe the felling will be done by the villagers. The rules laid down in para 2.2.17 for executing felling shall be adhered to care should be taken that the stumps are properly dressed after felling no. unmarked tree should be felled. After felling the material will be passed by territorial staff and transported as per the existing rules. After will submit a report to the Range Officer mentioning there in the details of the area forest produce obtained from the coupe, the names of the right holders the have obtained the forest produce. The Range Officer will send the compiled data to the Divisional Forest Officer. The Divisional Forest Officer will compile and examine the reports at this level and forwarded it to the Conservator of Forests.

2.2.26 After felling and transport of forest produce by the right holders the surplus forest produce will be harvested by the State Trading Organisation. Care should be taken that the felling by right holders is done quickly state trading should not do felling simultaneously as it may create conditions for irregularities and theft.

2.2.27 At the time of felling the State Trading Organisation will cut all marked trees even of right over left unfelled by the right holders and rectify the stumps which have not been properly dressed by the right holders.

SUBSIDIARY SILVICULTURAL OPERATIONS

2.2.28 Subsidiary Silvicultural Operations are not being carried out in the division due to paucity of funds which is bad sufficient funds under wages or establishment of natural reign has to be provided. The stress on afforestation has been to detriment of silvicultural operations as almost the entire available funds are earmarked for plantation work as they are being allotted by number of seedlings planted. Attempt should be made to provide sufficient resources for the betterment of natural forest and now any lack of interest may cause considerable harm.

2.2.29 In the year following the coupe working, the shrubs and climbers will be cut back. Special attention should be paid to Lantana. After cutting back the shrubs should be collected at one place and burnt.

2.2.30 No thinning are prescribed.

2.2.31 Soil Conservation measures may be initiated for moisture conservation in dry areas and in slopes staggered contour trenches of 5m x 50 cm x 50 cm deep at contour intervals of 2m should be dug. The soil dug out should be placed on the downward side of the slope for higher, moisture conservation and properly dressed and seeds of local species be planted.

GRAZING

2.2.32 Coupes should be closed to grazing for 3 years after felling to allow the regeneration to establish itself. Although the prescription is difficult to follow in areas near villages where it is difficult to check grazing edible shrubs on trench fencing may be planted out to restrict grazing in forest areas.

CONSTITUTION OF FELLING SERIES IN THE SELECTION COPPICE WORKING CIRCLE
DOMCHANCH RANGE

Sl. No.	Name of the Felling Series	Name of the village	Thana	Thana No.	Total area of the P.F.	Area allotted to the W.C.	Total area of the F.S.	Area of Annual coupe	Remarks
1	2	3	4	5	6	7	8	9	10
1	Goriadih	1. Goriadih	Koderma	6	852.20	844.42	844.42	42.22	
2	Notankharai	1. Notankharai	Koderma	7	349.39	349.39			
		2. Galkato	Koderma	8	237.21	237.21			
		3. Tarai	Koderma	10	214.98	214.98	801.58	40.08	
3	Kosiari	1. Kosiari	Koderma	9	578.81	578.81	578.80	28.94	
4	Dhab	1. Dhab	Koderma	11	1279.67	1215.05	1215.05	60.75	
5	Laxmibathan	1. Laxmibathan	Koderma	12	217.71	217.71			
		2. Chalhawatari	Koderma	13	254.77	254.77	472.48	23.62	
6	Bangakhalar	1. Bangakhalar	Koderma	14	845.73	845.73	845.73	42.29	
7	Jhawatari	1. Jhawatari	Koderma	15	198.13	191.65			
		2. Asnatari	Koderma	16	434.82	434.82	616.82	30.84	
8	Banumurha	1. Banumurha	Koderma	20	469.71	436.38	436.38	21.82	
9	Pandaria	1. Pandaria	Koderma	29	758.19	758.19			
		2. Garmundo	Koderma	54	407.64	407.64	1165.83	58.29	
10	Jorasemar	1. Ekbanwa	Koderma	30	279.73	279.73			
		2. Jorasemar	Koderma	32	292.22	292.22			
		3. Chatro	Koderma	52	137.98	137.98			
		4. Ambatari	Koderma	53	277.85	277.85	939.51	46.98	
11	Lohabar	1. Kumbh	Koderma	17	70.27	70.27			
		2. Tepra	Koderma	18	44.08	44.08			
		3. Lohabar	Koderma	19	123.41	123.41			
		4. Beko	Koderma	22	68.19	68.19			
		5. Raturday	Koderma	23	80.39	80.39	386.34	19.32	

1	2	3	4	5	6	7	8	9	10
12	Dagarnawa	1. Dagarnawa	Koderma	21	278.65	278.65	278.65	13.93	
13	Araiya	1. Araiya	Koderma	24	359.85	359.85			
		2. Udalo	Koderma	94	113.27	113.27			
		3. Katio	Koderma	95	123.59	106.78	579.91	29.00	
14	Banderchukwa	1. Banderchukwa	Koderma	93	540.76	315.43	315.43	15.77	
15	Nawdiha	1. Nawdiha	Koderma	96	297.68	297.68	297.68	14.88	
16	Parsabad	1. Parsabad	Koderma	97	360.15	233.94			
		2. Daldal	Koderma	98	155.99	86.84	320.78	16.04	
17	Semarkundi	Semarkundi	Koderma	101	743.38	604.12	604.12	30.21	
18	Nawadih	Mawadih	Koderma	28	335.02	335.02	335.02	16.75	
19	Karmikund	Karmikund	Koderma	25	517.85	465.21			
		Kabrabut	Koderma	26	279.65	279.65	744.86	37.24	
20	Jamuniatanr	Jamuniatanr	Koderma	47	342.30	342.30			
		Kusahana	Koderma	48	163.41	128.55	470.85	23.54	
21	Langraparas	Jamuniatanr	Koderma	49	261.00	197.45			
		Langraparas	Koderma	62	271.44	271.44	468.89	23.44	
22	Golgo	Golgo	Koderma	50	652.23	563.47	563.47	28.17	
23	Baghrujot	Baghrujot	Koderma	51	1039.34	737.14			
		Naitanr	Koderma	59	177.96	71.68	808.82	40.44	
24	Masnodih	Masnodih	Koderma	55	897.74	893.63			
		Banswaria	Koderma	56	127.09	127.09	1020.72	51.04	
25	Dhargaon	Dhargaon	Koderma	83	817.05	817.05	817.05	40.85	
						15929.19	15929.19	796.46	

CONSTITUTION OF FELLING SERIES IN THE SELECTION COPPICE WORKING CIRCLE

GAJHANDI RANGE

Sl. No.	Name of the Felling Series	Name of the village	Thana	Thana No.	Total area of the P.F.	Area allotted to the W.C.	Total area of the F.S.	Area of Annual coupe	Remarks
1	2	3	4	5	6	7	8	9	10
1	Bagesarithan	Pandaria	Chauparan	30	219.24	62.14	191.41	9.57	
		Bagesarithan	Chauparan	232	292.10	129.27			
2	Jagodih	Jagodih	Chauparan	231	1471.48	1471.48	1471.48	73.57	
3	Kalapahar	Kalapahar	Chauparan	229	766.82	745.30	757.45	37.87	
		Kairijhar	Chauparan	237	41.21	12.15			
4	Phulwaria	Phulwaria	Chauparan	227	509.78	342.33	342.33	17.12	
5	Bhaghar	Bhaghar	Chauparan	236	118.28	81.56	125.57	6.28	
		Gharsari	Chauparan	238	98.03	44.01			
6	Duari	Ambatari	Chauparan	241	90.48	35.73	183.18	9.16	
		Duari	Chauparan	242	230.12	147.45			
7	Lohra	Lohra	Chauparan	243	495.42	448.00	448.00	22.40	
8	Raktachuan	Garke	Chauparan	244	109.96	103.69	229.31	11.47	
		Raktachuan	Chauparan	245	152.40	125.62			
9	Okarchuan	Okarchuan	Chauparan	246	334.82	240.86	610.18	30.51	
		Khairachorhi chattan	Chauparan	252	418.52	369.32			
10	Bendi	Kumbhiatari	Chauparan	258	185.23	139.53	519.43	25.97	
		Bendi	Chauparan	259	434.99	379.90			
11	Bilaro	Birhorwa	Chauparan	253	117.98	117.98	643.38	32.12	
		Ghortapi	Chauparan	254	102.15	102.15			
		Chenganwatanr	Chauparan	256	94.44	94.44			
		Bilaro	Chauparan	257	327.81	327.81			

1	2	3	4	5	6	7	8	9	10
12	Biragara	Biragara	Chauparan	260	1023.99	1023.99	1023	51.20	
13	Bongadag	Bongadag	Chauparan	251	629.09	629.09	629.09	31.45	
14	Jarga	Chanako	Koderma	235	25.08	25.08	383.39	19.17	
		Koabar	Koderma	236	211.94	187.08			
		Belatanr	Koderma	238	22.59	20.62			
		Jarga	Koderma	240	253.55	150.61			
15	Ambakola	Ambakola	Koderma	233	623.06	571.27	571.27	28.56	
16	Goriato	Goriato	Koderma	234	477.85	376.61	376.61	18.83	
17	Mahuadohar	Piprahi	Chauparan	293	345.46	258.76	905.87	45.29	
		Mahuadohar	Chauparan	294	908.82	647.11			
18	Brinda	Brinda	Chauparan	295	572.16	450.42	450.42	22.52	
19	Sardhanwatanr	Sardhanwatanr	Chauparan	296	473.13	126.07	126.07	60.30	
20	Mahuas	Mahuas	Chauparan	297	272.24	238.08	238.08	238.08	
21	Kanti	Kanti	Chauparan	298	407.14	317.89	317.89	15.89	
22	Bhitia	Bhitia	Chauparan	228	1129.11	1129.11	1129.11	56.46	
23	Chhatra	Sinduria	Chauparan	247	211.21	211.21	1219.37	60.97	
		Ghatodumar	Chauparan	248	104.45	104.45			
		Marmotari	Chauparan	249	212.45	212.44			
		Chhatra	Chauparan	250	691.27	691.27			
24	Chorahi	Chorahi Ex-RF	Chauparan	262	743.83	713.14	86234	43.12	
		Ratnasot Ex-RF	Chauparan	261	185.96	149.20			
25	Koabar	Mghatari Ex-RF	Koderma	237	5.26	5.26	314.92	15.75	
		Belatanr Ex-RF	Koderma	238	57.96	57.96			
		Koabar Ex-RF	Koderma	236	251.70	251.70			
26	Gajandi	Pichhli Ex-RF							
		Chanako Ex-RF							
		Koabar Ex-RF							
		Jarga Ex-RP							
		Dhadharpania Ex-RF							
		Karmatari Ex-RF							
						15,000.47	15,000.47	976.20	

CONSTITUTION OF FELLING SERIES IN THE SELECTION COPPICE WORKING CIRCLE

CHAUPARAN RANGE

Sl. No.	Name of the Felling Series	Name of the village	Thana	Thana No.	Total area of the P.F.	Area allotted to the W.C.	Total area of the F.S.	Area of Annual coupe	Remarks
1	2	3	4	5	6	7	8	9	10
1	Pathalgara	Sahijana	Chauparan	4	69.07	69.07	434.24	21.71	
		Pathalgara	Chauparan	5	365.17	365.17			
2	Duragada	Duragada	Chauparan	6	225.67	225.67	225.67	11.28	
3	Asnachuan	Asanchuan	Chauparan	19	550.85	404.37	434.07	21.70	
		Karma	Chauparan	51	292.22	29.70			
4	Tajpur	Karanjua	Chauparan	52	234.22	68.13	508.40	25.42	
		Tajpur	Chaupara	61	619.56	440.27			
5	Chauparan	Chauparan	Chauparan	64	314.52	198.64	198.64	9.93	
6	Madhgopali	Bigha P.F.	Chauparan	67	265.81	112.52	146.66	7.33	
		Madhgopali P.F.	Chauparan	68	79.54	34.14			
7	Majhaulia	Gerughat	Chauparan	76	63.12	63.12	377.72	18.89	
		Bardaga	Chauparan	77	240.78	240.78			
		Majhaulia	Chauparan	78	125.61	73.82			
8	Amraul	Amraul	Chauparan	79	110.91	68.90	207.08	10.35	
		Jungle Charan							
		Das Kendua	Chauparan	85	138.18	138.18			
9	Bhadan	Kafar	Chauparan	86	318.28	318.28	958.13	47.91	
		Kairipiprahi	Chauparan	87	223.87	168.70			
		Badan	Chauparan	88	558.28	471.15			
10	Hathindar	Hthindar	Chauparan	89	326.19	230.45	288.69	14.43	
		Bigha	Chauparan	90	190.08	58.24			
11	Maisakhar	Ghagrait	Chauparan	230	183.40	183.40	1178.21	56.91	
		Maisakhar	Chauparan	235	994.81	994.81			
12	Bhadel	Bhadel	Chauparan	70	299.83	235.00	235.00	11.75	
13	Bigha Ex-R.F.	Domdande Ex-R.F.	Chauparan	65	115.91	115.91	580.13	29.01	
		Bigha Ex-R.F.	Chauparan	67	322.96	322.96			
		Madhgopali Ex-R.F.	Chauparan	68	141.26	141.26			
						5772.64	5772.64	288.63	

CONSTITUTION OF FELLING SERIES IN THE SELECTION COPPICE WORKING CIRCLE

KODERMA RANGE

Sl. No.	Name of the Felling Series	Name of the village	Thana	Thana No.	Total area of the P.F.	Area allotted to the W.C.	Total area of the F.S.	Area of Annual coupe	Remarks
1	2	3	4	5	6	7	8	9	10
1	Janpur	Janpur	Koderma	3	243.04	185.95	435.41	21.77	
		Sarhetta	Koderma	4	402.52	249.46			
2	Chilsodh	Jorandawa	Koderma	1	164.45	41.88	568.97	28.45	
		Tilaiatanr	Koderma	33	105.67	105.67			
		Chilsodih	Koderma	34	388.89	337.47			
		Kalidih	Koderma	35	83.95	83.95			
3	Nalwa	Nalwa	Koderma	43	669.58	491.82	491.82	13.14	
4	Parho	Parho	Koderma	38	135.00	109.96	262.74	3.14	
		Jamtara	Koderma	39	35.72	35.72			
		Dhuba	Koderma	40	117.06	117.06			
5	Haraia	Pasia	Koderma	41	92.53	34.89	62.70	3.14	
		Haraia	Koderma	44	29.58	9.00			
		Dhorakola/ Chilangia	Koderma	45	91.80	18.78			
6	Jharkhi	Jharkhi	Koderma	231	408.76	408.76	408.76	20.44	
						2230.40	2230.40	86.93	

CHAPTER – 3
WORKING PLAN FOR REHABILITATION CUM PLANTATION
WORKING CIRCLE

GENERAL CONSTITUTION OF THE CIRCLE

2.3.1 This felling series will cover areas having Sal rooted wastes, blanks and open areas. This area also includes areas where plantation has already been done. In other words, all areas excepting areas allotted to the Sal coppice selection working circle and protection working circle are allotted to this working circle.

OBEJCTS OF MANAGEMENT

2.3.2 The main objects of this working circle are :-

- (1) Rehabilitation of rooted wastes of Sal and miscellaneous species by protecting the areas from grazing and carrying out cut back operations.
- (2) To plant up blank are with suitable species so that the area develops vegetative cover.
- (3) Planting and raising of suitable fast growing species so that the increasing requirements of the local people and industry can be met.
- (4) Improve the moisture retention capacity of the soil so as to prevent soil erosion by improving the vegetative cover.

AREA STATEMENT

2.3.3 The total area under this working circle is 25,051.00 hectares. The rangewise breakup is as follows :

S. No.	Range	Area
1	Koderma	1,275.96 ha
2	Gajhandi	4,949.10 ha
3	Domchanch	7,800.95 ha
4	Chouparan	11,024.99 ha

EXPLOITATION OF MATURE PLANTATIONS

2.3.4 The list of plantations raised after 1981 have been shown at the end of the Chapter. The plantations raised prior to 1981 have been harvested as the rotation of these plantation has been fixed at 10 years.

2.3.5 Previous plantation were exploited under the scheme of exploitation prepared by Shri L.K. Pandey for the period 1975-76 to 1984-85. Subsequently the plantations have been harvested after they have attained the age of 10 years.

2.3.6 Four felling series have been constituted on felling series for each range. The plantations shall be harvested as soon as they reach the age of 10 years, it is not advisable to retain the plantation beyond 10 years are they are liable to illicit felled.

2.3.7 Semal, Mahua, Kusum, Kaju, Bamboo and Teak shall not be felled with the other species at the time of exploitation of the plantations.

2.3.8 Khair felling is a serious problem in this division. No rotation has been fixed for Khair trees as a result of which these are being worked on an ad-hoc basis. As such for felling of Khair 6" dia has been prescribed. It may be felled along with other trees except that below 6" dia Khair trees will not be felled.

METHOD OF FELLING

2.3.9 The maps of the plantations to be felled are available with the afforestation and the territorial divisions. The coupes will be laid out by marking the trees along the boundary with two coal tar rings at breast height. After marking the boundary the coupes will be handed over to the State Trading Divisions for felling.

2.3.10 Felling should start from one end and proceed systematically. All the trees except the ones prohibited is para 2.3.7 shall be felled and removed.

RESTOCKING OF PLANTATION COUPES

2.3.11 After felling, if the coupe is not able to restock itself it should be replanted in the following year with suitable species in case funds are not available for replanting felling must not be undertaken.

PAST EXPERIENCE WITH PLANTATION

- 2.3.12 The past experience with afforestation has not been a very happy one. A large number of plantations have failed. The reasons are mainly two fold.
- 2.3.13 The maximum damage to young plantations is caused due to grazing and trampling. The main reason for this is the large number of cattle which are owned by the villagers. The steps to be taken to achieve this end are enumerated in paras 2.3.21 to 2.3.23.
- 2.3.14 The second reason is the improper execution of the schemes. The guidelines for raisings plantations, stipulates that the soil work should start from October onwards. Only in very exceptional cases this stipulation is being followed. It is very normal for the plantation target to be communicated to the implementing agency in March. This results in hasty and improver execution of work. Since the soil work is carried out in summer the quality of work suffers as the soil becomes hard and the pit size is generally smaller than the prescribed size. The soil also does not get sufficient time for weathering. The late beginning of the nursery work results in weak, undersized, plants being planted which are not able to establish themselves quickly against grazing and the following hot season. The post plantation maintenance operations have also been dituted with passage of time. Previously weeding and hoeing operations were done for 3 years but now there are being done for only two years. The no. of weeding and hoeing operations have also been reduced form 3 and 2 in the first and second year respectively to 2 and 1.
- 2.3.15 so it is imperative that the schedule laid down for the various stage of plantation is strictly adhered to. To facilitate this advance planning is called for. The afforestation agencies have a general idea of the target of plantation to be done every year. Hence the identification of the areas for plantation should be done at least a year in advance. This should be followed up by a meeting of the village forest committee (refer para 2.3.23) and the scheme be passed so that the villagers are involved in the decision making process. Even details regarding the species to be raised should decided in advance so that sufficient seed of the selected species is collected before the nursery work begins. The department

should also communicate the targets well in time to facilitate execution of plantations as per the prescribed time schedule.

TREATMENT OF AREA FIT FOR REHABILITATION AND PLANTATION

- 2.3.16 These areas generally consist of rooted wastes of sal and miscellaneous areas which can rehabilitate themselves if they are tended and given sufficient protection. These areas are generally interspersed with blank and scrub.
- 2.3.18 There are a large number of villages which have a very small area of forests, in some cases less than 4 ha. which up will serve a number of purposes. If left alone these small patches of forest will tend to get encroached over a period of time. Once the rehabilitation scheme is taken up, it will not only re-stock the area but also establish the boundaries of the forests in a firm unequivocal manner.
- 2.3.19 This scheme can succeed only if the local villagers extend their co-operation in rehabilitating the forests. No amount of fencing can protect the area against grazing if the villagers are determined to graze their cattle in the area.
- 2.3.20 The main reason for the sense of apathy exhibited by the villagers in protecting the forests is that they do not get any direct benefit from protecting the forests. Rather they get immediate monetary return by felling and selling the forest produce in the market. Unless a direct stake of the villagers is created it will be difficult to enlist their cooperation in protection of the forest.
- 2.3.21 A very important step in involving the villagers in forest protection was taken by the Bihar Government notification no. 54/90-5244 Dt. 8.11.90 issued guidelines for involving the villages in the management of village forests.
- 2.3.22 The Government has also taken a decision in principal that the forest produce from the village forests will be given to the villagers at a nominal royalty. After meeting the local needs the surplus forest produce will the disposed off at development of the villager and its forests. If this scheme is implement with sincerity there is every reason to be optimistic in enlisting the active and enthusiastic co-operation from the local people.

2.3.23

A separate “management plan” shall be prepared for each village forest. This plan should be first approved by the village committee before it is implemented the management plan should clearly specify what species are to be planted keeping in view the local needs. No scheme be taken up until the management plan has been cleared by the village forest management and protection committee. Presently the scheme is being implemented in an ad-hoc manner. This should be stopped forthwith.

CHAPTER – 4
BAMBOO (OVERLAPPING) WORKING CIRCLE

CONSTITUTION OF THE WORKING CIRCLE

- 2.4.1 This working circle covers areas which have bamboo in commercially exploitable quantities and generally overlaps. The area under selection coppice working circle.
- 2.4.2 There is one species of bamboo available i.e., *dendrocalamus strictus*.
- 2.4.3 The area of this Working Circle is 13,679.03 ha.

CUTTING CYCLE

- 2.4.4 The cutting cycle will be 4 years.

CONSTITUTION OF FELLING SERIES

- 2.4.5 The bamboo forest of this division have undergone a sea change as compared to the previous working plans. The working of bamboo has not been regular. With the induction of state trading, the working of the bamboo areas by the lease holders was stopped but the state trading organization did not take up bamboo working.
- 2.4.6 Though provisions for supply of bamboos to Turis at a nominal payment were made indiscriminate hacking by the Turies continued resulting in deterioration of stock.
- 2.4.7 Bamboo, wherever found is in an extremely poor shape and the clumps are scattered wide apart. Thus the area available for commercial working has come down drastically.
- 2.4.8 The felling series have been reconstituted keeping in view the above mentioned circumstances. The details of the reconstituted felling series are given at the end of the chapter.

DEMARCATON OF COUPES

- 2.4.9 Maps on 4'=1 mile are prepared for the coupes on the ground the coup boundary is laid down by marking a 10 wide strip. The trees and the bamboo clumps situated on this strip shall be marked with white rings at breast height.

CUTTING RULES

- 2.4.10 The following cutting rules are laid down – (1) Karils, the bamboo culms of the previous season shall not be cut or damaged. Other culms equal to the number of karils shall also be left behind in clumps so that there are at least 8 culms in a clump. If the no of karils is less than 4 then extra older culms should left to make up the deficit. The clumps should be working from the inside leaving the older culms along the periphery. (2) Barring the shoots mentioned above all the remaining culms shall be felled and removed including damaged, dead and dying shoots. The clumps will be cleared of all extraneous matter at the time of cutting. (3) Removal of bamboos tocks and extraction of rhizomes is prohibited. (4) The bamboos shall be cut just above the second visible node or 12' above ground level, which ever is less. The bamboo shall be cut with a sharp axe in such a manner that the stump is not split. (5) When a clump is in flower, no bamboo shall be cut from it until the seeds have fallen. Afterwards the entire clumps should be cut down. (6) First dead, dying, damaged or deformed culms will be cut. Then the healthy clumps will be cut keeping in view the guidelines laid own in (1) above. (7) No felling is permitted between 1st July and 15th of October.

METHOD OF EXECUTING FELLING

- 2.4.11 Felling in the coupe should start from one end and proceed systematically along an even front. Selective felling should no be resorted too.
- 2.4.12 Clumps which have less than 8 green clumps should be listed and cleared properly. In such clumps, the culms to be retained should be ringed with coaltar and the remaining dry crooked and malformed culms should be cut away.

2.4.13 Cutting should start from 16th October every year and should be completed by 30th June.

2.4.14 A coupe not worked in the prescribed year must not be worked in the following year. It should be worked only when it becomes due according to the prescriptions.

SUPPLY OF BAMBOO TO TURIS

2.4.15 Supply of Bamboo to Turis at a nominal price is a facility extended to them to prevent them from indiscriminate hacking. The turis have traditionally been making their living by making baskets and other items from Bamboo. The system of supplying Bamboo to turies at normal rates shall continue.

2.4.16 The Divisional forest officer should prepare a list of Turi households, then they should be allotted to a particular felling series from where they will obtain their requirements. The day of the week in which a particular village obtain the bamboo should be fixed. On this particular day the Turies will go to the forest along with the subordinate forest staff for obtaining their requirements. The staff should ensure that the Turis are cutting the bamboos as per the rules laid down.

SUPPLY TO LOCAL PEOPLE

2.4.17 To meet the requirements of the local villagers 1\5th of the coupe area should be earmarked for them. The material should finish working before 30th April after which the State Trading Organisation will extract the remaining produce and carry out cleaning in the area.

CONSTITUTION OF FELLING SERIES IN BAMBOO (OVERLAPPING)
WORKING CIRGLE OF CHAUPARAN RANGE

Sl. No.	Name of the felling series	Coupe	Name of the village	Thana	Thana No.	Area allotted in ha	Total area in ha	Remark
1	Asnachuan	"A"	Tajpur (P)	Chauparan	61	369.56	369.56	
		"B"	Tajpur (P)	Chauparan	61	250.00	250.00	
			Asnachuan (P)	Chauparan	19	145.85	145.85	
		"C"	Asnachuan (P)	Chauparan	19	405.00	405.00	
		"D"	Karma	Chauparan	51	292.22	292.22	
2	Bigha	"A"	Bigha P.F.	Chauparan	67	265.81	265.81	
		"B"	Bigha Ex-RF (P)	Chauparan	67	260.00	260.00	
		"C"	Bigha Ex-RF (P)	Chauparan	67	66.96	272.63	
			Domdande	Chauparan	65	205.67		
		"D"	Madhgopali	Chauparan	68	220.80	220.80	
3	Bardaga	"A"	Gerughat	Chauparan	76	63.17	299.69	
			Majhaulia	Chauparan	78	125.61		
			Amraul	Chauparan	79	110.91		
		"B"	Bardaga	Chauparan	77	240.75	240.75	
		"C"	Kafar	Chauparan	86	318.28	318.28	
		"D"	Kairipiprahi Jungle	Chauparan	87	223.87	362.05	
			Charan Das Kendua	Chauparan	85	138.18		
4	Bhadan	"A"	Bhadan (P)	Chauparan	88	279.00	279.00	
		"B"	Bhadan (P)	Chauparan	88	279.28	279.00	
		"C"	Bigha	Chauparan	90	190.08	358.28	
			Hathinder (P)	Chauparan	89	68.20		
5	Maisakhar	"D"	Hatinder (P)	Chauparan	89	258.00	258.00	
		"A"	Maisakhar (P)	Chauparan	235	295.00	295.00	
		"B"	Maisakhar (P)	Chauparan	235	295.00	295.00	
		"C"	Maisakhar (P)	Chauparan	235	295.00	295.00	
		"D"	Maisakhar (P)	Chauparan	235	109.81	293.21	
	Ghagrait	Chauparan	230	183.40				
						5955.41	5955.41	

CONSTITUTION OF FELLING SERIES IN BAMBOO (OVERLAPPING)
WORKING CIRGLE OF KODERMA RANGE

Sl. No.	Name of the felling series	Coupe	Name of the village	Thana	Thana No.	Area allotted in ha	Total area in ha	Remark
1	Jharkhi	"A"	Jharkhi (P)	Koderma	231	100	100	
		"B"	Jharkhi (P)	Koderma	231	100	100	
		"C"	Jharkhi (P)	Koderma	231	100	100	
		"D"	Jharkhi (P)	Koderma	231	108.76	108.76	
						408.76	408.76	

CONSTITUTION OF FELLING SERIES IN BAMBOO (OVERLAPPING)
WORKING CIRGLE OF GAJAHANDI RANGE

Sl. No.	Name of the felling series	Coupe	Name of the village	Thana	Thana No.	Area allotted in ha	Total area in ha	Remark
1	Kalapahar	"A"	Kalapahar	Chauparan	229	192.00	192.00	
		"B"	Kalapahar	Chauparan	229	192.00	192.00	
		"C"	Kalapahar	Chauparan	229	192.00	192.00	
		"D"	Kalapahar	Chauparan	229	190.82	190.82	
2	Lohra	"A"	Raktachuan	Chauparan	245	155.86	203.86	
			Garke (P)	Chauparan	244	48.00		
		"B"	Garke (P)	Chauparan	244	61.96	201.96	
			Lohra (P)	Chauparan	243	140.00		
		"C"	Lohra (P)	Chauparan	243	200.00	200.00	
		"D"	Lohra (P)	Chauparan	243	157.95	199.16	
			Khairijhar	Chauparan	237	41.21		
3	Chhatra	"A"	Sinduari	Chauparan	247	211.21	315.66	
			Ghatodumar	Chauparan	248	104.45		
		"B"	Marmotari	Chauparan	249	212.44	303.71	
			Chhatra (P)	Chauparan	250	91.27		
4	Kanti	"C"	Chhatra (P)	Chauparan	250	300.00	300.00	
		"D"	Chhatra (P)	Chauparan	250	300.00	300.00	
		"A"	Kanti (P)	Chauparan	298	100.00	100.00	
		"B"	Kanti (P)	Chauparan	298	100.00	100.00	
5	Ambakola	"C"	Kanti (P)	Chauparan	298	100.00	100.00	
		"D"	Kanti (P)	Chauparan	298	107.14	107.14	
		"A"	Ambakola (P)	Chauparan	233	155.00	155.00	
		"B"	Ambakola (P)	Chauparan	233	155.00	155.00	
	"C"	Ambakola (P)	Chauparan	233	155.00	155.00		
	"D"	Ambakola (P)	Chauparan	233	158.06	158.06		
Total Area						3821.37	3821.37	

CONSTITUTION OF FELLING SERIES IN BAMBOO (OVERLAPPING)
WORKING CIRGLE OF DOMCHANCH RANGE

Sl. No.	Name of the felling series	Coupe	Name of the village	Thana	Thana No.	Area allotted in ha	Total area in ha	Remark
1	Goriadih	"A"	Goriadih (P)	Koderma	6	300.00	300.00	
		"B"	Goriadih (P)	Koderma	6	300.00	300.00	
		"C"	Goriadih (P)	Koderma	6	252.21	252.21	
			Notankharai	Koderma	7	50.00	50.00	
2	Kosiari	"D"	Notankharai (P)	Koderma	7	299.39	299.39	
		"A"	Galkato	Koderma	8	237.21	237.21	
		"B"	Tarai	Koderma	10	214.98	214.98	
			Kosiari (P)	Koderma	9	60.00	60.00	
3	Bangakhalar	"C"	Kosiari (P)	Koderma	9	260.00	260.00	
		"D"	Kosiari (P)	Koderma	9	258.80	258.80	
		"A"	Bangakhalar (P)	Koderma	14	210.00	210.00	
			Bangakhalar (P)	Koderma	14	210.00	210.00	
4	Banumurha	"C"	Bangakhalar (P)	Koderma	14	210.00	210.00	
		"D"	Bangakhalar (P)	Koderma	14	215.73	215.73	
		"A"	Lohabar	Koderma	19	123.41	123.41	
			Banumurha (P)	Koderma	20	160.00	160.00	
5	Pandaria	"C"	Banumurha (P)	Koderma	20	160.00	160.00	
		"D"	Banumurha (P)	Koderma	20	149.71	149.71	
		"A"	Pandaria (P)	Koderma	29	300.00	300.00	
			Pandaria (P)	Koderma	29	300.00	300.00	
"B"	Pandaria (P)	Koderma	29	158.19	158.19			
	Garmundo (P)	Koderma	54	130.00	130.00			
"D"	Garmundo (P)	Koderma	54	277.64	277.64			
	Total Area						4837.27	4837.27

CHAPTER – 5
KHAIR (OVERLAPPING) WORKING CIRCLE

2.5.1 This working circle overlaps those parts of other working circles where Khair trees are available in sufficient quantity for commercial exploitation. Khair is scattered over the entire division.

CHARACTER OF VEGETATION

2.5.2 Khair is generally available on level or undulating terrain with semi open forests in association with *Anogaissus latifolia*, *Buchnaia*, *Lanzan*, *Madhucalatifolia*, *Bosewellia serrata* and Bamboo.

2.5.3 As mentioned earlier Khair is available scattered all over the division but the quantity of trees and the density varies from place to place.

SILVICULTURAL SYSTEM

2.5.4 The silvicultural system is selection system the minimum exploitable diameter at breast height is 6”.

AREA STATEMENT

2.5.5 The total area of the felling series is 40,970.91 hectares. The rangewise distribution is as follows:

Koderma	622.66 ha
Chauparan	6,305.50 ha
Gajhandi	17,880.69 ha
Domchanch	16,162.06 ha

FELLING CYCLE

2.5.6 The felling cycle is kept at 20 years.

FELLING SERIES

2.5.7 Four felling cycles have been prescribed each felling cycle embracing one range. The details of villages and the coupes of each felling series are given at the end of the chapter.

YIELD

2.5.8 The yield will be regulated by area in the previous working plan the no. of trees to be felled was estimated based on the average no. of trees\acre obtained from previous coupes. However, due to the uneven distribution of trees the actual yield obtained showed wide fluctuations.

2.5.9 Illicit felling of Khair is a matter of great concern in this division under the circumstances it is not advisable to retain the trees in an worked over area as they are liable to be illicitly felled. Hence no attempt is being made to fix the no. of trees to be felled annually in this plan. All the trees fit for felling should be harvested in one operation.

DEMARCATON OF COUPES

2.5.10 The annual coupes should be demarcated by 5' cleared lines. Trees along these lines will be marked with rings of coal tar each at breast height and the base of the tree.

MARKING RULES

2.5.11 All Khair trees above 6" in diameter at breast height should be marked for felling. In addition, pollarded and dead trees of lesser diameter should also be marked for felling by giving a suitable identification mark at ground level of trees.

EXECUTION OF FELLING

2.5.12 All trees marked for felling should be felled. All fellings should be done cleanly so that the stump does not split and no damage is caused to the bark. The height of the stump should be less than 6" under any circumstance.

CONSTITUTION OF FELLING SERIES IN KHAIR (OVERLAPPING)

WORKING CIRCLE CHAUPARAN RANGE

Sl. No.	Year of Felling	Name of the village	Thana	Thana No.	Demarcated area in Ha.	Area allotted in ha.	Total area of the F.S.	Remarks
1	2	3	4	5	6	7	8	9
1	1992-1993	Pathalgara (P)	Chauparan	5	365.17	365.17	365.17	
2	1993-1994	Bhadan (P)	Chauparan	88	558.28	248.28	310.28	
		Kairipiprahi (P)	Chauparan	87	223.87	62.00		
3	1994-1995	Bhadan (P)	Chauparan	88	558.28	310.00	310.00	
4	1995-1996	Madhgopali Ex-RF	Chauparan	68	141.26	141.26	302.07	
		Bigha PF (P)	Chauparan	67	265.81	160.81		
5	1996-1997	Domdande PF+Ex-R.F.	Chauparan	65	196.39	196.39		
		Bigha PF (P)	Chauparan	67	265.81	105.00	301.39	
6	1997-1998	Kafar	Chauparan	86	318.18	318.18	318.18	
7	1998-1999	Bigha Ex-R.F.	Chauparan	67	322.96	322.96	322.96	
8	1999-2000	Maisakhar (P)	Chauparan	235	994.81	331.00	331.00	
9	2000-2001	Maisakhar (P)	Chauparan	235	994.81	331.00	331.00	
10	2001-2002	Maisakhar (P)	Chauparan	235	994.81	332.81	332.81	
11	2002-2003	Tajpur (P)	Chauparan	61	619.56	310.00	310.00	
12	2003-2004	Tajpur (P)	Chauparan	61	619.56	309.56	309.56	
13	2004-2005	Chauparan	Chauparan	64	314.52	314.52	314.52	
14	2005-2006	Karma	Chauparan	51	292.22	292.22	292.22	
15	2006-2007	Madhgopali PF	Chauparan	68	79.54	79.54		
		Karanjua	Chauparan	52	234.22	234.22	313.76	
16	2007-2008	Hathindar	Chauparan	89	326.20	326.20	326.20	
17	2008-2009	Kairipiprahi (P)	Chauparan	87	223.87	161.87		
		Jungle Charan Das						
		Kendua	Chauparan	85	138.18	138.18	300.05	
18	2009-2010	Amraul	Chauparan	79	110.91	110.91	294.31	
		Ghagrait	Chauparan	230	183.40	183.40		
19	2010-2011	Asnachuan (P)	Chauparan	19	550.85	328.00	328.00	
20	2011-2012	Asnachuan (P)	Chauparan	19	550.85	222.85		
		Sahijana	Chauparan	4	69.07	69.07	291.92	

CONSTITUTION OF FELLING SERIES IN KHAIR (OVERLAPPING)
WORKING CIRCLE DOMCHANCH RANGE

Sl. No.	Year of Felling	Name of the village	Thana	Thana No.	Demarcated area in Ha.	Area allotted in ha.	Total area of the F.S.	Remarks
1	2	3	4	5	6	7	8	9
1	1992-1993	Jhawatari	Koderma	15	198.14	198.14	667.84	
		Banumurha	Koderma	20	469.71	469.71		
2	1993-1994	Bangakhalar	Koderma	14	845.73	845.73	845.73	
3	1994-1995	Masnodih	Koderma	55	908.01	908.01	908.01	
4	1995-1996	Chatro	Koderma	52	137.98	137.98	907.59	
		Ambatari	Koderma	53	277.85	277.85		
		Baswaria	Koderma	56	127.09	127.09		
		Langraparas	Koderma	62	364.67	364.67		
5	1996-1997	Pandaria	Koderma	29	758.19	758.19	758.19	
6	1997-1998	Dhab	Koderma	11	1279.67	1279.67	1279.67	
7	1998-1999	Goriadih	Koderma	6	852.21	852.21	852.21	
8	1999-2000	Notankharai	Koderma	7	349.39	349.39	586.60	
		Galkato	Koderma	8	237.21	237.21		
9	2000-2001	Kosiari	Koderma	9	578.80	578.80	793.78	
		Tarai	Koderma	10	214.98	214.98		
10	2001-2002	Asnatari	Koderma	16	434.82	434.82	794.68	
		Araiya	Koderma	24	359.86	359.86		
11	2002-2003	Nawadih	Koderma	28	335.02	335.02	742.66	
		Garmundo	Koderma	54	407.64	407.64		
12	2003-2004	Ekbanwa	Koderma	30	279.73	279.73	705.17	
		Puto	Koderma	31	133.23	133.23		
		Jorasemar	Koderma	32	292.21	292.21		
13	2004-2005	Jamuniatanr	Koderma	47	342.30	342.30	766.70	
		Kusahana	Koderma	48	163.41	163.41		
		Matikundi	Koderma	49	260.99	260.99		
14	2005-2006	Baghrujot	Koderma	51	919.50	919.50	919.50	
15	2006-2007	Golgo	Koderma	50	652.23	652.23	830.19	
		Naitanr	Koderma	59	177.96	177.96		
16	2007-2008	Dhargaon	Koderma	83	912.49	912.49	912.49	
17	2008-2009	Semarkundi	Koderma	101	743.37	743.37	743.37	
18	2009-2010	Naudiha	Koderma	96	297.68	297.68	657.83	
		Parsabad	Koderma	97	360.15	360.15		
19	2010-2011	Banderchukwa	Koderma	93	492.18	492.18	692.35	
		Udalo	Koderma	94	200.17	200.17		
20	2011-2012	Karmikund	Koderma	25	517.85	517.85	797.50	
		Kabrabut	Koderma	26	279.65	279.65		

CONSTITUTION OF FELLING SERIES IN KHAIR (OVERLAPPING)
WORKING CIRCLE GAJHANDI RANGE

Sl. No.	Year of Felling	Name of the village	Thana	Thana No.	Demarcated area in Ha.	Area allotted in ha.	Total area of the F.S.	Remarks
1	2	3	4	5	6	7	8	9
1	1992-1993	Lohra	Chauparan	243	497.95	497.95	1093.08	
		Raktchuan	Chauparan	245	155.86	155.86		
		Okarchuan	Chauparan	246	334.82	334.82		
		Ghatodumar	Chauparan	248	104.45	104.45		
2	1993-1994	Sinduari	Chauparan	247	211.21	211.21	893.65	
		Marmotari	Chauparan	249	212.44	212.44		
		Chhatra (P)	Chauparan	250	691.27	470.00		
3	1994-1995	Chhatra (P)	Chauparan	250	691.27	221.27	850.36	
		Bongadag	Chauparan	251	629.09	929.09		
4	1995-1996	Kumbiatanr	Chauparan	258	185.23	185.23	920.22	
		Bendi	Chauparan	259	434.99	434.99		
		Biragara (P)	Chauparan	260	1023.99	300.00		
5	1996-1997	Vrinda	Chauparan	295	572.16	572.16	862.16	
		Sardhanwatanr (P)	Chauparan	296	473.13	290.00		
6	1997-1998	Sardhanwatanr (P)	Chauparan	296	473.13	183.13	862.51	
		Mahuas	Chauparan	297	272.24	272.24		
		Kanti	Chauparan	298	407.15	407.14		
7	1998-1999	Khairachorhi					1060.90	
		Chattan	Chauparan	252	418.52	418.52		
		Birhorwa	Chauparan	253	117.98	117.98		
		Ghortapi	Chauparan	254	102.15	102.15		
		Chenganwatanr	Chauparan	256	94.44	94.44		
Bilarc	Chauparan	257	327.81	327.81				
8	1999-2000	Pandaria	Chauparan	20	219.24	219.24	909.54	
		Bagesarithan	Chauparan	232	255.30	255.30		
		Jagodih (P)	Chauparan	231	1770.98	435.00		
9	2000-2001	Jagodih (P)	Chauparan	231	1770.98	895.00	895.00	
10	2001-2002	Jagodih (P)	Chauparan	231	1770.98	440.98	950.76	
		Phulwaria	Chauparan	227	509.78	509.78		

11	2002-2003	Pichhli Ex-RF	Chauparan	232	285.24	285.24	963.09
		Ambakola (P)	Chauparan	233	623.06	200.00	
		Goriatao	Chauparan	234	477.85	477.85	
12	2003-2004	Ambakola (P)	Chauparan	233	623.06	423.06	986.53
		Koabar Ex-RF	Chauparan	236	351.53	351.53	
		Koabar PF	Chauparan	236	211.94	211.94	
13	2004-2005	Chanako Ex-RF	Chauparan	235	99.06	99.06	929.55
		Chanako PF	Chauparan	235	25.08	25.08	
		Meghatari Ex-RF	Chauparan	237	5.26	5.26	
		Belatanr Ex-RF	Chauparan	238	57.98	57.98	
		Belatanr PF	Chauparan	238	22.59	22.59	
		Jarga Ex-RF	Chauparan	240	337.51	337.51	
		Jarga PF	Chauparan	240	253.55	253.55	
		Barhuria	Chauparan	241	41.26	41.26	
		Dodharpania Ex-RF	Chauparan	242	36.07	36.07	
		Dodharpania PF	Chauparan	242	51.21	51.21	
14	2005-2006	Ratnasote Ex-RF	Chauparan	261	185.96	185.96	929.79
		Chorchi Ex-RF	Chauparan	261	743.83	743.83	
15	2006-2007	Bhaghar	Chauparan	236	118.26	118.26	688.06
		Kairijhar	Chauparan	237	41.21	41.21	
		Gharsari	Chauparan	238	98.03	98.03	
		Ambatari	Chauparan	241	90.48	90.48	
		Duari	Chauparan	242	230.12	230.12	
		Garke	Chauparan	244	109.96	109.96	
16	2007-2008	Bhitia (P)	Chauparan	228	1129.11	929.11	929.11
17	2008-2009	Biragara (P)	Chauparan	260	1023.99	723.99	723.99
18	2009-2010	Chorahi	Chauparan	262	211.29	211.29	556.75
		Piprahi	Chauparan	293	345.46	345.46	
19	2010-2011	Mahuadohar	Chauparan	274	908.82	908.82	908.82
20	2011-2012	Kalapahar	Chauparan	229	766.82	766.82	966.82
		Bhitia (P)	Chauparan	228	1129.11	200.00	

CHAPTER - 6 PROTECTION WORKING CIRCLE

CONSTITUTION OF THE WORKING CIRCLE

- 2.6.1 The areas allotted to this working circle are of two categories :-
- 1) forest situated on very steep slopes. These areas were mostly under Salai selection working circle in the previous working plan.
 - 2) Areas notified as sanctuaries under the Koderma sanctuary vide Government of Bihar, Forest & Environment department notification no 148 dated 25.01.1985.
- 2.6.2 The total area of the working circle is 14989.31 ha of which 14621.50 ha come under the Koderma wildlife sanctuary.

MANAGEMENT OF SANCTUARY AREAS

- 2.6.3 The felling in the sanctuary areas will be regulated as below :-
- (1) No felling of trees or bamboo will be permitted inside the core area of the sanctuary.
 - (2) No khair trees will be felled inside the sanctuary areas
 - (3) No felling of trees and bamboo will be permitted inside the buffer area also in view of the amendment in the Wild Life Protection Act. Villagers who have rights in the sanctuary area will exercise their rights in the nearest forests outside the sanctuary.
 - (4) A comprehensive management plan should be prepared for wild life management in the sanctuaries. Plans to regulate grazing should be drawn up to prevent indiscriminate grazing to the detriment of the wild life.

TREATMENT OF STEEP AREAS

- 2.6.4 No felling will be permitted on the steep slopes. The area should be protected from grazing and fire. Areas where erosion is noticed soil conservation measures, like contour trenching should be taken up.

CHAPTER – 7
MISCELLANEOUS REGULATIONS

GRAZING

- 2.7.1 It is a well know fact that the cattle population living around the forests is far in excess of the requirements of agricultural operations. As a result of which these cattle do not yield any economic benefit to the owners. Thus they are not willing to stall feed the cattle. This leads to intensive grazing in the forests around the villages. The number of cattle present far out strips the carrying capacity of the land. This results in reduced growth of tree species available. Over a period of time more xerophytic species invade the area replacing more valuable timber species.
- 2.7.2 Compaction of soil due to the trampling of hooves leads to higher run-off and lower infiltration of water. This has a two fold impact. Firstly, the moisture retention capacity of the soil is reduced. Secondly, higher run off leads to soil erosion. The continuous trampling by the cattle also damages the humus layer and the litter on the forest floor.
- 2.7.3 Ideally grazing should be regulated to minimize its impact on the forests. Ut it is impossible to check grazing over the entire forest area. However, the regenerating areas should be closed at least for three years against grazing. The help of the local people should be sought in ensuring that the regeneration areas are adequately protected.

REMOVAL OF BRUSH WOOD

- 2.7.4 Every year a large number of healthy Sal saplings are cut for use as brushwood for fencing the fields. This sort of unregulated collection causes immense harm to the forests. Only inferior miscellaneous species of diameter less than 2" should allowed to be used for the purposes of fencing. The removal of brushwood should be closely watched and regulated where necessary.

FIRE PROTECTION

- 2.7.5 The forests of this division are ravaged by fire every year. Efforts to fight fire are generally hampered due to lack of funds or manpower.
- 2.7.6 The main cause of fire is the burning of leaf litter under the Mahua trees to clear the ground to facilitate collection of Mahua flower which is available in April. The fire is lit and allowed to burn in an uncontrolled manner which later spreads to the nearby forests where excellent conditions for burning are present. As a means of prevention, all potential areas where this problem exists should be identified before the onset of the fire season. Then the leaves under these trees should be systematically burnt under the supervision of the local forest staff.
- 2.7.7 Another preventive measure is the clearance of all lines and roads inside the forests and fire tracing operations should be carried out.
- 2.7.8 The incidence of fire over the last few years should be carefully analysed to identify the period and the areas subjected to the heaviest incidence of fire and special patrolling should be carried out to detect and put out fire quickly. Regeneration areas should be given special emphasis in fire protection operations.
- 2.7.9 The local villagers should be educated about the dangers of forest fire and they should be motivated to prevent fires and help in putting them out when they occur. The proposed village forest management and protection committees can lay a very meaningful role in this effort and they should be suitably paid.

FIRE RECORDS

- 2.7.10 A record of every fire occurrence should be kept in the felling series histories on a tracing of 4"=1 mile. Areas affected by fire would be marked on the map each year by the standard symbols given in the manual. Each tracing would last for a period of 5 years after which another map will be prepared.

MINOR FOREST PRODUCE

- 2.7.11 Presently almost the entire trade of minor forest produce like the collection and marketing of kendu leaf, and oil seeds like Sal seed, Karanj, Kusum etc and

myrobolans is being done by the Bihar Forest Development Corporation which has been notified as the agent by the Government of Bihar.

MAINTENANCE OF BOUNDARIES

2.7.12 The state of the boundary pillars is not satisfactory. Paucity of funds is a major constraint in maintenance of boundaries. Plan schemes should be formulated to maintain the boundaries.

2.7.13 The division is very rich in minerals. A large no. of mines are operating in the area, particularly of Mica. There is a distinct possibility of the lease holders trying to extend their area of operations beyond the authorized area. In such places it is proposed that R.C.C. pillars be constructed so that the possibility of encroachment is eliminated. A special scheme may be drawn up for this purpose.

2.7.14 Whenever plantation works are taken up in any forest, the boundary pillars should be properly repaired. Proper survey should be carried out to ensure that there has been shifting of pillars.

2.7.15 For the rest of the forests, the Divisional Forest Officer should prepare a time bound scheme for repairing the boundary pillars with the areas susceptible to encroachment being provided with R.C.C. pillars.

FOREST JOURNAL

2.7.16 A divisional forest journal should be maintained properly and any matter of special interest like unusual vegetation, wild life, special trees etc should be mentioned in it.

2.7.17 A working plan guard file will be useful at the time of revision of the plan. Any errors noticed, suggestions for the reconstitution of the felling series etc should be mentioned in this file and also should be reported to the Working Plans Officer.

WORKING PLAN INDEX MAP

2.7.18 Working plan index map on 1"=2 miles scale has been prepared and supplied to the division.

FELLING SERIES HISTORIES

2.7.19 Two copies of the felling series histories with stock maps and management maps on 4"=1 mile or 6"=1 mile topographical maps are supplied to the division. These felling series histories should be kept upto date with all the relevant details duly filled in. It is a matter of regret that they are seldom properly maintained.

CHAPTER – 8
ESTABLISHMENT AND LABOUR

2.8.1 The division is presently comprised of 4 ranges, 16 beats and 62 sub-beats. Along with the area of the Gautam Buddha wild life sanctuary, 4 sub beat guards have also been transferred to the wild life division, Gaya.

2.8.2 Current break up of the ranges, beats and sub-beats is as follows :

Range	Beat	Sub – beat	
1. Koderma	1.Koderma	1. Surangi North	
		2. Surangi South	
		3. Koderma NRF	
	2. Chitarpur	1. Kakakudar	
		2. Chitarpur	
3. Dhorakola	3. Dhorakola	1. Dhorakola	
		2. Basraon	
		3. Dhuba	
		4. Janpur	
4. Chatarpur	4. Chatarpur	1. Bisunpur	
		2. Chatarbar	
		3. Tilaiya	
5. Meghatari	5. Meghatari	1. Phutlai	
		2. Meghatari	
		3. Khambha	
2. Domchanch	1. Domchanch	1. Domchanch	
		2. Dhargaon	
		3. Kabrabut	
		4 Golgo	
	2. Dhab	2. Dhab	1. Bangakhalar
			2. Jorasemar
			3. Pandaria
			4. Dhab
	3. Bariardih	3. Bariardih	1. Nawalshahi
			2. Bariardih
			3. Parsabad
			4. Dagarnawa
			5. Markachcho
	4. Jainagar	4. Jainagar	1. Jainagar
			2. Karra

3. Gajhandi	1. Gajhandi	1. Gajhandi 2. Bongadag 3. Bendi 4. Ratnasot
	2. Nawadih	1. Sardhanwatanr 2. Mahuadohar 3. Bhitia 4. Vrinda 5. Sham
	3. Kathamba	1. Kathamba 2. Bhandar 3. Lohra
4. Chauparan	1. Chauparan	1. Tajpur 2. Asnachuan 3. kamalbar 4. Bigha PF 5. Bigha RF 6. Chauparan
	2. Danua	1. Bhadan 2. Bukar
	3. Itkhor	1. Danaut 2. Rajwar 3. Morainia 4. Muria
	4. Karma	1. Mahuda 2. Karma 3. Mandhbiya 4. Husia 5. Phulang

LABOUR SUPPLY

2.8.3 There is no problem of labour supply. In fact, the people living around the forests are under employed and have made theft of forest produce as a source of livelihood. Currently, forestry operations like plantations, coupe working, collection of minor forest produce are a major source of employment for the people. With the gradual erosion of the quantum of work in these areas in the recent years the availability of employment from this sector is dwindling. This will pose a serious problems for forest protection unless suitable avenues of employment are not created.

CHAPTER – 9
FINANCIAL FORECAST AND COST OF THE PLAN

FINANCIAL FORECAST

- 2.9.1 As has already been repeatedly stressed in the earlier chapters, this working plan is conservation oriented rather than production oriented. With restrictions on felling of trees below 6", the availability of poles and props, which was a major source of revenue, is likely to dry up. Secondly, the area available for working is also reduced.
- 2.9.2 The rising prices of timber are not likely to offset the fall in production resulting from the implementation of this working plan prescriptions. Hence, the financial outlook for the future will be gloomy. This however, is in line with the growing awareness that the forests should no longer be treated as a source of revenue.

COST OF THE PLAN

- 2.9.3 The stock mapping of the division was completed by March 1991. A part of the expenditure of the division for the financial year 1989-1990 has been adjusted against the working plan of Chatra North division. The balance expenditure is being included in the cost of this plan. The entire expenditure of the financial year 1990-1991 is also included in the cost 50% of the expenditure till date of the financial year is also included in the cost of this plan. The total expenditure incurred as detailed above is : -
- 2.9.4 Hence the total cost of preparing the plan works out to Rs. 17,50,641. The total area of the division is Rs. 22.17 per hectare.