

## WORKING PLAN FOR JOINT FOREST MANAGEMENT (J. F. M.) WORKING CIRCLE

### GENERAL CONSTITUTION

This working circle comprises all the protected forests (P.F.) including one Markanda P.F. (Samta 49) with aim of meeting bonafide requirements of local people. Only Behda (P.F. 19) protected forests were excluded from this working circle. Parts of forest which are not included in the coppice working circle earlier, and presently these areas are very near to the old villages or near the extended position of the villages.

On the above cited areas, only rehabilitation works are to be carried out, but success of such scheme depends fully on the co-operation and active participation of local people. Hence, participation of local villagers is ensured through the constitution of Joint Forest Management Committees. The total area of this working circle is 4066.03 ha.

The areas which were under coppice working circle have now been reduced to degraded forests and some of the area still contain good vegetation. Considerable areas of this working circle have become barren and degraded due to Jharkhand and other illicit fellings and these areas require some special scheme for rehabilitation.

### CROP COMPOSITION

With the predominance of sal every where on this Saranda land, the crop varies to a great extent in this working circle.

The forests lie on low hills or undulations which fringe the reserve blocks. General crop of this working circle is sal of Quality IV with fair mixture of miscellaneous species like Dhaura, Mahua, Piar, Kend, Salai, Bahera, Amaltas, Asan etc. some good patches of Q/II sal forests are present in Marang Ponga P.F. 18 and Rabngda Sunsuna P.F. 11.

The crop density is very poor. The size of sal is commonly saplings, pole to middle aged, but in some blocks, mature sal trees are found. Some of these blocks situated between Gua-Baraiburur near Chhotanagpur Manoharpur and Jaraikela respectively.

### SPECIAL OBJECTS OF MANAGEMENT

The special objects of this working circle are :-

- (1) To give rest to the over exploited forests that within the plan period these forests might brought back to normally as far as possible.
- (2) To meet the requirements of the local people and right holders from dead, dying, diseased and wind fallen trees.
- (3) Consistent with the above to improve the site quality and restore the productivity of the forests in the due course of time.

### SILVICULTURAL SYSTEM

A green and healthy trees is silviculturally available, if it fulfills one of the following conditions :-

- (a) It forms part of a congested crop and the principles of improvement felling warrants its removal.
- (b) Saplings or poles or established regeneration of the same or of equally valuable species exists to take over its place.
- (c) Its removal does not create permanent gap in the canopy.

ROTATION :- 40 years rotation is prescribed for whole area of this working circle.

FELLING CYCLE :- 20 years

ANNUAL COUPES :- The pattern of forming annual coupes will be same as adopted in coppice with standard system in last working plan period.

The change is that, in each annual coupe, only the exploitable trees (33%) shall be marked for exploitation.

EXPLOITABLE DIAMETER :- 8" dbh (or 20.32 cm) for all species is being prescribed.

As noticed that these forests are facing the problems of over-exploitation due to Jharkhand felling and other illicit feelings. Hence removal of trees from annual coupes in not possible.

For the reason outlined above this coppice working circle has been prescribed to restore the forests with continuity of silvicultural operations as prescribed in the last Rajhan's plan. It is to provide adequate cover by desirable species to safeguard the land against soil erosion and invasion of grasses and weeds so that the young saplings may be saved for future growth.

DEMARICATION OF COUPES :- The annual coupes will be demarcated as stated below :-

- (i) Identification marks either on wooden boards or on the trees or rocks suitably situated will be put at coupe corners and at road or path crossing.
- (ii) The trees along the coupe line will be double ringed with coaltar.
- (iii) Standards (technically "reserved Poles") will be marked with coaltar ring at breast height and with another at the base as close to the ground as possible, and
- (iv) The standards will also be serially numbered with coaltar and listed in the standard form.

RULES OF STANDARD MARKING :- The following rules shall be followed while marking standards :-

- (i) 20 to 25 standards per hectare exclusive of fruit trees shall be retained. They will be as evenly placed as possible.
- (ii) Besides the standards timber species fruit bearing trees (fruit trees are Piar, Mahua and Mango will also be marked and retained as standards.
- (iii) The total number of standards inclusive of fruit bearing trees may not exceed 50 per hectare.
- (iv) Trees of the following species shall not be felled whether marked or not as standards Mahua, Kusum, Semal, Sonachhal, Khair, Bija (below 20 cm dbh)
- (v) Straight and sound poles of about 20.32 cm dia. will receive the first preference. In their absence sal saplings below 20.32 cm diameter or good poles of other valuable species like Bija, Gamhar, Karam, Siris and Panjan will be retained. In the third preference, dhaura, asan or sidha may considered.
- (vi) In partial block eroded gullies or along steep erodible blocks, it will be desirable to mark for retention all that may be standing since naturally

there will not be much. In any case the number of standards in such localities shall be more than the usual else where. Here the number will be more important than the species size.

- (vii) Climbers will be cut away at the time of marking.
- (viii) Trees of sacred groves, Sarna or Jahira shall not be cut.

Method for executing the following

The following rules shall be observed :-

- (i) Each coupe will be demarcated and thrown open to meet the requirements of right-holders one year in advance. Coupes shall be divided into a number of convenient sections not less than three, which will be opened in succession according to the demand of right-holders.
- (ii) In the following year the entire coupe, comprising the unopened portion together with produce unfilled or left or left lying in the open will be sold by auction.
- (iii) All trees except the standards and preserved trees shall be felled at a height not exceeding 15 cm from the ground level. For this marking of the trees shall have to be done as low as possible at the base of the trees.
- (iv) Cutting must be from one end of the section and proceed to the other end. Felling and exploitation will be permitted from the 15<sup>th</sup> October to the 30<sup>th</sup> June following.

#### SUBSIDIARY SILVICULTURAL OPERATIONS

(A) Cleaning Operations :- In the year following the main felling and again in the subsequent year cleaning operations shall be carried out consisting of :-

- (i) Dressing down stumps higher than 6" from the ground level.
- (ii) Freeing the coppice shoots of sal and other superior species from over top of bushes, grass or inferior species.
- (iii) Cutting back of standards that may have got damaged during the fellings.

Preliminary thinning :- In the fifth year preliminary thinning shall be done consisting of reduction of shoots to one per stool or sometimes to two if two can grow without tending to be mutually exclusive. Climber cutting shall also be done at the same time.

Thinning :- In the 10<sup>th</sup> year thinning of the following specification shall be carried out

- (i) Final reduction of Coppice shoots to one or two per stool.
- (ii) Freeing valuable species from dominance of trees of inferior species.
- (iii) In congested groups, removal of stag headed, misshapen, or unhealthy poles only to the extent that provides sufficient growing space any for the rest.
- (iv) Removal of such of the standards as may have developed into wolf trees.
- (v) Climber cutting.

Fire Protection :- The forests of this working circle must be saved from fire. Special measures for this have to be taken to protect young regeneration crop up to 10 years of age.

The special measures of fire protection will be in the same manner as prescribed in the conversion working circle chapter.

Grazing Control :- Grazing shall be rigidly prohibited in coupes for a period of six years including the year of felling so that young regeneration may be established. Right holders may be allowed to take their cattle for grazing outside those areas.

The Divisional Forest Officer should also prohibit for specified periods grazing over such areas where he finds that grazing is leading to damage of the soil and the crop. Provided that the total area closed to grazing at any time does not exceed one third of the area of the felling series.

## MINOR FOREST PRODUCE

### KENDU LEAF:-

The kendu leaf nationalization of 1973 systematised and increased the collection of kendu leaves but later on it stopped at a certain point. Even the collection by the Bihar State Forest Development Corporation could not make any appreciable change. The potential of Kendu leaves is very high in this Division and can yield a large quantity if properly managed. Some unscrupulous old contractors are busy in pilfering the kendu leaves. Even local people take them in hessian bags to sell to local traders and Biri manufacturers of Lohardaga, Latehar and Gumla. A parallel trade of kendu leaf is going on.

### Pre Silvicultural treatment

For better quality of kendu leaves and also in larger quantity some silvicultural treatment to kendu tree is required. Kendu leaves are graded on the basis of size, thickness, elasticity of the green leaves. The larger the size thinner and more elastic more price is fetched in auction. The process place and duration of drying also play important part for getting higher prices from the leaves, usually leaves are bundled together half in one direction and the other half in the opposite direction to be called pola. The pre silvicultural prescriptions are as below :-

- (i) Pruning of brances of kend tree will be done annually.
- (ii) The pruning must be completed before 31<sup>st</sup> Marth each year.
- (iii) Pruning of thin branches of below 20 cm girth will be done. No branch above 20 cm girth will be cut in any condition.
- (iv) For pruning, only sharp axes or other instruments will be used.

### PRESERVATION PLOT AND SAMPLE PLOT

There are few plots at present in the division but their maintenance is not proper. More sample plot to assess the coppice and natural regeneration of important species like Sal, Asan, Salai, Khair, bamboo and other afforestation species should be established at random points to prepare the local yield. There plots wiwill remain excluded from the operations described in this plan. The trees on the periphery will be painted with

white ring marked at breast height and some plates must be fixed in specious places showing informations about the plots.

## ROADS

Roads are in dilapidated condition and needs regular. The funds earmarked for repair should be used judiciously and culvert bridges and causeways should be constructed on each nala to make them the weather roads. The roads may be metalled to improve the communication.

## WIRELESS NETWORK

To control poaching, illicit felling, removal and transportation, a network of wireless should connected to all th beats and Ranges with the Divisional Forest Officer at Lohardaga. This will reduce communication gap between the Divisional Forest Officer and the sub-ordinates. This will helop in entering the movement of flying squad and arranging special raids.

## CONSTRUCTION OF HAZAT AND MALGODOWN

There is no provision of Hazat in Range Officer where the apprehended offenders can be kept and arrest. Non timber valuable forest produces like katha, wildlife trophies when seized become a liability for safe custody. A separate malgodown should be constructed for deposition of such articles and accesses for the record keeping must be laid out. These two should be constructed at each Range headquarter on priority basis.

## LADY FOREST GUARDS

The present practice by leaders to cut standing green poles and saplings and keep them in the forest to become dry as fallen fire wood has to be stopped at all cost although it is easily said than done. Due to the present disregard for rules, there is no other strict supervision on the illegal removal of firewood by the head loaders. The help of village forest protection committee and enlightened people should also be taken to reduce the menance. Dry and fallen firewood may be removed by the right holders any part of the forests for their own bonafide use. To soil of such firewood in small townships and weekly markets should be discouraged.

## REMOVAL OF TANBARK, FRUITS AND LEAVES ETC.

Mochis living in village close to forests may remove tan bark of Asan (T. tomentosa) current coupe for their own requirements. Right-holders shall have full liberties to collect leaves and seeds for their own requirement free of cost.

#### REMOVAL OF FODDER –GRASS

Generally fodder grass may be removed by right holders or non-right holder free of charge from forests and plantations. Commercial removal of grass for trade or by any other Government from plantation areas may be charged at the plantation either free or on payment. If found local should be encouraged to prepare hay cutting grass from plantation areas.

#### MAINTENANCE OF BOUNDARIES

Forest areas in all the villages have been shown on the cadastral map of 16"=1 mile available in the division. Boundary pillars have not been numbered in all the maps. It should be done as early as possible. The Divisional Forest Officer is advised to utilize the service of Amin for checking up boundary lines and boundary pillars in addition to the survey work that may be from time to time.

The Range Officer shall check up fifty percent of the boundary survey work while the Conservation of Forests to the extent of 50% and the Divisional Forest Officer to the extent of Each of them shall give a certification of checked the work. Actual defect noticed inspection of boundary and boundary pillars must be given by the Conservator of forest Regional Chief Conservator of Forests, Ranchi. A note to this effect should be in the field inspection report by the inspecting officers. These certificates should be kept as record in the Divisional office. The forms of certificatie that each of the territorial officer has to be submitted to his immediate superior officer. The form is given below.

"This is to certify that I checked the boundary lines and boundary pillars of the following villages (date) ..... to ..... From .....  
to .....  
To ..... and the defects noticed by me are monitored in the tables.  
The rest of the boundary pillars checked and which agreed with the map are given in the tables :-

Name of P.F.	Thana & Thana No.	Defects noticed	Extent of rectification	Remarks
1	2	3	4	5

Date ..... Place ..... 1999

Signature”

## ENCROACHMENT

An assessment of the records of the division shows that around 2 to 3 percent of the forest land is under encroachment by villagers. The act of illegal encroachment is growing day by day. Various stages of settlement operation have been finalized. The result of these states has endangered the safety of forest land as records prepared so far by the survey department have given illegal possession over the encroachment lands to the offenders ignoring claims put forth by the forest officials. It is stated that in survey camps the Divisional Forest Office has been raising objections in every stage of operation supported by all valid documents and records to delete such mention under section 83 and 89 of C.N.T. act but few success has been achieved. This attitude of survey officials has created a grave situation which needs Govt. intervention. However all such matter should be fought in the court of law to retain title and possession over such, land.

Sl. No.	Block		Area (in Ha.)	Total area
1	Ankua	-	605.80	16231.174
2	Ghatkuri	-	468.64	12466.801
3	Tholkabad	-	242.60	10658.229
4	Tirilposi	-	284.00	12635.627
5	Samta	-	204.80	13224.493
6	Karampada	-	819.60	11695.546
7	Kudalibad	-	149.20	4752.226
8	Rabangda-sunsuna PF	-	18.80	887.360
9	Sagjuri PF	-	27.60	162.260
10	Badba PF	-	24.64	24.930
11	Sonap 1 PF	-	110.00	700.000
12	Jojobutu PF	-	52.40	202.250
13	Marangponga PF	-	46.20	180.600
14	Chhotanagra PF	-	23.00	104.250
15	Dhobil PF	-	35.20	306.230
16	Kasiapecha PF	-	43.60	
17	Nuia PF	-	4.84	
18	Baraiburu PF	-	27.80	
			Area (in Ha.)	Total Area
19	Gua PF	-	41.00	135.20

20	Tagaidaburu PF	-	34.40	56.83
21	Karujagdaburu PF	-	4.00	34.860
22	Gutriburu PF	-	22.80	28.40
23	Kurkatapi PF	-	12.71	23.60
			2762.63 (3.22 %)	8565.15

Out of this 2762.63 ha (3.28% of the total forest area of Division) of total Jharkhand felled area, it is estimated that about 70% is from the forests of conversion Working Circle and most of the areas are still in the control of the local villager who are their illicit fellers.

So it is prescribed to rehabilitate 1000.00 ha. of this illicitly felled areas out of expected 1900 ha. from the conversion H.C. area by plantation mainly of the associate species of sal such as Terminal tomentosa, Terminal chebula, Pterocarpus marsupium, Bombax ceiba, Syzigium cuminnii etc. during the five year period of Saranda Development Plan as follows :-

Year	Area in ha.	Amount (in Rs.) required
2000-01	200.00	39,58,322.00
2001-02	200.00	39,58,322.00
2002-03	200.00	39,58,322.00
2003-04	200.00	39,58,322.00
2004-05	200.00	39,58,322.00
TOTAL	1000.00 Ha.	1,97,91,610.00

Before plantation a meeting of villagers will be organized in the village by the Range office of the area and a village forest protection committee will be formed. They should also try to convince the villagers to leave the areas which they illicitly encroached. After taking the cooperation and consent of the local villagers, the plantation will be done in which 50% spp. of trees will be of the villagers choice, out of which 20% will be fruit bearing spp. Those trying to create problem may be strictly dealt with the provisions of the Indian Forest Act.

After five year the condition of rehabilitation and rehabilitated area will be reviewed and then the further prescription will be made for the rest of illicitly felled area.

## PROTECTION OF FORESTS

### (A) PROTECTION FROM ILLICIT FELLING AND ENCROACHMENT

Saranda Forest Division has got about 150 kms of inter state border with Orissa side generally forest of fenders come, cut trees and smuggle it to Rourkela, Bonai, Bolani, Barbil etc. Apart from this it has problem from the local Jharkhandi Agitators who usually fell trees in acres to grab the land. So the problem is acute but the present Saranda Division has got very little resource which is not very effective against the forest offenders. Saranda Division which is famous for forestry management in world, is presently struggling for its existence. So the following resources is recommended to be provided to the D.F.O. Saranda so that the problem can be effectively tackled and the offenders be booked behind bars :-

(1) VEHICLE :- The following vehicles fitted with wireless be immediately provided to the Saranda Division.

- (a) Divisional Headquarters - Two Maruti Gypsies
- (b) Ranges - Four Diesel Jeeps or Tata 407 vehicles

At present the D.F.O. has one petrol jeep of 1974 model which is very expensive. So it should be immediately changed. Apart from this for the maintenance and fuel of above mentioned vehicles rupees ten lacs be provided annually.

(2) ESTABLISHMENT OF MODERN WIRE

The Division required the establishment of modern wireless sets at following places –

- (a) Divisional Headquarters - Chaibasa
- (b) Koina Range - Manoharpur
- (c) Samta Range - Jaraikela
- (d) Gua Range - Gua
- (e) Sasangda Range - Kiriburu, Tholkabad
- (f) Intermediate Stations - Goelkera, Noamundi.

Apart from these static wireless sets, there should be five mobile wireless sets fitted with the vehicles of the D.F.O. and all the four patrolling vans of the ranges. Previously there was wireless in this Division but at present they are not working because the sets have become very old and out dated.

(3) STAFF STRENGTH SHOULD BE INCREASED AND ALL THE VACANT POSTS BE FILLED

At present Saranda Division has the sanctioned post of 72 Forest Guards and 23 Foresters. One Forest Guard looks after about 15-20 square kms. of area which under present circumstances is too much and hence area should be reduced to half by doubling the post of Forest Guards and similarly the posts of Foresters can also be doubled. Some of these increased no. of posts can be adjusted against the 35 sanctioned posts of coupe overseers. Apart from this all the vacant posts of Foresters and Forest Guard be filled by transferring them from other Divisions or by fresh appointments.

(4) PROVISION OF ARMED FORCE

The Division has great pressure of illegal smugglers and Jharkhandi agitationists. So at least four sections of para military force be immediately deputed in this Division. In the meantime adequate fund must be given to the Division for the payment of four sections of home guards. Apart from this all the A.C.F's and Range Officers be given power of Magistrates.

ESTIMATE

Sl. No.	CAPITAL ESTIMATE	
1.	Cost of 2 Maruti Gypsy @ Rs. 3,50,000/- per Gypsy	Rs. 7,00,000.00
2.	Cost of 4 Tata 407 Vans @ Rs. 5,00,000/- per Van	Rs. 20,00,000.00
3.	Cost of 8 static & 5 mobile wireless sets as per the estimate of Philips Telecommunication Industries Ltd., Calcutta, set no. PRM 8020 (HB) with G.P. antenna and other accessories @ Rs. 37,231/- per set	

MANAGEMENT OF MINING AREAS AND DEVELOPMENT OF MINED OUT AREAS

Saranda Forest Division is richly endowed with Iron and Management ore of high quality in Gua, koina and Sasangda Ranges. There are no. of public & private mines and large scale mining is done at Kiriburu, Meghahatuburu, Gua and Chiria. Chiria has one of the largest iron ore deposits in Asia. Although local people get employment in these Mines given a boost to local economy, but the mining has created environmental problems:-

- (1) The surplus labour force, previously required to set up infrastructure for mining, is engaged in illicit cutting of trees to grab land, some of them are also involved in smuggling of costly timber like Teak, Bija etc.
- (2) Large areas of Lush green trees have been cleared for Mining.
- (3) Washing of Iron ore and also large amount of fines coming with run off during rainy season has badly polluted Koina, Karo and other streams of the area. This has adversely affected the local people, their cattle ground and aquatic flora and fauna. Crocodiles once in plenty, have completely vanished from the area.

DETAILS OF MINING AREA :- A list of mining leases of this division is as follows:-

Sl. No.	Name of the Lease	Block	Lease Period	Lease area in Ha.	Broken area before 25.10.80 (in ha.)
<b>(A) IISCO, GUA</b>					
1	Duarguiburu	Ghatkuri	22.7.99 to 21.7.2000	144.846	274.691 ha
2	Jilingburu I	Ghatkuri	12.5.1950 to 11.05.1980	210.437	160.089 ha
3	Jilingburu II	Ghatkuri	12.5.1980 to 11.05.1980	30.44	16.00 ha
4	Topailore	Ghatkuri	09.03.1970 to 08.03.2000	14.17	14.17 ha
<b>(B) MANOHARPUR ORE MINES</b>					
5	Sukri Luthurburu	Ankua	15.07.98 to 14.7.2018	609.83	33.40 ha
6	Bhobil	Ankua	08.03.98 to 07.03.2018	513.03	29.14 ha
7	Ankua	Ankua	18.12.75 to 07.12.2005	823.967	559.81 ha
8	Ajitaburu	Ankua	07.12.47 to 06.12.77	323.88	159.51 ha
9	Loliburu	Ankua	22.03.49 to 30.06.92	38.40	34.40 ha
10	Ankua	Ankua	14.06.82 to 30.06.92	67.178	-
<b>(C) KIRIBURI IRON ORE MINES</b>					
11	Kiriburu	Karampada	28.03.90 to 27.03.2020	1936.86	(i) 608.07 (ii) 5.20
12	Meghahatuburu	Karampada	06.01.73 to 30.09.2003	879.439	52.30
13	Ragsing Dam	Karampada	06.01.73 to 30.09.2003	97.76	97.76

14	Kumdi Dam	Karampada	06.01.73 30.09.2003	to	68.90	68.90
15	M/s Shah Brothers	Karampada	10.07.72 29.07.2002	to	233.99	24.856
16	M/s M. L. Jain	Ghatkuri	28.07.72 27.07.2002	to	202.35	49.200
17	M/s Nirmal Kumar Pradeep Kumar	Ghatkuri	28.07.93 27.07.2013	to	149.734	13.960
18	M/s Rungta Mines	Ghatkuri	09.10.73 23.01.99	to	227.54	41.319
19	M/s R. Mc. Dill	Ghatkuri	10.05.76 09.05.96	to	110.08	36.340
20	M/s Singhbhum Mineral com.	Ghatkuri	12.12.76 11.12.96	tio	141.64	18.60
21	M/s T.P. Sao	Ghatkuri	05.02.74 04.02.94	to	202.347	53.546
22	M/s Rameshwar Jute Mills	Ghatkuri & Tateba Baraiburu P.F.	28.05.66 27.05.86	to	134.992	23.233
23	M/s Orissa Manganese & Minerals Ltd.	Ghatkuri	14.01.56 09.08.76	to	276.628	141.50
24	M/s Debikabai Bheljee	Ghatkuri	14.09.53 03.08.83	to	46.62	14.36
25	M/s KJS Ahluwalia	Ghatkuri & Baraiburu-Tateba PF	05.09.89 04.09.2009	to	129.499	2.03
26	M/s KJS Ahluwalia	Ghatkuri & Baraiburu-Tateba PF	05.07.69 04.07.89	to	250.762	24.75
	TOTAL AREA				9165.319	2557.404

#### SARANDA DEVELOPMENT PLAN :-

It has been observed during field verification that most of the trees in these areas are heavily infested with climbers and lack conditions to establish regeneration in these areas.

- (i) For the renewal of mining leases, renewal only in broken up areas be recommended unless the ore deposit in the broken up area is completely exhausted and area properly rehabilitated exhausted and area properly carefully consideration of all other alternatives and specific

reason be given for it. But in any case no fresh lease be recommended in the deep forests.

- (ii) Lessees be directed to rehabilitate exhausted of concerned Divisional Forest Officer.
- (iii) On precipitous hill faces, where Mining is at present in progress, no felling of trees shall be allowed except in a portion where felling is unavoidable for the extenuation of mining. But the permission for felling from govt. of India will be necessary.
- (iv) Abandoned Mining areas which are fully exposed and suffer from loss of soil and moisture due to erosion and desiccation be planted with suitable app.
- (v) With the increase in mining operations and establishment of many big mining projects as Kiriburu, Meghahatuburu, Gua and Chiria the post of at least four foresters be created to look after the mining activities of these area properly.
- (vi) Mining labourers are also one of the main cause of forest fire Generally they throw match sticks burning after lighting their biri or unknowingly, causing fire in that forest area. So all the leases be directed to depute a suitable no. of labourers according to their mining areas to keep a watch over the forest areas around their lease for forest fire. They should work in a manner that no forest fire should take place in and around the lease area and unfortunately, if it takes place, it should be extinguished immediately. They should also warn and educate their labourers in this regard.
- (vii) Leases be directed to arrange for proper soil retaining check done and plantation of soil binder spp. to avoid the pollution of local rivers and streams.