



**ANNUAL FELLING & REGENERATION PROPOSAL
FOR THE YEAR 2023-24**

Forest Development Corporation of Maharashtra Limited, Nagpur
(Government of Maharashtra Enterprise)



FOREST DEVELOPMENT CORPORATION OF MAHARASHTRA LIMITED
(Govt. of Maharashtra Enterprise)
CIN : U45200MH1974SGC017206
FDCM Bhavan, 359/B, Hingna Road, Ambazari, Nagpur - 440 036
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"वनाचा समग्र विकास हात्या आमचा ध्यास"

No. Desk - PLN/R&M/F&R Proposal/C.R.23/2023-24/1483 Nagpur, Dtd:

01 AUG 2023

To,
The Deputy Director General,
Integrated Regional Office (West Central Zone)
Ministry of Environment and Forest and Climate Change
New Secretariat Building,
Civil Lines, Nagpur-440001.

**Sub - Proposal for Felling/Regeneration Activities to be undertaken
during the year 2023-24.**

The proposal for felling and regeneration in respect of forest areas managed by the Forest Development Corporation of Maharashtra Ltd. (FDCM), is hereby submitted for the approval to the Regional Office of the MoEFCC.

2.00 Timely execution of the forestry operations is key to the effective management of forests. The ultimate objective of Coupe-working is aimed at regeneration of forests and to ensure that felling is commensurate to regeneration. These aims can be achieved if and only if the full working season is available for execution, i.e. the annual operations are commenced immediately after the monsoon. At the outset, the FDCM is grateful to the Central Government for according timely permission for carrying out operations during the years 2021-22 and 2022-23. It is because of this single factor, all silvicultural operations prescribed for previous two years could be completed on time, material harvested could be taken out from forests and brought to jungle depots before the fire season and eventually transported to sale-depots well before the onset of monsoon.

3.00 The FDCM has been managing forest areas leased out to it from time to time by the Maharashtra Forest Department. At present, forest areas with the FDCM is divided into three regions, namely Nagpur, Nashik and Chandrapur, spreading over fourteen Forest Project Divisions. The Management Plans of all above 14 Forest Project Divisions have been duly approved by the Regional office of MoEFCC. Out of the above, Management Plans in respect of eleven Divisions have been approved till the year 2025-26, two are in force till 2023-24 and remaining one has validity up to the year 2026-27.

4.00 The main working-circles into which the said forest areas are classified under above said Management Plans are as follows-

1. Teak Plantation Reboisement Working Circle
2. Improvement Working Circle
3. Afforestation Working Circle
4. Planting Stock Improvement Working Circle
5. Selection cum Improvement Working Circle (Nashik Region only)

5.00 It is worth mentioning that the objectives of various Working Circles under the Management Plans are specific and precise in nature. Each Working Circle lays down prescriptions for tackling forest areas falling under it and crop therein to meet the specific objectives. Working Circles are divided into annual Coupes, having appropriate area, which is required to be tackled, based on management plans prescriptions. The annual yield is therefore regulated based on the area of annual coupes, which are demarcated in advance. General characteristics of vegetation, special objectives management and management prescriptions of various working circles are summarized as under –

6.00 TEAK PLANTATION AND REBOISEMENT WORKING CIRCLE

6.01 GENERAL CHARACTERISTICS OF VEGETATION- The forests are mixed in nature and contain trees of all age-classes. The crop consists mainly of miscellaneous species with varying proportions of teak. In some compartments, pure Teak trees are also present, but they are confined to the well-drained and area consisting of good loamy soil. The major miscellaneous species are Saja (*Terminalia tomentosa*), Bija (*Pterocarpus marsupium*), Kalam (*Mytragyna perviflora*), Haldū (*Adina cordifolia*), Tiwas (*Ougennia oogeinensis*), Dhaoda (*Anogeissus latifolia*), Garadi (*Cleistanthus collinus*), Mowai (*Lannea coromandelica*), Rohan (*Soymida febrifuga*), Bihrra (*Chloroxylon swietenia*), Surya, Lendia (*Lagerstroemia parviflora*), Chichwa (*Albizia odoratissima*), Parad etc. In the fruit bearing species Tendu (*Diospyros melanoxylon*), Moha (*Madhuca indica*), Char (*Buchanania lanza*), Aonla (*Emblica officinalis*), Bel (*Aegle marmelos*), Harra (*Terminalia chebula*) and Beheda (*Terminalia bellerica*) are the main species in the under-storey.

6.02 The failed Teak plantation areas are covered with advance growth of Saja (*Terminalia tomentosa*), Birra (*Chloroxylon swietenia*), Rohan (*Soymida febrifuga*), Garari (*Cleistanthus collinus*) and other inferior miscellaneous species.

6.03 SPECIAL OBJECTIVES OF MANAGEMENT:

1. To enhance the productivity of the forest by supplemental artificial regeneration of genetically superior stock.
2. To create a normal age-gradation classes.
3. To obtain sustained supply of medium to large size timber and poles.
4. To utilize the land for optimum economic productivity and sustained yield.
5. To generate employment in Rural and Tribal areas.

6.04 Criterion for Felling: The Critical Crop Girth (CCG)—The silvicultural system on which the aforesaid working circle is based is the **Conversion to Uniform System with Supplemental Artificial Regeneration of Genetically Superior Stock**, duly approved by the MoEF vide their letter No. 9-10/2001(RoHQ) Dtd. 20.12.2001 and No. 6-5/2000 (RoHQ) Dtd. 02.08.2001. Copies are collectively enclosed as **Annexure-1** for the ready reference. In this silvicultural system, a sustainability yardstick, succinctly expressed as the **Critical Crop Girth**, is used to determine the availability of a forest patch of definite area, for its harvest. Annual Coupes are therefore harvested section-by-section (grids admeasuring 100 m x 100 m), if and only if

the average crop-girth of a given section is found to be greater than the **Critical Crop Girth**, corresponding to the site-quality and crop-composition to which that particular section belongs to. The **Critical Crop Girth** is unique for different site-qualities and crop-composition. In other words, if a crop having crop girth less than the CCG, is harvested, the productivity of the site shall go down in proportion to the difference. Critical Crop Girths for different site-qualities and crop-composition have been prescribed in Management Plans.

6.05 Management practice-- It may be appreciated that among all working-circles, it is primarily the Teak Plantation and Rebiosement Working Circle, which is associated with the planned felling of trees based on pre-determined objective criterion. The entire area is divided into grids of 1 ha. (100m x 100m) and 100% enumeration is carried out. Based on the enumeration, the basal area is calculated. The average crop-girth, based on the basal area in each such grid is calculated and felling is carried out only in those grids wherein the average crop girth so calculated is more than the **Critical Crop Girth** which has been prescribed site-quality wise in the Management Plans. The trees are accordingly marked for felling only in such grids. Trees are not marked for felling in those grids where average crop girth is lesser than the Critical Crop Girth. The site quality wise **Critical Crop Girth** for different site-qualities and crop-compositions (extent of non-teak species in the crop) is prescribed in Management Plans is tabulated as follows---

Table

Sr. No.	Average height of Dominant mature Trees in Crop.	Corresponding All India Teak Site Quality	Proportion of Teak & its chief associates, namely Bija, Ain, Haldu and Kalamb in the Crop	Critical Crop Girth
1	2	3	4	5
1	upto 21 m	Up to III	More than 40%	70 cm
2	upto 21 m	Up to III	20% to 40%	60 cm
3	upto 21 m	Up to III	Below 20%	50 cm
4	21 to 27 m	II/III, II	More than 40%	85 cm
5	21 to 27 m	II/III, II	20% to 40%	75 cm
6	21 to 27 m	II/III, II	Below 20%	65 cm
7	Above 27 m	I/II, I	More than 40%	110 cm
8	Above 27 m	I/II, I	20% to 40%	95 cm
9	Above 27 m	I/II, I	Below 20%	80 cm

6.06 Marking Prescriptions--- Following regulatory principles are followed---

1. All young to middle-aged fruit bearing trees up to 20 trees / ha. are retained.
2. Young to middle-aged trees of semal, khair, rosewood and other superior miscellaneous species upto 20 trees / ha uniformly spread over the area are retained.
3. No felling is done on either side of nallas/streams, river-banks upto 20 m. distance.
4. The section size at a place is kept below 20 ha.
5. 5-meter width strip of natural forest is retained on all sides of sections.
6. Genetically superior planting stock is used.
7. In case, adequate numbers of fruit trees are not available equivalent numbers of miscellaneous trees are retained. All kulu (*Sterculia urens*), mahua (*Madhuca indica*), chinch (*Emblica officinalis*) and mango (*Mangifera indica*) trees, irrespective of their age are reserved and not marked for felling.
8. No felling is carried out in areas having teak site quality IV, water logged areas, and areas having slope more than 25 degrees.

7.00 IMPROVEMENT WORKING CIRCLE

7.01 GENERAL CHARACTERISTICS OF VEGETATION- Areas allocated to this Working Circle are mainly linear strips surrounding teak plantation having density between 0.4 to 0.6, with all India Teak Site Quality varying from **III to IV-b** and partly under stocked. Most of the areas consist of miscellaneous crop. Predominant species are Bija (*Pterocarpus marsupium*), Ain (*Terminalia tomentosa*), Haldu (*Adina cordifolia*), Dhawada (*Anogeissus latifolia*), Salai (*Boswellia serrata*), Mowai (*Lannea coromandelica*), Shisham (*Dalbergia latifolia*), Khair (*Acacia catechu*), Anjan (*Hardwickia binnata*), Garadi (*Cleistanthus collinus*), Bherra (*Chloroxylon swietenia*), Lendia (*Lagerstromia perviflora*) etc. along with **sparse teak**.

7.02 Crop is near to maturity and the regeneration of principal species is adequate but is suppressed due to mature top tree canopy. The forests allotted to this Working Circle are in a degraded stage and require Improvement.

7.03 SPECIAL OBJECTIVES OF MANAGEMENT:

1. To improve the quality and productivity of the existing crops by improvement felling, tending operations in favour of valuable species and supplementary plantation, all these measures are aimed at nursing back these forests to normalcy.
2. To remove dead, malformed and diseased trees with a view to facilitate regeneration.
3. To meet the bonafide needs of the local people by carrying out the hygienic tending and thinning operations, expected to provide small timber, poles and firewood.
4. To conserve the biological diversity of the area.

7.04 Management prescriptions—This Working Circle prescribes removal of matured trees above the harvestable girth to create opening in the tree canopy, thereby, facilitating tree-growth in the lower girth classes of teak and other valuable light-demanding (shade-intolerant) species.

7.05 Areas containing dense pole crops are thinned during the working. The areas poor in natural regeneration are artificially regenerated by appropriate species as per the requirement of site.

7.06 Considering the general characteristics of crop, basic objective of management and the prescriptions mentioned above, no rotation has been fixed as the basic idea is to improve the growing stock by tending of recruitment, thinning in pole crop removal of dead and diseased trees.

7.07 Harvestable Girth—This working circle aims at improvement of the crop, and therefore, harvesting is not visualized. Nevertheless, for the purpose of managing a few dense patches of over-matured trees, the harvestable girth adopted for the SCI working circle areas has been applied for this working circle. Harvestable girths for Teak and its associates as well as for other species for different site qualities have been prescribed in respective Management Plans, having this Working Circle.

7.08 Silviculturally Available Trees--A tree is said to be silviculturally available if its removal---

- i) does not create a permanent gap in the canopy,
- ii) tends to improve the remaining crop in terms of volume production, or
- iii) helps the growth of young trees down to the saplings stage of any of the valuable species.

7.09 It may therefore be appreciated that the felling is basically aimed at for the purpose of improvement of the crop and not for the yield.

8.00 AFFORESTATION WORKING CIRCLE

8.01 GENERAL CHARACTERISTICS OF VEGETATION--This Working Circle generally comprises of degraded open forest areas interspersed with forest blanks or brushwood. The blank areas have dominance of shrubby growth and inferior grasses. The allotted areas in general are highly degraded, under stocked and open with canopy density less than 0.4.

8.02 The crop consists mainly of scattered trees or patches of open forests. The principal species is Teak (*Tectona grandis*), Saja (*Terminalia tomentosa*) and its common associates are Dhaoda (*Anogeissus latifolia*), Bhirra (*Chloroxylon swietenia*), Rohan (*Soymida febrifuga*), Tendu (*Dispyros melanoxylon*), Lendia (*Lagerstroemia parviflora*), Salai (*Boswellia serrata*), Mowai (*Lannea coromandelica*), Char (*Buchnania lanza*) and Palas (*Butea monosperma*) etc., The dominant teak-site quality is IV. The canopy-density of the vegetation varies from blank to 0.4. The crop is generally young with occasional middle aged or mature trees. Natural regeneration of common species is very less due to compactness of soil because of unregulated grazing and fire and hence their establishment is poor.

8.03 SPECIAL OBJECTIVES OF MANAGEMENT

1. To restore the vegetative cover of the degraded and open areas.
2. To increase their productivity by site protection and tending of natural regeneration and rootstock, supplementing it with plantations of desired species, wherever, necessary.
3. To check the loss of top soil by adopting suitable soil and moisture conservation measures and to increase the water absorption capacity of the soil.
4. To improve the habitat of wild animal and birds.

8.04 It may therefore be seen that in this Working-Circle only wind-fallen dead and extremely malformed trees are removed, without any consideration for the yield as such.

9.00. PLANTING STOCK IMPROVEMENT WORKING CIRCLE--
This Working Circle includes Seed Stands, Seed Production Areas and Seed Orchards mainly of Teak.

9.01 Seed Stand (SS)--The seed stand is a crop raised of vigorously growing, middle aged trees of good quality. It is the crop from seed origin and not from coppice origin.

9.02 Seed Production Areas (SPA)—Seed Stands are gradually converted into SPA by removing inferior trees and regaining best superior trees.

9.03 Seed Orchards—Seed orchard is a stand of trees of selected clones or progenies, which are isolated or managed to avoid or reduce pollination from outside sources, managed to produce frequent abundant and easily harvested crop of seed.

9.04: GENERAL CHARACTERISTICS OF VEGETATION

The selection of seed area has been done as per the technical guidance of the experts. The Seed Stand and Seed Production Areas are selected from phenotypically superior old plantations/natural forest in order to collect the superior quality seeds. Orchards are the clonal progenies of plus trees. Seeds obtained from orchard are supposed to be genetically superior as compared to Seed Stand and Seed Production Areas. The crop in this Working Circle is predominantly of Teak (*Tectona grandis*) with Sisoo (*Dalbergia latifolia*) and Shivan (*Gmelina arborea*).

9.05 SPECIAL OBJECTIVES OF MANAGEMENT:

The primary object of management of this area is to supply quality seeds for the plantation activities in the forestry sector to enhance the productivity of forest. The main objective of teak improvement programme is to produce seed for superior timber quality, fast growth & higher disease resistance by selection and breeding technology.

10.00 SELECTION CUM IMPROVEMENT WORKING CIRCLE (Only Nashik Region).

10.01 GENERAL CHARACTERISTICS OF VEGETATION-- The forest mostly belongs to the type "Moist Teak Bearing Forest" and this area comprise mostly mixed forest. The density of this forest is between 0.4-0.6 bearing miscellaneous species and sparsely Teak in patches. The crop is conspicuously deficient in the higher girth classes, on account of heavy grazing and the repeated fires. Natural regeneration particularly, of valuable species is also sparse.

10.02 SPECIAL OBJECTIVES OF MANAGEMENT:

1. To maintain and improve the soil cover so as to prevent accelerated soil erosion on steep hill slopes and thus to preserve and improve the site quality.
2. To obtain big size timber of Teak and other valuable species.
3. To increase the proportion of valuable species by proper treatment and by planting in the gaps.
4. To maintain the biodiversity.

11.00 GENERAL

11.01 Taking into consideration the general character of the vegetation, special objectives and management prescriptions under different working circles, it is primarily the Teak Plantation and Rebiosement Working Circle where predetermined felling based on objective criterion is envisaged and therefore it

is primarily this working circle, which technically falls in the purview of annual felling permission. Going by the prescriptions of the management plans for rest of the working circles, it is evident that fellings if any, are basically meant for securing hygiene of the crop by removal of unwanted vegetation/growth, causing undue hindrance to the natural regeneration and vigorous growth of the principal species.

11.02 The Yield-Estimation is relied upon the local Volume Tables for the Teak, which specifies the site-quality wise and girth-class wise apportionment of yield of standing trees in terms of stem-timber (u.b.) and small wood (o.b.) based on quarter-girth measurements. Guidelines in the form of Circular dated 05-08-2021 for yield estimation issued by the Managing Director are enclosed as **Annexure - II**. While according the approval for the year 2021-22, the IRO advised that the FDCM should carry out exercise for preparation of the latest local volume tables of all major species to be felled in all regions to get realistic estimation of the yield. As a first step in that direction, the FDCM has come up with the revised and updated edition of the Yield and Stand Tables for the Teak, which has already been published in October 2021. The FDCM has already taken up further necessary steps for preparation of local Volume Tables for other major species also. Field exercises and collection of data have already been completed. Presently the analysis of field data is under progress and it is expected that the task will be completed by the end of October 2023.

11.03 Thus, depending on the composition of crop, i.e. the extent of non-teak species present in different proportion in different localities, other local composite factors and form of individual trees themselves (malformed, crooked, dead, deceased, dying etc.), the actual yield has been found to be varying to some extent from that of the anticipated yield, if considered strictly on the basis of its classification, namely stem-timber and small-wood. However as stated above, since the yield is purely area-regulated (areas of the annual coupe), the minor aberration on that count is automatically taken care of.

11.04 JUSTIFICATION FOR DIFFERENCE BETWEEN THE ANTICIPATED YIELD AND ACTUAL YIELD :

So far as the deviation of actual yield from the estimated one is concerned, it is worth mentioning that, the yield estimation of standing trees in terms of **stem-timber** and **small wood** is solely based on silvicultural criteria. However, the felled and extracted material is stacked in sale-depots purely on the basis of utilization criteria i.e. market considerations. The figures of actual yield are based on material measured in the depots. Under such considerations, the estimated **stem-timber based on silvicultural considerations** may not be the **timber based on market considerations** after harvesting. As a result, based on utilization criteria, it needs to be classified under the category of 'firewood' (small timber). This phenomenon is distinctly observed where the crop is predominantly composed of non-teak species. On the other hand, where the crop predominantly comprises teak and its associates, the major component of actual yield is found to be timber and the small wood component of the actual yield is significantly lower than what was anticipated from the standing trees.

For example, from the market point of view, certain species viz. *garari*, *lendia*, *dhaman*, *ghogar*, *hivar*, *dhoban*, *waranga*, *apta*, *palas* etc. inherently

belong to firewood category, irrespective of the girth-class they belong to. As a consequence, the entire volume is considered as small-wood, irrespective of girth-class. On the other hand, material harvested from predominantly timber species like teak and its associates may happen to be small-wood on silvicultural considerations, however from market point of view, they are classified as **timber** and not **firewood**.

11.05 It may therefore be seen that although the actual yield in terms of volume of stem-timber and small-wood may vary from the cubical contents under these categories, if considered individually, however the total volume content in both categories taken together, is by and large within the limits of the total anticipated yield.

11.06 As an abundant precaution and to ensure closer monitoring on harvesting operations, a system has been brought in place, whereby all Divisions are required to submit weekly report of felling operations. Such weekly reports were regularly scrutinized and analyzed at regional level as well as at the level of the Managing Director.

12.00 All requisite formats for seeking approval for the year 2023-24 are duly enclosed in **Annexure III to VI**. It is therefore requested to place the proposal for the consideration of the Regional Empowered Committee for its approval.

Encl:-As above.

Your's sincerely



(Vikas Gupta)
Managing Director

Annexure - I



No. 6.5/2000

The Managing Director
Forest Development Corporation
of Maharashtra Ltd.
Plot No. 12, Kadbi Chowk
Kamte Road, Nagpur 440004.

Sub: Prescription for clear felling in Teak Plantation Working Circle - permission of Central Government reg.

E-Mail Address :
75

गारत सरकार
पर्यायरण एवं धन मंत्रालय
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT & FORESTS
पर्यायरण भवन, री. जी. ओ. कॉम्प्लेक्स
लोडी रोड, नई दिल्ली-110003
LODHI ROAD, NEW DELHI-110003

Dated 2.8.2001

Sir,
Kindly refer to your letter No. PLN/RFO/9/96-97)/5948 dated 2.2.2001 on the subject cited above, I am directed to inform you that the Ministry has examined the recommendations of the Committee constituted to examine the proposal for clear felling of certain forest areas under the Forest Development Corporation of Maharashtra. The Committee has recommended for introduction of a silvicultural system named "Conversion to Uniform System with Supplemental Artificial Regeneration of Genetically Superior Stock". After careful examination the Ministry has decided to approve the recommendation of the Committee and permit removal of over-wood from Teak Plantation Working Circle in following manner.

- (i) All young to middle aged fruit bearing trees up to 20 trees / ha should be retained.
- (ii) Young to middle aged trees of semal, khair, rosewood and other superior miscellaneous species up to 20 trees/ ha uniformly spread over the area should be retained.
- (iii) No felling should be done on either side of nala, streams, riverbanks up to 20 m distance.
- (iv) The Section size at a place should not exceed 20 ha.
- (v) 5-meter wide strip of natural forest should be retained on all sides of the section.
- (vi) Effective measures should be adopted to protect the plantation from fires for all times to come.
- (vii) Improved planting stock should be used in order to increase the productivity.

All other conditions that have been stipulated by the CCF(C) Bhopal while approving the working plans of FDCML will remain valid. It is mentioned that the CCF(C) has been requested to review the approved working plans as per direction given by the Supreme Court of India via order dated 22.9.2000. The removal of over-wood from Teak Plantation Working Circle should be done only after review of the approved Working Plans have been completed and modification/felling suggested is finally approved by the Core Group in the Ministry.

Yours faithfully,

G.C.Basumatary
(G.C.Basumatary)
Director (CCF)
Ministry of Environment & Forests

Copy to the Chief Conservator of Forests, Regional Office, Bhopal for his information and necessary action.

discuss in file
A.M. 10/8
AM (Mr. RFO (PLN))

4. In view of the less availability of funds for raising plantations the proposal for the following works proposed for harvesting preparatory to regeneration is modified as under;
- 4.1 Rehabilitation of Degraded Forests Working Circle: The areas will be tackled to the extent of availability of funds, which will include both cut back operations and artificial regeneration.
- 4.2 Improvement Working Circle: The hygienic felling will be done in the areas to the extent of availability of funds which will include both hygienic felling and artificial regeneration and in no circumstances hygienic felling will be done in the excessive area without completing the prescribed artificial regeneration.
- 4.3 In the Mixed Plantation Working Circle, Afforestation Working Circle and Bamboo Plantation Working Circles harvesting is allowed to the extent of funds available for plantations subject to para 3.1 (b) above.
5. The proposal of the Corporation is not agreeable that no funds are required for maintenance of Forests Boundaries as the same are demarcated and maintained by the Forest Department. Ministry has noted the fact the Forest Dept. is not having adequate funds for maintenance of Forest Boundaries. The above permission for harvesting is granted subject to the availability of necessary funds for demarcation and maintenance of boundaries either by Forest Department or by the Corporation. No felling will be allowed pending availability of funds for this purpose.
6. An action taken report with reference to above permission be submitted to the Ministry. The proposal for the next year may kindly be submitted by the May 2002. It will however be considered after receipt of monitoring report from the RCCF, Bhopal.
7. This issues with the approval of the competent authority

Basumatary
(G.C. Basumatary)
Director(FC)

Copy for information and necessary action to:

1. Principal Secretary, (Forests), Government of Maharashtra, Mantralaya, Mumbai-400032
2. Principal Chief Conservator of Forests, Maharashtra State, Nagpur
3. Regional Chief Conservator of Forests, Regional Office (Western Region), Bhopal

Annexure - II

FOREST DEVELOPMENT CORPORATION OF MAHARASHTRA LIMITED

(Govt. of Maharashtra Enterprise)

CIN : U45200MH1974SGC017206

FDCM Bhavan, 359/B, Hingna Road, Ambazari, Nagpur - 440 036

Web site : www.fdcm.nic.in E-mail : md@fdcmltd@gmail.com

"वनाचासमप्रतिकासहाच्यामचाच्यास"

No:-Desk-PLN/F&R Proposal/CR-14/21-22/1407 Dated 5th August, 2021

CIRCULAR

Subject--Estimation of yield out of the standing crop.

The Annual Plan of operations for the prospecting year requires the estimation of anticipated yield based on objective criteria. However, during recent interactions with General Manager/Regional Managers and Divisional Managers, it has been observed that different criteria and methodologies are being used in this regard in different Regions and Divisions. This not only results in subjectivity in estimation but also leads to practical difficulties in execution.

2.0 In order to eliminate the element of individual bias and to ensure objectivity and uniformity in that regard, attention of all concerned is invited to the Site-Quality wise Local Volume Table in respect of Teak, which specifies Site-Quality wise and girth-class wise apportionment of expected yield between the stem-timber (u.b.) and small-wood(o.b.), based on quarter-girth measurements. A copy of the said Local Volume Table is enclosed herewith for ready reference. It is therefore directed that the aforesaid Local Volume Table shall be used for the purpose of estimation of the yield.

3.0 Since the aforesaid Local Volume Table is presently available in respect of teak only and are yet to be devised for the other species, depending on the composition of crop, i.e. the extent of non-teak species present in different proportion in different localities, other multiple local factors and the form of individual trees themselves (malformed, crooked, dead, deceased, dying etc.), the estimation so arrived at is naturally bound to differ from the actual yield, but it shall definitely eliminate the element of subjectivity altogether.

4.0 The yield-estimation therefore should be based on volume contents shown in the aforesaid Local Volume Table based on following factors---

4.1 Except for the species mentioned in para 4.2 below, the yield-estimation for all girth-classes shall be based on the aforesaid Local Volume Table and shall be classified as stem-wood and small-wood.

4.2 Certain species viz. *garari*, *lendia*, *dhaman*, *ghogar*, *hivar*, *dhoban*, *waranga*, *apta*, *palas*, etc. inherently belong to small-wood category (firewood), irrespective of the girth-class they belong to. Therefore, for the purpose of yield-estimation of such species, the entire volume shall be considered as small-wood, irrespective of the girth-class.

Provided that in case of *garari* and *lendia*, in addition to the small-wood as mentioned above, poles as prescribed in para 4.3 below shall also be considered.

4.3 For the purpose of estimation of number of poles, 1 to 2 poles per tree may be considered across all girth-classes for teak and its associates (*saja*, *bija*, *haldu*, *kalam* and *tiwas*) as well as other commercially superior species.

Encl: As above



Sanjeev Gaur
Managing Director

To

General Manager, Nagpur Region.
Regional Managers, Nashik / Chandrapur Region
Divisional Managers [All]
Assistant Managers [All]
Range Forest Officers [All]

APPENDIX NO XVII

Local volume table for teak has been developed by the FDCM in the year 2003. This table is useful for calculating standing volume in a coupe by actual measurement of number of trees girth class wise then reading the volume from table given below.

TEAK SITE QUALITYWISE LOCAL VOLUME TABLE : QUARTER GIRTH MEASUREMENTS (*Tectona grandis*)

Girth classes	Mid point	Stem Timber (u.b.) - Teak site quality						Small wood (o.b.) - Teak site quality						Total Volume - Teak Site Quality			Girth classes
		IV / III/IV	III	II & III	I & II	IV / III/IV	III	II & III	I & II	IV 7	III	II & III	I & II				
0/10	5	0	0	0	0	0	0	0	0	0	0	0	0	0/10	0	0	0/10
0/15	7.5	0	0	0	0	0	0	0	0	0	0	0	0	0/15	0	0	0/15
11/15	12.5	0	0	0	0	0	0	0	0	0	0	0	0	11/15	0	0	11/15
16/25	20	0	0	0	0	0	0.003	0.006	0.008	0.01	0.003	0.006	0.008	0.01	0.016	0.018	16/25
16/30	22.5	0.004	0.004	0.004	0.004	0.007	0.01	0.012	0.014	0.011	0.014	0.016	0.018	16/30			
26/35	30	0.015	0.015	0.015	0.018	0.02	0.025	0.025	0.025	0.033	0.035	0.04	0.04	26/35			
31/45	37.5	0.026	0.026	0.026	0.026	0.027	0.031	0.036	0.04	0.053	0.057	0.062	0.066	31/45			
36/45	40	0.03	0.03	0.03	0.03	0.03	0.035	0.04	0.045	0.06	0.065	0.07	0.075	36/45			
46/60	52.5	0.045	0.057	0.071	0.091	0.095	0.093	0.084	0.084	0.14	0.15	0.155	0.155	46/60			
61/75	67.5	0.07	0.1	0.13	0.157	0.16	0.14	0.12	0.103	0.23	0.24	0.25	0.26	61/75			
76/90	82.5	0.12	0.17	0.23	0.258	0.235	0.195	0.14	0.122	0.355	0.365	0.37	0.38	76/90			
91/105	97.5	0.19	0.295	0.35	0.425	0.365	0.27	0.22	0.155	0.555	0.565	0.57	0.58	91/105			
106/120	112.5	0.26	0.42	0.5	0.6	0.56	0.41	0.335	0.24	0.82	0.83	0.835	0.84	106/120			
121/135	127.5	0.36	0.55	0.68	0.8	0.67	0.5	0.38	0.3	1.03	1.05	1.06	1.1	121/135			
136/151	142.5	0.485	0.75	0.69	1.05	0.775	0.55	0.46	0.36	1.26	1.3	1.35	1.41	136/151			
151/165	157.5	0.635	0.95	1.15	1.365	0.825	0.6	0.5	0.405	1.46	1.55	0.65	1.77	151/165			
166/180	172.5	0.77	1.17	1.42	1.7	0.87	0.68	0.6	0.45	1.64	1.85	2.02	2.15	166/180			
181/195	187.5			1.73	2.055			0.75	0.595			2.48	2.65	181/195			
196/210	202.5			2.01	2.39			0.99	0.83			3	3.22	196/210			
211/225	217.5			2.32	2.75			1.18	1.05			3.5	3.8	211/225			
226/240	232.5					3.08				1.42			4.5	226/240			
241/255	247.5					3.33					1.97		5.3	241/255			
255/270	262.5					3.52					2.68		6.2	255/270			

Annexure - III

ATR

(Action Taken Report)

Format for submission of Proposal for carrying out Harvesting Operations

1. Target and Achievement of year 2022-23 (previous year for which felling permission is sought)-

a) Teak Plantation and Reboisement Working Circle

Project Division	No of coupes	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked (in ha)	Physical		Expenditure Rs in lacs	
					Expected Yield as per marking	Actual Yield obtained	Target	Achievement
Pranhita	6	266.99	204.10	167.40	Stem Timber M ³ Poles No.	5653.55 10979	4939.99 190.53	154.52
W.Chanda	2	43.49	43.49	43.49	Small Wood M ³ Stem Timber M ³ Poles No.	6393.20 225.64 2190	5246.40 226.86 2409	
Central Chanda	1	280.00	20.00	20.00	Small Wood M ³ Stem Timber M ³ Poles No.	948.41 207.14 285	886.80 174.54 707	40.86
Markhanda	10	891.23	470.71	470.71	Small Wood M ³ Stem Timber M ³ Poles No.	396.44 19771.80 5975	258.00 19223.75 51707	15.95
Nagpur	6	185.00	142.50	142.50	Stem Timber M ³ Poles No.	2482.05 9964	2630.68 15772	765.88
Yavatmal	6	171.04	133.56	133.56	Small Wood M ³ Stem Timber M ³ Poles No.	17990.40 3566.23 45027	17742.00 3020.66 30791	81.41
Kinwat	3	166.00	39.75	39.75	Small Wood M ³ Stem Timber M ³ Poles No.	5835.32 992.85 13533	5001.60 1336.93 13188	69.93
					Small Wood M ³	3121.89	2906.40	

Project Division	No of coupes	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked (in ha)	Physical		Actual Yield obtained	Target	Expenditure Rs in lacs
						Expected Yield as per marking			
Bhandara	2	211.00	40.49	40.49	Stem Timber M ³	786.04	624.72	77.74	44.45
					Poles No.	3109	546		
					Small Wood M ³	2335.17	3149.40		
2022-23 = 14		625.00	243.22	235.68	Stem Timber M ³	5534.57	4307.41		
Gondia					Poles No.	32754	30857	483.86	291.39
					Small Wood M ³	12496.43	14935.80		
2019-20=1		25.00	11.30	0.00	Stem Timber M ³	463.71	0.00		
					Poles No.	1248	0		
					Small Wood M ³	479.39	0.00		
Total	15	650.00	254.52	235.68	Stem Timber M ³	5998.28	4307.41		
					Poles No.	34002.00	30857.00	513.23	291.39
					Small Wood M ³	12975.81	14935.80		
Brahmapuri	13	485.00	325.35	325.35	Stem Timber M ³	4324.07	3749.74		
					Poles No.	54	0	431.74	221.17
					*Small Wood M ³	15098.97	17118.00		
					Stem Timber M ³	143.20	0.00		
					Poles No.	276	0	13.08	Felling was not carried out for want of certain clarification from the Nashik Division
					Small Wood M ³	459.00	0.00		
W.Nashik	5	210.00	30.00	0.00	Stem Timber M ³	44150.85	40335.27		
					Poles No.	127685	156956	2808.09	1863.86
Grand Total	69	3559.75	1704.47	1618.92	Small Wood M ³	100577.70	92431.50		

*** Explanatory Note about small wood category in Bramhapuri division :**

The Estimated Yield of small wood was reported as 10,93.87 M3 majority of trees in Bramhapuri Division are non teak trees which are generally categorized as fuelwood species. Therefore, while estimating the yield, corresponding to fuelwood species, it was expected that the volume corresponding to the stem timber should have been added to the small wood volume and to take total volume accordingly. However, inadvertently, the said volume was omitted. Now the total volume including the volume corresponding to the stem timber and small wood with respect to fuel wood species has been taken into consideration. The correct estimated yield is 15,098.97 M3 instead of 10,193.87 cu.m. which was reported last year.


(Vikas Gupta)
Managing Director

b) Improvement Working Circle

Project Division	No of couples	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked (in ha.)	Physical		Expenditure Rs. In lacs	
					Anticipated Yield	Actual Yield obtained	Target	Achievement
Nagpur	8	524.18	514.03	514.03	Stem Timber M ³	114.70	119.15	
					Poles No.	1656	1400	43.86
					Small-wood M ³	2330.40		17.51
Bhandara	1	50.00	50.00	50.00	Stem Timber M ³	19.56	15.07	
					Poles No.	148	93	14.50
					Small-wood M ³	469.23	525.60	7.25
Gondia	9	784.36	472.00	472.00	Stem Timber M ³	632.18	729.49	
					Poles No.	1063	364	73.67
					Small-wood M ³	968.09	1350.90	43.56
Kinwat	10	690.95	653.19	653.19	Stem Timber M ³	364.49	619.01	
					Poles No.	3313	3706	59.94
					Small-wood M ³	1184.06	620.40	
West Chanda	21	532.20	532.20	532.20	Stem Timber M ³	227.832	216.35	
					Poles No.	413	444	39.48
					Small-wood M ³	841.58	818.10	29.97
Central Chanda	2	1226.92	74.72	74.72	Stem Timber M ³	4.40	5.10	
					Poles No.	0	6	1.46
					Small-wood M ³	65.74	54.00	1.38
Bramhapuri	12	541.10	505.11	505.11	Stem Timber M ³	268.80	225.58	
					Poles No.	0	0	30.18
					Small-wood M ³	959.48	1088.40	10.62

Project Division	No of coupes	Physical				Expenditure Rs. In lacs
		Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked (in ha.)	Anticipated Yield	
Markanda	13	767.82	767.82	767.82	Stem Timber M ³	642.55
					Poles No.	94
					Small-wood M ³	602.74
Pranhita	7	503.73	503.73	503.73	Stem Timber M ³	76.75
					Poles No.	72
					Small-wood M ³	115.20
West Nashik	17	1158.24	809.20	0.00	Stem Timber M ³	50.00
					Poles No.	6
					Small-wood M ³	143.20
Grand Total	100	6779.50	4882.00	4072.80	Stem Timber M ³	2401.25
					Poles No.	6765
					Small-wood M ³	8212.52


(Vikas Gupta)
Managing Director

c) Afforestation Working Circle

Project Division	No of coupes	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked (In ha.)	Physical			Expenditure Rs. In lacs	
					Anticipated Yield	Actual Yield obtained	Target Achievement		
Nagpur	11	565.76	485.76	485.76	Stem Timber M ³ Poles No.	29.56 184	26.16 137	19.71	7.00
Bhandara	3	190.00	140.00	140.00	Small-wood M ³ Stem Timber M ³ Poles No.	1075.20 119.80 2166	739.20 89.85 -		
Yavatmal	10	309.79	154.79	154.79	Small-wood M ³ Stem Timber M ³ Poles No.	1469.29 17.88 331	1368.00 18.50 195	1.09	1.13
Kinwat	3	140.00	140.00	140.00	Small-wood M ³ Stem Timber M ³ Poles No.	120.84 59.17 457	79.20 74.00 771	19.01	6.95
W.Chanda	11	208.94	208.94	208.94	Small-wood M ³ Stem Timber M ³ Poles No.	174.33 120.08 7	76.80 111.11 7	20.31	11.19
C.Chanda	2	385.00	55.00	55.00	Small-wood M ³ Stem Timber M ³ Poles No.	404.36 3.78 0	377.40 5.85 0		
Brahmapuri	15	879.86	879.86	879.86	Small-wood M ³ Stem Timber M ³ Poles No.	65.84 229.70 0	61.20 196.68 0	40.80	16.77
Grand Total	55	2679.35	2064.35	2064.35	Small-wood M³	4773.57	4162.20	140.35	60.75


 (Vikas Gupta)
 Managing Director

d) Improvement Felling in Teak Plantation Reboisement Working Circle

Project Division	No of coupes	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked (In ha)	Physical		Expenditure Rs. In lacs
						Anticipated Yield	
Yavatmal	15	322.48	322.48	322.48	Stem Timber M ³	116.70	130.44
					Poles No.	2514	1379
Kinwat	4	100.00	100.00	100.00	Small-wood M ³	408.06	346.80
					Stem Timber M ³	44.04	67.88
Bramhapuri	11	159.65	159.65	159.65	Poles No.	497	286
					Small-wood M ³	158.83	60.00
Markhanda	9	249.65	249.65	249.65	Stem Timber M ³	201.75	177.81
					Poles No.	0	0
Pranhita	6	62.89	62.89	59.59	Small-wood M ³	416.43	528.60
					Stem Timber M ³	382.41	367.37
Grand Total	45	894.67	894.67	891.37	Poles No.	0	434.68
					Small-wood M ³	502.69	438.60
					Stem Timber M ³	30.28	30.33
					Poles No.	95	166
					Small-wood M ³	44.40	30.00
					Stem Timber M ³	775.18	773.83
					Poles No.	3106	1831
					Small-wood M ³	1530.40	1404.00


 (Vikas Gupta)
 Managing Director

e) Selection Cum Improvement Working Circle

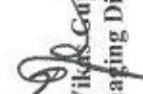
Project Division	No of coupes	Physical			Expenditure Rs. In lacs	
		Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked (In ha.)	Anticipated Yield	Actual Yield obtained
Thane	12	105.00	40.00	0.00	Stem Timber M ³ Poles No. Small-wood M ³	150.00 0 1400.00

f) Plantation Management Working Circle

Project Division	No of coupes	Physical			Expenditure Rs. In lacs	
		Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked (In ha.)	Anticipated Yield	Actual Yield obtained
Pune	4	266.95	207.55	207.55	Stem Timber M ³ Poles No. Small-wood M ³	1500.00 0 15000.00

g) Rehabilitation of Degraded Forest Working Circle

Project Division	No of coupes	Physical			Expenditure Rs. In lacs	
		Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked (In ha.)	Anticipated Yield	Actual Yield obtained
Yavatmal	9	288.92	206.50	206.50	Stem Timber M ³ Poles No. Small-wood M ³	76.13 2767 321.01


(Vikas Gupta)
Managing Director

Abstract of Proforma - 1

a) Teak Plantation Reboisement Working Circle

No of coupes	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked In ha.	Physical		Expenditure Rs. In lacs	
				Anticipated Yield	Actual Yield obtained		
69	3559.75	1704.47	1618.92	Stem Timber M ³ Poles No. Small-wood M ³	44150.85 127685 100577.70	40235.27 156956 92431.50	2808.09 1863.86

b) Improvement Working Circle

No of coupes	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked In ha.	Physical		Expenditure Rs. In lacs	
				Anticipated Yield	Actual Yield obtained		
100	6779.50	4882.00	1618.92	Stem Timber M ³ Poles No. Small-wood M ³	2401.25 6765 8212.52	2666.92 6397 7192.20	408.23 215.05

c) Afforestation Working Circle

No of coupes	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked In ha.	Physical		Expenditure Rs. In lacs	
				Anticipated Yield	Actual Yield obtained		
55	2679.35	2064.35	2064.35	Stem Timber M ³ Poles No. Small-wood M ³	579.96 3145 4773.57	522.15 2942 4162.20	140.35 60.75

d) Improvement Felling in Teak Plantation Reboisement Working Circle

No of coupes	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked In ha.	Physical		Expenditure Rs. In lacs	
				Anticipated Yield	Actual Yield obtained		
45	894.67	894.67	891.37	Stem Timber M ³ Poles No. Small-wood M ³	775.18 3106 1530.40	773.83 1831 1404.00	477.67 43.40

e) Selection Cum Improvement Working Circle

No of coupes	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked In ha.	Physical			Expenditure Rs. In lacs
				Anticipated Yield	Actual Yield obtained	Target Achievement	
12	105.00	40.00	0.00	Stem Timber M ³ Poles No. Small-wood M ³	150.00 0 1400.00	0.00 0 0.00	31.79 works couldn't be executed due to opposition at local level

f) Plantation Management Working Circle

No of coupes	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked In ha.	Physical			Expenditure Rs. In lacs
				Anticipated Yield	Actual Yield obtained	Target Achievement	
4	266.95	207.55	207.55	Stem Timber M ³ Poles No. Small-wood M ³	1500.00 0 15000	1073.07 0 16822	256.07 290.00 16822

g) Rehabilitation of Degraded Forest Working Circle

No of coupes	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked In ha.	Physical			Expenditure Rs. In lacs
				Anticipated Yield	Actual Yield obtained	Target Achievement	
9	288.92	206.50	206.50	Stem Timber M ³ Poles No. Small-wood M ³	76.13 2767 321.01	66.81 1842 333.20	3.06 4.62 333.20

Grand Total

No of coupes	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Area worked In ha.	Physical			Expenditure Rs. In lacs
				Anticipated Yield	Actual Yield obtained	Target Achievement	
294	14574.14	9999.53	6607.62	Stem Timber M ³ Poles No. Small-wood M ³	49633.36 143468 131815.20	45338.05 169968 122344.85	2442.19 4160.75 122344.85


(Vilas Gupta)
Managing Director

Annexure - IV

PHO

(Post Harvesting Operation)

2. Post Harvesting Operation (PHO) for the area worked out during year 2021-22

A. Working Circle No-1 (Teak Plantation Reboisement Working Circle)

Division	No. of Coupes/ Compartments	Area Worked (in ha.)	WP Prescription for PHO	Area Treated	Works carried out	PHO done	Budget	
							Allocated during 2022-23 (Rs. in lac)	Expenditure (Rs. in lac)
Nagpur	14	199.00		199.00			107.85	90.96
Bhandara	2	0.00		0.00			0.00	0.00
Gondia	25	176.57		176.57			55.34	54.62
Yavatmal	13	247.63		247.63			224.53	9.14
Kinwat	2	32.13		32.13			26.24	16.76
West Chanda	7	131.01		131.01			98.74	115.61
Central Chanda	11	202.91		202.91	Protection from fire, felling of badly damage or broken trees and cutting back of malformed advance growth of teak.	131.01	152.94	157.71
Brahmapuri	13	215.10		215.10			366.75	126.69
Markhanda	14	437.38		437.38			356.03	371.85
Pranhita	9	187.80		187.80			680.53	148.87
W.Nashik	5	130.00		130.00			10.70	8.76
Total		1959.53			1959.53		2079.65	1100.97


(Vikas Gupta)
Managing Director

B. Working Circle No-2 (Improvement Working Circle)

Division	No. of Coups/ Compartments	Area Worked (in ha.)	WP Prescription for PHO	PHO done		Budget Expenditure (Rs. in lac)
				Area Treated	Works carried out	
Nagpur	18	607.87		607.87		9.08
Bhandara	7	236.00		236.00		3.99
Gondia	16	604.91		604.91		5.22
Kinwat	20	1042.35	Removal of climbers, removal of high stems,	1042.35	Climber cutting, closer from grazing and fire protection measures were taken.	4.99
West Chanda	57	1560.70	protection for grazing, soil and moisture	1560.70		131.93
Central Chanda	1	133.07	conservation works and protection from fire	133.07		1.53
Bramhapuri	18	867.46		867.46		3.82
Markhanda	13	737.54		737.54		45.75
Pranhita	11	510.51		510.51		57.45
W. Nashik	17	531.87		531.87		4.03
Total		6832.28		6832.28		267.79
						94.10


(Vikas Gupta)
Managing Director

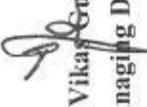
C. Working Circle No-3 (Afforestation Working Circle)

Division	No. of Coupes/ Compartments	Area Worked (in ha.)	WP Prescription for PHO	PHO done		Budget Expenditure (Rs. in lac)
				Area Treated	Works carried out	
Nagpur	20	424.00		424.00		9.08
Bhandara	6	50.00				0.99
Yavatmal	18	663.60		663.60		10.23
Kinwat	7	267.14	The worked area will be protected from fire and closed for grazing for 5 years	267.14	The worked area will be protected from fire and closed for grazing	267.14
West Chanda	32	832.35				0.83
Central Chanda	1	20.00		20.00		0.07
Bramhapuri	14	895.00				3.82
Total		3152.09		3152.09		77.41
						38.17


 (Vikas Gupta)
 Managing Director

D. Working Circle No-4 (Improvement Felling in Teak Plantation Reboisment Working Circle)

Division	No. of Coupes/ Compartments	Area Worked (in ha.)	WP Prescription for PHO	PHO done	Budget
				Area Treated	Allocated during 2022-23 (Rs. in lac)
Yavatmal	31	722.37		722.37	2.18
Kinwat	7	209.02	After removal of dead, dying, diseased, malformed and hollow trees, to do fire protection and protection from grazing	209.02	0.90
Bramhapuri	24	613.74		613.74	1.27
Markhanda	16	545.54	Measures from protection from fire and grazing controls were taken	545.54	1.18
Pranhita	6	103.70		103.70	459.29
Total		2194.37		2194.37	466.64
					470.41



(Vikas Gupta)
Managing Director

E. Working Circle No-5(Selection cum Improvement Working Circle)

Division	No. of Coupes/ Compartments	Area Worked (in ha.)	WP Prescription for PHO	PHO done	Budget
			Area Treated	Works carried out	Allocated during 2022-23 (Rs. in lac) Expenditure (Rs. in lac)
Dahanu	2	25.00	The worked area will be protected from fire and closed for grazing for 5 years	25.00	0.55 The worked area will be protected from fire and close for grazing
	Total	25.00		25.00	0.55 0.30



(Vikas Gupta)
Managing Director

F. Working Circle No-6 (Rehabilitation of Degraded Forest Working Circle)

Division	No. of Coups/ Compartments	Area Worked (in ha.)	WP Prescription for PHO	PHO done		Budget	
				Area Treated	Works carried out	Allocated during 2022-23 (Rs. in lac)	Expenditure (Rs. in lac)
Yavatmal	18	600.00	The worked area will be protected from fire and closed for grazing for 5 years	600.00		1.23	1.05
	Total	600.00		600.00		1.23	1.05


(Vikas Gupta)
Managing Director

G. Working Circle No - 7 (Plantation Management Working Circle)

Division	No. of Coupes/ Compartments	Area Worked (in ha.)	WP Prescription for PHO	PHO done		Expenditure (Rs. in lac)
				Area Treated	Works carried out	
Pune	4	217.700	Fire protection and silvicultural works in the complete area were carried out.	217.700	Fire protection and silvicultural works in the complete area were carried out.	1.22
	Total	217.700		217.700		1.22


(Vikas Gupta)
Managing Director

Annexure - V

Plantation Maintenance Work

3 . Maintenance works carried out for all previous PHO during last 5 years in all Divisions, under different Working Circles-

(a) Working Circle No-1 (Teak Plantation Reboisement working Circle)

(i) Name Of Division:- Nagpur

Year of Working	Plantation year	Total area worked out 2 year back & was to be treated this year	Area Under Maintenance (ANR/AR)																			
			I st Year				II nd Year				III rd Year				IV th Year							
			Area	T	A	Budget	Area	T	A	Budget	Area	T	A	Budget	Area	T	A	Budget				
2018-19	2019 Rains	93.00	93.00	39.05	64.61	--	--	--	--	--	--	--	--	--	--	--	--	--				
2019-20	2020 Rains	100.50	100.50	48.39	49.95	93.00	93.00	24.26	64.41	--	--	--	--	--	--	--	--	--				
2020-21	2021 Rains	0.00	0.00	0.00	0.00	100.50	100.50	117.60	49.00	93.00	93.00	17.01	23.93	--	--	--	--	--				
2021-22	2022 Rains	199.00	199.00	199.00	107.85	98.52	0.00	0.00	0.00	100.50	100.50	26.25	25.42	93.00	93.00	10.89	8.72	--				
2022-23	2023 Rains	142.50	142.50	142.50	94.05	2.14	199.00	199.00	120.44	110.64	0.00	0.00	100.50	100.50	19.47	19.14	93.00	10.98	7.2			
Area proposed for 2023-24																						
2023-24	2024 Rains	145.00	145.00	--	86.77	--	142.50	--	95.35	--	199.00	--	75.99	--	0.00	--	0.00	--	100.50	--	12.64	--


(Vikas Gupta)
Managing Director

(ii) Name Of Division:- Bhandara

Area Proposed for 2023-24

(Vilas Gupta)
Managing Director

(iii) Name Of Division:- Gondia

Area Proposed for 2023-24


(Vilas Gupta)
Managing Director

(iv) Name Of Division:- Yavatmal -

Year of working	Plantation Year	Area under Maintenance (ANR/AR)												Area proposed for 2023-2024													
		I st Year						II nd Year						III rd Year						IV th Year						V th Year	
		Area Worked Out 2 Years back & was to be Treated This Year		Budget		Area		Budget		Area		Budget		Area		Budget		Area		Budget		Area		Budget			
2018-19	2019 Rains	0.00	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
2019-20	2020 Rains	152.96	152.96	140.00	92.24	0.00	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
2020-21	2021 Rains	0.00	0.00	0.00	0.00	152.96	152.96	87.44	63.05	0.00	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--		
2021-22	2022 Rains	247.63	247.63	135.05	120.04	0.00	0.00	0.00	0.00	152.96	152.96	45.06	27.21	0.00	0.00	0.00	0.00	0.00	0.00	--	--	--	--	--	--		
2022-23	2023 Rains	133.56	133.56	224.53	9.14	247.63	247.63	51.42	1.76	0.00	0.00	0.00	0.00	152.96	152.96	13.10	1.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2023-24	2024 Rains	58.70	58.70	--	35.02	--	133.56	--	28.91	--	247.63	--	30.17	--	0.00	--	0.00	--	0.00	--	152.96	--	6.78	--	--		

Area proposed for 2023-2024

(Vikas Gupta)
Managing Director

(v) Name Of Division:- Kinwat

Year of working	Plantation Year	Total area worked out 2 years back & was to be treated this year	Area under Maintenance											
			I st Year				II nd Year				III rd Year			
			Area (in Ha)	Budget (Rs. In Lacs)	Area (in Ha)	Budget (Rs. In Lacs)	Area (in Ha)	Budget (Rs. In Lacs)	Area (in Ha)	Budget (Rs. In Lacs)	Area (in Ha)	Budget (Rs. In Lacs)	Area (in Ha)	Budget (Rs. In Lacs)
2018-19	2019 Rains	0.00	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--
2019-20	2020 Rains	31.00	31.00	29.38	16.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2020-21	2021 Rains	0.00	0.00	0.00	0.00	31.00	11.47	9.83	0.00	0.00	0.00	0.00	0.00	0.00
2021-22	2022 Rains	32.13	32.13	18.95	12.93	0.00	0.00	0.00	31.00	31.00	10.22	9.88	0.00	0.00
2022-23	2023 Rains	39.75	39.75	27.28	1.92	32.13	32.13	26.24	16.76	0.00	0.00	31.00	7.99	5.24
Area Proposed for 2023-24														
2023-24	2024 Rains	11.00	11.00	--	11.71	--	39.75	--	26.04	--	32.13	--	4.32	--
													0.00	--
													31.00	--
													1.64	--


 (Vikas Gupta)
 Managing Director

(vi) Name Of Division:- West Chanda

Year of working	Plantation Year	Total area worked out 2 years back & was to be treated this year	Area under Maintenance (ANR/AR)																	
			I st Year				II nd Year				III rd Year				IV th Year					
			T	A	Budget (Rs. in lac)	Area (in ha.)	T	A	Budget (Rs. in lac)	Area (in ha.)	T	A	Budget (Rs. in lac)	Area (in ha.)	T	A	Budget (Rs. in lac)	Area (in ha.)		
2018-19	2019 Rains	321.33	321.33	320.92	212.67	--	--	--	--	--	--	--	--	--	--	--	--	--		
2019-20	2020 Rains	119.00	119.00	119.00	104.32	90.69	321.33	321.33	101.49	93.29	--	--	--	--	--	--	--	--		
2020-21	2021 Rains	0.00	0.00	0.00	0.00	0.00	119.00	119.00	77.02	59.05	321.33	321.33	22.15	17.05	--	--	--	--		
2021-22	2022 Rains	131.01	131.01	131.01	65.21	55.19	0.00	0.00	0.00	0.00	119.00	119.00	159.92	88.42	321.33	321.33	22.29	18.79		
2022-23	2023 Rains	43.49	43.49	43.49	65.21	59.43	131.01	131.01	43.11	41.29	0.00	0.00	0.00	0.00	119.00	119.00	9.78	321.33	321.33	
2023-24	2024 Rains	20.00	20.00	--	18.30	--	43.49	--	17.03	--	131.01	--	28.96	--	0.00	--	0.00	--	119.00	--
																			9.60	--

Area Proposed for 2023-24


(Vikas Gupta)
 Managing Director

vii) Name Of Division:- Central Chanda

Year of working	Plantation Year	Total area worked out 2 years back & was to be treated this year	Area under Maintenance (ANR/AR)											
			I st Year				II nd Year				III rd Year			
			Area (in ha.)		Budget (Rs. in lac)		Area (in ha.)		Budget (Rs. in lac)		Area (in ha.)		Budget (Rs. in lac)	
T	A	T	A	T	A	T	A	T	A	T	A	T	A	T
2018-19	2019 Rains	0.00	0.00	0.00	0.00	--	--	--	--	--	--	--	--	--
2019-20	2020 Rains	295.02	295.02	97.22	88.78	0.00	0.00	0.00	0.00	--	--	--	--	--
2020-21	2021 Rains	0.00	0.00	0.00	0.00	295.02	295.02	21.77	15.67	0.00	0.00	0.00	0.00	--
2021-22	2022 Rains	202.91	202.91	191.19	142.22	0.00	0.00	0.00	0.00	295.02	295.02	25.58	23.11	0.00
2022-23	2023 Rains	20.00	20.00	91.19	89.22	202.91	202.91	103.31	99.32	0.00	0.00	295.02	295.02	12.99

Area Proposed for 2023-24

2023-24	2024 Rains	42.45	42.45	--	39.09	--	20.00	--	8.14	--	202.91	--	44.86	--
													0.00	--
													0.00	--
													295.02	--
													23.79	--


(Vikas Guptha)
Managing Director

(viii) Name Of Division:- Bramhapuri

Area under Maintenance (ANR/AR)															
Year of Working	Plantation Year	Total area worked out 2 years & back & was to be treated this year	I st Year			II nd Year			III rd Year			IV th Year			V th Year
			Area (in ha.)	Budget (Rs. in lac)	Area (in ha.)	Budget (Rs. in lac)	Area (in ha.)	Budget (Rs. in lac)	Area (in ha.)	Budget (Rs. in lac)	Area (in ha.)	Budget (Rs. in lac)	Area (in ha.)	Budget (Rs. in lac)	
2018-19	2019 Rains	340.00	340.00	229.00	230.68	--	--	--	--	--	--	--	--	--	
2019-20	2020 Rains	197.00	197.00	167.72	149.71	340.00	340.00	113.96	75.31	--	--	--	--	--	
2020-21	2021 Rains	201.80	201.80	178.00	159.00	197.00	197.00	54.06	60.61	340.00	340.00	55.13	47.85	--	
2021-22	2022 Rains	215.10	215.10	175.31	126.69	201.80	201.80	79.74	66.69	197.00	197.00	43.07	60.00	340.00	
2022-23	2023 Rains	325.35	325.35	178.00	166.67	215.10	215.10	175.31	173.03	201.80	201.80	79.74	75.43	197.00	
2023-24	2024 Rains	309.35	309.35	--	215.00	--	325.35	--	176.23	--	215.10	--	83.00	--	201.80
Area Proposed for 2023-24													66.03	--	197.00
													43.00	--	43.00


(Vikas Gupta)
Managing Director

(ix) Name Of Division:- Markhanda

Area under Maintenance (ANR/AR)																						
Year of working	Plantation Year	Total area worked out 2 years back & was to be treated this year	I st Year				II nd Year				III rd Year				IV th Year				V th Year			
			Area (in ha.)		Budget (Rs. in lac)		Area (in ha.)		Budget (Rs. in lac)		Area (in ha.)		Budget (Rs. in lac)		Area (in ha.)		Budget (Rs. in lac)					
			T	A	T	A	T	A	T	A	T	A	T	A	T	A	T	A				
2018-19	Rains	326.28	326.28	326.28	250.52	210.21	--	--	--	--	--	--	--	--	--	--	--	--				
2019-20	Rains	297.35	297.35	166.00	148.00	326.28	326.28	118.87	91.77	--	--	--	--	--	--	--	--	--				
2020-21	Rains	313.35	313.35	251.85	218.53	297.35	297.35	101.09	97.04	326.28	326.28	50.37	53.99	--	--	--	--	--				
2021-22	Rains	437.38	437.38	437.38	366.92	245.43	313.35	313.35	145.44	93.45	297.35	67.99	39.77	326.28	326.28	40.10	19.55	--				
2022-23	Rains	470.71	470.71	470.71	378.00	322.00	437.38	437.38	158.00	149.00	313.35	57.00	54.00	297.35	297.35	43.00	39.00	326.28	19.18	18.02		
Area Proposed for 2023-24														--	--	103.00	--	297.35	--	83.00	--	
2023-24	2024 Rains	491.38	491.38	--	338.00	--	470.71	--	297.00	--	437.38	--	199.00	--	313.35	--	103.00	--	297.35	--	83.00	--

Area Proposed for 2023-24


 (Vikas Gupta)
 Managing Director

(x) Name Of Division:- Pranhita

Year	Plantatio n Year	Total area worked out 2 years back & was to be treated this year	Area under Maintenance (ANR/AR)											
			I st Year				II nd Year				III rd Year			
			Area (in ha.)	Budget (Rs. in lac)	Area (in ha.)	Budget (Rs. in lac)	Area (in ha.)	Budget (Rs. in lac)	Area (in ha.)	Budget (Rs. in lac)	Area (in ha.)	Budget (Rs. in lac)	Area (in ha.)	Budget (Rs. in lac)
2018-19	2019 Rains	150.230	150.23	108.15	89.38	--	--	--	--	--	--	--	--	--
2019-20	2020 Rains	158.90	158.90	135.00	119.75	150.23	150.23	55.76	56.32	--	--	--	--	--
2020-21	2021 Rains	171.37	171.37	108.32	73.71	158.90	158.90	17.25	46.23	150.23	21.25	22.92	--	--
2021-22	2022 Rains	187.80	187.80	187.80	124.94	101.00	171.37	76.08	45.00	158.90	37.39	34.00	150.23	19.38
2022-23	2023 Rains	204.100	204.10	167.40	190.53	188.00	187.80	23.77	23.00	171.37	11.99	11.03	158.90	19.22
Area Proposed for 2023-24														
2023-24	2024 Rains	139.00	139.00	--	178.00	--	204.10	--	160.00	--	187.80	--	110.00	--
														171.37
														87.00
														158.90
														49.00


(Vikas Gupta)
Managing Director

(xi) Name Of Division:- West Nashik

Year of working	Plantation Year	Area under Maintenance (ANR/AR)												
		I st Year			II nd Year			III rd Year			IV th Year			
		Area (in ha.)		Budget (Rs. in lac)	Area (in ha.)		Budget (Rs. in lac)	Area (in ha.)		Budget (Rs. in lac)	Area (in ha.)		Budget (Rs. in lac)	
T	A	T	A	T	A	T	A	T	A	T	A	T	A	
2018-19	Rains	200.00	200.00	133.32	58.23	--	--	--	--	--	--	--	--	
2019-20	Rains	150.00	150.00	250.46	14.35	200.00	200.00	149.73	66.06	--	--	--	--	
2020-21	Rains	175.00	175.00	135.12	79.12	150.00	150.00	56.07	30.70	200.00	200.00	37.38	22.62	
2021-22	Rains	130.00	130.00	145.49	67.81	175.00	175.00	24.20	22.11	150.00	150.00	25.01	21.99	
2022-23	Rains	30.00	30.00	0.00	181.36	0.00	130.00	130.00	33.77	22.16	175.00	23.11	15.16	150.00
2023-24	Rains	0.00	0.00	--	0.00	--	0.00	--	0.00	--	130.00	--	12.74	--
Area Proposed for 2023-24														
											10.99	--	175.00	--
											150.00	--	8.50	--

(Vikas Gupta)
Managing Director

(xiii) Name Of Division:- Pune

Area Proposed for 2023-24


(Vikas Gupta)
Managing Director

3 . Maintenance works carried out for all previous PHO during last 5 years in all Divisions, under different Working

Circles-

(d) Name of Working Circle-RDF

(i) Name Of Division:- Thane

Area Proposed for 2023-24

	2023-24	2024	Rains
	150.00	150.00	--
2023-24	90.67	--	130.00
			--
			55.00
			--
			175.00
			--
			38.00
			--
			136.30
			--
			27.00
			--
			110.00
			--
			11.45
			--


(Vikas Gupta)
Managing Director

Annexure - VI

APO

(Annual Plan Operation)

In View of 1,2 and 3 above and also as per prescribed Working Plan provisions the proposal for 2023-24

a) Teak Plantation and Reboisement Working Circle

Project Division	No of coupes	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Expected Yield as per marking		Financial Allocation (Rs. in lac)
				Physical	Stem-Timber M ³	
Nagpur	5	205.00	145.00	Poles No.	9486	395.26
Bhandara	1	90.00	35.00	Small-wood M ³	20443.20	66.85
2023-24=16		612.00	248.82	Stem Timber M ³	415.87	
Gondia	2022-23=1	6.04	6.04	Small-wood M ³	151.5	
2019-20=1		25.00	11.30	Stem Timber M ³	3351.45	
Total	18	643.04	266.16	Poles No.	32171	383.85
Yavatmal	3	88.00	58.70	Small-wood M ³	14261.41	
Kinwat	1	133.08	11.00	Stem Timber M ³	367.37	
				Poles No.	7012.28	22.70
				Stem Timber M ³	43449	435.92
				Small-wood M ³	15610.20	
				Stem Timber M ³	1310.65	
				Poles No.	22512	
				Small-wood M ³	2400.94	
				Stem Timber M ³	515.00	
				Poles No.	5110	
				Small-wood M ³	37.39	
					840.19	

Project Division	No of coupes	Physical			Expected Yield as per marking			Financial Allocation (Rs. in lac)		
		Total Area as per Management Plan (In ha)	Area Fit for working (In ha)		Stem Timber M ³	Poles No.	Small-wood M ³	Stem Timber M ³	Poles No.	Small-wood M ³
W.Chanda	1	20.00	20.00		187.48	67.05		206	206	
Central Chanda	2	305.00	42.45		354.12			1027.02		
Bramhapuri	13	465.00	309.35		1248.22			410	6843.06	65.94
Markhanda	9	756.05	491.38		20383.26			2098	19959.71	752.98
Pranhita	6	266.97	139.00		31490.52			30908	511.04	
Grand Total	59	2972.14	1518.04	1518.04	44982.59	115758	103162.80	2580.30		


 (Vikas Gupta)
 Managing Director

b) Improvement Working Circle

Project Division	No of coupes	Physical		Expected Yield as per marking		Financial Allocation (Rs. in lac)
		Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Stem Timber M ³	Poles No.	
Nagpur	9	500.91	469.13	200.91	39.11	
Bhandara	5	255.00	205.00	1861.00		
Gondia	8	903.50	561.50	215.27	634	25.00
Kinwat	11	726.45	726.45	1623.20		
West Chanda	18	404.40	404.40	958.55		
Central Chanda	4	1209.92	224.98	1607.51		
Brahmapuri	11	527.93	527.93	98.95	0	14.84
				198.90		
				591.25		
				0		45.16
				1055.67		

Project Division	No of coupes	Physical			Expected Yield as per marking (Rs. in lac)
		Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	Stem Timber M ³	
Markhana	16	767.12	767.12	Poles No.	1660.81
				Small-wood M ³	37.00
				Stem Timber M ³	1240
					2285.22
					95.72
Pranhita	4	266.97	256.98	Poles No.	10.57
				Small-wood M ³	103
				Stem Timber M ³	129.60
West Nashik	16	955.18	735.44	Poles No.	84.83
				Small-wood M ³	128
				Stem Timber M ³	8.00
					176.34
Grand Total	102	6517.38	4878.93	Poles No.	4455.35
				Small-wood M ³	8848
					306.18
					9991.76


(Vikas Gujral)
Managing Director

c) Afforestation Working Circle

Project Division	No of coupes	Physical		Expected Yield as per marking (Rs. in lac)
		Total Area as per Management Plan (In ha)	Area Fit for working (In ha)	
Nagpur	13	567.96	567.96	68.54 620
Bhandara	3	156.00	91.00	1497.60 271.69
Yavatmal	3	84.00	60.00	755 790.94
Kinwat	3	135.00	135.00	25.37 325
W.Chanda	10	286.15	286.15	16.43 104.53
Brahmapuri	16	866.97	866.97	710 251.77
Grand Total	48	2096.08	2007.08	188.06 4799.11



(Vikas Gupta)
Managing Director

d) Improvement Felling in Teak Plantation Reboisement Working Circle

Project Division	No of coupes	Physical		Expected Yield as per marking	Financial Allocation (Rs. in lac)
		Total Area as per Management Plan (In ha)	Area Fit for working (In ha)		
Yavatmal	10	249.30	249.30	Stem Timber M ³ Poles No. Small-wood M ³	191.79 3255.00 649.97
Kinwat	4	122.08	122.08	Stem Timber M ³ Poles No. Small-wood M ³	54.05 623 143.11
Brahmapuri	11	155.65	155.64	Stem Timber M ³ Poles No. Small-wood M ³	313.55 0.00 838.83
Markhana	6	191.53	191.53	Stem Timber M ³ Poles No. Small-wood M ³	315.50 313.00 420.24
Pranhita	6	87.97	87.97	Stem Timber M ³ Poles No. Small-wood M ³	292.42 24.00 154.20
Grand Total	37	806.53	806.52	Stem Timber M³ Poles No. Small-wood M³	1167.31 4215 2206.35


 (Vikas Gupta)
 Managing Director

c) Plantation Management Working Circle

Project Division	No of coupes	Physical		Expected Yield as per marking (Rs. in lac)	Financial Allocation (Rs. in lac)
		Total Area as per Management Plan (In ha)	Area Fit for working (In ha)		
Pune	3	212.68	183.50	Stem Timber M ³ Poles No. Small-wood M ³	1100.00 0 13000.00

d) Rehabilitation of Degraded Forest Working Circle

Project Division	No of coupes	Physical		Expected Yield as per marking (Rs. in lac)	Financial Allocation (Rs. in lac)
		Total Area as per Management Plan (In ha)	Area Fit for working (In ha)		
Yavatmal	7	205.00	150.00	Stem Timber M ³ Poles No. Small-wood M ³	164.68 2749 419.14


(Vilas Gupta)
Managing Director

Abstract of Proforma -4

a) Teak Plantation Reboisement Working Circle

No of coupes	Physical		Expected Yield as per marking	Financial Allocation (Rs. in lac)
	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)		
59	2972.14	1518.04	Stem Timber M ³ Poles No. Small-wood M ³	44982.59 115758 103162.80

b) Improvement Working Circle

No of coupes	Physical		Expected Yield as per marking	Financial Allocation (Rs. in lac)
	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)		
102	6517.38	4878.93	Stem Timber M ³ Poles No. Small-wood M ³	4455.35 8848 9991.76

c) Afforestation Working Circle

No of coupes	Physical		Expected Yield as per marking	Financial Allocation (Rs. in lac)
	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)		
48	2096.08	2007.08	Stem Timber M ³ Poles No. Small-wood M ³	972.05 2411 4799.11

d) Improvement Felling in Teak Plantation Reboisement Working Circle

No of coupes	Physical		Expected Yield as per marking	Financial Allocation (Rs. in lac)
	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)		
37	806.53	806.52	Stem Timber M ³ Poles No. Small-wood M ³	1167.31 4215 2206.35

e) Plantation Management Working Circle

No of coupes	Physical		Expected Yield as per marking	Financial Allocation (Rs. in lac)
	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)		
3	212.68	183.50	Stem Timber M ³ Poles No. Small-wood M ³	1100.00 0 13000

f) Rehabilitation of Degraded Forest Working Circle

No of coupes	Physical		Expected Yield as per marking	Financial Allocation (Rs. in lac)
	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)		
7	205.00	150.00	Stem Timber M ³ Poles No. Small-wood M ³	164.68 2749 419.14

Grand Total

No of coupes	Physical		Expected Yield as per marking	Financial Allocation (Rs. in lac)
	Total Area as per Management Plan (In ha)	Area Fit for working (In ha)		
256	12809.81	9544.07	Stem Timber M ³ Poles No. Small-wood M ³	52841.98 133981 133579.16


(Vikas Gupta)
Managing Director