

VOLUME - I

**EXECUTIVE SUMMARY ALONG WITH
THE CONSTRAINTS FACED DURING
WRITING OF THE PLAN**

CHAPTER – I

INTRODUCTION

The Bhandara Forest Project Division was originally formed in the year 1970 with head quarter at Bhandara. This management plan of Bhandara Forest Project Division covers the entire forest area, which have been transferred to the F.D.C.M. Ltd for management purposes vide Government Resolution No. FDC/1074/64746/F-5 dated 27th June 1978. This Management Plan replaces the Management Plan by Shri V. B. Suryavanshi the Divisional Manager, Bhandara Forest Project Division, which was written for the period from 2006-07 to 2015-16. The scientific management of the forest areas of Bhandara Forest Project Division has been proposed in the management plan for a period of ten years from 2016-17 to 2025-26. The total area of this division is 11100.790 ha which are spread over in 39 compartments of Reserve Forests, Revenue land of 27.00 ha. and Compartment No. 141 PF are considered for present Management Plan. The forest area occurs in compact blocks as well as in scattered patches within the civil territory of Bhandara District of the State of Maharashtra. The area lies in between the parallels of latitudes 20°-39' to 21°-38' North and longitudes 79°-25' to 80°-42' East. This Management Plan deals with scientific management of forest for a period of ten years from 2016-17 to 2025-26.

This Management plan shares the National vision of sustainable Management of Forest to meet the needs of present and future generation. The concept of sustainability in forest management implies not only sustainability of productive functions but also environmental functions (soil and water conservation, carbon sequestration etc.) and socio-economic benefits (meeting livelihood and basic needs) to forest dwellers and other forest dependent communities. Environment of forest fringe communities in the protection and management of forest resources through micro plans and eco-development plans has become imperative and must find linkages to management plan.

In the light of the above, the revised code is called “National Working Plan Code 2014” for sustainable management of forest and biodiversity was in forced from 1.4.2014. This Management Plan for Bhandara Forest Project Division has been prepared as per the guidelines of the Government of India contained in the National Working Plan Code 2014 and broadly follows the National Forest Policy of 1988 and Maharashtra State Forest Policy 2008 with emphasis of on conservation, preservation and protection of forest, wildlife and environment.

a) VISION STATEMENT :

Production forestry with biodiversity conservation and sustainable management of forests to meet the needs of present and future generation.

b) GOAL AND OBJECTIVES OF MANAGEMENT :

The following are the goal and objectives of management.

1. To enhance the productivity of the area by converting low value forests into a valuable teak stand.
2. To maintained perpetual growth in the teak plantation throughout their growing phase by carrying out Silvicultural operations.
3. To improve the quality and productivity of the existing crop by improvement felling, tending operations in favor of valuable species and supplemental plantations wherever necessary.
4. To restore the vegetation cover of the degraded and open area by site protection and tending of National Regeneration, supplementing it with plantations of desire species wherever necessary.
5. To enhance the productivity of bamboo areas.
6. To protect, conserve and enhance the wildlife and its habitat in the managed forests.
7. To promote Non-Timber uses of forests such as Ecotourism, Non-Timber Forest Product, Medicinal Plants and Biodiversity.
8. To conserve Soil and Water Resources for ecological and environmental stability by effective monitoring.

c) SWOT ANALYSIS FOR ACHIEVING THE GOAL AND OBJECTIVES OF MANGEMENT.

The Strengths:-

1. Land bank of scientifically managed forests.
2. Assured rainfall area.
3. Scope for wasteland development.
4. Annually about 150 ha. is available for production forestry.
5. Series of successful teak plantation for intermediate revenue.
6. Huge employment generation in rural areas through forestry operations.

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7. Balanced wildlife habitat management resulted in abandon population of wildlife in the forests.
8. Efficient and young dynamic trained staff.
9. Awareness of modern tools and technology.

The Weakness are:-

1. Predominantly the forest is of site quality IV.
2. Heavy biotic pressure on regeneration of forest and natural resources.
3. Out of total, area about 20% area is degraded where Natural Regeneration is very poor.
4. Labour shortage due to industrialization.
5. Increasing withdrawals from forest for livelihoods.
6. A break in recruitment of front line staff for a long time.

The Opportunities are:-

1. Fresh recruitments in front line staff during past plan period.
2. Streamlined forest management practices.
3. Providing livelihood opportunities through forestry activities.
4. Developing ecotourism destinations to involve local communities.
5. Sufficient rainfall in division. (1200 mm)
6. Marginal forests area under production systems.
7. Financial monitoring making administration stronger and transparent.
8. Scope for ecotourism.

The Threats are:-

1. Increasing population pressure on forest.
2. Forest and wildlife may be harmed by organized gangs.
3. Lack of funds to nourish opportunities.
4. Forest protection from fire, grazing, encroachment, illicit felling etc.
5. Soil erosion and Damage by Insects, Parasites and climbers.
6. Migration of labour to urban area.

STRATEGIES

1. Production forestry with biodiversity conservation.
2. Productivity enhancement of forest through enrichment plantations, generation of higher biomass and better protection.

3. Expansion and development of tree cover outside forest area through turnkey plantations.
4. Conservation of environment and the ecological stability through soil and moisture conservation works.
5. Facilitate sustainable harvesting collection, processing, marketing and generation of NTFP's and MAP's.
6. Wildlife and its habitat conservation, protection and development works.
7. Consolidation of boundaries.
8. Village development activities through FDCM CSR fund.

**PROPOSED MANAGEMENT FOR ACHIEVING THE GOALS AND OBJECTIVE:
DISTRIBUTION OF AREA TO VARIOUS WORKING CIRCLES:**

The reallocation of forest areas under various Working Circles of the current Management Plan have been allotted after analyzing the enumeration data of forest crop.

The analysis of forest crop is carried out after enumeration of the crop. Species wise, girth distribution, density distribution computed from the enumeration data is used for the purpose.

The enumeration of trees and stock mapping works have been carried out through systematic line plot sample at 0.18% intensity, and species wise enumeration of the growing stock in uniform girth classes of 15cms has been carried out starting from 15cms. Enumeration has been done in 0.1 ha. Sample plots (31.62 mtr x 31.62 mtr) were taken at the intersection of 750 mtr grid. (each grid of 750 mtr x 750 mtr representing approximately 56.00 ha. on the ground). The data of shrub, climber and regeneration status from all four quadrants of 3mtr x 3mtr laid out at a distance 30mtr from the centre of the main plot of 0.1 ha. have been collected and recorded in the enumeration form.

The stock mapping and enumeration result are given in the following table:

RESULT OF STOCK MAPPING								
S. N	Forest Type	Quality Classes					Total area (in ha.)	% of the total area of working Circle
		II	III	IVa	IVb	Under stock		
1	TPWC	26	1447.75	562	61	0	2096.75	18.89
2	TPRWC	366.75	1253.59	630.5	187.5	64	2502.34	22.54
3	IWC	6	1153	907	163	19	2248	20.25
4	AWC	30.25	969.75	1058	410	254	2722	24.52

5	PWC	23.5	556.4	405.2	158.86	273.9	1417.86	12.77
6	MWC	-	-	50	24.26	-	74.26	0.67
7	PSWC				39.58		39.58	0.36
Total							11100.79	100.00

After analyzing the enumeration data of forest crop, the following territorial / Overlapping working circles / treatments are prescribed to achieve the goal and objectives.

1) TEAK PLANTATIONS MANAGEMENT W.C.: All successful teak plantations raised by Forest Department and FDCM Ltd., up to 2015 under Silviculture system "Conversion to uniform" by clear felling and "Conversion to uniform with supplemental artificial regeneration of genetically superior stock" by overwood removal are included in this Working Circle. Area allotted to this Working Circle is 2096.75ha. in 18 Compartments.

• **SPECIAL OBJECTIVES OF MANAGEMENT:**

- i) To maintain perpetual growth in the plantations throughout their growing phase by carrying out Silvicultural thinning as per the thinning regime prescribed for the purpose.
- ii) To obtain sustained supply of medium to large size timber and poles.
- iii) To get intermediate yield and revenue.

• **BLOCK, COMPARTMENTS AND JFM AREAS**

The working circle is constituted in 18 compartments for Management .There are no blocks in the forest. This working circle does not have JFM areas.

RANGEWISE DISTRIBUTION

Sr.No.	Name of Range	Name of Felling Series	Comptt. No.	Area of the Working Circle for Management in ha.
1	Chandrapur	Chandori	159A	141.50
2		Kakdagondi	P.F.	27.00
3		Sarati	183	50.00
4		Sarati	184	100.00
5		Sarati	186	80.00
6		Jamdi	189	50.00
7		Jamdi	190	85.00
			Total	533.50
8	Pitezari	Dongargaon	14	352.50

9		Govindtola	104A	26.00
10		Ambegaon	141	58.75
			Total	437.25
11	Lakhani	Sarati	191	313.00
12		Sarati	192	160.00
13		Sarati	378	60.00
14		Kalagota	295	195.00
15		Kalagota	297	126.00
16		Kalagota	294	95.00
17		Kalagota	296	177.00
			Total	1126.00
Total Area of Teak Plantation Management W.C				2096.75

2) **TEAK PLANTATIONS & REBOISEMENT W. C.:** This Working Circle includes the untackled areas of natural standing crop suitable for raising teak plantations having slope upto 25⁰, soil depth 30 cm and more and site quality III and above. The extent of such area is 1701.84 ha. The failed patches in the teak plantations were raised under various schemes from 1970 onwards. The extent of this area is 606.00 ha. The total area of this Working Circle is 2502.34ha.in 26 compts. To enhance the productivity of the area by converting less valuable forest into a valuable Teak stand, the Silvicultural system named as "Conversion to uniform system with supplemental artificial regeneration of genetically superior stock" as per the recommendation of the committee by Government of India has been adopted for this Working Circle.

Areas with crop density more than 0.4 Basal area more than 10 m²/ ha and Site quality III and above have been included in this Working Circle.

• **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.

• **BLOCK, COMPARTMENTS AND JFM AREAS :**

The working circle is constituted in 26 compartments. There is no need for separate blocks as the areas are very small and are directly divided into compartments for management. This working circle does not have JFM areas.

RANGEWISE DISTRIBUTION

Sr.No.	Name of Range	Name of Felling Series	Comptt. No.	Area of the Working Circle for Management in ha.
1	Chandrapur	Chandori	159A	76.5
2		Revenue Land	182	100
3		Sarati	183	132.5
4		Sarati	184	65
5		Sarati	186	30
6		Jamdi	187	90
7		Jamdi	188	135
8		Jamdi	189	75
9		Jamdi	190	160
			Total	864
10	Pitezari	Jamdi	194	50
11		Sundari Village	375A	8
12		Jamdi	196	100
13		Govindtola	102	150
14		Govindtola	104A	50
15		Govindtola	105	100
16		Govindtola	106	95
17		Ambegaon	141	200
18		Pangadi	141pf	37.34
19		Ambegaon	143	150
			Total	940.34
20	Lakhani	Sarati	379B	50
21		Sarati	295	50
22		Sarati	294	100
23		Kalagota	296	80
24		Kalagota	298	150
25		Kalagota	389A	17
26		Kalagota	300	251

		Total	698
Total Area of TEAK PLANTATIONS & REBOISEMENT W. C			2502.34

3) IMPROVEMENT WORKING CIRCLE: Forest areas capable of producing medium to large sized timber, poles and firewood but not considered fit for harvesting due to preponderance of young crop has been included in this Working Circle.

This Working Circle constitutes the following areas :-

- (i) Area of linear strips retained along Nala boundary, natural surround of earlier plantation and un-worked areas that need proper tending. Density varying from 0.4 to 0.6 and crop is mainly of miscellaneous species.
- (ii) Area having adequate natural regeneration.

Cleaning and improvement felling will be carried out and in gaps suitable indigenous species will be planted. Area allotted to this Working Circle is 2248.00 ha which is distributed in 27 Comptts.

Areas with crop density more than 0.4, Basal area more than 8 m²/ ha and Site quality III to IV have been included in this Working Circle.

• **SPECIAL OBJECTIVES OF MANAGEMENT :**

The objectives of management of this Working Circle are:

1. To improve the quality and productivity of the existing crops by improvement felling, tending operations in favour of valuable species and supplementary plantations, all these measures are aimed at nursing back these forests to normalcy.
2. 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.
3. To conserve the biological diversity of the area.

• **BLOCK, COMPARTMENTS AND JFM AREAS :**

The working circle is constituted in 27 compartments. There are no blocks in the forest. The areas are directly divided into compartments for management. This working circle does not have JFM areas.

RANGEWISE DISTRIBUTION

Sr.No.	Name of Range	Name of Felling Series	Comptt. No.	Area of the Working Circle for Management in ha.
1	Chandrapur	Chandori	159A	31.00
2		Sarati	182	50.00
3		Sarati	186	25.00
4		Sarati	380F	40.00

XIV

5		Jamdi	188	100.00
6		Jamdi	189	40.00
7		Jamdi	190	50.00
			Total	336.00
8	Pitezari	Jamdi	194	57.00
9		Ambegaon	142	100.00
10		Jamdi	196	85.00
11		Govindtola	102	200.00
12		Govindtola	104A	76.00
13		Govindtola	105	100.00
14		Govindtola	106	70.00
			Total	688.00
15	Lakhani	Sarati	380	50.00
16		Sarati	191	145.00
17		Sarati	379	30.00
18		Sarati	192	230.00
19		Sarati	378	100.00
20		Kalagota	295	140.00
21		Kalagota	297	100.00
22		Kalagota	294	60.00
23		Kalagota	296	50.00
24		Kalagota	298	115.00
25		Kalagota	389	50.00
26		Kalagota	389B	29.00
27		Kalagota	300	125.00
			Total	1224.00
Total Area of Improvement W.C				2248.00

4) AFFORESTATION WORKING CIRCLE: The open forest areas having density less than 0.4 and with rootstock and shrubby growth as well as open forests without rootstock, where artificial regeneration appears necessary to restore productivity, are included in this Working Circle. Only dead, dying, malformed, crooked trees will be felled and in gaps suitable indigenous species will be planted. Area allotted to this Working Circle is 2722.00 ha which is distributed in 31 Comptts.

Areas with canopy density less than 0.4, Basal area less than 4 m²/ ha and Site quality IV have been included in this Working Circle.

• **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 animals and birds.

• **BLOCK, COMPARTMENTS AND JFM AREAS :**

The working circle is constituted in 31 compartments. There is no need for separate blocks. The areas are directly divided into compartments for Management. This working circle does not have JFM areas.

RANGEWISE DISTRIBUTION

Sr.No.	Name of Range	Name of Felling Series	Comptt. No.	Area of the Working Circle for Management in ha.
1	Chandrapur	Chandori	159A	199.50
2		Sarati	182	145.00
3		Sarati	183	90.00
4		Sarati	184	35.00
5		Sarati	186	90.00
6		Sarati	187	85.00
7		Jamdi	188	70.00
8		Jamdi	190	40.00
			Total	
9	Pitezari	Jamdi	194	425.00
10		Sundari Village	375A	25.00
11		Ambegaon	142	50.00
12		Jamdi	196	105.00
13		Govindtola	102	43.00
14		Govindtola	104A	30.00
15		Govindtola	105	150.00
16		Govindtola	106	25.00
17		Ambegaon	141	45.00
18		Ambegaon	143	29.00
		Total		927.00
19	Lakhani	Sarati	380	164.00
20		Sarati	191	90.00
21		Sarati	379	20.00
22		Sarati	379B	36.00

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23	Sarati	192	186.50
24	Sarati	378	25.00
25	Kalagota	295	50.00
26	Kalagota	297	75.00
27	Kalagota	296	30.00
28	Kalagota	389	250.00
29	Kalagota	389A	34.00
30	Kalagota	389B	40.00
31	Kalagota	300	40.00
	Total		1040.50
Total Area of Afforestation W.C			2722.00

5) PROTECTION WORKING CIRCLE: This Working Circle covers the entire area left out after assigning to respective Working Circles. This includes the unworkable areas on account of the steep and precipitous slopes, catchment areas of small and big water bodies, unworkable patches, rocky portions and encroachments. Area assigned to this Working Circle is 1417.86 ha in 37 Compts. The details are as under:

1. Unworkable areas on account of steep and precipitous slopes, rocky and refractory sites, catchment areas of small and big water bodies, accounts for an area of 1417.86 ha.
2. Soil and moisture conservation works are prescribed. No harvesting of trees is recommended in these areas except wind fallen trees of valuable species. In under stock and open areas, seed sowing is prescribed. No plantation is recommended. Encroachment areas will be evacuated and regenerated artificially with suitable local species.

• **SPECIAL OBJECTIVES OF MANAGEMENT.**

1. To protect the fragile forest sites and to reduce the silt load on the water bodies, by preventing the siltation of water bodies, by checking the soil erosion in the catchment areas following in the forests, by maintaining good vegetation and by taking soil and water conservation measures..
2. To preserve and increase the vegetal cover and to help to enhance the quantity and quality of water of this tract.
3. To develop and optimize the natural biodiversity, wildlife and aesthetic value of these areas.
4. Protection, conservation and enrichment of medicinal plants in these areas.
5. To reclaim encroachment areas and to prevent any further encroachment.

• **BLOCK, COMPARTMENTS AND JFM AREAS :**

The working circle is constituted in 37 compartments. There is no need for separate blocks as the areas are very small and are directly divided into compartments for management. This working circle does not have JFM areas.

RANGEWISE DISTRIBUTION

Sr.No.	Name of Range	Name of Felling Series	Comptt. No.	Area of the Working Circle for Management in ha.
				29.50
1	Chandrapur	Chandori	159A	28.00
2		Sarati	182	14.10
3		Sarati	183	94.20
4		Sarati	184	13.80
5		Sarati	186	47.60
6		Sarati	187	2.30
7		Sarati	380F	16.21
8		Jamdi	188	10.30
9		Jamdi	189	5.30
10		Jamdi	190	
		Total		261.31
11	Pitezari	Jamdi	194	63.30
12		Sundari Village	375A	7.90
13		Dongargaon	14	65.20
14		Ambegaon	142	6.20
15		Jamdi	196	117.50
16		Govindtola	102	20.20
17		Govindtola	104A	7.40
18		Govindtola	105	42.46
19		Govindtola	106	41.40
20		Ambegaon	141	43.85
21	Ambegaon	143	10.00	
		Total		425.41
22	Lakhani	Sarati	380	27.70
23		Sarati	191	51.70
24		Sarati	379	5.00
25		Sarati	379A	6.20
26		Sarati	379B	0.90
27		Sarati	192	37.10
28		Sarati	378	5.70
29		Kalagota	295	49.80
30		Kalagota	297	191.10
31		Kalagota	294	78.50

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32		Kalagota	296	99.60
33		Kalagota	298	128.40
34		Kalagota	389	2.40
35		Kalagota	389A	0.70
36		Kalagota	389B	31.93
37		Kalagota	300	14.41
			Total	731.14
Total Area of Protection W.C				1417.86

6) PLANTING STOCK IMPROVEMENT WORKING CIRCLE: This Working Circle includes Seed Stands, Seed Production Areas & Seed Orchards mainly of Teak. The area of these sites varies from 1.28 ha to 10 ha. & the plantation year is from 1964 to 2003. Miscellaneous orchards of Sisoo & Shivan are raised in this division from 1998 to 2002. Area allotted to this Working Circle is 39.58 ha which is distributed in 1 Comptts. These areas are identified for this Working Circle with an objective to supply quality seeds for the Plantation activities in the forestry sector.

• **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 program is to produce seed for superior timber quality, fast growth & higher disease resistance by selection and breeding technology.

• **BLOCK, COMPARTMENTS AND JFM AREAS :**

The extent of areas covered under this Working Circle is 39.58 ha. There is no need for separate blocks as the areas are very small and are directly divided into compartments for management. The area allotted to this working circle also does not have JFM areas, nor there any proposal to distribute these areas to JFM institutions.

RANGEWISE DISTRIBUTION

Sr.No.	Name of Range	Name of Felling Series	Comptt. No.	Area of the Working Circle for Management in ha.
1	Chandrapur	Chandori	188	39.58
			Total	39.58
Total Area of Planting Stock Improvement W.C				39.58

Area statement of Teak seed orchard

Range	Site	Species	Category	C. No.	Area Ha.	Plantation Year	No of graft planted	No. of graft surviving in 2003	No. of clones	
Chandrapur	Mohghata	Teak	Old TSO	188	7.90	1974	1498	1429	45	
		Teak	---		1.28	1976	240	234	40	
		Teak	---		10.00	1977	1664	1447	66	
		Teak	---		7.00	1983	1152	1111	40	
		Teak	---		1.40	1986	220	214	47	
		Teak	---		7.00	1987	700	491	35	
		Teak	---		5.00	1988	504	453	35	
		Teak	Old TSO							
							39.58			

7) **MISCELLANEOUS WORKING CIRCLE:** The areas reserved for Timber & Firewood depot, nurseries, roads, building, water bodies are included in this Working Circle. Total area of this Working Circle is 74.26 ha in 3 comptts. Main objective of this Working Circle is to maintain territorial integrity and comprehensive area accounting of the Reserved and Protected Forest in the Division.

- **SPECIAL OBJECTIVES OF MANAGEMENT.**

Main objective of this Working Circle is to maintain territorial integrity and comprehensive area accounting of the Reserve Forest and Protected Forest in the division.

- **BLOCK, COMPARTMENTS AND JFM AREAS :**

The working circle is constituted in 3 compartments. There is no need for separate blocks as the areas are very small and are directly divided into compartments for management. This working circle does not have JFM areas.

RANGEWISE DISTRIBUTION

Sr.No.	Name of Range	Name of Felling Series	Comptt. No.	Area of the Working Circle for Management in ha.
1	Chandrapur	Sarati	182	25.00
2		Sarati	183	25.00
3		Jamdi	188	24.26
			Total	74.26
Total Area of Miscellaneous W.C				74.26

Besides above, five Overlapping Working Circles are also proposed.

1. **Bamboo Production (Overlapping) Working Circle:** This includes all the areas were bamboo, natural or planted; silviculturally mature is available for harvesting. It includes following areas
 - a) Naturally regenerated Bamboo areas: 505.00 Ha.
 - b) Established successful Bamboo Plantation areas: 916.00 Ha.
2. **Wildlife Management (Overlapping) Working Circle:** It overlaps the whole area of the division i.e. 11100.790 ha in 39 compartments. The main aim of this working circle is to provide directions and guidelines to the field staff in Scientific Management of wildlife and its habitat along with Traditional Forest Management.
3. **Non-Timber Forest Produce (Overlapping) Working Circle:** This working circle is constituted for the first time in the Management Plan with the aim of conservation, development and sustainable harvesting of minor forest produces other than MAP. It overlaps the entire area of the division i.e. 11100.790 ha. and aims at ensuring conservation and sustainable harvesting of NTFP.
4. **Soil and Water Resource Management (Overlapping) Working Circle:** It overlaps the entire area of the division i.e. 11100.790 ha and aims at soil and moisture conservation works.

THE MAIN FEATURES OF THE PRESENT PLAN:

1. The preliminary Management Plan was prepared by undersigned and presented before the State Level Committee. In the meeting it was emphasized that the Plan of Bhandara Division need to be reoriented in some aspects of National Working Plan Code, 2014. Accordingly the plan was reconstructed and presented before the State Level Committee. With the incorporation of suggestions of committee members, the draft Management Plan was approved by the committee.
2. The plan has been prepared as per the guidelines of the Government of India contained in the National Working Plan Code, 2014.
3. For revision of this plan and to write up the plan for all these areas, the field works (Enumeration & stock mapping) were started during the year 2015-16 & completed in the same year. Enumeration of the forest crop has been done by field staff. Growing stock has been assessed compartment wise based on the

standard technique of resource survey assessment laying out quadrant of 0.1 ha. The analysis of the tree enumeration data was done with the help of computer software in the division office. Stock mapping was done by field staff and wherever need ground truth verification was done by AM & DM.

4. Biomass of the growing stock has been assessed.
5. Biodiversity of the forest has been documented.
6. The teak plantation area has been drastically reduced because some good plantations were handed over to wildlife division for creation of new protected areas and buffer zone.

d) EXPECTED OUTCOME :

1. Productivity of the forest will be enhanced by supplemental artificial regeneration of genetically superior stock.
2. Improvement felling will improve the quality and productivity of the existing crop.
3. Series of Teak plantation will be created.
4. Sustained supply of medium to large sized timber will be achieved.
5. Vegetative cover on the degraded and open areas will be restored.
6. Best possible habitat to the wild animals will be provided which may minimize the man-animal conflict.
7. Tree cover outside forest area will be increased through turnkey plantations.
8. Forestry works will generate huge employment in the rural areas.

e) ABSTRACT OF PLAN PRESCRIPTIONS

Chapter No.	Para No./ Sub Para No.	Prescribed activity	Remarks
II	TEAK PLANTATION MANAGEMENT WORKING CIRCLE		
2.2	GENERAL CONSTITUTION OF WORKING CIRCLE.	All successful teak plantations	
2.3	GENERAL CHARACTERISTICS OF VEGETATION	Crop is not very pure	
2.4	FELLING SERIES, CUTTING SECTIONS AND JFM AREAS.	No. Felling series 7. No JFM areas.	
2.5	BLOCK, COMPARTMENTS AND JFM AREAS.	No. of compartments 17.No JFM areas.	
2.6	SPECIAL OBJECTIVES OF MANAGEMENT.	Described in the Para.	

2.6.01	ANALYSIS OF THE CROPS	No. of trees per ha. and Natural Regeneration assessment has been estimated on the basis of partial enumeration.	
2.6.02	SILVICULTURAL SYSTEM	The silvicultural operations are the regular thinning.	
2.6.03	ROTATION PERIOD	80 years	
2.6.04	HARVESTABLE GIRTH	Thinning will be carried out as per yield and stand table of that site quality, plantation age and basal area per unit.	
2.6.05	REDUCING FACTORS AND REDUCED AREAS	Computed on the basis of yield table.	
2.6.06	FELLING CYCLE	First thinning will be carried out at the end of 10 th year of planting. Second and subsequent thinning after 5 years interval.	
2.6.07	DIVISION INTO PERIODS AND ALLOTMENT TO PERIODIC BLOCKS	Periodic blocks are not constituted.	
2.6.08	CALCULATION OF YIELD	Yield will be calculated on the basis of actual growing stock and Yield and stand table of that site quality and age.	
2.6.09	TABLE OF FELLING	Given in the Appendix No.III-A to III-B Volume-II.	
2.6.10	METHOD OF EXCUTING THE FELLING	Described in the para.	
2.6.11	SUBSIDIARY SILVICULTURAL OPERATIONS CLEANING AND THINNING	As per instructions issued by the Managing Director, FDCM Ltd., Nagpur.	
2.6.12	REGENERATION	Already regenerated area	
2.6.13	ASSOCIATED REGULATIONS AND MEASURES	Area will be protected from fire, grazing and illicit felling	
III	TEAK PLANTATION AND REBOISEMENT WORKING CIRCLE		
3.2	GENERAL CONSTITUTION OF WORKING CIRCLE	Untackled natural stands and failed patches in teak plantations	
3.3	GENERAL CHARACTERISTICS OF VEGETATION.	Mixed forest contains trees of all age classes.	
3.4	FELLING SERIES, CUTTING SECTIONS AND JFM AREAS.	No. Felling series 9.No JFM areas.	

3.5	BLOCK, COMPARTMENTS AND JFM AREAS.	No. of compartments 26.No JFM areas.
3.6	SPECIAL OBJECTIVES OF MANAGEMENT.	Described in the Para.
3.6.01	ANALYSIS OF THE CROPS	No. of trees per ha. and Natural Regeneration assessment has been estimated on the basis of partial enumeration.
3.6.02	SILVICULTURAL SYSTEM	"Conversion to uniform system with supplemental artificial regeneration of genetically superior Stock" by overwood removal.
3.6.03	ROTATION PERIOD	As per the guideline.
3.6.04	HARVESTABLE GIRTH	Forests of crop girths equal to or more than the value of Critical Crop Girth for that site quality and composition of species shall be considered to be mature and would qualify for the operation of removal of overwood for artificial regeneration by teak.
3.6.05	REDUCING FACTORS AND REDUCED AREAS	The crop is uneven/ irregular for which yield table is not prepared. Hence, when enumeration has been done for removal of trees the basal area is not used for density reduction.
3.6.06	FELLING CYCLE	Felling cycle is not constituted as the areas in due course, will be converted into teak plantations by artificial regeneration of genetically superior stock.
3.6.07	DIVISION INTO PERIODS AND ALLOTMENT TO PERIODIC BLOCKS	Periodic blocks are not constituted.
3.6.08	CALCULATION OF YIELD	Yield will be regulated on area basis.
3.6.09	TABLE OF FELLING	Given in Appendix No. V of Volume-II.
3.6.10	METHOD OF EXCUTING THE FELLING	Described in the para.
3.6.11	SUBSIDIARY SILVICULTURAL OPERATIONS CLEANING AND THINNING	As per instructions issued by the Managing Director, FDCM Ltd., Nagpur.
3.6.12	REGENERATION	Area will be regenerated by genetically superior stock of teak.

3.6.13	ASSOCIATED REGULATIONS AND MEASURES	Area will be protected from fire, grazing and illicit felling.	
IV	IMPROVEMENT WORKING CIRCLE		
4.2	GENERAL CONSTITUTION OF WORKING CIRCLE	Areas capable of producing medium to large sized timber.	
4.3	GENERAL CHARACTERISTICS OF VEGETATION	Miscellaneous crop	
4.4	FELLING SERIES, CUTTING SECTIONS AND JFM AREAS	No. Felling series 6. No JFM areas.	
4.5	BLOCK, COMPARTMENTS AND JFM AREAS	No. of compartments 27.No JFM areas.	
4.6	SPECIAL OBJECTIVES OF MANAGEMENT	Described in the Para.	
4.6.01	ANALYSIS OF THE CROPS	No. of trees per ha. and Natural Regeneration assessment has been estimated on the basis of partial enumeration.	
4.6.02	SILVICULTURAL SYSTEM	Prescribed removal of matured trees above the harvestable girth to create opening in the tree canopy, thereby, facilitates tree growth in the lower girth classes. It supports establishment of natural regeneration of Teak and other valuable light demander species.	
4.6.03	ROTATION PERIOD	No rotation is fixed as the basic object of management is to improve the growing stock.	
4.6.04	HARVESTABLE GIRTH	Harvestable girth for various important species, in SCI Working Circle, has been determined at maximum volume production as per the CAI & MAI curves in stem analysis exercises, carried out by the then CCF Working Plan Nagpur	
4.6.05	REDUCING FACTORS AND REDUCED AREAS	The crop is uneven /irregular for which yield table is not prepared. Hence, when enumeration has been done for removal of trees if silviculturally available, the basal area is not used for density reduction.	
4.6.06	FELLING CYCLE	The treatment cycle is fixed at ten years.	
4.6.07	DIVISION INTO PERIODS AND ALLOTMENT TO PERIODIC BLOCKS	Periodic blocks are not constituted.	

4.6.08	CALCULATION OF YIELD	The felling is not adopted for yield. Only Silvicultural tending operations will be done.
4.6.09	TABLE OF FELLING	Given in Appendix VII of Volume - II.
4.6.10	METHOD OF EXECUTING THE FELLING	Described in the Para.
4.6.11	SUBSIDIARY SILVICULTURAL OPERATIONS CLEANING AND THINNING	Described in the Para.
4.6.12	REGENERATION	Gap planting. Preference will be given to the local valuable species.
4.6.13	ASSOCIATED REGULATIONS AND MEASURES	Protection from fire, grazing and illicit felling is essential for success of natural and artificial regeneration.
V	AFFORESTATION WORKING CIRCLE	
5.2	GENERAL CONSTITUTION OF WORKING CIRCLE	Open forest areas having density less than 0.4.
5.3	GENERAL CHARACTERISTICS OF VEGETATION	Degraded open forest areas interspersed with forest blanks or brushwood.
5.4	FELLING SERIES, CUTTING SECTIONS AND JFM AREAS	No. Felling series 7. THINNING
5.5	BLOCK, COMPARTMENTS AND JFM AREAS	No. of compartments 31.No JFM areas.
5.6	SPECIAL OBJECTIVES OF MANAGEMENT	Described in the Para.
5.6.01	ANALYSIS OF THE CROPS	No. of trees per ha. and Natural Regeneration assessment has been estimated on the basis of partial enumeration.
5.6.02	SILVICULTURAL SYSTEM	Area will be regenerated with suitable tree species depending on the site condition.
5.6.03	ROTATION PERIOD	No rotation period is fixed as the basic objectives of the management is to enhance the productivity of the forest.
5.6.04	HARVESTABLE GIRTH	Harvestable girth is not fixed.
5.6.05	REDUCING FACTORS AND REDUCED AREAS	Only wind fallen, dead and extremely malformed trees will be marked for removal. Basal area is not used for

		density reduction.	
5.6.06	TREATMENT CYCLE	The treatment cycle has been fixed at ten years.	
5.6.07	DIVISION INTO PERIODS AND ALLOTMENT TO PERIODIC BLOCKS	Periodic blocks are not constituted.	
5.6.08	CALCULATION OF YIELD	Only wind fallen, dead and extremely malformed trees will be Enumerated for removal. Regular yield is not expected.	
5.6.09	TABLE OF FELLING	Given in Appendix No. IX of Volume-II.	
5.6.10	METHOD OF EXECUTING THE FELLING	Given in the Para.	
5.6.11	SUBSIDIARY SILVICULTURAL OPERATIONS CLEANING AND THINNING	Cutback and soil and moisture conservation works.	
5.6.12	REGENERATION	Area will be planted by suitable local species of timber and medicinal value as well as non-timber forest produces as per site requirement.	
5.6.13	ASSOCIATED REGULATIONS AND MEASURES	Protection from fire and grazing is essential for success of natural and artificial regeneration.	
VI	PROTECTION WORKING CIRCLE		
6.2	GENERAL CONSTITUTION OF THE WORKING CIRCLE	Left out area after assigning to respective working circle.	
6.3	GENERAL CHARACTERISTICS OF VEGETATION	Unworkable areas on account of steep and precipitous slopes, rocky and refractory sites, catchment areas of water bodies.	
6.4	FELLING SERIES, TREATMENT SECTIONS AND JFM AREAS	No. Felling series 8 .No JFM areas.	
6.5	BLOCK, COMPARTMENTS AND JFM AREAS	No. of compartments 37. No JFM areas.	
6.6	SPECIAL OBJECTIVES OF MANAGEMENT	Described in Para.	
6.6.1	ANALYSIS OF THE CROPS	No. of trees per ha. and Natural Regeneration assessment has been estimated on the basis of partial enumeration.	
6.6.2	SILVICULTURAL SYSTEM	Soil conservation works, No harvesting, strict protection from fire and grazing.	

6.6.3	ROTATION PERIOD	No rotation period is fixed.
6.6.4	HARVESTABLE GIRTH	Not fixed.
6.6.5	REDUCING FACTORS AND REDUCED AREAS	Sustainable yield is not expected. Only wind fallen material will be removed.
6.6.6	FELLING CYCLE	Not Applicable.
6.6.7	DIVISION INTO PERIODS AND ALLOTMENT TO PERIODIC BLOCKS	No need of periodic blocks.
6.6.8	CALCULATION OF YIELD	Sustainable yield is not expected, hence yield is not calculated.
6.6.9	TABLE OF FELLING	Given in Appendix No. X of Volume-II.
6.6.10	METHOD OF EXCUTING THE TREATMENT	Described in the Para.
6.6.11	SUBSIDIARY SILVICULTURAL OPERATIONS	Regular maintenance of boundary pillars. Soil conservation works.
6.6.12	REGENERATION	Not recommended, except for reclamation of encroachment areas.
6.6.13	ASSOCIATED REGULATIONS AND MEASURES	Protection from fire, grazing
VII	PLANTING STOCK IMPROVEMENT WORKING CIRCLE	
7.2	GENERAL CONSTITUTION OF WORKING CIRCLE	Seed Stands, Seed Production Areas and Seed Orchards mainly of teak.
7.3	GENERAL CHARACTERISTICS OF VEGETATION	Predominantly teak crop of seed origin.
7.4	FELLING SERIES, CUTTING SECTIONS AND JFM AREAS	No. Felling series 1. No JFM areas.
7.5	BLOCK, COMPARTMENTS AND JFM AREAS	No. of compartments 1. No JFM areas.
7.6	SPECIAL OBJECTIVES OF MANAGEMENT	Described in the Para.
7.6.1	ANALYSIS OF THE CROPS	The crop is mainly of teak.
7.6.2	SILVICULTURAL SYSTEM	Thinning will be carried out along with the regular thinning of the project division. Dead, dying, diseased, malformed & species other than seed bearers shall be gradually removed.

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7.6.3	ROTATION PERIOD	80 years.	
7.6.4	HARVESTABLE DIAMETER	Harvestable girth is not fixed.	
7.6.5	REDUCING FACTORS AND REDUCED AREAS	Yield is not expected; hence reducing factor for density reduction is not applicable.	
7.6.6	FELLING (TREATMENT) CYCLE	Treatment cycle is five years.	
7.6.7	DIVISION INTO PERIODS AND ALLOTMENT TO PERIODIC BLOCKS	No need of periodic blocks.	
7.6.8	CALCULATION OF YIELD	Sustainable yield is not expected, hence yield is not calculated.	
7.6.9	TABLE OF FELLING	Given in the Appendix No.II Volume-II.	
7.6.10	METHOD OF EXECUTING THE FELLING	Only dead, dying, diseased trees will be marked for removal.	
7.6.11	SUBSIDIARY SILVICULTURAL OPERATIONS CLEANING AND THINNING	As per instructions issued by the Managing Director, FDCM Ltd., Nagpur.	
7.6.12	REGENERATION	Already regenerated area	
7.6.13	ASSOCIATED REGULATIONS AND MEASURES	Protected from fire, grazing and illicit felling.	
VIII	MISCELLANEOUS WORKING CIRCLE		
8.2	GENERAL CONSTITUTION OF WORKING CIRCLE	Areas reserved for timber and firewood depot, Nurseries, roads, buildings, water bodies etc.	
8.3	GENERAL CHARACTERISTICS OF VEGETATION	Area is under sale depot, nurseries, roads, building and water bodies.	
8.4	FELLING SERIES, CUTTING SECTIONS AND JFM AREAS	No. Felling series 2. No JFM areas.	
8.5	BLOCK, COMPARTMENTS AND JFM AREAS	No. of compartments 3. No JFM areas.	
8.6	SPECIAL OBJECTIVES OF MANAGEMENT	Described in Para.	
8.6.1	ANALYSIS OF THE CROP	Few scattered patches of forests. Site quality III/IV to IV. The crop is mostly matured to middle aged, Crown density is less than 0.2.	
8.6.2	SILVICULTURAL SYSTEM	Dead and wind fallen trees will be harvested after enumeration.	

8.6.3	ROTATION PERIOD	Not prescribed	
8.6.4	HARVESTABLE DIAMETER	Not prescribed	
8.6.5	REDUCING FACTORS AND REDUCED AREAS	Not prescribed	
8.6.6	FELLING CYCLE	Not prescribed	
8.6.7	DIVISION INTO PERIODS AND ALLOTMENT TO PERIODIC BLOCKS	Not prescribed	
8.6.8	CALCULATION OF THE YIELD	Not prescribed	
8.6.9	TABLE OF FELLING	Not prescribed	
8.6.10	METHOD OF EXECUTING THE FILLING (CUTTING)	Dead/Dying trees will be enumerated in the month of October every year and harvesting will be carried out after approval of DM.	
8.6.11	SUBSIDIARY SILVICULTURAL OPERATIONS CLEANING AND THINNING	Not prescribed	
8.6.12	REGENERATION	Not prescribed	
8.6.13	ASSOCIATED REGULATION AND MEASURES	Area will be protected from Fire, Grazing and Illicit. Water bodies will be protected from poachers.	
8.7	METHOD OF PLANTATION	Given in the para.	
IX	BAMBOO PRODUCTION (OVERLAPPING) WORKING CIRCLE		
9.2	GENERAL CONSTITUTION OF WORKING CIRCLE	All natural Bamboo bearing areas and established Bamboo plantations.	
9.3	GENERAL CHARACTERISTICS OF VEGETATION.	Bamboo forms a middle storey in better quality areas. General characteristics described in respective working circle.	
9.4	FELLING SERIES, CUTTING SECTIONS AND JFM AREAS	The total area is 2443.17ha. which is allotted to 13 felling series. No JFM area.	
9.5	BLOCK, COMPARTMENTS AND JFM AREAS.	Total area allotted is 2443.17 ha. spread in 34 comptt. No JFM areas.	
9.6	SPECIAL OBJECTIVES OF MANAGEMENT.	Described in the Para.	

9.6.01	ANALYSIS OF THE CROP	Described in the Para.	
9.6.02	SILVICULTURAL SYSTEM	Described in the Para.	
9.6.03	ROTATION PERIOD	After sporadic/Gregarious flowering clums will be cleared felled.	
9.6.04	HARVESTABLE DIAMETER	Described in the Para.	
9.6.05	REDUCING FACTORS AND REDUCED AREAS	Described in the Para.	
9.6.06	FELLING CYCLE	3 years	
9.6.07	DIVISION INTO PERIODS AND ALLOTMENT TO PERIODIC BLOCKS	Described in the respective main working circle.	
9.6.08	CALCULATION OF THE YIELD	Described in the Para.	
9.6.09	TABLE OF FELLING	Given in Appendix No.IX-A to IX-E of Volume-II.	
9.6.10	METHOD OF EXECUTING THE FILLING (CUTTING)	Described in the Para.	
9.6.11	SUBSIDIARY SILVICULTURAL OPERATIONS CLEANING AND THINNING	Clumps cleaning, Circular trenches etc. Details given in the para.	
9.6.12	REGENERATION	Already regenerated.	
9.6.13	ASSOCIATED REGULARION AND MEASURES	Protection from Fire and Grazing.	
X	WILD LIFE MANAGEMENT (OVERLAPPING) WORKING CIRCLE		
10.2	GENERAL CONSTITUTION OF WORKING CIRCLE	Entire area of the division	
10.3	GENERAL CHARACTERISTICS OF VEGETATION.	Described in the respective main working circle.	
10.4	FELLING SERIES, CUTTING SECTIONS AND JFM AREAS	Details given in the respective main working circle.	
10.5	BLOCK, COMPARTMENTS AND JFM AREAS	The total area is 11100.790 ha.which is directly divided into 39 compartments. No JFM areas.	
10.6	SPECIAL OBJECTIVES OF MANAGEMENT	To ensure wildlife (animals & plants found in wild) protection and conservation in the managed forests.	
10.6.1	ANALYSIS OF THE CROP	Not Applicable.	
10.6.2	SILVICULTURAL SYSTEM	Not Applicable.	

10.6.3	ROTATION PERIOD	Not Applicable.
10.6.4	HARVESTABLE DIAMETER	Not Applicable.
10.6.5	REDUCING FACTORS AND REDUCED AREAS	Not Applicable.
10.6.6	FELLING CYCLE	Not Applicable.
10.6.7	DIVISION INTO PERIODS AND ALLOTMENT TO PERIODIC BLOCKS	Not Applicable.
10.6.8	CALCULATION OF THE YIELD	Not Applicable.
10.6.9	TABLE OF FELLING	Not Applicable.
10.6.10	METHOD OF EXECUTING THE FILLING (CUTTING)	Described in the respective main working circle.
10.6.11	SUBSIDIARY SILVICULTURAL OPERATIONS CLEANING AND THINNING	Not Applicable
10.6.12	REGENERATION	Not Applicable
10.6.13	ASSOCIATED REGULARION AND MEASURES	Not Applicable
10.7	EXISTENCE OF WILDLIFE IN FOREST	By Actual Sighting, Pug Marks, Grazing Marks, Excreta, Smell (Odour), Salt Licking Places, Sound, Wallowing Sights, Nail Marks.
10.8	INJURIES TO WILD ANIMALS	Poaching, degradation of habitat, diseases, fire description given in the para.
10.9	DAMAGES TO PROPERTIES AND INJURIES TO HUMAN DUE TO WILDLIFE	Damage to crop and Injuries to cattle and human described in the para.
10.10.	ANIMAL HEALTH, DISEASES AND ITS SYMPTOMS	Described in the Para.
10.11	PROTECTION MEASURES FOR WILDLIFE	Vaccination of Village Cattle, Regular Health Checkup for Cattle, Protection from Poaching and Trade, Regular Health Checkup for Cattle etc describe.
10.12	COMPENSATION FOR THE LOSS OF LIVE STOCK	Described in the Para.
10.13	COMPENSATION FOR THE INJURIES TO AND LOSS OF HUMAN LIFE	Described in the Para.

10.14	FUTURE MANAGEMENT	Described in the Para.	
10.15	ECO-DEVELOPMENT, AWARENESS GENERATION AND ECO-TOURISM	Given in the Para.	
XI	NON-TIMBER FOREST PRODUCE (OVERLAPPING) WORKING CIRCLE		
11.2	GENERAL CONSTITUTION OF WORKING CIRCLE	Overlaps the entire area of the division.	
11.3	GENERAL CHARACTERISTICS OF VEGETATION	Described in the respective working circle.	
11.4	FELLING SERIES, CUTTING SECTIONS AND JFM AREAS	Not Applicable	
11.5	BLOCK, COMPARTMENTS AND JFM AREAS	The total is 11100.790 ha which is directly divided into 39 compartments. No JFM areas.	
11.6	SPECIAL OBJECTIVES OF MANAGEMENT	To conserve and develop all the non-timber forest produce existing in the forest.	
11.6.1	ANALYSIS OF THE CROP	Described in the respective working circle.	
11.6.2	SILVICULTURAL SYSTEM	Not prescribed.	
11.6.3	ROTATION PERIOD	Not prescribed.	
11.6.4	HARVESTABLE DIAMETER	Not prescribed.	
11.6.5	REDUCING FACTORS AND REDUCED AREAS	Not prescribed.	
11.6.6	FELLING CYCLE	Not prescribed.	
11.6.7	DIVISION INTO PERIODS AND ALLOTMENT TO PERIODIC BLOCKS	Not prescribed.	
11.6.8	CALCULATION OF THE YIELD	Not prescribed.	
11.6.9	TABLE OF FELLING	Not prescribed.	
11.6.10	METHOD OF EXECUTING THE FILLING (CUTTING)	Described in the para.	
11.6.11	SUBSIDIARY SILVICULTURAL OPERATIONS CLEANING AND THINNING	Described in the para.	
11.6.12	REGENERATION	Described in the para.	
11.6.13	ASSOCIATED REGULARION AND MEASURES	Protection from Fire, Grazing and Illicit.	

11.7	OWNERSHIP AND MONOPOLY PROCUREMENT OF THE NTFPS	Described in the para.	
11.8	AGENCY FOR THE COLLECTION OF NTFPS	Described in the para.	
11.9	MANAGEMENT OF TENDU	Described in the para.	
11.10.	MAHUA WORKING	Described in the para.	
11.11	MANAGEMENT OF GUMS	Described in the para.	
11.12	MANAGEMENT OF HIRDA, BEHEDA, AONLA, CHAR AND OTHER NTFPS	Described in the para.	
11.13	MANAGEMENT OF GRASS	Described in the para.	
11.14	FUTURE MANAGEMENT	Described in the para.	
11.15	THE MEDICINAL & AROMATIC PLANTS	Described in the para.	
XII	SOIL AND WATER RESOURCE MANAGEMENT (OVERLAPPING) WORKING CIRCLE		
12.2	GENERAL CONSTITUTION OF WORKING CIRCLE	With a view to provide desired soil conservation treatment to the affected areas of the division.	
12.3	GENERAL CHARACTERISTICS OF VEGETATION	Given in the respective Working Circle.	
12.4	FELLING SERIES, CUTTING SECTIONS AND JFM AREAS	Details given in the respective main working circle.	
12.5	BLOCK, COMPARTMENTS AND JFM AREAS	Total area 11100.790 ha. No JFM area.	
12.6	SPECIAL OBJECTIVES OF MANAGEMENT	Conservation & development of valuable natural resources like soil and drying water sources.	
12.6.1	ANALYSIS OF THE CROP	Not Applicable	
12.6.2	SILVICULTURAL SYSTEM	Not Applicable	
12.6.3	ROTATION PERIOD	Not Applicable	
12.6.4	HARVESTABLE DIAMETER	Not Applicable	
12.6.5	REDUCING FACTORS AND REDUCED AREAS	Not Applicable	
12.6.6	FELLING CYCLE	Not Applicable	

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12.6.7	DIVISION INTO PERIODS AND ALLOTMENT TO PERIODIC BLOCKS	Not Applicable	
12.6.8	CALCULATION OF THE YIELD	Not Applicable	
12.6.9	TABLE OF FELLING	Not Applicable	
12.6.10	METHOD OF EXECUTING THE FILLING (CUTTING)	Described in the respective main working circle.	
12.6.11	SUBSIDIARY SILVICULTURAL OPERATIONS CLEANING AND THINNING	Not Applicable	
12.6.12	REGENERATION	Described in the respective main working circle.	
12.6.13	ASSOCIATED REGULARION AND MEASURES	Not Any	
XIII	FOREST PROTECTION PLAN		
13.1	INTRODUCTION	Described in the Para.	
13.2	OBJECTIVES OF PROTECTION PLAN	To develop a database to monitor various forest and wildlife offence cases in a systematic manner.	
13.3	GENERAL PRINCIPLES OF EFFECTIVE FOREST PROTECTION	Described in the Para.	
13.4	FIRE PROTECTION	Described in the Para.	
XIV	BIO-DIVERSITY IMPROVEMENT AND CONSERVATION		
14.1	INTRODUCTION	Described in the Para.	
14.2	LEVELS OF BIODIVERSITY	There are three interrelated levels of biodiversity namely, genetic diversity, species diversity and community or ecosystem diversity i.e at the level of ecosystem.	
14.3	THE VALUE OF BIOLOGICAL DIVERSITY.	Described in the Para.	
14.4	USES OF BIODIVERSITY:	Described in the Para.	
14.5	THREATS TO BIODIVERSITY:	Described in the Para.	
14.6	CONSERVATION OF BIODIVERSITY	Described in the Para.	
XV	JOINT FOREST MANAGEMENT IN THE DIVISION		
15.1	BACKGROUND OF JFM	Described in the Para.	

15.2	STATUS OF JFM IN THE DIVISION	Described in the Para.	
15.3	RECOMMENDATIONS	Described in the Para.	
XVI	MISCELLANEOUS REGULATIONS		
16.1	BOUNDARY DEMARCATION	The said Act was notified in the Gazette of India on 2nd January, 2007.	
16.2	SPECIAL OBJECTIVES OF DEMARCATION	Described in the Para.	
16.3	APPROACH TO THE FOREST DEMARCATION		
16.4	APPLICATION OF GPS.	No forest area is recognized under FRA 2006.	
16.5	1/5TH BOUNDARY DEMARCATION SCHEME	Described in the Para.	
16.6	DEMARCATION OF COUPES	Described in the Para.	
16.7	PREPARATION OF TREATMENT MAP	Described in the Para.	
16.8	MARKING OF TREES	Described in the Para.	
16.9	HARVESTING	Described in the Para.	
16.10.	IRREGULAR HARVESTING	Described in the Para.	
16.11	SOIL AND WATER CONSERVATION MEASURES	Described in the Para.	
16.12	ECO-TOURISM	Described in the Para.	
16.13	NURSERY TECHNIQUE (ROOT TRAINER ,POLYTUBE , COMPOST)	Described in the Para.	
16.14	SURVEY AND MAPS	Described in the Para.	
16.15	PROTECTION PLAN	Described in the Para.	
16.16	CONTROL AND RECORDS	Described in the Para.	
16.17	DIVISIONAL NOTE BOOK / JOURNAL	Described in the Para.	
XVII	FINANCIAL FORECAST		
17.2	FUTURE YIELD	Described in the Para.	

17.3	FUTURE YIELD, EXPEDITURE AND REVENUE	Given in tabular form.	
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f) WORKS PRESCRIBED DURING THE PLAN PERIOD

Chapter No.	Para No./Sub Para No.	Prescribed activity	Year wise (Year 1-10) distribution of physical target in ha.				
			2016-17	2017-18	2018-19	2019-20	2020-21
II	Teak Plantation Management Working Circle	Silviculture thinning	380.25	454.00	399.50	126.00	277.00
III	Teak Plantation & Reboisement Working Circle	Removal of overwood followed by Teak plantation.	190.00	167.34	225.00	175.00	157.50
IV	Improvement Working Circle	Removal of 50% of selection trees if silviculturally available and all dead, dying, diseased trees and artificial regeneration in gaps.	105.00	252.00	100.00	296.00	435.00
V	Afforestation Working Circle	Hygienic felling and artificial regeneration to restock the area.	140.00	225.00	139.00	235.00	200.00
IX	Bamboo Production (OL) Working Circle	Bamboo Harvesting.	250.00	220.00	205.00	285.00	75.00

Chapter No.	Para No./Sub Para No.	Prescribed activity	Yearwise (Year 1-10) distribution of physical target				
			2021-22	2022-23	2023-24	2024-25	2025-26
II	Teak Plantation Management Working Circle	Silviculture thinning	520.25	554.00	519.50	226.00	277.00
III	Teak Plantation & Reboisement Working Circle	Removal of overwood followed by Teak plantation.	40	211.00	90.00	50.00	105.00
IV	Improvement Working Circle	Removal of 50% of selection trees if silviculturally available and all dead, dying, diseased trees and artificial regeneration in gaps.	295.00	50.00	255.00	234.00	226.00
V	Afforestation Working Circle	Hygienic felling and artificial regeneration to restock the area.	189.00	190.00	156.00	181.00	210.50
IX	Bamboo Production(OL) Working Circle	Bamboo Harvesting.	155.00	275.00	180.00	230.00	175.00

FDCM is committed for Protection, Development and Conservation of Biodiversity through intensive Management of the Forest area, leased out by the Forest Department, by giving proper treatment to the area of each compartment. Hence, there may be two or more Working Circles in a compartment to be managed by FDCM Ltd.

g) CONSTRAINTS FACED DURING WRITING OF THE MANAGEMENT PLAN :

The Management plan has been completed in time in spite of constraints faced during writing of plan are as under.

- FDCM does not have separate wing for preparation of management plan, hence, the undersigned him selves have been written the plans while performing his day to day duties.
- Writing of Management Plan as per New Working Plan Code 2014 was challenging task, as existing field staff of this division is not well conversant to New Working Plan Code.
- Lack of expertise to deal with caring out various types of survey, laying of sample plot. There is no facility of GIS mapping software and trained IT staff for creating interface between field data and plotting digital data.
- Lack of train staff to handle model technologies.