EXECUTIVE SUMMARY ALONG WITH A BRIEF OUTLINE OF MANAGEMENT PRESCRIPTIONS

1.0 Introduction

This Management Plan of Yavatmal Forest Project Division envisages scientific management to the entire forest area, which has been transferred to the F.D.C.M. Ltd. vide Government Resolution No. FDC/1094/CN/578/F-5 dated 23th September 1997 and FDC-2014/CN/112/F-5 dated 19.06.2014. The scientific management of the forest areas of Yavatmal Forest Project Division has been proposed in the management plan for a period of ten years from 2026-27 to 2035-36. The total area of this division considered for present Management Plan is 27343.86 Ha. (6 Ranges, 14 Rounds, 30 Beats) which is distributed in 99 compartments of Reserved Forests and lying between latitude of 19^0 26' to 20^0 42' North and longitude of 77^0 18' to 79^0 13' East.

Yavatmal Forest Project Division was formed in the year 1981 with headquarter at Yavatmal. For revision of the previous management plan and to write up the plan for all these areas, the field works (Enumeration & stock mapping) were started during the year 2025-26 & completed in the same year. This management plan for Yavatmal Forest Project Division broadly follows the National Forest Policy of 1988 and Forest Policy of Maharashtra State 2008 with emphasis on conservation, preservation and protection of forest, wildlife and environment. Besides this, in order to enhance the productivity of the area by converting less valuable forest into a valuable Teak stand, the Silvicultural system of "Conversion to uniform system with supplemental artificial regeneration of Genetically Superior Stock" as per the recommendations of the committee appointed by Government of India, has been adopted in this management plan for Conversion and Uniform System with supplemental Artificial Regeneration working circle (CWC). The idea is to convert suitable existing uneven aged forests to even aged teak forests to enhance the quality and productivity of the forest.

The present plan is the fourth Management Plan of Yavatmal Forest Project Division. It deals with an area of 27343.86 Ha. in 99 compartments. The division constitutes a forest area is in patches and scattered all over the Yavatmal district.

The area is plain as well as hilly. Geological formations pertain to Deccan trap and Basalt rock in varying formation is predominant. The climate is hot and dry. The rainfall per annum is around 911.34 mm. Water supply is scanty. Boundary demarcation of R.F. is properly done. Rights and concessions do not exist in R.F.

THE FOREST: - It is of the forest type – Southern Tropical Dry Deciduous Forest.

LABOR SUPPLY: - It is fairly satisfactory, near about 70% labor force available locally but sometime local labors are not available then it is brought from outside the district and states.

WILDLIFE: Wildlife such as Tiger, Panther, Hyaena, Wild dog, Sambhar, Cheetal, Nilgai, Wild boar, Barking deer, Spotted deer, Common langoor, Porcupine, Jungle fowl, Painted sand grouse, Pigeon, Painted Patridge, Golden back woodpecker, Black Drogo etc. are seen in this tract.

PLAN PERIOD: This Management Plan has been prepared for a period of 10 year from year 2026- 2027 to 2035–2036.

2.0 Past System of Management

2.1 Before Management Plan

In 1969, Forest Development Board within the Forest Department was created to convert large blocks of mixed forests into teak stands by clear felling the miscellaneous forest and planting it with teak. In 1974, Forest Development Board was succeeded by an autonomous corporate body, the Forest Development Corporation of Maharashtra Limited with it headquarter at Nagpur. The Forestry Programme as carried out by Forest Development Board was continued by the new body with wider scope. The programme up to 1980 was carried out on agency basis and thereafter with the institutional finance up to 1987.

Waste Land Development Programme was introduced from 1989 to 1991 with institutional finance on assigned areas. For this purpose, vide G.R.No.FLD/1087/ 2462 GR/347/F2 dated 6/9/1990 Government of Maharashtra assigned and allotted 15223.73 ha. additional areas for FDCM. Under World Food

Programme, some plantation activities were undertaken such as enrichment of failed patches of Teak plantations, bamboo underplanting in Teak plantations and fuel wood plantations in failed Teak plantation patches.

Bamboo underplanting was also carried out with the help of FDCM funds. This arrangement was relaxed from 1992 when FDCM was assigned work of plantations of Production Forestry and Rehabilitation of degraded forests under Maharashtra Forestry Project.

Teak plantation by overwood removal i.e. Conversion to uniform with supplemental artificial regeneration of genetically superior stock was started in the year 2007 and now it is successfully going on.

2.2 First Management Plan

First Management Plan of Yavatmal Forest Project Division was prepared in the year 1995. This Management Plan was written by Shri.D.C. Bhalerao, Divisional Manager, Forest Project Division, Yavatmal for the period of 1995-96 to 2005-06 to utilized all productive land of earmarked, assigned and allotted areas with a view to improve the growing stock of low-density area. For better scientific management of the areas, following working circles were constituted.

S.N.	Name of working circles	Area in Ha.
1.	Teak plantations management working circle	2980.00
2.	Protection and Soil, Moisture Conservation working circle.	6940.62
3	Bamboo Plantation working circle.	4294.00
4	Mixed Plantation Working Circle	2247.00
5	Afforestation working circle.	10034.98
6	Rehabilitation of degraded forest working circle.	4449.56
7	Miscellaneous working circle.	481.00
	Total	**31427.16**
8	Bamboo overlapping working circle	9254.00

2.3 Second Management Plan

The second Management Plan of Yavatmal Forest Project Division was written by Shri.V.B. Thakre, Divisional Manager, Yavatmal Forest Project Division for the period 2006-2007 to 2015-2016 and implemented after approval from

Government of India vide letter no.1235/97/(FOR)/1861 Dt-18-10-2006. The total area 31627.01 Ha. under Management Plan was allocated to the following working circle.

DISTRIBUTION OF AREA AMONGST THE WORKING CIRCLES

S. N.	Name of working circles		Area handed over to F.D. (Ha)	Balance Area (Ha)	Area taken over (Ha) 2014.15
1	Teak Plantation Management W.C.	3249.75	1130.50	2119.25	Successful Teak Plantation included in TPMWC and area taken over is distributed in another working circle
2	Teak Plantation & Reboisement W.C.	9662.00	1988.00	7674.00	
3	Afforestation W.C.	1517.75	578.00	939.75	
4	R.D.F. W.C.	4148.34	289.00	3859.34	
5	Protection W.C.	10526.75	2452.26	8074.49	
6	Area under Miscellaneous Regulation	1859.58	1227.20	632.38	
7	Bamboo production (OL) W.C.	662.84	127.00	535.84	
	Total	**31627.01**	**7791.96**	**23835.05**	**3535.53**
8	Wildlife Management (OL) W.C.	31627.01	--	--	--

2.4 Third Management Plan

The third Management Plan of Yavatmal Forest Project Division was written by Shri.T.M. Durge, Divisional Manager, Yavatmal Forest Project Division for the period 2016-2017-2025-2026 and implemented after approval from Government of India vide letter F.No.12-35/97/(FOR)/2762 Date-23-10-2017. The total area 27370.58 Ha. under Management Plan was allocated to the following working circle.

S. N.	Name of the working circle	Total
1	Teak Plantation Management W.C.	3235.75
2	Teak Plantation & Reboisement W.C.	8386.23
3	Afforestation W.C.	1816.39
4	Rehabilitation of Degraded Forest W.C.	3296.21
5	Protection W.C.	9065.12
6	Planting stock Improvement W.C.	18.00
7	Management Plan for Encroachment W.C.	311.13
8	Area under Miscellaneous Regulation	800.75

9	Bamboo production overlapping W.C. (M.P.) In standing forest area	441.00
	Bamboo production overlapping W.C. (I.P.) In Teak plantation area	*120.00
	Total	**27370.58**
10	Wildlife Management (OL)W.C.	27370.58
11	Soil and Water Resources Management (OL)W.C.	27370.58
12	Non-Timber Forest Produce (OL) W.C.	27370.58

* Bamboo Overlapping Area

3.0 Basis of Proposals and Brief outline of Management Prescriptions

3.1 Basis of Proposals: The National Forest Policy of 1988, Forest Policy of Maharashtra State-2008, National Working Plan Code 2023 Annexure II Indian Forest Management Standard and Memorandum of Association, FDCM Ltd Nagpur will be the guiding principle to decide the general objects of management. The following Working circles have been constituted in Present management Plan.

I. Teak plantation Management working circle
II. Conversion and Uniform System with supplemental Artificial Regeneration working circle (CWC)
III. Afforestation Working Circle
IV. Protection working circle
V. Planting stock improvement working circle
VI. Bamboo (overlapping) working circle
VII. Non- Timber Forest Produce (overlapping) working circle
VIII. Wildlife Management (overlapping) working circle
IX. Soil and water resource management (overlapping) working circle

3.2 Brief outline of management prescriptions

Sr. No.	Name of Working Circle	Details of prescription
1	Teak Plantation Management Working Circle (TPMWC) **(Thinning of Teak Planation)**	• First Thinning will be carried out at the end of 10th year of planting as per standard silvicultural practice for Teak Planation & as per the instructions of MD, F.D.C.M. Ltd. • In this regard second thinning will be carried out 15th year of planting. • Third & subsequent thinning will be carried out at an interval of 5 years. • Second and subsequent thinning in Teak Plantation will be carried out as per the revised instructions of thinning of teak plantation vide Managing Director letter no. PLN/2874, Nagpur Dated 02/09/1999. • In the teak plantations which have completed its rotation of 80 years, final felling will be carried out. It will be followed by teak plantation. Prescriptions

		of teak plantation working circle will be followed for felling in this area. • Climber cutting work will be done prior to every thinning. • Tolerant species like Palas (*Butea monosperma*) capable of capturing the side shall be felled wherever found. Other inferior species including Bamboo interfering or likely to interfere with the proper growth of teak shall be felled. • Damage or badly shaped trees of coppice origin shall be cut back.
2	Conservation and Uniform System with supplemental Artificial Regeneration Working Circle (CWC)	• The Silvicultural system of "Conversion to uniform system with supplemental artificial regeneration of genetically superior stock" as suggested by Government of India shall be adopted. • The broad prescriptions for over wood removal for raising teak plantation are as under and are in consonance with the guideline of Government of India. • All young to middle aged fruit bearing trees upto 20 trees per Ha. shall be retained. • Young to middle aged trees of Semal, Khair, Rosewood and other superior miscellaneous species having medicinal values upto 20 trees per Ha. uniformly spread over the areas will be retained. • No felling will be done on either side of nallas, streams and river banks upto twice the width of the nalla • The section size at a place should not exceed 20 ha Ha.. • 5 mtr vide common strip of natural forest will be retained around a section called section line. • Effective major will be adopted to protect the planation from fires for all times to come. • Improved planting stock will be used in order to increase the productivity of the area.
3	Afforestation Working Circle	• Area below 0.4 density & fit for plantation of misc. species and teak are worked under this working circle. • To restore soil fertility and increase soil fertility SMC works are taken along with plantation of indigenous species. • Following operations are done 1. Removal of dead and dying as part of hygienic operation. 2. Tending of coppices growth, if any with preference to fruit trees and important species. 3. Intensive SMC works will be carried out in the entire area. 4. In ex-situ conservation, plantation of medicinal plants and local species will be carried out as per the site's requirement. 5. Plantations of suitable trees species includes short rotations crops in Type B area will be carried out if any industrial buy-back scheme or during collaboration between an industry and FDCM.
4	Protection Working Circle	• This working circle includes the area prone to erosion and under heavy biotic pressure. • These precipitous slopes (> 25 degree) are the origin of the many water courses later on they become nala. • Unworkable area on account of reasons such as steep undulating slopes, rocky and refractory sites, nalla banks, river bank etc. are included in this working circle. • To preserve and improve the existing growing stock in this vulnerable area. • To preserve the habitat in its undisturbed form. To implement soil moisture conservation works for protection of area from erosion and denudation.
5	Planting Stock Improvement Working Circle	• This working circle included Seed stands, Seed production area, Seed orchards mainly of teak and Nursery area. The method of treatment in this area as follows 1. Demarcation of Seed stands and Seed orchard area. 2. Fixing of sign board at the site. 3. Cleaning and cutting of unwanted coppice, bushes, climbers before collection of seeds. 4. Affixing number, triangular metal labels to seed bearers once in 5 years. 5. Application of Bordeaux mixture to seed bearers.

		6. Soil and moisture conservation works. 7. Fire protection works. 8. Thinning of seed area at an interval of 5 years this will be done in consultation with DM Nagpur, who is in charge of Seed Unit.
6	Bamboo (Overlapping) Working Circle	• This working circle includes all the area were bamboo naturally and planted is available.
7	Non-Timber Forest Produce (Overlapping) Working Circle	• The important NTFP available are Moha flower, Tendu leaves, Gum. Broom grass, medicinal forest produces etc. • Plantations of suitable or industrial proposed species will be done as per industrial buy-back scheme or during collaboration between an industry and FDCM.
8	Wildlife Management (Overlapping) Working Circle	• The specific of this working circle is to ensure wildlife protection and conservation in the managed forests of the division. Following prescriptions are being made for the protection of wildlife, creation of environment of security to wild animals, increasing infrastructure for wildlife management and trying to restore the status of wildlife in this tract. a. Marking of dead trees in any felling coupes will be done only if their number is more than 2 trees/ ha. These trees will act as snags and den trees for nesting and resting of the wild animals. Tress of commercially low utility may be used for this purpose. b. During harvesting some unsound and hollow logs of commercially low utility, not exceeding two per ha. will be left in the forest to serve as shelter for wildlife. c. The existing waterholes will be maintained and new water holes, Vantalav, will be created as per requirement. d. Hoardings on the importance of wildlife and its protection will be exhibited at strategic locations. e. The labor camps and transit depots will be established away from the areas having high density of wild animals. f. A vigilant watch shall be kept on poachers also at the checking gates erected to check/ prevent the illicitly transport of forest produce. • g. To ensure scientific management of wildlife in the managed forests by undertaking measures like habitat management and water holes development and monitoring populations of the wild animals.
9	Soil & Water Resource Management (Overlapping) Working Circle	The problem of soil erosion is caused by variety of factors and hence diversified approach is necessary for its control. Following are the two types of measures which can be taken up for reducing soil erosion: **Preventive measures** 1. Steep slopes and the areas besides river, nallas and natural water sources should have permanent green cover and no felling should be done in such places. 2. Erodes areas should be treated on priority to prevent channel and gully formation to widen and to spread in adjoining areas. 3. Grazing should be controlled in such areas & they must be protected from repeated fire. **Remedial measures** 1. Planting of grasses for stabilizing bunds. Grasses prevent soil erosion and improve soil structure. The entire soil mass is penetrated by countless roots and soil aggregate and particles are enmeshed by root system. Grasses should be grown on bunds for checking erosion and providing pasture to wild animals. 2. In the areas where soil erosion intensity is too high to allow vegetative measures to establish to be effective, mechanical measures need to adopted various mechanical works like loose stone check dams, brushwood check dams, gabion structure, CNB, CCT, diversion channels, spurs are constructed as per suitability and site-specific need of the area.
	Miscellaneous Regulations	• This comprises area under various projects, roads, buildings and encroachment of the Division. • The method of treatment of encroachment area as follows – 1. Encroachment regularization – i) To survey and demarcate the area.

		ii) To take follow of pending cases of encroachment under Forest Right Act 2006. 2. Encroachment eviction phase – i) Afforestation phase: - The phase will start as soon as trench cum mound (TCM) of size 1.90 m. x 1.00 m. x 0.60 m. will be taken at Forest boundary. ii) The Forest boundary will be demarcated permanently at site. iii) thorny species of shrubs and trees and Bamboo species will be sown on TCM. iv) The pits planting at 4 m.x4m. spacing of pit size 30 cm x 30 cm x 30 cm will be done in first year. v) Local fruit species will be planted in the pits. vi) Soil & moisture conservation works will be taken as per the requirement of the area. vii) The entire area will be protected from fire and grazing up to 5th year of plantation.

a) Vision Statement: -

The vision of this plan is given below:

(i) To generate revenue without compromising to preserve forest cover on steep hill slopes, along the nala banks and water courses and to prevent soil erosion and to preserve site and environment.

(ii) Arrest further degradation of the areas and promote existing vegetative cover by proper soil conservation measures and enrichment planting.

(iii) To conserve and maintain wildlife.

(iv) To develop the livelihood of neighboring villages

b) Goals and Objectives of management: -

A. The National Forest Policy of 1988, Forest Policy of Maharashtra State-2008, National Working Plan Code 2023 Annexure II Indian Forest Management Standard and Memorandum of Association, FDCM Ltd Nagpur will be the guiding principle to decide the general objects of management. The new policy has emphasized to need for environment stability as the prime objective. Keeping in view the above factor and the other principals laid down in the National Forest Policy, the functions the forests have to perform as per State Government's Orders, the objects of scientific management, the rapid depletion of growing stock due to over harvesting, heavy grazing and illicit cutting, the general objects of management will be as under.

(i) To enrich the growing stock in other natural forests and to restock all the under stocked and degraded forests, to achieve normality of growing stock in shortest possible time.

(ii) To meet the requirement of small timber, fuelwood, fodder and minor forest produce of the rural and tribal population on top priority.

(iii) To increase the production of minor forest, produce and to manage to same scientifically to utilize the potential to the maximum possible extent on sustained basis.

(iv) Consistent with the above objectives to ensure maximum sustained yield.

(v) Artificial regeneration of the areas with appropriate plantation technology, and after due consideration of edaphic and ecological factors.

c) SWOT Analysis: -

STRENGTH:

1. A total of 27343.86 Ha. area under forest.
2. Established Root trainer nursery.
3. Well managed depot.
4. Availability of infrastructure including forest roads, vehicles, equipment and working tools.
5. Availability of trained professional field staff.
6. Management plan for systematic management of forest.
7. Availability of natural resources like Painganga and Wardha river which is maintained the perennial supply of water.
8. Biodiversity rich area.
9. Revenue generation from various activities.
10. Production of high value timber (Teak) for filling the gap between demand and supply of market.
11. Employment to local people.

WEAKNESS:

1. Poor site quality crop (site quality III and IV).
2. Scattered area.
3. Low involvement of local people in forest protection.
4. Fragmentation of habitat.
5. Inadequate ministerial staff.

OPPORTUNITY:

1. Development of ecotourism areas for generating additional revenue.
2. Conversion of low-quality forest into high quality forest.
3. Expansion of medicinal and aromatic plants area.
4. Potential to increase flora and fauna.
5. Potential of NTFP to increase the revenue.
6. Availability of blank area for Afforestation to increase the forest cover.
7. Eroded area converts into productive area by adopting soil and moisture conservation measures.

THREATS:

1. Increasing population pressure on forest.
2. Conversion of forest land into other non-forestry purposes.
3. Natural calamities cause failure of plantation and damage to forest area and also wildlife.
4. Pressure of encroachment on forest area.
5. Negative impact of climate change.
6. Heavy grazing and Fires.
7. Mining activities.