

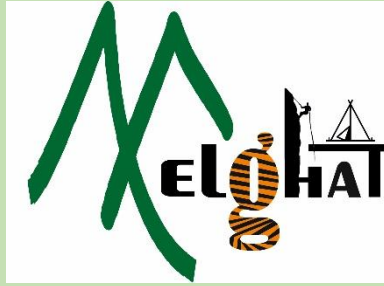


सत्यमेव जयते

GOVT. OF MAHARASHTRA



MELGHAT TIGER RESERVE AMRAVATI



TIGER CONSERVATION PLAN: BUFFER (DRAFT)

Plan Period: 2024-25 To 2033-34

O/o Chief Conservator of Forest & Field Director
Melghat Tiger Reserve,
Camp, Amravati 444602

Buffer Zone

Part I- Existing situation

CHAPTER-1

BUFFER ZONE-EXISTING SITUATION

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1. INTRODUCTION OF THE AREA

1.1 LOCATION

This plan for Buffer Zone of Melghat Tiger Reserve deals with the areas comprised within the Reserved Forest and Non Forest areas within the jurisdiction of Sipna Wildlife Division, Gugamal Wildlife Division, Akot wildlife division and Melghat wildlife division, Paratwada. The purpose of including the area is to ensure the integrity of the Critical Tiger Habitat or core area with adequate area for dispersal of tigers and with the aim of promoting co-existence between wildlife and human activity, with due recognition of the livelihood, development, social and cultural rights of the local people.

1.2 CONSTITUTION

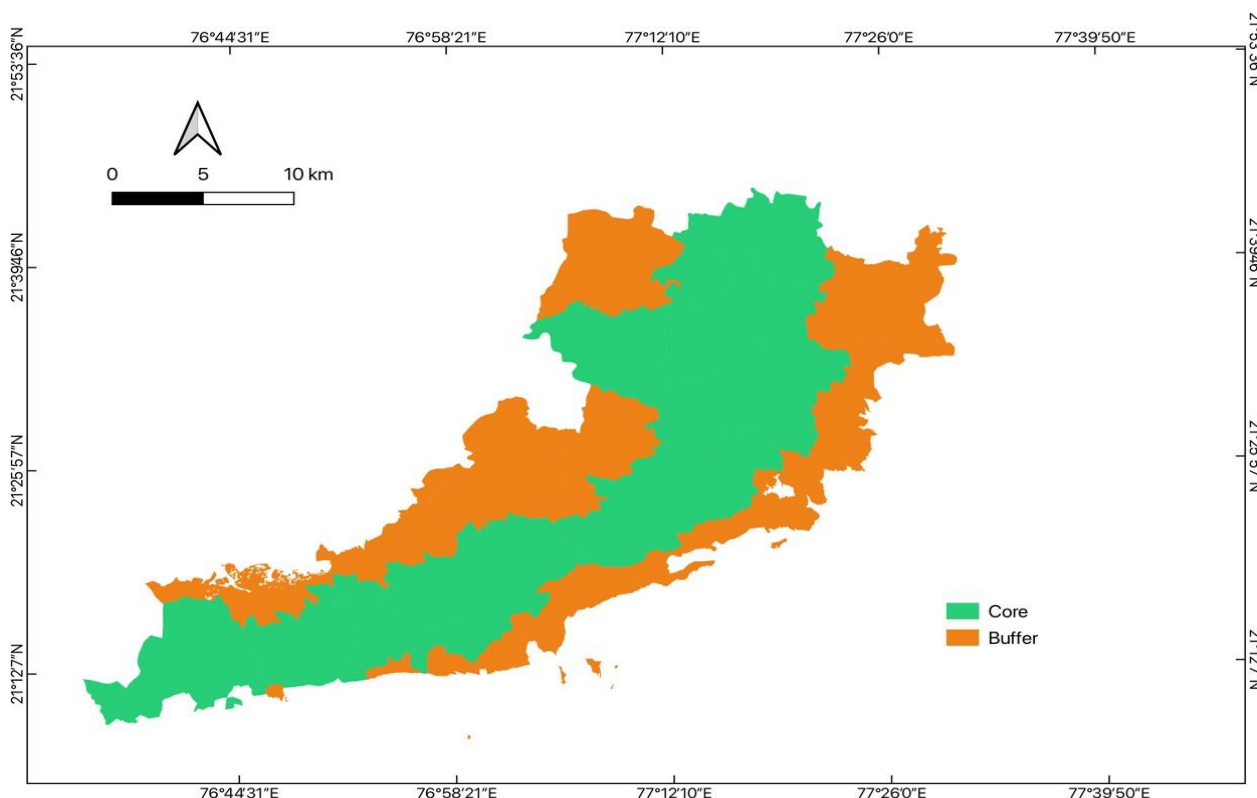
The abstract of the area which constitutes the buffer zone of Melghat tiger reserve is given in the following table.

Table-1(a): Table showing area statement of Buffer area of Melghat TR

Name of the Division	Extent of Buffer Area of MTR (Sq. Km)		
	Forest Area	Non Forest Area	Total
Sipna Wildlife Division, Paratwada	318.7996	36.2214	355.021
Gugamal Wildlife Division, Chikhaldara	152.6113	20.9296	173.5409
Akot Wildlife Division, Akot	43.1239	218.7764	261.9003
Melghat Wildlife Division, Paratwada	395.5547	71.4544	467.0091
Total (Buffer)	910.0895	347.3818	1257.471

1.3 EXTENT

The extent of the buffer area of Melghat lies in between Latitude: 21°07'N and 21°45' N and between Longitude: Between 76° 37' E and 77°31' E with Altitude varies from 312m to 1178 m above sea level.



Map-1(a): Map showing Core & Buffer Area of Melghat Tiger Reserve

1.4 FLORA & FAUNA

The buffer areas of MTR are of deciduous nature and have been classified as “Dry Deciduous Forests” in the Champion and Seth’s “Revised Survey of Forest types of India” and fall under the sub-group5 – Asouthern tropical dry deciduous forests. Distribution of rainfall, aspect and change in depth and nature of soil are responsible in determining the local variations within the above broad type. Besides receiving less rain fall, the southern part of the region is also subjected to frequent fires, of tent wice in a year and bear more open forests with species rather resistant to fire. The species with corky bark like Semal (*Bombax ceiba*) survives the fire and their percentage in the stand increases.

Fire and biotic interference have increased the percentage of species like *Zizyphus*, *Stereospermum*, *Dalbergia sissoo*, and *Diospyros melanoxylon* in the forests because of their capacity to produce root sucker, an adventitious shoot, from extensively branched underground root system. In addition, many places contain pure teak forests from erstwhile plantations. The purity of the present teak forests is largely attribute able to the fact that its associates are less resistant, and none of them appears to be able to establish high forest in repeatedly burnt area. As the fire sweeps in, the bark of teak, having low conductivity prevents the damage of the cambium and phloem.

In addition to fire, soil too largely determines the type of vegetation it is going to support. Most of the area here has the soil of trap origin. These soils are rich in mineral and have a high water holding capacity. They have a high rate of exchangeable calcium and pH varying from 6.5 to 7.5 thus supporting the best form of teak. Teak needs a good quantum of moisture to support its long growing season. The places at *ballas* or on slopes, where the moisture condition deteriorates, the teak is soon replaced by Salai (*Boswellia serrata*) and Tiwas (*Ougeinia oogeinensis*).

In Wasali, Zari and Khatkali area species of Chandan (*Santalum album*) is limited to some pockets. Bel is mainly found in Khatkali, Wari Gullarghat area. Tendu is restricted in the pockets of Golai, Dhulghat and Gadgabhandum and Rangubelly area. The Mango and Jamun is found in Chikhaldara area Khair and Sisam are limited in Jarida, Hatru of Sipna Division.

The floristic mix of shrubs, herbs and grass communities is a high impact attribute which governs the relative abundance of wildlife. Buffer area of Melghat harbours a wide variety of wildlife and is rich in avifauna. Tiger, leopard and wild dogs are the major carnivores whereas Hyena is the major scavenger. The prey animals are Gaur, Sambar, Barking deer, Spotted deer, Nilgai, Wild pigs, etc. No classification of habitats of different faunal species has been done so far in the area.

In buffer area leopard, Sloth bear, hyena, Sambar, wild Boar, and Barking Deer are of common occurrence. Cheetal and Nilgai are sparsely located in Chourakund and Harisal pockets. Gaurs are noticed in Thadada of Harisal pockets.

1.5 STATUS OF TIGER & CO-PREDATORS

As per the all India estimation report of 2022, high tiger densities have been recorded in the Dhulghat range of buffer. Leopard and Dhole were also photo captured throughout the tiger reserve including the buffer. On analyzing prey species, four horned antelope had a good distribution vis-à-vis other ungulates in the buffer areas.

1.6 HISTORY OF PAST MANAGEMENT AND PRESENT PRACTICES

Up until 1853 there was no organized forest administration in Melghat. The forest were irregularly exploited by *Korku* for trade in forest produce in plains. Large areas were under shifting cultivation. In 1853, Melghat tahsil under their control of the British administration. Britishers started reservation of forests which was finally completed in the year 1913. This reservation of forests gradually brought the indiscriminate felling under control. The Reserved Forest was worked under Improvement Felling upto 1935. From 1936 to 1955 the forests were worked under Stein's plan which prescribed Uniform System in the better quality teak forests and Coppice with Reserve in comparatively poor quality forests. Remote and under stocked areas were not subjected to any type of regular working. Sharma's plan which came into force in 1956 also followed the same working principle as that of Stein's plan. Sharma's plan was revised by Joshi.

In past, the Melghat forests were worked through following Working Plans and schemes.

- I. Bugshaw's Plan (1893-1915) for Bairagarh and Gugamal Reserves.
- II. Gugamal Reserve working scheme (1910–1915)
- III. Tapti Reserve working scheme (1912-1915)
- IV. Dunbar Brander's working plan (1915-1916 to 1935-1936)
- V. Stein's working plan (1935-1955)
- VI. Sharma's working plan (1956-1970)
- VII. Bhatena's working scheme (1961-1971) for Debida, Dhulghat, Wan and part Of Rupagarh Reserve.
- VIII. Joshi's Working plan (1975–1985)

During the above plan periods, the forests in the area were basically worked under the Selection-cum-Improvement (SCI) Working Circle. The objective of these plans and schemes was to harvest timber for commercial purposes. The SCI was considered the most natural system as it ensured sustainable harvest in the forests. The improvement operations resulted into preponderance of teak of good quality.

The Coppice-with-Reserve (CWR) system was with the objective of producing small timber to meet the requirement of local villages. The areas as proposed in this system were not very fertile and hence only small timber was supposed to be taken out. The dry deciduous nature of forests and the poor quality of substratum had further depleted these areas. The opening of canopy not only invited weeds but also led to grazing pressure. The fuel wood obtained in the process was used for local consumption as well as for commercial sale. Amongst the above systems Protection Working Circle ensured the maximum protection to the forests and had thus provided the ideal niche to the wildlife. In the later years, these areas came to be constituted as part of the Gugamal National Park.

The First Management Plan for the Tiger Reserve area (1571.74 sq.km.) after its constitution on 22nd February 1974 was prepared by Sheikhand Sawarkar for the period 1973-1978, to orient the activities towards wildlife conservation. These management plan was prepared by M.G.Gogate for the period 1988-1998 to ensure maintenance of viable population of the tiger for scientific, economic, aesthetic, cultural and ecological purposes.

Subsequently P.J.Thosre prepared a Plan for Multiple Use Area (now referred as buffer area under control of Melghat Tiger Reserve) during the year 1995-2004. Thosare in his plan divided the whole area into three zones i.e. Reserve Forest zone, Village zone, and Village area zone assigning almost whole of compartment or in some cases two compartment in the Village zone from which collection of small timber, fuel wood and fodder was allowed for the villagers.

How ever none of these plans were approved by competent authorities and as such they were never brought in systematic operation. The management plan for the period 2004-05 to 2013-14 for core and multiple use area was prepared by Ramanuj Choudhary the then Conservator of Forests and Field Director, Melghat Tiger Reserve.

For the management of the area, under the control of Deputy Conservator of Forests, East Melghat Division, the Working Plan is prepared by Vinod Kumar, Deputy Conservator of Forests for the period 2006-07 to 2015-16. The working plan for West Melghat Division is prepared by V. R. Tiwari, Conservator of Forests for the period 2008-09 to 2017-18.

In the wildlife front, The Wildlife (Protection) Act, 1972 came into force in the State of Maharashtra with effect from 1st June 1973. Under this Act, Wildlife Protection (Maharashtra) Rules 1975, Wildlife (stock declaration) Rules 1973 and Wildlife (Transaction and Taxidermy) 1973 rules were adopted by the Government of Maharashtra.

All shooting blocks in Melghat were declared closed to shooting by the orders of the Chief Wildlife Preservation Officer during 1968-69. Tiger hunting was banned for two year period from 1st August 1970 under Revenue and Forest Department Resolution No. WLP 1570/45414-Y Dated 25-7-1970 and was subsequently extended for further period of three years vide notification No.WLP1572/ 75100-X, dated 2-8-1972. Since then there has been absolute ban on not only shooting of Tigers but also, all animals under the Wildlife Protection Act, 1972.

1.7 LAND USE PATTERNS AND CONSERVATION– MANAGEMENT ISSUES

The buffer zone lies around the critical tiger habitat having 118 villages. The non-forest land 347.38 sq.km mostly covers agriculture land. Agriculture is the principle activity of the tribal and non-tribal people of this area. The landholdings are small and people practice subsistence level of agriculture. They raise inferior grains like Kodon, Kutki and Jagni on lighter soil and Gram, Jawar and Wheat on clayey soil. Other cultivated crops include Cotton, Rice, Bajara, Soyabean, Gram and Sesame.

Almost all villages within buffer zone are dependent on the forest for their daily needs. The way of the life of the people in these areas have a direct bearing on the forests as they depend on forests for timber, poles, firewood, bamboo and grasses for constructing their houses, cattle sheds and making agricultural implements. They also require fodder, flowers and fruits as well as variety of other non-timber forest produce such as Mahua, Gum, Lac, Honey, Tendu leaves, Herbs, Roots etc. for food and medicinal purpose. Fishing in the streams is a favourite activity.

1.8 PRODUCTIONSECTORSINTHELANDSCAPE

1.8.1 FORESTRY

The forestry and allied works were being carried out as per working plan/ schemes of that division. The working plan of West Melghat Division (by Shri V. A. Tiwari, I.F.S., 2008-09 to 2017-18), East Melghat Division (by Shri Vinod Kumar, IFS and Shri M.K. Rao, IFS, 2006-07 to 2015-16) and Management plan of Melghat Tiger Project by Shri Ramanuj Chaudhari, I. F. S., (2004-2005to2014-2015) provide for a chapter on wildlife preservation.

1.8.2 AGRICULTURE

The agriculture in the buffer zone is major source of livelihood for locals. The main crop is Jowar, Soyabeen, Tur, kutki and kodo. Most of the agriculture is rainfed and so the demand for medium and big irrigation projects is increasing.

1.8.3 INTEGRATED DEVELOPMENT

Schemes like eco-development, Joint Forest Management are being implemented in the buffer area of the reserve by the Forest department. The objective is to improve the standard of living of village communities by developing alternative subsistence and income generation opportunities and also to reduce dependency of local people on the forests. Besides this the schemes like Vidarbha Panlot Vikas Karyakram in 4 villages from Chaurakund range, 2 villages from Dhaknarange and 3 villages from Harisal range were undertaken to develop soil and moisture conservation activities in the area. The scheme is likely to be completed in December 2011. In Sipna Wildlife Division, Paratwada 4 villages from Jarida and 4 villages from Hatru range were selected to implement the integrated Watershed Development Programme "Hariyali Project". The project main objective is to develop soil and moisture conservation activities in the area.

Under MGNREGA soil and moisture conservation works are carried out in the buffer area. Outside agencies such as Zilla Parishad, Tribal Department, Social Forestry Division, Gram Panchayat are taking the S.M.C. works like Shet-talao, Bhandharas, Jawahar Vihar, loose bolder structures, Dhaliche Bandhare, C.C.T. Pazar Talao and Roadworks.

1.8.4 TOURISM

Tourism has been detailed in chapter 9 of the plan.

1.8.5 FISHERIES

The Wan, Sipana, Gadga, Tapi rivers in buffer zone are used for illegal fishing by the locals. Of the meagre natural food resources available to the locals, fish, is an important component which not only acts as a food source but also as recreational past time. Fishing is often done during night when local sit near the river 'doh' or waterholes burning fires the whole night. This also adversely affects the wildlife coming to waterholes. However, commercial fishing on large scale is not done in the area.

1.8.6 TEA/COFFEE ESTATES

There is no tea/coffee estate in the buffer area of Melghat Tiger Reserve.

1.8.7 ROAD/RAIL TRANSPORT

Buffer area is having 2 state highways – State Highway number 6 connecting Amaravati-Paratwada-Burhanpur and State Highway number 204 connecting Akot to Harisal. There is also a good network of district roads and village roads connecting the 118 villages inside the buffer zone. The Akola-Khandwa-Indore meter gauge railway route is now defunct.

1.8.8 INDUSTRY

There are no major industries within the buffer area

1.8.9 MINING

There is no mining work within the buffer area. However quarry of stone, road metal is located near Papatkheda.

1.8.10 THERMAL POWER PLANT

There are no Thermal Power Plants within the buffer area.

1.8.11 IRRIGATION PROJECT

There is a single medium irrigation project situated within buffer zone at Wari Hanuman on south west side.

1.8.12 TEMPLE TOURISM

Hanuman temple at Wari, the Narnala shrine and the Shiva temple at Dhargad in core adjacent to the buffer area are the main sites for temple tourism in the area.

1.8.13 COMMUNICATION PROJECT

Buffer area in Melghat Tiger Reserve and Territorial division are connected by wireless network with stations in the following ranges –Narnala, Akot, Dhulghat, Gavilgad, Ghatang, Jamli, Dhakna, Tarubanda, Jarida and Chourakund. The main station Vairat is in the core area. Cell phones network and land lines are available in a few pockets of buffer zone.

1.9 HUMAN WILDLIFE CONFLICTS

Over the past decade around 50 incidences of Human injury due to wild animals (mainly due to Sloth bear), with the total of Rs.40.8 lakhs being paid as compensation in buffer areas alone. Human wildlife conflicts in buffer areas constitute 75% of the total cases of MTR. In addition more than 1000 instances of cattle kill have occurred collectively in both core and buffer with more than Rs.1.2 crores paid as compensation. Over the past decade, 36 road accidents have taken place on the roads of the buffer zone, of which more than 80% have

occurred in the Dharni to Parathwada road. The details of Man Animal Conflict with compensation paid of Last 10 Year in MTR has been discussed in **Chapter No-4**.

1.10 CONSERVATION AND MANAGEMENT ISSUES

The following are some of the conservation and Management issues in the Melghat Buffer zone.

- Over the past 8 years, around **13000** cases of illicit felling have been registered in MTR of which majority belongs to the buffer region. The total loss due to felling is around Rs. 1.4 crores. The details of illicit felling has been discussed in Chapter-4.
- In Melghat wildlife division, Paratwada more than **7200** ha of land had be given as claims under FRA and the nearby core area comes is under a lot pf pressure because of this. The details of FRA claimed has been discussed in Chapter- 4.
- In the hopes of getting FRA, there is a constant pressure of encroachment in the buffer area. Around 47haofencroachmenthavebeenremovedtocomounter them.
- Over the past 4 years, around 177 fire incidences with an average burnt area of400haper year have been recorded in the buffer region. The details of forest fire has been discussed in Chapter- 4.

PART II

PROPOSED MANAGEMENT (BUFFER ZONE)

CHAPTER-2

BUFFER ZONE-PROPOSED MANAGEMENT

2.1 VISION, GOALS, OBJECTIVE & PROBLEMS

2.1.1 VISION

- To have an ecologically viable buffer area which will suitably safeguard and supplement the core area, the critical core natal habitat for the Tiger, its co-predators and prey base and which shall be managed both for the betterment of wildlife and local communities based on sound principles of sustainability & Co-occurrence.

2.1.2 GOALS

- Ecological security for the forests with sustainable livelihoods for the local people.
- Absorb the pressure of development and prevent it from affecting the core area.
- Ensure that buffer does not become like core, ensuring that more tigers reside in core than the buffer.
- Eco Tourism activities in buffer should focus on creating forest experiences instead of traditional wildlife safaris (which often have tendencies of habitat improvement, making buffer as a core).
- To minimize human wildlife negative interactions, in buffer areas and adjacent villages

2.1.3 OBJECTIVES

In pursuance of the above goals, the following specific objectives have been set for the Management of Melghat Buffer Zone Areas.

- To uplift the socio economic condition of the forest dwellers through implementation of livelihood based programmes to reduce their forest dependency.
- To promote conservation through Eco development activities.
- To promote peaceful coexistence through reduction of the human wildlife conflicts such as human injury/death due to wildlife, cattle depredation and crop loss.
- To mainstream tiger conservation concerns in the activities of the production sectors.

- To restore the habitat with appropriate soil and moisture conservation measures, in areas where degradation is happening.
- To create management capabilities amongst the staff and to develop capacity building.
- To ensure CFR land is managed to conserve the resources and ensure over exploitation doesn't occur.
- To encourage scientific research studies on topics, that will be management oriented and for improvement of the wildlife interest.
- To protect the habitat from illicit activities.
- To maximize recreational experience of the people through various activities while minimizing the adverse impact of tourism on wildlife and its crucial habitat.
- To protect and conserve the flora and fauna by protecting biodiversity-rich patches, if any.

2.1.4 PROBLEMS IN ACHIEVING OBJECTIVES

Though women are mainly dependent on the forest in terms of firewood collection and fishing, their participation in EDC activities is very low. Increasing aspirations and development pressure on the forest is making it difficult to promote the coexistence agenda pitting development against conservation. The malnourishment problem in the villages of the buffer needs to be solved to ensure any meaningful development in the lives of the people. In addition all issues mentioned in section 1.1.10 are problems in achieving the vision, goals and objectives.

2.2 MANAGEMENT STRATEGIES

The need for ensuring ecologically compatible land uses in tiger reserves (buffer / peripheral areas) and corridors have been provided in sections 38O (g) and 38V (3)(b) of the Wildlife (Protection) Act, 1972. Further, under section 38V (3)(c) of the said Act, a provision has also been made to ensure that 'the forestry operations of regular forest divisions and those adjoining tiger reserves are not incompatible with the needs of tiger conservation'. In general, the managerial approach of buffer is applicable to tiger corridor areas as well. Intensive form of land uses like commercial mining, setting up of industries causing pollution and establishment of major hydro-electric projects, and discharge of effluence / solid wastes in natural water bodies etc. needs to be avoided in such areas.

GENERAL PRINCIPLES OF MANAGEMENT

1. Co-occurrence agenda (Wildlife and People).
2. A ‘no-go area’ for industrial development (but retrofitting safeguards required if such infrastructure already exists).
3. The wildlife status of buffer should not be elevated to that of the core and managerial interventions should be restricted to allow tiger / wildlife gene permeability and low density occupancy while facilitating the meta-population dynamics of tiger in productive patches.
4. Factoring in the landscape context and reducing resource dependency of local people on forests through cross sectoral integration resulting in ecologically sustainable livelihood option.
5. Identifying zones of influence vis-à-vis the various land uses operating in the area.
6. Overarching focus on habitat restoration/productivity, reduction of forest resource dependency, providing ecologically sustainable livelihood options to local people, permitting ecologically sustainable land uses, avoiding intensive forms of land uses like mining or heavily used infrastructure and actively addressing human-wildlife interface. In case such land uses are present or permitted appropriate mitigation measures need to be enforced so as not to compromise on the conservation objectives of the buffer.
7. Convergence of ongoing district level schemes is important to provide ecologically sustainable livelihood options for local people. This would reduce their dependency on forest resources while eliciting the much needed public support.

2.3 DELINEATION OF BUFFER AREAS AND OTHER ZONES WITHIN THE BUFFER AREA

The Melghat Tiger Reserve was notified by the Government of Maharashtra, Revenue & Forest Mantralaya vide Notification No. WLP.10-10/CR-139/F-1, dtd. 29.09.2010 in which buffer area was demarcated as 1257.48 sq.km. (**Annexure -1**).

Table-11(a): Administrative Jurisdiction of Melghat Tiger Reserve Buffer

Sr. No.	Wildlife Division	Range	No. of Round	No. of Beat	Buffer Area (ha.)		
					Forest Area	Non Forest Area	Total
1	Sipna Wildlife Division,	Semadhoh	7	21	0	0	0
		Raipur	6	18	0	0	0

	Paratwada	Jarida	6	18	11078.87	1948.03	13026.9
		Hataru	6	19	10778.72	1373.98	12152.7
		Chourakund	6	20	10022.37	300.13	10322.5
Total (Sipna Wildlife Dn.)		5	31	96	31879.96	3622.14	35502.1
2	Gugamal Wildlife Division, Chikhaldara	Chikhaldara	4	16	0	0	0
		Harisal	4	15	4160.47	401.93	4562.4
		Dhakana	5	17	5610.47	498.32	6108.79
		Tarubandha	5	19	5490.19	1192.71	6682.9
Total (Gugamal Wildlife Dn.)		4	18	67	15261.13	2092.96	17354.09
3	Akot Wildlife Division, Akot	Dhargad	4	20	0	0	0
		Sonala	5	19	3367.09	5910.16	9277.25
		Narnala	2	3	945.3	15967.48	16912.78
		Wan	4	15	0	0	0
		Somthana	4	14	0	0	0
Total (Akot Wildlife Dn.)		5	19	71	4312.39	21877.64	26190.03
4	Melghat Wildlife Division, Paratwada	Akot	3	12	9042.5	44.7	9087.2
		Dhulghat	4	16	13004.12	2292.76	15296.88
		Gavilgadh	2	5	3741.24	1744.88	5486.12
		Ghatang	4	11	7844.17	388.74	8232.91
		Jamali	3	9	5923.44	2674.36	8597.8
Total (Melaghat Wildlife Dn.)		5	16	53	39555.47	7145.44	46700.91
Grand Total (MTR-Buffer)			84	287	91008.95	34738.18	125747.1

The buffer area of MTR needs to be managed with the objective of promoting co-occurrence of humans and wildlife in the region while taking into consideration various facets of conservation like forest fire management, habitat management etc. In pursuance of this objective, two different zones are proposed in the buffer area -

- i. Forestry zone
- ii. Eco development zone.

2.3.1 FORESTRY ZONE

Constitution:

The forestry zone in buffer area confined into the forested area irrespective of species like from Teak dominated mix forest to Complete monoculture teak plantations.

Prescriptions:

- Regular protection from poaching, illicit felling, fire and grazing as per security plan will be followed.
- Habitat development activities will be kept to a minimal level:
 - In CFR areas, habitat development activities can be taken up to ensure existing resources don't degrade due to over exploitation
 - Adjacent to village areas where pressure on forests is high, so that additional areas don't open up.
 - Fruit, fodder and bamboo plantations can be taken up in areas adjacent to villages, so that they can meet the bonafide local needs
 - Access paths to perennial water bodies in buffer areas can be kept clear of lantana and other invasive species, so that alternate routes through villages are avoided by wildlife.
- Boundary demarcation needs to be given utmost priority. CCTs and Deep CCTs can be taken in drier areas, for water conservation and preventing encroachments.
- Eco Tourism activities in the nature of camping tents, machan stays, nature trails, treks etc can be promoted for creating 'Forest Experience Tourism'.
- Regarding collection of Minor Forest Produce the following needs to be adhered to:

COLLECTION OF MINOR FOREST PRODUCE

There shall be total ban for collection of Minor Forest Produce from Critical Tiger Habitat of Melghat Tiger Reserve. MFP collection shall be allowed only from Buffer areas of Melghat Tiger Reserve as per relevant NTCA guidelines.

Minor Forest Produce are important source of livelihood for tribals especially in nonagricultural season. They provide much needed income augmentation and sustenance in lean employment season.

The Minor Forest Produce is also known as Non Timber Forest Produce (NTFP) or Non Wood Forest Produce (NWFP). It is regulated by plethora of legislations and/or executive orders like-

- Indian Forest Act 1927
- Minor Forest Produce Act
- Panchayat Extension to Scheduled Areas Act 1996

- The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
- NTCA Regulations and guidelines

SCHEDULED AREAS-

The Scheduled areas are governed by provisions of Panchayat Extension to Scheduled Areas Act 1996. Article 244(1) of Indian Constitution gives tremendous powers to Governor of state for administration and control of Scheduled Areas in Fifth Schedule. The Hon'ble Governor of Maharashtra in exercise of his powers under Article 244 (1) of Indian Constitution promulgated Maharashtra PESA Rules 2014 and many subsequent notification which had profound effect on MFP Management in Scheduled Area of Melghat.

The meaning of MFP as defined in The Maharashtra Transfer of Ownership of Minor Forest Produce in the Scheduled Areas, and the Maharashtra Minor Forest Produce (Regulation of Trade) (Amendment) Act. 1997 has been amended by Hon'ble Governor notification dated 19th August 2014 is as follows-

“(a) “ minor forest produce” includes all non-timber forest produce of plant origin including bamboo, brush wood, stumps, cane, tussar, cocoons, honey, wax, lac, tendu or Kendu leaves, medicinal plants and herbs, roots, tubers and the like ”;

The Management of MFP is defined in Rule 41 and 42 of Chapter IX of PESA Rules 2014. The important provisions are reproduced below-

41. Management of minor forest produce in the Scheduled Area :—

- (1) The management of all minor forest produce in the Scheduled Area shall vest to the Gram Sabha. (2) The Gram Sabha shall choose to carry out the right of ownership, access to collection, use, and disposal of minor forest produce through the Resource Planning and Monitoring Committee or any other committee formed by the Government for this purpose
- (3) The Resource Planning and Monitoring Committee shall prepare a management and conservation plan for all minor forest produce in order to sustainably and equitably manage such minor forest produce for the benefit of the entire Gram Sabha
- (4) For the purposes of the exercise of the Right to Minor Forest Produce by the Gram Sabha, the Resource Planning and Monitoring Committee shall have a forest official of the appropriate level as decided by the Government as an ex-officio member. Provided that

such a member shall not have right to vote, as well as he shall not hold the post of Secretary of the Resource Planning and Monitoring Committee.

- (5) Such member shall advise to the Resource Planning and Monitoring Committee, and the Gram Sabha about technical matters, such as the working plan, sustainable use of minor forest produce, appropriate silvicultural practices, etc.
- (6) The transit permits for access to minor forest produce shall be issued by the Resource Planning and Monitoring Committee in its meeting. The Resource Planning and Monitoring Committee shall put all decisions pertaining to the issue of transit permits, use of income from sale or produce or modification of management plans before the Gram Sabha for its approval.
- (7) It shall be the duty of the Resource Planning and Monitoring Committee to carry out the harvesting, tender, sale of produce, etc. in a transparent fashion. The Government may give instructions or issue directions to the Gram Sabha or Panchayat, from time to time, so as to ensure that the transparency and effectiveness, in the management of minor forest produce, in a manner which is not contrary to the provisions of the Act.
- (8) The Gram Sabha may, if it so desires ask for the assistance of the concerned Forest Department to provide all possible help in chalking out plans for sustainable access to the minor forest produce, marketing and technical knowledge for financial management and account keeping. This advice of the Forest Department shall be put before Gram Sabha for its consideration.
- (9) The Gram Sabha may, in case of limited quantity of a minor forest produce, make a cyclic arrangement for its collection and use by a few people such as resource less and economically weaker groups.
- (10) The Gram Sabha is competent for strict compliance of rules in the exploitation of minor forest produce, including levying of penalties, and to ensure that collectors of minor forest produce do not commit any act which damages the forest.
- (11) The State Government and the Panchayats at the appropriate level shall form schemes to give assistance, guidance and manpower for the purposes of training and handholding, value addition, and market linkages to the Gram Sabha, so that the minor forest produce manage smoothly.

Following prescriptions in relation to MFP Collection shall be strictly adhered to all stakeholders-

- 1) The NTFP harvesting and subsequent activities shall be in accordance with duly sanctioned management and conservation plan.
- 2) In villages where plan has not been prepared, the NTFP working shall be done as per principles of working plan/TCP as well as sustainable management of natural resources.
- 3) It is suggested that Gram Sabha suitably incorporates below given prescriptions in the Conservation and Management Plan-
 - NTFP collection should not be permitted in areas with maximum disturbance and unestablished regeneration status, as this would adversely affect the demography of such species.
 - Calculation of sustainable harvesting limits for important NTFP species
 - Collection should not be permitted in areas having endangered arboreal fauna.
 - No lopping / felling should be permitted during NTFP collection.
 - Collection should not disturb ‘canopy bridges’ in an area.
 - The timings for NTFP collection should be regulated while avoiding early morning or late evening.
 - The patterns of NTFP collection should be studied for prescribing ecologically permissible collection.
 - The quantum of NTFP collected in an area should be regulated, considering its consumption by wild animals.
 - An estimation of the availability of NTFP (fruit / tuber / leaf) should be done (example: for total fruit crop estimation, considering several categories of branches and the number of fruits per branch etc.).
 - Fire should not be used to promote new flush of leaves (usually done for Tendu)
 - Fruit removal affects frugivory, hence fruit trees should be fostered.
 - A chart depicting NTFPs collected in various areas by village over months during a year should be prepared for close monitoring. .
 - The nursery techniques of NTFP species (especially those having medicinal value) should be fostered through the community linked to incentives for growing subspecies.
 - Regulation through PES (Payment for Ecosystem Services)

COMMUNITY FOREST RIGHTS AREAS

The Community Forest Rights Areas (CFR) are declared under the Section 3(b) of The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006. The FRA rules 2012 lay down procedure for management of Community Forest Resources which include MFP. Rule no. 4 (b) of FRA rule 2012 prescribe following duties of Gram Sabha-

(e) Constitute Committees for the protection of wildlife, forest and biodiversity, from amongst its members, in order to carry out the provisions of section 5 of the Act.

(f) monitor and control the committee constituted under clause (e) which shall prepare a conservation and management plan for community forest resources in order to sustainably and equitably manage such community forest resources for the benefit of forest dwelling Scheduled Tribes and other Traditional Forest Dwellers and integrate such conservation and management plan with the micro plans or working plans or management plans of the forest department with such modifications as may be considered necessary by the committee.

(g) approve all decisions of the committee pertaining to issue of transit permits, use of income from sale of produce, or modification of management plans.

The following prescriptions are laid down for managing MFP in CFR Areas-

- Plan for community forest resource management (includes MFP) should be prepared by Conservation and Management Committee constituted as per rule 4(1)(e) of the 2012 Scheduled Tribes and Other Forest Dwellers rules read alongside with section 5 of the Scheduled Tribes and Other Forest Dwellers Act, 2006.
- It shall be duty of the Gram Sabha for preparing and sanctioning management plan before harvesting operations of MFP; failing which MFP collection shall be done as per working plan/TCP principles.
- Prescription no. 3 for PESA areas with regards to MFP management may be made part of management plan by Gram sabha.

AREAS HAVING BOTH PESA AND CFR RIGHTS-

The Melghat Tiger Reserve is mostly nested in PESA areas of Chikhaldhara and Dharni Talukas. Hence these areas need to be governed by PESA Act and PESA rules in relation to MFP Management. However some villages in these PESA Areas have been allotted CFR Rights under relevant provisions of The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition

of Forest Rights) Act, 2006 thereby creating conflict and confusion in implantation.

As per the judgement of Hon'ble Bombay High Court Nagpur Bench the CFR areas have to be managed as per the PESA provisions. This needs to be widely circulated among CFR villages in PESA areas and urge Gram Sabhas to act in spirit of judgement.

OTHER REGULATIONS-

Section 13 of The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 does not bar jurisdiction of other Acts and their associated regulations. Therefore any violation in MFP harvesting and further procedures shall be dealt according to relevant penal provisions of various Forest laws.

2.3.2 ECO-DEVELOPMENT ZONE

Constitution:

All the village area and non-forest areas of buffer zone will be incorporated into this zone.

Objective:

The principal objective behind this zone is to reduce the quantum of conflict & create a congenial environment between human & wildlife through pro-active conflict management and developing alternate livelihood opportunities that reduce forest dependency.

Strategies:

Rapid response, massive awareness, conflict avoidance is the key points in the strategy. This zone will be managed as follows:

- Integrated bio fence (eg Chillati, Sagargoti etc) should be actively promoted in farm areas in buffer
- Local abundance of wild animals like Nilgai, Wildpig, rhesus macaque etc needs to be managed actively by capture and translocation/sterilization/euthanasia.
- Meadows can be developed around village areas to ensure cattle dependence on forests is reduced and there by possibility of conflict with carnivores inside forests is reduced
- Need to regulate timing of mahua collection, grass collection in buffer forests (especially avoid nocturnal timings of Sloth bear, Tigers etc)
- A RRT unit needs to be developed at Dharni so that conflicts in the north western portion of MTR can be dealt promptly.

2.3.3 ECODEVELOPMENT ZONE - STRATEGY AND MEASURES

The ecodevelopment zone is aimed at including local people in the management process and ensure that the negative impact to their lives because of the existence of the tiger reserve is offset by developmental activities for their benefit. The key here is to ensure that these developmental activities do not affect the forests in any way thus terming it as ecodevelopment.

2.3.2.1 Policy and Institutional Framework for Eco development

The Government issued a G. R. no. FDM 2011/F.C. 100/F-2, dated 5th October 2011 regarding strengthening of Joint Forest Management Committee and its linkage with Gram Sabha and preservation of forts in the forest area. The principles of this G.R. would be followed in implementing the prescriptions of the ecodevelopment zone. Activities related to ecological, cultural, social, eco development and livelihood issues would also be facilitated.

As per the above G. R., the Joint Forest Management Committees established in the areas of Sanctuary, National Park and Tiger Project will be termed as Eco- Development Committees with the only difference that usufruct sharing shall not be allowed in such cases but will have the powers as given to other Joint Forest Management Committees.

The main group of activities to be included under village eco-development programme are as follows. These are only indicative and more innovative activities may also be devised, in consultation with and the needs of the villages:-

- Activities directly enhancing productivity of habitat and develop livelihood options, such as tourism.
- Activities for improving the productivity of NWFP in adjoining forests, agriculture lands, horticulture, sericulture, apiculture, cottage industry, low impact tourism and development of alternative income generation programmes.
- Activities which support sustainable alternative to unsustainable use of forest resources adjoining PAs.

2.3.2.2 Livelihood Support Initiatives through Village Micro-plans

Participatory Rural Appraisal (PRA) techniques should be used to create micro plans by involving the active participation and commitment of local people. These plans should be specifically tailored to focus on the mutual benefit for both people and the tiger reserve. While making a micro plan, socioeconomic data regarding number of families in the villages, incomes presently derived from the forest area, the location and distribution of the resources, the seasonality of supply and demand and the beneficiaries should be collected.

The plan should include community suggestions for alternative ways for providing resources and incomes, arrangements & agreements for access to resources, and mutual obligations between people and PA authorities. The reciprocal agreements should include specific and measurable actions to ensure that people are willing to conserve biodiversity in return for Eco-development investments.

The micro plan shall aim at making the EDC free from unsustainable dependences on the PA by the end of the plan period. The micro plan will also prescribe measures to be taken to make the Village Eco-development Committee self-sustainable to carry on the programme after the end of the project.

Livelihood support initiatives like training of youth in driving, computer skills, Electrical training, automobile and mechanical repairing, tailoring classes, eco guide training, hospitality training etc. which are being done needs to be continued. The Parathwada training centre which is involved in upskilling of the local youth should also be emulated in other divisions to increase coverage.

MoU with NGOs and outside institutions to facilitate job opportunities for the youth who have been trained needs to be explored. Periodic Organic farming workshops should be held so that the land immediately surrounding the forest is not depleted.

2.3.3 Integration of Rural Development Programs

All activities and programs mentioned under integrated development in section 10.1.8 should be continued. In conjunction with the education department, every range should invite 200 school children in two batches of two (100 each) between classes III to VII in one batch and between classes VIII to XII in another batch, every year from the local community to spend an entire day in the forest so that they get oriented towards wildlife and its conservation. Irrigation department should be roped in to create sustainable water harvesting structures that also recharge ground water. Tribal department should be involved to educate the tribals regarding.

Health department should be involved to ensure periodical medical camps for people living in buffer areas. The Veterinary department should be involved in immunizing the domestic cattle so that they do not act as carriers of disease for the wild ungulates.

Depending upon site attributes (climate, terrain, soils, present patterns of farming, fishing, livestock raising, practices of other resource use, status of conservation/degradation, potential for restoration, variety of non-wood forest products, local skills, existing and possible infrastructure etc.) a holistic site-specific package of measures in an appropriate combination most suited to the given site should emerge as a result of a fully participatory planning process, involving local people, NGOs and government agencies (concerned with land and resource use, and rural development) as conducted by the PA management with the coordinating assistance of district administration. The following activities can be undertaken,

A. In Forests, grasslands & Scrub-savannah lands

- (i) Orientation of forestry operations for the concurrent promotion of biodiversity conservation and meeting resource needs and generating employment for local people.
- (ii) Joint management of forests, grasslands and scrub-savannah lands with formalized prior agreements for substantial sharing of (even exclusive claim on) usufruct, in return for direct contribution to protection and conservation.
- (iii) Organized collection of important non-wood forest products with measures to ensure long term sustenance of productivity.
- (iv) Cultivation and/or organized collection of medicinal plants, essential oil bearing herbs, mushrooms etc, which is compatible with other forestry objectives, especially conservation and other local interests.
- (v) Preferential and concessional availability of wood and non-wood resources to local people directly participating in conservation of forest and other resources.
- (vi) Pasture improvement through weed suppression/eradication and enrichment planting with complete or rotational closures.
- (vii) Economic employment generation through weed suppression *e.g. Lantana* harvests for pulp, chipboard or basket making on small or cottage industry scale.
- (viii) Harvest of green grass and plant fodder during monsoon in designated areas (if necessary, rotational) in the 'conservation' and 'extension' buffer zones.
- (ix) Harvest of grass at the end of monsoon and providing hay in return for cooperation in observance of regulated grazing/lopping.

- (x) Preferential employment to locals in all the above works.

B. In private farms

- Improved dry farming techniques (improved seed, manure/ fertilizer regimes).
- Efficacious water harvesting (surface and ground water).
- Soil conservation measures.
- Preference to cash crops e.g., pulses, oil seeds, spices, medicinal plants.
- Agro forestry practices.
- Apiculture & horticulture with assured employment through these on one's own land and from other community works, in order to tide over the 'gestation period'.

C. Minor Irrigation

- (i) Simple diversion or diversion cum storage type micro-minor irrigation schemes will be implemented on the numerous perennial Nallah and streams in buffer areas within the ambit of Wildlife Protection Act 1972, include'ing development of village tanks with preferential employment to local people.
- (ii) Lift irrigation schemes using micro-hydel (or grid where available) power or pump sets, based on rivers, reservoirs and wells.
- (i) Bore well irrigation, where feasible.

D. Animal Husbandry, dairying and pottery crafts

- (i) Phased reduction in population of scrub livestock and improvement of breed through controlled fertilization of female stock in proper health and age with males of better local breeds, aided by sterilization of scrub bulls.
- (ii) Goatery and sheep raising with hybrid breeds may be promoted with strict restriction of stall feeding and with proper vaccination.
- (iii) Cooperative dairying with marketing support and proper marketing of milk, diary products such as Ghee, Cheese, butter, buttermilk at the village level .
- (iv) Support to small scale enterprises based on pottery or terracotta crafts and Marketing at sale points to the eco-tourists.

E. Fisheries

- (i) Exclusive rights to organized cooperatives/user groups of local people in all situations, subject to observance of regulations for sustainability and optimal economic productivity - especially, closed areas/seasons and mesh size of fishing nets,

- and cooperation in ensuring ban on use of explosives and other forms of poaching.
- (ii) Marketing support backed by cold storage and appropriate transport arrangements.

F. Infrastructure

- (i) Biogas plants/Gasifier/solar power/ .
- (iii) Piped (gravity) supply, hand pump or open wells for drinking water.

G. Cottage Industry & Handicrafts

- i. Promotion based on local skills with appropriate technological and infrastructure support.
- ii. Curing/processing of collected/cultivated products e.g., medicinal herbs and essential oil for value addition.
- iii. Investigation of potential plants/products by pursuing ethno botanical and ethno zoological studies and rich development for consumption/marketing.

Development Projects

- (i) Obligated to have a local orientation so that they become part of local area development and in no case upset local people's resource equations, Appropriate compensation/alternatives to be built into project costs.
- (ii) Obligated to compensate by providing inputs into site-specific packages of ecodevelopment measures e.g. lift irrigation along reservoir and along the river upstream and downstream.
- (iii) Obligated to allow (where admissible *vis-à-vis* the PA) local people to farm in draw down areas by providing lift irrigation facilities.
- (iv) Preferential employment to locals, if necessary, after arranging education and/ or training.

*****PROPOSAL FOR GREEN AGRICULTURE PROJECT IN MELGHAT TIGER RESERVE BUFFER VILLAGE:**

The deleterious impact of intensive modern farming is well known to all. Due to indiscriminate use of chemical ingredients in agriculture, it has detrimental impacts to the quality of soil, water & environment as well. In Melghat, the charismatic species like Forest

Owlet uses agriculture field in most of the time as their feeding habitat. Due to excess use of chemical fertilizer & pesticide the population of forest owlet are in jeopardy. To circumvent such disastrous impact on environment it is proposed to implement the “**Green Agriculture Project**” in the buffer area of the TR. This projects will essentially promote the organic farming & other traditional farming practices with application of modern scientific knowledge. The agriculture department will be nodal agency to implement such projects. In long run, this project will improve the socio economic condition of the farming community along with maintaining a healthy ecosystem.

2.3.4 MAINSTREAMING STRATEGY WITH VARIOUS PRODUCTION SECTOR

Mainstreaming strategy with various production sectors detailed in 10.1.8 will be done by the Melghat Tiger Conservation Foundation.

2.4 BUFFER AREAS COORDINATION COMMITTEE AND ITS LINKAGE WITH TIGER STEERING COMMITTEE AND TIGER CONSERVATION FOUNDATION

The executive committee of the Melghat Tiger Conservation Foundation will also function as the Buffer Areas Coordination committee.

2.5 COORDINATION WITH EDCS, CONFEDERATION AND OTHER LINE AGENCIES/ DEPARTMENTS/ PRODUCTION SECTORS

Interdepartmental coordination has been detailed in section 11.3.3 and 12.5
