

# MITIGATIVE MEASURES PROPOSED

FOR

***Diversion of 4.907 Ha of Forest land for the Road work  
diversion of Forest Land for widening & strengthening  
of existing intermediate lane/Two land to Two lane  
with Paved shoulders from Km 678+555 to 699+655 of  
Khanapur section of NH 61 Extended in favour of  
Regional Officer Ministry of Road Transport and  
Highways Hyderabad in Khanapur Range of  
Khanapur Division.***

IN  
KHANAPUR DIVISION OF NIRMAL DISTRICT  
OF  
KAWAL TIGER RESERVE NIRMAL CIRCLE

The Forest area of the Division is 78248.50 ha. The percentage of Forest area is about 74.74%. The forest area spread over in (12) Forest blocks and in (25) sections and (81) beats. There are (5) Forest Ranges in the Division namely (1) Khanapur, (2) Kaddam, (3) Pembi, (4) Udumpur and (5) Tandra.

**RANGE WISE SECTION / BEATS & FOREST AREAS**

Sl. No.	Name of the Range	No. of Sections	No. of Beats	Forest area (In Ha)	Geographical area (in Ha)	% Forest Area
1.	Khanapur	5	17	14188.74	25307.18	56.07
2.	Kaddam	5	16	16376.03	29571.09	55.38
3.	Pembi	5	13	13753.05	14007.93	98.18
4.	Udumpur	6	24	20205.99	21711.12	93.07
5.	Tandra	4	11	13724.68	14092.86	97.38
<b>Khanapur Division Total</b>		<b>25</b>	<b>81</b>	<b>78248.5</b>	<b>104690.2</b>	<b>74.74</b>

The User agency i.e., Regional Officer Ministry of Road Transport and Highways Hyderabad has submitted proposals for permitting for widening & strengthening of existing intermediate lane/Two land to Two lane with Paved shoulders from Km 696+620 to 699+655 of Khanapur section is passing through Compt Nos. 889,890,892 and 893 Maskapur beat of Khanapur Section of Khanapur Range of Khanapur Division.

**1. Period of the Scheme:**

The Conservation plan period is (3) years starting from 2021-22 to 2023-24 and subject to extent for another one year period after evaluation after 3<sup>rd</sup> year of implementation.

The management strategies are discussed under individual theme plans.

**I. Management of Eco-System through Habitat Restoration:**

**A. Wild life Habitat Improvement:**

**II. Water Conservation/ Rain water harvesting:**

The proposed area forms catchment area for a number of streams, which drain finally into Kaddam River and adjoining ponds. Most of the areas is subjected to rich topsoil erosion and even at some places along hill slopes trees are uprooted accordingly. All the rainfall in treatment area shall be conserved in situ, improving the moisture regime and the vegetation will be lush green for longer periods providing ideal shelter and forage grounds for the wild animals. It also makes water available to the wild animals

especially during the dry season. This also reduces migration of animals to villages utilizes in search of water whereby they are subjected to poaching.

It is proposed to construct (05 Nos) of new Percolation tanks to store water from solar bore well with an estimated cost of Rs. 5.00 Lakhs and Construction of Saucer pits for storage of rain water for wild animals (15 Nos) with an estimated cost of Rs.1.17 Lakhs. Digging of bore well with solar pump set (03 Nos) of Rs. 18.00 lakhs.

#### **OBJECTIVES:**

The main objectives of water conservation/rain water harvesting are as follows:-

- (i) To check soil erosion
- (ii) To conserve water in situ in the treatment area itself
- (iii) To improve moisture regime in treatment area and recharge ground water table.
- (iv) Improvement of vegetation of grassland and availability of sustainable food and cover to wildlife.
- (vi) Check siltation of ponds and waterholes in treatment area and maintain the water holding capacity.

It is proposed to take up the following activities for harvesting the rain water and improving the availability of water to the wild animals, and to increasing the water table and improvement of the vegetation.

#### **Construction of Percolation Tank in the RF:-**

It is proposed to take up construction of Percolation Tanks with earthen bunds for water harvesting, impounding and storage of water. This helps in availability of water all over the treatment area especially during the pinch period. The percolation tanks are in situ water harvesting structures, which help in percolation and recharge of ground water whereby water is available to the wildlife and also improves the vegetation in the treatment area It is proposed to construct (05 Nos) of new Percolation tanks to store water from solar bore well with an estimated cost of Rs. 5.00 Lakhs and Construction of Saucer pits for storage of rain water for wild animals (15 Nos) with an estimated cost of Rs.1.17 Lakhs. Digging of bore well with solar pump set (03 Nos) of Rs. 18.00 lakhs.

### **III. Fire Control Measures:**

#### **Fire Tracing:**

- a) As a preventive measure fire tracing to a width of 5.00 Mtrs on either side of the proposed area to be taken up and these fire lines will be kept clean of any inflammable material. This will protect the forest from accidental fires due to throwing of lighted matchsticks by the traveler, shepherds etc. it is also proposed to take up fire line contour trenches where the inflammable material will be swept into the trench and control burning will be done. It is proposed to create about 10000 RMT at an estimated cost of 0.9045 Lakhs & 2.0073 lakhs for Maintenance of fire lines for 3 years
- b) All the R.F. lines, Compartment lines and Beat boundary will be fire traced and kept clean.
- c) The pasture areas around the waterholes will be given additional protection from fire for maintenance of succulent grass fodder to the wildlife.
- d) A follow up action of maintenance of the fire lines every year before the onset of summer shall be taken up.
- e) The local people will be involved in protection from fires and awareness programs will be conducted on importance of fire control and hazards due to fire.

#### **V. Publicity and Awareness:**

It is proposed to give wide publicity about the importance of Forest Protection, bio diversity and the wildlife conservation and also conservation of unique culture of the Primitive Tribal Groups of the area. An estimated cost of Rs. 9.00 lakhs. The publicity and awareness campaigns are proposed as follows:-

- a) Sensitize the community and create awareness about the need to conserve bio-diversity through awareness campaigns, nature camps, conducting workshops, trainings etc.
- b) Arranging prompt and quick payment of compensation cases involving wild animal attacks.
- c) Building mutual confidence between protected area management and local people by frequent interaction between the two and also being responsible to the gender issues.
- d) Taking up initiatives in mobilizing community for controlling totally stopping the grazing.
- e) Display of hoardings (signage and hoardings) and brochures/pamphlets with messages of bio-diversity conservation at prominent places.
- f) Training the people, departmental staff and NGO's to enhance their technical, social, professional skills for effective planning, implementation and monitoring of the eco-development programme.
- g) Conducting regular Gram Sabah's in the surrounding villages and making the people aware of the conservation. It is also proposed to take up all the habitat development activities by people's participation to develop the sense of ownership and responsibility.

**FINANCIAL OUTLAY:-**

The scheme is prepared with financial outlay of **Rs. 114.521 Lakhs**, of Total project cost of Rs. 141.80 crores which is 1.24 % of project cost

Sl. No.	Item of works	Units	Qty.	Rate	Amount	Year wise Plan		
					(Rs. In lakhs)	2021-22	2022-23	2023-24
<b>I</b>	<b>Wildlife protection</b>							
1	Erection of check gates	Nos.	10	0.12	1.2	1.20	0.00	0.00
2	Construction anti poaching hut (Semi permanent strucutre) for wildlife monitoring	Nos.	2	7	14.0	7.00	7.00	0.00
3	Construction of Base Camp shed	Nos.	1	8	8.0	8.00	0.00	0.00
4	Animal Tracker 1 x 10115 x 12 = 121380 x 3 = 364140/- for 3 years	Nos.	3	1.2138	3.641	1.214	1.214	1.214
<b>II</b>	<b>Habitat improvement measures</b>							
1	Borewell with solar pump set	Nos	3	6	18.0	6.00	6.00	6.00
2	Construction of saucer pits	Nos.	15	0.11	1.7	1.10	0.60	0.00
3	Formation of Percolation Tanks	Nos.	5	1.00	5.0	2.00	2.00	1.00
<b>III</b>	<b>Monitoring of wildlife</b>							
1	Procurement of camera traps for monitoring wild animals	Nos	35	0.3	10.5	6.00	4.50	0.00
<b>IV</b>	<b>Publicity &amp; awarness and Eco Development activities</b>							
1	Installation of large hoarding and sign boards to propogate the needs for the conservation of flora and fauna of the area	Nos	5	1	5.0	2.00	2.00	1.00
2	Setting up of regulatory sign boards on speed limits and wild animal crossing zones @ Rs.0.60 per each	Nos	5	0.6	3.0	3.00	0.00	0.00
3	Conducting of Awareness programme for Wildlife	Nos.	4	0.25	1.0	0.25	0.50	0.25
<b>V</b>	<b>Fire management</b>							
	Creation of Fire Lines	Km	10	9045.1	0.9045	0.9045	0.00	0.00
	Maintenance of Fire Lines for 3 years	Km	30	6690.97	2.0073	0.6690	0.6690	0.6690
1	Procurement of fire blowers @ Rs.0.60	Nos	15	0.6	9.0	3.00	3.00	3.00
2	Procurement of fire fighting equipments like shoes, glouse, helmates, spades, crowbars fire beaters etc., @ Rs.	LS	LS	LS	3.0	1.00	1.00	1.00
	Engaging Fire Watchers 5x 10115x12 =606900 per year (3 years)	Nos	3	6.069	18.2	6.069	6.069	6.069
	<b>Total</b>				<b>104.1</b>	<b>49.4</b>	<b>34.6</b>	<b>20.2</b>

VI	Administrative cost ( 10% of the works component)				10.411	4.941	3.455	2.020
	<b>Grand total</b>				<b>114.521</b>	<b>54.35</b>	<b>38.01</b>	<b>22.22</b>

**Conclusion:** The Mitigative measures are proposed to prevent adverse effects of proposed road of the widening & strengthening of existing intermediate lane/Two land to Two lane with Paved shoulders from Km 696+620 to 699+655 of Khanapur section to wildlife i.e., both Flora and Fauna and also at the same time improving the water resources and controlling soil and water erosion. There will be unaccountable loss due to proposed road is passing through Compt Nos. 889,890,892 and 893 Maskapur beat of Khanapur Section of Khanapur Range of Khanapur Division

25/4/21  
  
 Forest Divisional Officer  
 Khanapur  


