0522-2204365/ccfcampaup@gmail.com

कार्यालय मुख्य वन संरक्षक/मुख्य कार्यकारी अधिकारी, उ0प्र0 कैम्पा, लखनऊ

पत्रांक– 724 /2–37–2 दिनांक, लखनऊ अप्रैलः 09 ,2025

सेवा में,

सहायक वन महानिरीक्षक,
राष्ट्रीय कैम्पा,
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार,
कक्ष सं0–ए–232, द्वितीय तल, अग्नि विंग, इन्दिरा पर्यावरण भवन,
अलीगंज, जोर बाग रोड, नई दिल्ली–110003।

विषय :– **Request for providing Monitoring Mechanism adopted for Monitoring & Evaluation of CAMPA activities by various States/UTs- regarding**

सन्दर्भः– आपका पत्रांक–NA-1/14/2023-NA दिनॉक 27.02.2025

महोदय,

कृपया उपरोक्त विषयक सन्दर्भित पत्र का अवलोकन करने की कृपा करें, जिसके माध्यम से उ0प्र0 कैम्पा अन्तर्गत कराये गये कार्यों के अनुश्रवण एवं मूल्यांकन हेतु अपनायी गयी मूल्यांकन प्रणाली (Monitoring Mechanism) उपलब्ध कराये जाने का अनुरोध किया गया है।

उक्त के क्रम में उ0प्र0 कैम्पा अन्तर्गत कराये गये कार्यों के अनुश्रवण एवं मूल्यांकन हेतु अपनायी गयी मूल्यांकन प्रणाली (Monitoring Mechanism) संलग्न कर सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित है।

संलग्नकः– उपरोक्तानुसार।

भवदीय,

09/04/25

(पी0पी0 सिंह)
अपर प्रधान मुख्य वन संरक्षक/
मुख्य कार्यकारी अधिकारी,
(उ0प्र0 कैम्पा), लखनऊ

संख्या–724 दिनांकित।

प्रतिलिपि प्रधान मुख्य वन संरक्षक और विभागाध्यक्ष (वन बल के प्रमुख), उ0प्र0, लखनऊ को सादर सूचनार्थ प्रेषित।

संलग्नकः– उपरोक्तानुसार।

(पी0पी0 सिंह)
अपर प्रधान मुख्य वन संरक्षक/
मुख्य कार्यकारी अधिकारी,
(उ0प्र0 कैम्पा), लखनऊ

MONITORING MECHANISM

Monitoring of works being carried out under CAMPA fund is very important to ensure effective implementation of CAF Act, 2016 and CAF Rules, 2018. As per rules 5(3)(h) of CAF Rules, 2018 independent concurrent monitoring and evaluation and third-party monitoring of various works undertaken from state fund should be carried out. In UP CAMPA the monitoring and evaluation activity is being carried out concurrently and as well as through third party. The details of monitoring and evaluation activity are as follows: -

1. CONCURRENT MONITORING & EVALUATION

1.1 Monitoring by supervisory officers of field & senior Forest officers

In U.P., the plantation works under CAMPA, are being executed by Divisional Forest Officer under constant supervision of Conservator and CCFs of field.

Apart from these senior officers (APCCFs & CCFs level) are nominated as Nodal officer for each district to coordinate monitoring of plantations being done the districts.

1.2 Regular counting & monitoring of survival of plants in plantation

As per the directions given by UP CAMPA Executive Committee in U.P. all CAMPA plantations are surveyed by team constituted by DFO and survival percentage is ascertained by physical counting. This survey is done 2 times in every year (on 30th June & 31st December) and result is recorded in counting register of the plantation.

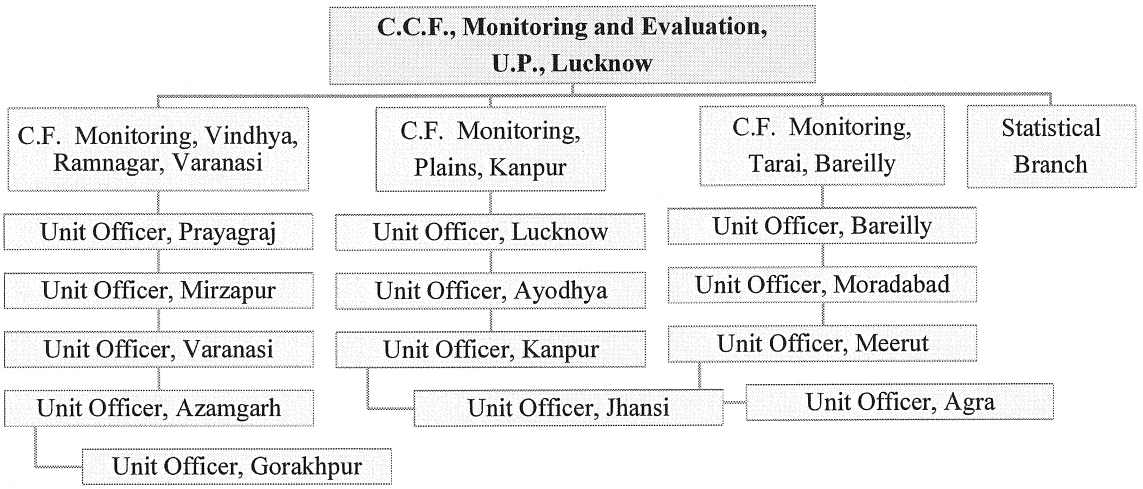
1.3 Independent Monitoring and Evaluation by Monitoring and Evaluation wing of State Forest Department

To emphasize the effective monitoring and evaluation of plantation works under the social forestry scheme of World Bank Monitoring and Evaluation cell was established in 1982. This office works under the control of chief forest conservator, monitoring evaluation which gives a firm dimension and base by proper guidance to the programs. Monitoring and Evaluation is conducted every year on random sampling bases by surveying three year old departmental tree plantations, besides this compilation of information regarding tree plantations and nursery is done at regular intervals.

(i) Organizational structure

In Uttar Pradesh forest department Monitoring and Evaluation wing was constituted in 1982 vide G.O. No. 2939/14-4-82-660/81 Dated 13.07.1982. The basic purpose of constitution of this wing/office is regular monitoring and evaluation of different forestry activities i.e. advanced soil works, plantations and nurseries, carried out under social forestry and other schemes, so that purpose of the schemes can be served fully.

Presently, in this wing there are three posts operational at the level of conservator of forests, monitoring under which each, units headed by range forest officers are working at circle levels. At headquarter level there is a statistical branch in which additional statistical officer and assistant statistical officer are working. The organizational structure of Uttar Pradesh forest department Monitoring and Evaluation wing is as under :-



(ii) Surveying/Monitoring Practices

In order to make the evaluation/survey process more useful, effective and transparent, all the orders issued earlier regarding the survey have been overridden and following practices were being followed pursuant to standing order No 132/29-8-2 dated 30-11-2022 in respect of monitoring and evaluation of advance soil works, nurseries and plantations by monitoring and evaluation wing of U.P. Forest department:-

A. Advance Soil work

Based on random sampling, minimum 10% of the total area/total sites is taken up for survey in respect of monitoring and evaluation which is conducted between April to May every year.

B. Nursery

While conducting monitoring and evaluation related survey regarding advance soil work one substantially big nursery of the selected division is taken up for monitoring and evaluation.

C. Plantation

All 2nd year and 3rd year old departmental plantations, carried out in all the schemes are taken up for monitoring and evaluation based on random sampling with the minimum 10% of the total sites/total area/total no. of plants planted.

The following arrangement will be adopted for the survey of plantations:-

- Survey of selected plantation sites upto 20 hectare area will be done by doing complete enumeration.
- Survey of selected plantation sites of more than 20 hectare area will be done as per the method selected by Chief Conservator of Forests, Monitoring and Evaluation, Uttar Pradesh, Lucknow as per the selected method of each site.

These instructions are being complied up on dedicated way, some of the salient points of these instructions are as under: -

(i) To check the quality of advance soil work and to check the success percentage of plantations, plan/project and range wise list of plantations will be obtained so that stratum of the range can be prepared and each range/scheme/project can be surveyed uniformly.

(ii) In view of quick/transparent/excellent quality sample selection, random selection of sites for surveys will be done through computer at the level of Additional Principal Chief Forest Conservator, IT, UP, Lucknow. For this, the details of advance soil work and plantations done every year, scheme wise/division wise/range wise, will be obtained by the Chief Conservator of Forests, Monitoring and Evaluation, Uttar Pradesh from the Additional Principal Chief Conservator of Forests, Planning and Agro Forestry and made available to the Additional Principal Chief Conservator of Forests, IT.

(iii) In view of assessing the quality of the survey, at least 10 percent of the sites surveyed by the monitoring units will be re-surveyed by other teams.

(iv) In order to increase transparency in survey work, the survey results are uploaded on Haritima App in real time.

(v) The proposed visit of the monitoring team is informed to the concerned Divisional Forest Officer and Conservator of Forests so that all the concerned documents in updated condition can be put up before the surveying/monitoring team.

(vi) After surveying/monitoring the team puts up the report (when ASW/Nursery/ Plantation are not found up to the mark as per norms) before the concerned DFO for seeking his response/reply. DFO sends his response/reply to CCF monitoring and evaluation, U.P. in respect of the findings of monitoring team, accordingly CCF monitoring recommends to the competent level for disposal of the issue.

The summary of surveying and monitoring of CAMPA Plantations carried out since year 2011-12 to 2021-22, conducted in years 2014-15 to 2023-24 by monitoring wing of the State is as under: -

S. No.	Plantation Year	Survey Year	Survey Area (ha.)	No. of plants planted	No. of plants surviving	Survival Percentage
1	2011-12	2014-15	580.93	676106	494907	73.20
2	2012-13	2015-16	362.50	406152	287804	70.86
3	2013-14	2016-17	442.52	410212	303721	74.04
4	2014-15	2017-18	34.56	26895	18639	69.30
5	2015-16	2018-19	943.66	1050318	830104	79.03
6	2016-17	2019-20	2049.93	2352259	1804685	76.72
7	2017-18	2020-21	1997.99	37608	26829	71.34
8	2018-19	2020-21	1882.99	2412727	1941660	80.48
9	2019-20	2020-21	2870.65	650225	567672	87.30
10	2020-21	2023-24	5008.18	6246939	4816990	77.11
11	2021-22	2023-24	3524.02	4376880	3614278	82.58

1.4 Online Monitoring System

The UP State has developed software for online monitoring of plantation and nursery work. The PMS (Plantation Monitoring System) is being used to monitor the execution of various activities relating to plantation. Each plantation site of the state is entered in specially designed software for monitoring for plantation (PMS) and the basic data, polygon; photographs of various stages are uploaded by the field unit.

2. THIRD PARTY MONITORING

2.1 NABARD consultancy services Pvt. Ltd.

This Monitoring and evaluation aim at monitoring, assessment & evaluation of works carried out by the forest divisions, funded by UP CAMPA through physical verification. Through open contract, the work of 3rd Party Monitoring & Evaluation of CAMPA scheme for the block period 2011-12 to 2013-14 was awarded to NABARD Consultancy Services Pvt. Ltd. (Wholly-Owned subsidiary of NABARD) vide CCF/CEO CAMPA, U.P. letter no. 1728/3-1(Third Party Assessment) Lucknow dated 29.01.15.

(i) The Scope of work included

- Field Survey was to assess survival of plantations and evaluate other works as per the norms of the State Government/ CAMPA guidelines.
- Physical inspection of the plantations to assess:
  - Survival percentage of planted saplings, site wise (number per species planted)
  - Parameters like growth (average height and girth) based on ocular observation
- Recording of geo coordinates and develop the geo referenced data base at State CAMPA with photographic evidence from field sites
- Impact evaluation of NPV work and other infrastructure activity were taken up exhaustively in all ranges visited (evaluation formats provided by FD)

(ii) Approach and Methodology (Modus Operandi) adopted in the study were,

(a) Sampling:

10% of all the plantations carried out under Compensatory Afforestation were taken up for evaluation. The sampling scheme followed was stratified random sampling with the Division of plantation and year of plantation as the strata. The NPV work and other infrastructure activity were taken up exhaustively in all ranges visited.

In each of the plantation sites sampled, data was collected in pre designed formats in order to record the details regarding location, source of seedlings, type of plantation, species used, model and spacing, survival, average girth and height, details and quality of protection measures taken, record maintenance, overall rating etc.

(b) Data Collection:

The evaluation survey included both primary and secondary data collection.

- **Primary data collection** was done by field monitors by physical measurements and observations in sample sites according to pre designed formats. Data pertaining to area, location, and species planted their numbers and survivability, height and diameter of plants, fencing and other maintenance activities, protection from fire and biotic pressure, site suitability, mandays generated maintenance of records, overall performance etc. were collected.
- **Secondary data** i.e. official documents and records like plantation journal, work sanction order, budget allocations were collected from Forest Department offices at state/circle/ division/ range levels.

(iii) Monitoring and Evaluation Report:

(a) Plantation works -

As per the final report of the third-party monitoring given by NABCONS (Wholly-Owned subsidiary of NABARD) the average survival percentage for the year wise plantation (at the time of survey year 2016) was as follows –

Plantation Year	2011	2012	2013	2014
Survival %	73.01%	72.50%	74.38%	77.33%

(b) NPV and Other Infrastructure works

(i) **Solar Units:** All the solar units installed in the locations were provided from NEDA. The overall ratings for all the sample sites were good. The local people/ local staff reported that in some locations, these solar units have been a great help to power cuts. As some places solar units require maintenance work.

(ii) **Staff Quarters:** Quality of construction of the quarters is good and very good, most of them are in good condition and staff are residing under these quarters. The overall rating for all the sample sites were good.

(iii) **Base Camps:** Base Camps constructed in 13 locations were as per specifications provided. All base camps were constructed using brick and mortar. No damage was observed during visit. All the camps were occupied by the forest officials. The overall rating for all the sample sites were good. The local staff reported that they are now more comfortable and safer in *pakka* house.

(iv) **Watch Towers**: All 16 watch towers constructed were as per specifications and quality of construction was good. The overall rating for all the sample sites were good. The local people/ local staff reported that all the watch towers are being used very well.

(v) **Water Holes:** Water holes were constructed in accordance with the specifications. No serious damage was observed. The overall rating for all the sample sites were good. The local people/ local staff reported that during summer season visibility of the wild life can be seen at these water holes.

(vi) **Soil & Water Conservation Structures**: All the soil & water conservation structures monitored were in Bainpura range of Agra division. All the *pucca* structures were according to the specifications and construction quality was also good. The overall rating for all the sample sites were good. The local people/ local staff reported that soil erosion has reduced and water table has increased in all the sample sites surveyed.

(iv) Over all Findings

The evaluators had the opportunity to meet and interact with a good number of different groups and individual and officials. Overall findings of the Third-Party Monitoring team can be summarized as under: -

i. It was observed that funds received from Ad-hoc CAMPA have been utilized in various activities as per the annual plan of operation (APO) dully approved by Steering Committee Chaired by Chief Secretary, Govt. of Uttar Pradesh.

ii. Under CAMPA scheme implementing agencies have made sincere efforts to carry the plantations raised under Compensatory Afforestation as per the conditions imposed by the Central Government/State Government or by Hon'ble court (if any). According to NABCONS report almost all plantations are according to the State Government norms in respect of survival and health of the plants. The species planted were found to be suitable to the plantation sites. The spacing of plantations is as per the plantation-model adopted.

(i) Some more attention is required to be given for records up keeping.

(ii) All the quantitative and qualitative aspects of the project along with the mechanism and functioning found satisfactory. In sum, the prime task of State CAMPA – ''Regenerating natural forests and building" is in right direction. The overall implementation and performance of the CAMPA SCHEME in Uttar Pradesh is quite satisfactory.

2.2 Forest Survey of India, Dehradun

As per Government order Environment, Forest and Climate Change section-5, no. 272/14-5-2019-03/2019 dated 16.05.2019 and as per the decisions of the committee chaired by PCCF, UP dated 11.07.2019, FSI Dehradun was nominated as third-party agency for monitoring of plants done in 2019-20 (which includes CAMPA CA & Non-CA Plantations) carried out by UP.

FSI carried out field work by 24 field crews between 18th Feb, 2020 to 23rd Feb, 2020. Total 4078 sample plots spread over all the district of the State for field survey. The Third-Party Monitoring of 2019-20 plantations by FSI included 793.11 ha CA Plantations & 14281.41 ha Non-CA Plantations done under CAMPA.

The main findings of the Third-Party Monitoring are as follows: -

1- Overall survival percentage of the planted saplings at the State level has been observed as 90.44%.

2- The highest survival percentage of 98.38% has been observed in Bundelkhand zone followed by Western Plain zone (94.21%) and North Eastern Plain zone (92.42%).

3- The highest survival percentage has been observed in Chitrakoot circle (98.47%) followed by Jhansi (98.10%) and Basti circle (95.75%)

2.3 Central Agro Forestry Research Institute, Jhansi, Uttar Pradesh

The Central Agro Forestry Research Institute, Jhansi, Uttar Pradesh (a multi-disciplinary premier Research Institute of Indian Council of Agricultural Research (ICAR)) was interested the task and carrying out third party monitoring as well as socio-economic ecological study of impact of soil moisture conservation works executed, under NPV component of UP CAMPA in Bundelkhand region of Uttar Pradesh. The CAFRI, Jhansi conducted the study from April 2019 to Sept, 2021, the field enquiry / survey was conducted during July, 2021 to Sept, 2021. The team visited selected sites in Jhansi, Lalitpur, Orai, Chitrakoot, Banda, Hamirpur and Mahoba divisions of Bundelkhand forest zone.

The main finding of the study are as follows:-

i. Almost all the water harvesting structure were found with stored water and they are serving as resource for drinking water for wildlife and local livestock.
ii. Water level has increased upto 0.5 metre to 1.5 meter in open wells located nearby the interventions.
iii. Availability of soil moisture conservation for longer time has helped in natural regeneration and increased vegetation cover in the treated areas.
iv. Due to water harvesting structure soil loss, run off loss and nutrient loss has reduced drastically in the treated area.
v. Man – animal conflict has decreased in forest fringe areas as wild animal are getting the drinking water in treated areas.
vi. These activities have not only approved and stabilized the food production system in the forest but also has reduced the impact of climate variability and rain fall irregularities, thereby improving house hold resilience.

Overall Assessment-

Based on the information provided by the forest department and based on the observations, the interventions implemented under CAMPA activities can be rated as **very good**.

2.4 Third Party Monitoring and Evaluation of works done under CAMPA

According to the National Authority, Government of India vide letter dated 20.01.2023 ***".....any of the relevant Autonomous Institutions viz. ICFRE, IIFM or any other technical institute not directly under the control of State Government."***. In this reference and after approval by Uttar Pradesh CAMPA Steering Committee the Third Party Monitoring is being carried out by Department of Forestry, Wildlife and Environmental Sciences, Guru Ghasidas University (a Central University), Bilaspur, Chhattisgarh of various works carried out under UP CAMPA since the year 2011-12 to 2022-23, the monitoring report will be submitted within 2 years from the date of Contract Agreement i.e. 15.03.2024. The monitoring methodology adopted is as under: -

METHODOLOGY

1. Standard sampling

Standard sampling strategy will be followed for monitoring and evaluation of plantations as mentioned in the **"National Evaluation Manual for Compensatory Afforestation Fund Management" 2016/2018, IIFM, Bhopal**. All the sites of plantation as mentioned in the target will be visited by the evaluation team and sampling intensity will be 10% of the total area of each plantation site. Random sampling method will be followed for the selection of samples. A Forest Division will be taken as a unit for the purpose of analysis, data presentation, description and report.

2. Collection of field data

The primary and secondary data will be collected for the evaluation of target plantations under CAMPA. The **primary data** will be collected from the field by the evaluation team with the help of official of the Forest Department. The primary data will be recorded in a predefined format, prepared questionnaire,

and field observations in the selected sites. The **Secondary data** will be collected in the form of various records like plantation journals, site maps, and estimates of plantation, etc. as per requirement.

3. Field enumeration

Depending upon the area and pattern of plantation i.e., block plantation, linear plantation etc., the following strategy will be used for field enumeration:

I) Block plantation:

a) Complete enumeration: Whole plantation will be assessed if the total plantation area of a plantation site is less than or equal to 1.0 ha.

b) Partial enumeration: Partial enumeration will be adopted if the total area of a plantation site is more than 1.0 ha. Ten percent (10%) of the plantation area of each plantation site will be randomly sampled by laying sample plots of 0.1 ha (i.e. 31.62 m X 31.62 m) each.

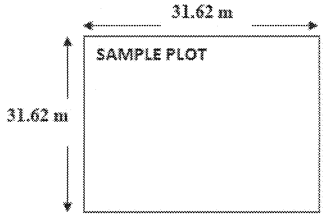


Figure 1 Sampling plot

II) Linear plantations: In linear plantations, 10% of the length of the total plantation will be sampled randomly. However, whole plantation may be taken if the number of plants is very less.

III) Other Plantations: An appropriate sampling strategy will be adopted for plantations other than block or linear plantations depending upon the area and number of plants.

4. Measuring the area of plantations

All the sites of plantation will be visited by monitoring and evaluation team. The area of plantation will be measured for area determination by using Google Earth Pro software. The boundary of each plantation sites will be marked by generation of polygon in Google Earth pro software.

5. Assessing the survival percentage

In multi-row block plantations, any row will be selected as initial or starting row for counting and then every 10^{th} row will be selected for sampling counting. In these rows all the plants will be counted till the end of the row, either dead or surviving, for calculation of survival percentage. All the plants of every 10^{th} row will be enumerated. The survival percentage of the plantation can be calculated as the percentage of surviving plants compared to the total plants enumerated. For the purpose of reporting, the survival percentage (%) will be calculated by the net planted plants N2 and Surviving plant N1 multiplied by 100 in the same model. Division wise, circle wise survival percentage will be calculated (For other details CAMPA guidelines IIFM-2016 will be followed). Similarly, mortality rate will also be calculated.

$$\textbf{Survival rate } (\%) = \frac{N1}{N2} X\ 100$$

$$\textbf{Mortality rate } (\%) = \frac{N2 - N1}{N2} X\ 100$$

Here, N1 is number of plants surviving currently and N2 is total number of saplings planted at the plot.

6. Assessing the health (height and collar girth) of plantation

The health of a plantation is generally expressed in terms of growth parameters of the plants. For this purpose, plant height and plant girth will be measured. This will be done at 1% sampling. In all the rows selected for survival, the first plant of the selected row will be measured for the height and collar girth (50 cm above the ground level for up to 3-year-old plantation and 100 cm above ground level for up to 5-year-old plantation and for plantation older than 5 years, diameters at breast height will be taken). Thereafter, every 10^{th} plant will be selected for further recording of height and collar girth. The first plant growth measurement will be changed in the 12^{th} row by using a random number from 1 to 10. The height and girth will be averaged from the total plants for which these two parameters were measured.

7. Evaluation of sites suitability and species suitability

The suitability of site for plantation will be assessed based on slope, terrain and density of natural vegetation etc. The suitability of species will be determined by the objective of plantation (i.e. avenue plantation, fuel wood, fodder plantation, agroforestry, etc.); broad comparison of planted species and species in natural vegetation, suitability for wildlife etc. will be considered.

8. Miscellaneous parameters

Information on various aspects like physical achievement, year, species, fencing, inspection by senior officers and reason of failed plantation, if any will be recorded and analyzed.

9. Indicators of data collection for monitoring and evaluation

The following indicators will be adopted along with the weightage in consultation with the forest department as per the needs for output, outcomes and impact assessment of the scheme:

9.1 (A) Plantation activities:

- Selection of sites for the species
- Site clearance work
- Size of the pits including earth work
- Counting of empty pits
- Spacing of the pits
- Methods adopted for planting (pits, ridge-ditch, trench etc.)
- Time of planting
- Health of the plants
- Hoeing and weeding operations
- Protection status of the plantation
- Survival percentage of plants
- Maintenance schedule of the plantation
- Growth of the plants (Height and diameter)

9.1 (B) Assisted Natural Regeneration (ANR)

- Selection of sites for the species
- Site clearance work
- Size of the pits including earth work
- Counting of empty pits
- Spacing of the pits
- Methods adopted for planting (pits, ridge-ditch, trench etc.)
- Time of planting
- Health of the plants
- Hoeing and weeding operations
- Protection status of the plantation
- Survival percentage of plants
- Maintenance schedule of the plantation
- Growth of the plants (Height and diameter)

9.2 Soil and moisture conservation activities (as part of plantation scheme, if any)

SMC works (Check dams, Contour trenches, CCT, LBC, and Gully plugs, etc.)

9.3 Protection and development of existing forest

Quality and quantity of protection measures such as trenches, live and abiotic fences.

9.4 Fire Protection Measures

- Number of incidences of fire
- Extent of damage
- Change of the vegetation

9.5 Any other indicators: As per discussion with the officers of UPFD.