

STANDARD PROCEDURE OF MONITORING AND EVALUATION OF DEVELOPMENT WORKS

Three tier monitoring and evaluation of all development works is being carried out in the H.P. Forest Department as detailed below:

First tier: The first tier of monitoring would be done by field functionaries up to the level of CFs as per technical Order No.1/93-94 dated 05.03.1994.

Second Tier: Monitoring & evaluation of all developmental works (under all state and centrally sponsored schemes including CAMPA) by M&E Wing of HP. Forest Department as per methodology approved by Pr.CCF H.P. on dated 22.02.2013

Third Tier: Third party monitoring will be carried out for externally aided project and CAT Plans through institutions/entities in the State like the Universities forest institute; in their absence by approved/ empanelled consultant.

First Tier Monitoring:-

Monitoring of development works by field functionaries upto level of CFS:-

Keeping in view the increased thrust of the Govt. for afforestation and soil Conservation work in Himachal Pradesh, it is essential to follow Mandatory Field Inspections by field functionaries. Therefore in view of above, technical standing order No.1/93-94 is issued for Mandatory inspections. The two aspects have been devised, first is the inspections of the area and assessment of survival %age and second is the total physical verification of the area by way of total counting of plants. In this part survival percentage will also be assessed.

The areas to be inspected should be evenly distributed in all over range. It will be ensured that the areas in the interior away from motor road are adequately covered. Before conduction mandatory inspection, random samples should be drawn for checking/inspection at different level. It will be carried out as under:-

1. ASSESSMENT OF THE SURVIVAL PERCENTAGE

1.1 Different field functionaries will carry out assessment of survival percentage to under mentioned extent:

FIELD FUNCTIONARY	PERCENTAGE IN RESPECT OF HA. PLANTED.
R.O	100
A.C.F.	50
D.F.O.	20
C.F	5

1.2 First of all it will be ascertained that the area is the name as intended to be inspected. This will be done by taking help of plantation on journal /map/D.H.F. etc.

1.3 The actual counting of plants be confined to 2% of the total number of plants planted in the area to be inspected.

1.4 While counting plants, a cluster of at least 100 plants will be taken at one point which will be selected randomly standing from the N.E. corned and proceeding in anticlockwise direction.

1.5 The cluster will approximate to a circular shape of radius of about 20 m.

1.6 Then the actual counting of pits be done and the plants of B. L. and conifers survival percentage of total be worked out.

2. PHYSICAL VERIFICATION AND SURVIVAL PERCENTAGE

2.1 The extent of physical verification and survival %age will be as under. The areas/ samples selected for physical verification has to be different from the areas/ samples selected for survival percentage.

<u>FIELD FUNCTIONARY</u>	<u>PERCENTAGE IN RESPECT of HA. PLANTED.</u>
R.O	25
A.C.F	10
D.F.O.	5
C.F.	1

2.2 It will be ascertained that the area being inspected is the same as is intended to be inspected. For this purpose help will be taken of plantation journal map/CHF etc.

2.3 The total counting of plants planted in the area under inspection will be carried out and recorded separately for B.L. and conifers and surviving and dead plants.

2.4 The area will be calculated by the norm of plantation/ha.

3. It is made clear here that suppose in a Division, 1000 ha, plantation has been carried out, then, out of it, area to be inspected by ACF, DFO and CF in case of assessment of survival percentage will be 500, 200, and 50 ha, respectively. If the norm of plantation is 1000 plants per ha, then the actual counting of number of plants by these functionaries will be 2% of the plants planted in these i.e. 10,000, 4,000 and 1,000 respectively, similarly, if 1000 ha, is planted in a Division, then the areas to be checked for physical verification and survival percentage by field functionaries will be 250 ha, for R.O. 100 for ACF, 50 for DFO and 10 for CF. Here cent percent counting for plants planted will be done.

4. The report will be sent separately for monsoon and winter plantings in respect of new plantations both in respect of survival percentage and physical verification as depicted below. The report of monsoon planting should be submitted by 31st December as per norms in respect of about 50% of plantations already raised during monsoons and by 31st March in respect of remaining areas.

The report for winter planting will be sent by 30th June as per norms in the following year for about 50% plantations done during winter and by 30th Sept, for remaining areas.

Dated of submission of report

Monsoon Planting	31st December. 50%	31st March 50%
Winter Planting	30th June of the following year 50%	30th September of the following year 50%

5. INSPECTION OF PLANTATION AREAS OF LAST 2 YEARS

In order to assess the survival % age of the previous two years plantation areas it is desirable that CFs/DFOs should inspect minimum 1% and 5% areas respectively for each year plantations. The procedure for inspection/ selection of the areas and submission of inspection reports shall remain the same as prescribed in earlier paragraphs.

Second Tier Monitoring

Monitoring of development works by Monitoring & Evaluation Wing

For carrying out monitoring and evaluation exercise in the state of Himachal Pradesh, the State has been divided into two circles-**North and South**. The North Circle has jurisdiction over Bilaspur, Chamba, Dharamsala and Hamirpur territorial Circles while the jurisdiction of South Circle is spread over Kullu, Mandi, Nahan, Rampur and Shimla territorial Circles.

Method: **Multi stage random sampling method** (also called as cluster sampling) will be used for carrying out sampling. In this method random samples are drawn from primary, intermediate and final units (Range, Block and field activity in this case). Selected units will be monitored for 6 months after which fresh samples will be selected.

- Entire population is divided into clusters (**Ranges**) and a random sample of clusters is selected using computer generated random numbers
- Each cluster is mutually exclusive and together the cluster includes the entire population. No unit from non selected clusters is included in the sample.
- Once the clusters are selected then all units within the clusters (**Blocks**) are considered for second stage random selection.
- In final stage, atleast 15% of works from among the selected Blocks are actually monitored in field.

In the second stage, further sample size has been drawn based on the standard deviation of the population (i.e. 108 Blocks falling in these selected 36 Ranges) which is 0.63. Thus the sample size at 90% confidence interval is 38. This amounts to a sampling intensity of 35%. Thus atleast one Block per Range was selected following the random selection method. For this again computer generated random numbers have been used and following blocks have been selected.

Further in third stage, all the works carried out in current financial year are listed and 15% of the works are selected randomly from each Block for actual field inspection and monitoring.

Third Tier:

Third party monitoring will be carried out for externally aided project and CAT Plans through institutions/entities in the State like the Universities forest institute; in their absence by approved/ empanelled consultant.
