

Chapter-5

Implementation of Compensatory Afforestation Activities

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For the implementation of Compensatory Afforestation (CA) activities, the Divisional Forest Officers (DFOs) are responsible for running the divisions smoothly and efficiently keeping in view the rules, orders, and directions of the competent authority. The important duties of the DFOs are preparation of the divisional plan of operations, budget provisions, inspect and supervise all the technical operations going on in the divisions i.e. markings, felling, culture operations, plantation works, construction of and special repairs of roads, building and wells and annual inspection of the outer and inner boundaries of the forests under their jurisdictions to ensure that no encroachment of any kind has taken place. According to the guidelines, upon receipt of the funds, the State Authority is required to undertake afforestation activities within a period of one year or two growing seasons after project completion, as deemed appropriate. During the audit period (2019 to 2022), CA was carried out in the area of 8,623.78 ha, which included both the 1,192 ha planted against the received CA land (3,377.63 ha) during the audit period and 7,431.78 ha related to periods prior to the audit. Given that the funds were deposited in the Compensatory Afforestation Fund, it was incumbent upon the State Authority to ensure completion of afforestation activities within the stipulated timeframe. As of March 2022, CA plantation is pending on 7,640 ha¹ of CA land. The State Authority plans to clear the backlog in the next three financial years i.e. 2022-23 (2,415 ha) 2023-24 (2,200 ha) and 2024-25 (3,025 ha). The lapses noticed at the level of DFOs during the Audit are discussed in the succeeding paragraphs.

5.1 Absence of bird deflectors

In two projects in Haridwar and Narendra Nagar Divisions, the Ministry of Environment, Forest & Climate Change (MoEF&CC) stipulated (January 2021 & February 2022) that the User Agency (UA) should provide at its cost, suitable bird deflectors which were to be fixed on an upper conductor of transmission lines at a suitable interval to avoid bird hit, besides maintaining necessary ground clearance to prevent electrocution of wild animals. On review, Audit observed that UA² had not installed the bird deflectors in both projects. However, fire cases were reported in both divisions.

The State Government did not provide a response (July 2023) directly; instead, it enclosed the responses from the divisions. The Narendra Nagar Division stated that the installation of bird deflectors is now scheduled for completion in the fiscal year 2023-24. Meanwhile, in the Haridwar division, a letter was issued in March 2023 to the respective UA, instructing them to take necessary actions. The reply itself confirms that bird deflectors in both projects were yet to be installed.

¹ Upto 2015-16: total backlog 4,666.90 ha, between 2016-17 to 2019-20: backlog 2,011.68 ha and between 2020-21 to 2021-22: backlog 962.31 ha.

² Uttarakhand Power Corporation Limited.

5.2 Cost escalation due to delayed CA

As per CAMPA guidelines 2009, after receipt of the money, the State CAMPA shall accomplish the afforestation for which money is deposited in the Compensatory Afforestation Fund (CAF) within a period of one year or two growing seasons.

Scrutiny of records of test checked divisions revealed that in 37 cases³, CA work was executed after more than eight years of getting final clearance. This resulted in cost escalation of ₹ 11.54 crore⁴ in raising CA.

The State Government replied (July 2023) that cost escalation was met out from the interest component of the State Compensatory Afforestation Fund (SCAF) as per rule 6(a) of CAF Rules. The reply is not acceptable, as the provisions for cost escalation under interest component were not included in the Annual Plan of Operations (APOs).

5.3 Low survival of plantation

As per the Forest Research Institute (FRI) (third party) report submitted to the State Forest Department (SFD) on March 2021, the overall average survival percentage of plantations was 33.51 *per cent* which is lower than the mandated 60 to 65 *per cent*. In the test checked three divisions⁵, Audit noticed that CA was done on 21.28 ha land at a cost of ₹ 22.08 lakh during 2017-20. However, during the inspection, Audit found that the survival percentage was very low in these plantation sites. The staff reported that most of the plants did not survive due to the presence of large pine trees in the area, most of the allotted land was on a very steep slope, rocky, and frequent movement of domestic animals and local people to the plantation sites as can be seen in photographs.



Site: Odavaskote plantation at Nainital division



Site: Gankot plantation at Pithoragarh division

The above instances show that there was systemic negligence in the selection process of suitable land for CA which resulted in poor survival.



³ DFO, Chakrata : 7 cases, ₹ 64.06 lakh, Haridwar : 4 cases, ₹ 901.38 lakh, Mussoorie : 4 cases, ₹ 14.41 lakh, Narendra Nagar : 2 cases, ₹ 46.00 lakh, Nainital : 9 cases, ₹ 22.66 lakh, Rudraprayag : 5 cases, ₹ 12.85 lakh and Tons (Purola) : 6 cases, ₹ 93.02 lakh.

⁴ UA has deposited ₹ 15.15 crore as CA charges but due to revision in scheduled rate of plantation, expenditure of ₹ 26.69 crore incurred in raising CA.

⁵ DFO, Nainital: Odavaskote, ₹ 3.83 lakh (2.68 ha), Pithoragarh : Gauch & Gadkot, ₹ 9.65 lakh (13 ha) and Rudraprayag : Rampur, ₹ 8.60 lakh (5.60 ha).

5.4 Poor Advance Soil Works before plantation


Survival of plantation inter-alia depended on proper advance soil work. Accordingly, detailed provisions for Advance Soil Works (ASW) exists in Uttarakhand Plantation Code⁶. On review, Audit noticed that:

-  In the Nainital division, ASW for roadside plantation, gap filling and dwarf species was done on 78.80 ha of land during 2019-21, but no plantation was raised in the succeeding year.
-  In the Almora division, ASW and plantation on 185.50 ha were executed simultaneously under the Kosi rejuvenation scheme.


The State Government did not provide a response (July 2023) directly; instead, it enclosed the responses from the divisions. The Nainital division accepted the facts and replied that the demand for maintenance of the plantation was made instead of plantation activity, so the fund was not utilised. However, plantation was carried out in anticipation of budget and the same is to be proposed in 2023-24. As regards ASW and plantation executed simultaneously, the Almora division accepted the facts.

5.5 Selection of unsuitable land for CA plantation

Land selection for plantations is the responsibility⁷ of the DFO with the assistance of the Revenue Department. Scrutiny of records of test checked divisions showed that:

-  In five divisions, 1,204.04 ha⁸ of land was not suitable for CA work. The unsuitability of land shows that the certificates of suitability furnished by the DFOs were incorrect and issued without ascertaining the actual condition of the land. The Department did not initiate any action against the concerned DFOs for their negligence.

The State Government did not provide a response (July 2023) directly; instead, it enclosed the responses from the divisions. The divisions replied that the land was not suitable for CA plantation due to steep slopes, dense forests *etc.*

-  As per rule 5(4)(h) of CAF Rules, the CAF monies should not be used in case where mandatory afforestation is done as per the working plan in the forest on vacant space created by commercial felling⁹ of trees for revenue generation. In Tarai East division, six plantation works¹⁰, after incurring expenditure of ₹ 14.55 lakh, were implemented in the blank created by commercial felling of trees thus, violating the aforesaid CAF Rules.

⁶ As per paragraph 16 of Uttarakhand plantation code, 2006, ASW includes pit digging, trench, walling or fencing work. ASW should be done in November to February of the preceding year. During this period, the soil remains moist due to winter rains and digging is easy. After completing the work by February, 3-4 month's time is also available for weathering the excavated soil and pit and plantation should be done in the rainy season *i.e.* July to September in next year.


⁷ The DFO certify the legal status of the land and suitability of area such as location, survey or compartment or khasra number, area, and distance from adjoining forest of each plot of non-forest area or degraded forest identified for CA at the time of diversion of land.

⁸ DFO, Almora : 30.90 ha, Chakrata : 10.26 ha, Haridwar : 1,099.00 ha, Pithoragarh : 63.52 ha and Tons (Purola) : 0.36 ha.

⁹ Undertaken under working plan prescription.

¹⁰ Kalega block compartment No.-5, Kakara compartment No. 4, 10, 12, Kotkharadakshin A-N-1 and Gola-2 plot No. 4.

The State Government did not provide a response (July 2023) directly; instead, it enclosed the responses from the divisions. The division responded that the plantations were undertaken with the objective of providing a natural form and contributing to eco-restoration in the area. The reply is not acceptable, as such plantation was not permissible in the vacant space created by commercial felling as per CAF Rules.

 In four divisions¹¹, plantations on 202.90 ha land under CA were done in areas with crown density above 40 *per cent* as a degraded forest. The ASW and plantation works were carried out in 2019-22 with an expenditure of ₹ 1.96 crore.

The State Government did not provide a response (July 2023) directly; instead, it enclosed the responses from the divisions. The divisions asserted that, despite the compartment's overall density exceeding 40 *per cent*, the chosen sites (specifically, sub-compartments) had densities below the 40 *per cent* threshold, leading to their selection for plantation. However, this response is considered unacceptable, as the working plan specified that the density of the particular sub-compartment surpassed the threshold limit.


 In Haridwar & Narendra Nagar divisions, the divisions arbitrarily changed the 11 CA sites by incurring an expenditure of ₹ 1.61 crore for plantation on sites other than CA land. This is in violation of the Forest Conservation (FC) Act (Table-5.1).

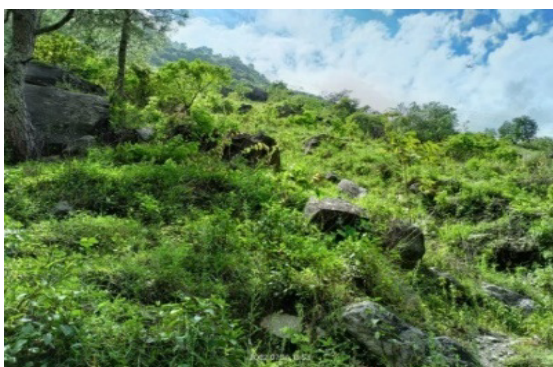
Table-5.1: Statement showing the details of changed sites

Name of division	Year of plantation	Range	Available CA site	Actual plantation site	Area of plantation (in ha)	Amount incurred (in ₹)
DFO, Haridwar	2016-17	Rasiyabaad	Nalowala-7 (70 ha) Nalowal (50 ha)	Aamshot	11.00	6,97,249
	2017-18	Rasiyabaad	Nalowala- (9 ha) Nalowala- (7 ha)	Aamshot 1a	10.00	14,42,399
	2017-18	Rasiyabaad	Nalowala- (9 ha) Nalowala-(7 ha)	Nalowala 3	20.00	18,75,862
	2020-21	Shyampur	Anjani- (20 ha)	Ganga-2	20.00	11,36,900
DFO, Narendra Nagar	2019-20	ManikNath	Naithana-7(30 ha)	Naithana-3	10.00	11,60,977
	2019-20	ManikNath	Naithana-7(30 ha)	Naithana-8	20.00	23,21,953
	2020-21	KirtiNagar	Naithana-7 (40 ha)	Naithana-8	12.00	13,85,139
	2020-21	KirtiNagar	Naithana-7 (40 ha)	Dundsir-4A	10.00	11,54,283
	2020-21	KirtiNagar	Naithana-7 (40 ha)	Dundsir-4A	10.00	11,54,283
	2020-21	KirtiNagar	Naithana-7 (40 ha)	Dundsir-4A	8.00	9,23,436
	2021-22	Maniknath	Wasuki chaka (35.34 ha)	Umran civil	24.15	28,01,864
Total					155.15	1,60,54,345

¹¹ DFO, Almora (30.632 ha) : ₹ 22.85 lakh, Mussoorie (4.78 ha) : ₹ 3.85 lakh, Nainital (56.44 ha) : ₹ 47.82 lakh and Rudraprayag (111.05 ha) : ₹ 121.68 lakh.

The State Government did not provide a detailed response (July 2023) directly; instead, it included the responses from the divisions. The Haridwar division acknowledged the facts and explained that considering land availability, they conducted plantation work by creating distinct plots. In the case of Narendra Nagar, the plantation was performed near degraded land instead of the proposed sites due to an increase in density. The reply confirms that the divisions arbitrarily changed the CA sites in violation of the FC Act.

Further, on joint physical inspection of 68 plantation sites, Audit observed plantations on unsuitable land in 11 sites (16 per cent). In one case, the civil land mutated for CA was found to be densely forest; rocky and very steep where plantation was not possible as can be seen in photographs.



Site: Raunthi plantation at Pithoragarh division



Site: Chandragaon plantation at Pithoragarh division

Paragraph 6 of the FC guidelines, it is the responsibility of the DFOs to check the suitability of land before the diversion of forest land. From above, it is clear that the certificates furnished by the DFOs were incorrect and issued without ascertaining the actual condition of the land.


The State Government did not provide a detailed response (July 2023) directly; instead, it included the responses from the divisions. The divisions while accepting the facts, stated that the allotted land had very steep slopes, dense forests, wetlands etc., therefore, the land was not suitable for CA plantation.

5.6 Poor maintenance of plantation


As per paragraph 2.8 (i) of FC guidelines, for CA over non forest land (NFL) /degraded forest, the UA would deposit the cost of plantation including maintenance for 10 years. Further, the Government of Uttarakhand also notified (November 2017), that maintenance of plantation was to be carried out for 10 years.

However, it was observed during audit that although the funds for the maintenance of plantation were collected from UAs for 10 years, but the provisions for funds made in APO and actual expenditure was only for three to five years. This resulted in possible blocking/diversion¹² of SCAF during the period 2019-22, which could have been utilised to enhance the survival of the plantation. In divisions, Audit further observed as under:

¹² Thus, till date of Audit, total ₹ 49.46 crore was collected from UAs, but only ₹ 24.93 crore have been spent for maintenance. This issue of actual period of maintenance required by plantation was neither raised by any divisions nor Authority. The excess amount of ₹ 24.53 crore collected from UAs is lying in SCAF.

 In 12 selected divisions, no maintenance was being done after three to five years of plantation.

In July 2023, the State Government asserted that funds were allocated to the division for the maintenance of the plantation over an eight-year period. However, it was noted that directives were issued to the divisions instructing them to make provision of ensure maintenance for a duration of ten years. This response is unacceptable because divisional records indicate that the provision for maintenance of the plantation was made only for three to five years. Furthermore, the Head of the Forest Forces directed forest functionaries in January 2022 to incorporate a provision for a 10-year maintenance period in the APO instead of three years. This was in accordance with the collection of funds from UAs for the maintenance of plantations for ten years, as outlined in paragraph 2.8(iii-e) of the FC Guidelines.

 In the Narendra Nagar division, during the year 2020-22, an expenditure of ₹ 41.71 lakh was incurred on account of maintenance of the plantation. These maintenance works pertained to plantation years 2011-12 and 2013-14. No expenditure for this maintenance work was incurred in the preceding years. Plantation maintenance is a continuous process and maintenance work after a gap of seven years was a misuse of SCAF.

The State Government did not provide a detailed response (July 2023) directly; instead, it included the responses from the divisions. Acknowledging the situation, the division responded that initially, the provision for maintaining the plantation was limited to three years. Subsequently, in line with the revised Schedule of Rates (SoR) from April 2020, the duration for maintenance of plantations was extended to eight years. As a result, maintenance activities for plantations from previous years were conducted accordingly. The reply itself indicates that the primary concern was not the maintenance process but rather the utilization of the released funds.

5.7 Suspicious expenditure due to Duplicity in CA land

Audit noticed that the civil land was mutated against diverted forest land twice in two forest divisions as detailed in **Table-5.2** below:

Table-5.2: Details of duplicity in CA land

Name of division	Proposal No.	Name of road	UA	Forest Area (in ha)	Civil land received			Amount incurred in CA (in ₹)
					Village	Khasra No.	Area (in ha)	
DFO, Tons (Purola)	16964/2015 and 16974/2015	Arakot-kalich-Damti	PWD	10.17	Thunara	1779	6.36	19,22,646
						1781	0.20	
						1783	16.34	
	23116/2016	Arakot Bhutanu	PMGSY	8.30	Thunara	1783	16.34	16,03,172
1624	0.26							
DFO, Badrinath	17793/2016	Manmati-choting to Jhalia	PWD	15.08	Udaipur	536	7.47	
						556	0.92	
						558	7.15	
						628	14.60	

Name of division	Proposal No.	Name of road	UA	Forest Area (in ha)	Civil land received			Amount incurred in CA (in ₹)
					Village	Khasra No.	Area (in ha)	
	46488/2020	Choting to Udaipur Lagga	PMGSY	4.41	Udaipur	536	7.47	
						576	1.35	

Source: Information obtained from Nodal Office & DFO, Tons (Purola).

Moreover, the DFO, Tons (Purola) executed CA plantation work twice on the same land during 2020-21. This was a case of suspicious expenditure of ₹ 15.78 lakh¹³ and required further investigation by departmental authorities. No reply was given by the State Government on the issue however, in the exit conference it was informed that the inquiry/examination would be carried out and action would be taken accordingly to the concerned officers/officials.

After the issue was pointed out by Audit (May 2022), the DFO, Badrinath confirmed the facts and informed (July 2022) that the work of CA on NFL provided in lieu of proposal no. 46488/2020 was not executed by the division and directed to the UA to stop the work unless the issue is resolved.

5.8 Unauthorised expenditure on excess plantation against CA land received

As per Section 6 (a) of CAF, Act, CA plantation work is site-specific work on the site received in lieu of the diversion of forest land. Audit found that out of four cases, the Haridwar division received degraded forest land in lieu of diverted forest land only in two cases (31.00 ha) and in the remaining two cases, no land for CA was received by the division. However, the division arbitrarily executed plantations in two unapproved land sites and also executed plantations in the excess area. The Division incurred an expenditure of ₹ 222.83 lakh instead of ₹ 34.66 lakh as mentioned in **Table-5.3**. The plantation in an unapproved site measuring 189.00 ha cannot be treated as a CA plantation.

Table-5.3: Statement showing the details of excess expenditure

(₹ in lakh)							
Name of division	Year of plantation	Range	Available CA site	Actual plantation site	Amount incurred	Admissible Expenditure	Inadmissible Expenditure
DFO, Haridwar	2021-22	Rasiyabaad	Nalowala-7 (16 ha)	Nalowala 7A -70 ha	73.38	16.77	56.61
	2017-18	Haridwar	Patri (0 ha)	Patri – 20 ha	22.11	0	22.11
	2021-22	Haridwar	Patri (0 ha)	Patri – 100 ha	91.56	0	91.56
	2018-19	Lakshar	Sherpur (15 ha)	Sherpur -30 ha	35.78	17.89	17.89
Total					222.83	34.66	188.17

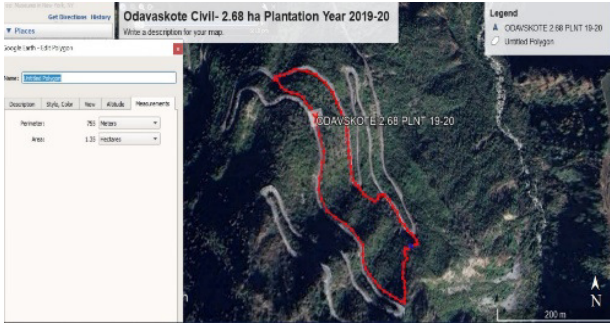
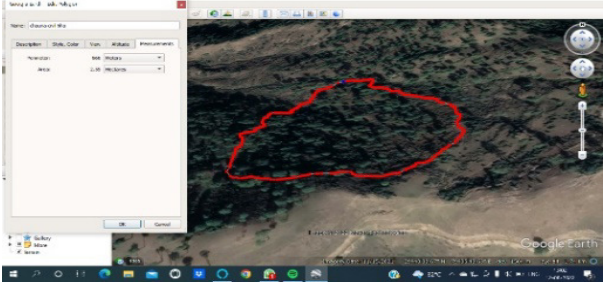
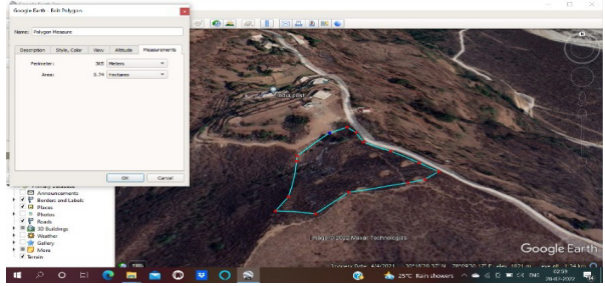
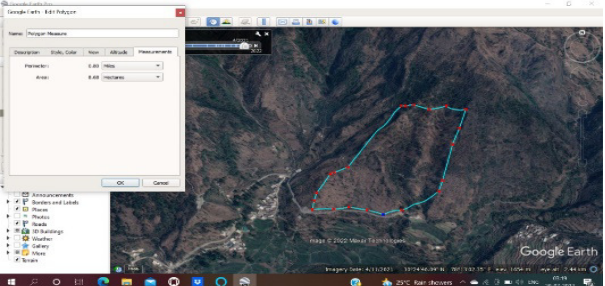
The State Government did not provide a detailed response (July 2023) directly; instead, it included the responses from the divisions. The division replied that the plantation was carried out on the selected sites. The reply is not acceptable, as the

¹³ 16.344 ha x ₹ 96,577 per ha (₹ 16,03,172/16.6 ha).

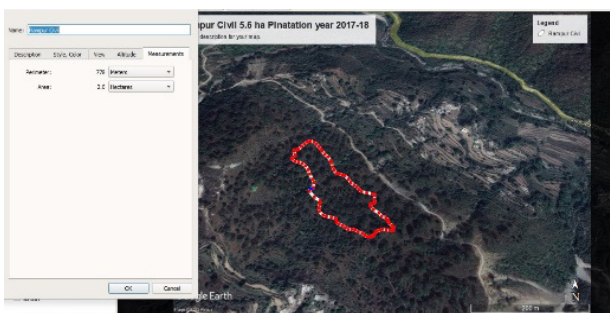
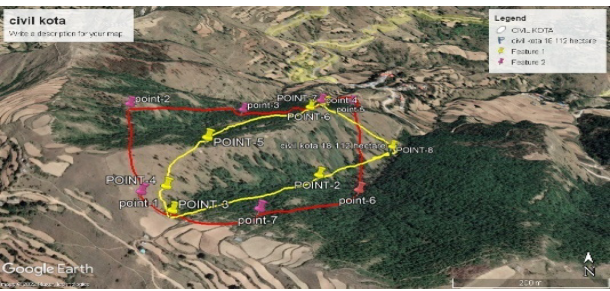
division executed the plantation work on those sites that were not proposed for the CA plantation. Thus, the division incurred an unauthorized expenditure of ₹ 1.88 crore on plantation on those sites that were not covered under CA sites.

5.9 Suspicious expenditure due to plantation in less area than reported

During the joint physical inspections, Audit found that only 23.82 ha plantation area was available¹⁴ against the total of 43.95 ha plantation which was carried out during 2017-21 on six sites in five divisions. Thus, a 20.13 ha plantation area with an expenditure of ₹ 18.77 lakh was shown in excess in the records of the divisions.

<p>Name of the Division : Nainital</p> <p>Plantation year: 2019-20</p> <p>As per divisional record : 2.68 ha</p> <p>As per physical inspection : 1.35 ha</p> <p>Excess expenditure : ₹ 1.90 lakh</p>	 <p style="text-align: center;">Plantation site : Odavaskote Civil</p>
<p>Name of the Division : Almora</p> <p>Plantation year: 2017-18</p> <p>As per divisional record : 6.00 ha</p> <p>As per physical inspection : 2.55 ha</p> <p>Excess expenditure : ₹ 5.47 lakh</p>	 <p style="text-align: center;">Plantation site : Chauna Civil</p>
<p>Name of the Division : Mussoorie</p> <p>Plantation year: 2020-21</p> <p>As per divisional record : 1.56 ha</p> <p>As per physical inspection : 0.74 ha</p> <p>Excess expenditure : ₹ 1.03 lakh</p>	 <p style="text-align: center;">Plantation site : Akhandwani Bhilang</p>
<p>Name of the Division : Mussoorie</p> <p>Plantation year: 2018-19</p> <p>As per divisional record : 10.00 ha</p> <p>As per physical inspection : 8.68 ha</p> <p>Excess expenditure : ₹ 1.45 lakh</p>	 <p style="text-align: center;">Plantation site : Kyara Civil</p>

¹⁴ Audit measured the plantation area by using the GPS apparatus in the presence of forest department functionaries.

<p>Name of the Division : Rudraprayag</p> <p>Plantation year: 2017-18</p> <p>As per divisional record : 5.60 ha</p> <p>As per physical inspection : 2.00 ha</p> <p>Excess expenditure : ₹ 5.53 lakh</p>	 <p>your Civil 5.6 ha Pinatation year 2017-18</p> <p>Records by year: 2017-18</p> <p>Legend: CIVIL_KOTA</p> <p>Plantation site: Rampur Civil</p>
<p>Name of the Division : Chakrata</p> <p>Plantation year: 2021-22</p> <p>As per divisional record : 18.11 ha</p> <p>As per physical inspection : 8.50 ha</p> <p>Excess expenditure : ₹ 3.39 lakh</p>	 <p>civil kota</p> <p>Write a description for your map.</p> <p>Legend: CIVIL_KOTA, CIVIL_KOTA 16 112 hectares, Feature 1, Feature 2</p> <p>Plantation site : Kota Civil</p>

5.10 Additional burden of ₹ 1.87 crore

The Government of India notification¹⁵ (June 2017) envisaged that forestry works were exempted from the Goods and Services Tax (GST).

Scrutiny of records of test checked divisions¹⁶, revealed that the division paid an amount of ₹ 1.87 crore to the contractor as GST claims during 2019-22. This resulted in an additional financial burden to the Division/Government as forestry works were exempted from GST.

The State Government did not provide a detailed response (July 2023) directly; instead, it included the responses from the divisions. The divisions replied that due to ambiguity in the rules and inclusion of the GST in the Schedule of Rates (SoR), the GST was deducted. The reply was not acceptable as the forestry works were exempted under the GST Act and no provision of GST was made for the forestry work of the new SoR by the circle concerned.




5.11 Conclusion

The scheme was ineffective as there were cases of delayed execution of compensatory afforestation works, low survival percentage, cost escalation due to delay, poor advance soil work before plantation, negligence in selection of sites and plantation was done on unsuitable land. There were deficiencies in the maintenance of the plantation as funds were collected from user agencies for 10 years, but maintenance was done only for three to five years. There was suspected expenditure due to duplicity in compensatory afforestation on the same piece of land, unauthorised excess plantation against the land available for compensatory afforestation and plantation in less area than reported. Due to the unavailability of suitable land for plantation, compensatory afforestation could not be raised in time-bound manner.

¹⁵ December 2017-Central Tax (Rate) dated 28 June 2017.

¹⁶ DFO, Nainital: ₹ 0.30 crore and Tarai East, Haldwani: ₹ 1.57 crore.

5.12 Recommendations

-  *Department should take effective disciplinary action against concerned field functionaries, who failed to discharge their responsibilities in respect of implementation of the activities under CAMPA;*
-  *The Department may evaluate performance of the CAMPA activities to identify specific areas for focused attention and also intensify efforts for expeditious completion of the CAMPA activities;*
-  *Monitoring and evaluation of NPV activities should be done through M&E Wing, third party, better documentation, geo-tagging, etc.*