

CHAPTER - IV

AGRICULTURE DEPARTMENT

Performance Audit on Soil Survey and Soil Conservation activities in Agriculture Department

4.1 Introduction

The Directorate of Soil Survey and Soil Conservation (DSSSC) under Department of Agriculture is entrusted with the planning and implementation of various soil survey and soil and water conservation activities in Kerala. The survey activities include identification and prioritisation of watersheds which requires conservation measures, Detailed Soil Survey (DSS), analysis of soil samples received from farmers and external agencies, publication of reports and maps on land resources, issue of soil health cards to farmers etc. The conservation wing undertakes implementation of various soil and water conservation schemes sanctioned by Government. DSSSC received ₹194.65 crore for various soil survey and conservation schemes implemented during 2010-15.

Soil and water conservation activities are undertaken on watershed basis. Watershed is a geo-hydrological unit that drains water to a common point. Activities undertaken on watershed basis include construction of contour bunds, check dams, retaining wall, agro forestry and agrostological measures etc. For convenience, the average area of each watershed is fixed between 500 -1000 hectares.

4.2 Audit Objectives

The main objectives of the Performance Audit are to ascertain whether

- planning for soil survey and conservation activities were adequate and effective; and
- implementation of survey and conservation works were economical and effective and whether monitoring was effective.

4.3 Audit Criteria

Audit criteria were drawn from

- Guidelines for watershed development projects issued by Government of India (GoI);
- Orders issued by Government of Kerala (GOK) relating to soil survey and conservation activities;
- Soil Conservation Code issued by GOK;
- PWD Schedule of Rates 2010, 2011 and 2012 and Delhi Schedule of Rates 2013 and 2014; and
- Kerala Financial Code volume I.

4.4 Scope and methodology of Audit

The Audit examined the planning, implementation and monitoring of survey and conservation activities carried out by Directorate of Soil Survey and Soil Conservation (DSSSC) and its selected subordinate offices covering the period 2010-15. Out of 14 District offices, five¹ district offices were selected using Probability Proportional to Size without Replacement (PPSWOR) method. One inter-state project Kabini² (Wayanad) and one river catchment protection project³ were also selected.

4.5 Audit Findings

The lapses noticed in the planning, implementation and monitoring of soil survey and conservation activities are discussed in succeeding paragraphs.

4.5.1 Inconsistencies in Watershed Atlas

The watershed atlas of all the Districts were completed and published during the period 2005-11. However, the watershed atlas included the forest as well as the non-forest areas of the State without demarcating the entire forest area in the watershed atlas e.g. the total forest area in Kozhikode district was marked as 1,069 Ha instead of 29,045 Ha.

The total geographical area of Wayanad district is 2.13 lakh Ha. But in the watershed atlas of Wayanad district, the total area prioritised for conservation activities was recorded as 2.37 lakh Ha (i.e 0.24 lakh Ha more than geographical area) which is indicative of incorrect data being relied upon by the Directorate.

The soil survey wing of the Directorate, categorised watershed into high, medium and low priority area for carrying out soil conservation activities in the State. The watershed atlas contains priority wise classification of watershed, delineated area of each watershed, details of watersheds selected for conservation activities till the date of publication of watershed atlas etc.

The information contained in the watershed atlas which serves as the basis for conservation activities was not updated periodically to ascertain the extent of land treated under various schemes.

DSSSC accepted the Audit observation and stated that details of watersheds undertaken for conservation in the State will be incorporated in the watershed atlas at the earliest.

4.5.2 Arrangement of conservation activities ignoring prioritisation of watersheds

The watersheds which are of high priority require immediate intervention over the medium and low priority watershed as the area is more prone to degradation. In District Soil Conservation Offices (DSCO), Kozhikode and Thrissur, it was

¹ Alappuzha, Kannur, Kozhikode, Thrissur and Wayanad.

² River Valley Project, Kabini

³ Protection of the Catchment of Reservoir of Water Supply Scheme

noticed that high priority area (four out of seven) was ignored while executing the soil conservation activities. Instead, four medium prioritised areas with a project cost of ₹2.39 crore were undertaken under RIDF XVII & XIX schemes for conservation activities.

In the above cases, the DSCOs had forwarded the proposals without ascertaining the priority of area proposed for conservation activities before submitting it for sanction. Besides, the technical wing of the Directorate had failed to check the proposal which resulted in carrying out soil conservation activities ignoring high priority areas. By not selecting high priority areas, risk of degradation would not be mitigated.

4.5.3 Submission of project proposals based on pre revised rates and consequent reduction in project cost - ₹10.84 crore

Para 1601.1.1 and 2 of Kerala Public Works Manual provides that preliminary and Detailed Estimates for the works shall be prepared based on the SoR in force.

On verification of soil conservation works sanctioned under RIDF XIX and RIDF XX, it was noticed that the rates of some of the major components of these works viz. 1) Stone pitched contour bunds 2) Agrostological measures etc. were based on pre-revised SoRs and not with reference to the prevalent SoRs.

The projects under various RIDF schemes were sanctioned based on the project proposals submitted by the Directorate. These projects are executed by beneficiaries themselves. Test check of 27 out of 75 projects revealed that the project cost which should have been ₹47.38 crore as per the prevalent SoR was wrongly calculated to ₹36.54 crore due to adoption of rates as per pre-revised SoR resulting in a reduction of ₹10.84 crore (**Appendix 4.1**). As a result, the beneficiaries would not be able to complete the works with the amount sanctioned at the pre-revised rates. This resulted in non achievement of targets. The records indicated that the beneficiaries who commenced the work had expressed their inability to execute the work of construction of contour bund and agrostological measures due to low amount of assistance.

DSSSC replied that the increase in cost due to rate revision was taken care of with the contributions by the beneficiary farmers concerned. The reply was not tenable, as contribution from farmers was limited to five to 10 *per cent* only depending on the category of farmers whereas the project cost ₹10.84 crore (22.88 *per cent*) thereby shifting the burden on beneficiaries which was against the spirit of the scheme.

4.6 Execution of works at enhanced rate (₹2.08 crore) and reduction in components of soil conservation

As per the instructions of NABARD, proposal, if any, on account of cost escalation shall be proposed within a year of sanction or three months from the date of award of work up to 2010 and thereafter, the period was changed to two years from the date of sanction.

In this connection Audit observed the following

- In 19 out of 55 cases test checked, DSSSC had failed to adhere to the schedule prescribed for completion of work. The delay ranged upto three years. The DSSSC directed the DSCOs to execute the work as per the revised SoR by reducing the quantity of various components where soil conservation activities were planned to be carried out. Due to sanction of enhanced rate, the State exchequer was burdened to the tune of ₹2.08 crore as NABARD had not been approached to match the cost escalation.
- The reduction in quantities due to enhancement of rates of major components ranged from 25 to 90 *per cent* as detailed below:

Table 4.1: Details showing shortfall in the quantity executed

| Components of soil conservation activities | Quantity to be executed as per original Technical sanction | Quantity executed (Completed project) | Short fall in quantity (percentage) |
|--|--|---------------------------------------|-------------------------------------|
| Stone pitched contour bund | 610680 RM | 419206 RM | 191473 RM (31 %) |
| Agrostological measures | 135000 RM | 13962 RM | 121038 RM (90 %) |
| Moisture conservation pit | 14500 Nos. | 10890 Nos. | 3610 Nos. (25 %) |
| Earthen bund | 20500 Nos. | 3775 Nos. | 16725 Nos. (82 %) |

- Reduction in quantities also led to non-achievement of the objective i.e. soil conservation.
- There was a reduction of 1,17,321 man-days due to reduction in quantities which also hindered the ancillary objective viz. providing employment.

DSSSC replied that in order to limit the project cost within the sanctioned amount, the quantum of works was adjusted. The reply was not tenable as reduction in quantity resulted in change in the scope of work and loss of man-days, resulting in non-achievement objectives.

Recommendation No.1: Government may issue instructions to the Department to ensure timely submission of proposals to cover the effect of cost escalation to NABARD in order to avail the eligible assistance envisaged under the scheme for covering the targeted quantity of treatable area.

4.7 Ineffectiveness in implementation of Soil Health Card scheme

In order to help the farmers to judiciously plan fertiliser application which would in turn reduce the cost of cultivation, DSSSC implemented the scheme of issuing Soil Health Cards (SHC) free of cost to farmers in selected *Panchayats*. In the State, DSSSC issued during 2008-2015, 51,986 SHCs covering 54 *Panchayats*; of which 34 *Panchayats* (63 *per cent*) were selected on the basis of requests/recommendation/ resolution of LSGIs/people's representatives/beneficiaries and not based on any criteria as the DSSSC had not prescribed any criteria to select *Panchayats* for issue of SHCs. The SHCs contained soil specific fertilizer and lime recommendation for each crop besides water holding capacity, elevation of land, slope, drainage soil texture etc. which were determined after

analysing the soil samples in Soil Analytical Laboratory. In this connection audit observed the following:

- The DSSSC had not prescribed any criteria to select *Panchayats* for issue of SHCs.
- There were 23,514 farmers in five test checked *Panchayats* of whom 10,772 were issued SHCs leaving behind a back log of 12,742 (54 per cent).
- Audit physically verified 77 out of 10,772 beneficiaries in five *Panchayats* in five districts to whom the Directorate had issued SHCs and observed the following
 - a. 18 per cent of the beneficiaries covered in the survey had not received SHCs even though the Directorate claimed to have issued the SHCs.
 - b. Updation of SHCs was essential for ensuring presence of needy elements in the soil annually and once in five years for ensuring the presence of micro nutrients in the soil. But Directorate was not updating the SHCs already issued.
 - c. Only 22 per cent of the beneficiaries had claimed the SHCs to be beneficial.

DSSSC admitted that there were no criteria for identifying *Panchayats* and farmers for issue of SHCs. With regard to updation of SHCs as well as for the prompt receipt of SHCs by the beneficiaries, DSSSC stated that it was due to lack of manpower. The reply of DSSSC was not tenable since the Directorate failed in helping the farmers by judiciously planning fertiliser application in order to reduce the cost of cultivation.

4.8 Evaluation of activities related to conservation by DSSSC

Audit noticed absence of system of evaluation for utilisation of Corpus fund created for maintenance of assets, absence of impact study and undue favour to private parties etc. which are discussed below:

4.8.1 Non utilisation of Corpus fund of River Valley Projects

Audit physically verified pond at Koodalkadavu watershed which was in destroyed condition. Though DSSSC should have utilised the fund for carrying out maintenance of such community assets (pond) it did not take any action to rectify the defects by utilising the fund. DSSSC came to know about the destruction only at the instance of Audit during joint inspection.

4.8.2 Non assessment of impact of works

The Directorate had not conducted any impact study during 2010-15 for assessing the effectiveness of soil conservation measures undertaken in the State.

In the absence of impact study, Audit could not assess the effectiveness of soil conservation measures and give any recommendation for future improvement. DSSSC accepted the above Audit observations stating that no evaluation study was undertaken by Directorate.

4.8.3 Renovation of private ponds ignoring public ponds ₹10.48 crore

For strengthening the ecological security of the Kuttanad wetland eco-system, GOK accorded (December 2011 and August 2013) Administrative Sanction for mitigation of agrarian distress in Kuttanad region through eco-restoration at a cost of ₹15.25 crore and ₹25.20 crore under Phase I and Phase II respectively. During the period 2011-15 the DSSSC received ₹26.86 crore under 13 FCA. There was no proposal under Kuttanad Package to renovate private ponds at the cost of Government.

On verification of implementation of scheme in Alappuzha district of Kuttanad region, Audit noticed that, the Directorate did not conduct any study/survey regarding the details of public ponds available to execute the renovation works under the package. Instead of conducting any survey, the office carried out renovation works in the ponds proposed by organisations/people's representative/local bodies, etc. The details of the amount spent for renovation of public and private ponds are as shown below.

Table 4.2: Details of renovation of ponds

| Phase | Total number of ponds renovated | Amount spent for renovation (₹ in crore) | Number of ponds owned by private parties renovated | Amount spent for renovation of private ponds (₹ in crore) | Amount spent for renovation of public ponds (₹ in crore) |
|--------------|---------------------------------|--|--|---|--|
| Phase I | 61 | 5.52 | 39 (63.93%) | 3.30 (59.78%) | 2.22 |
| Phase II | 73 | 8.86 | 53 (72.60%) | 7.18 (81.04%) | 1.68 |
| Total | 134 | 14.38 | 92 (68.66%) | 10.48 (72.88%) | 3.90 |

Even though there were 480 public ponds in Kuttanad region which required renovation, the Directorate failed to identify and renovate these public ponds which were useful for irrigation and other common purposes.

DSSSC stated that the ponds were selected on the basis of priorities decided by local bodies for renovation. The reply was not tenable as there was sufficient number of public ponds requiring renovation. The joint physical verification (10 cases) revealed that renovated private ponds were utilised only for religious purposes and not for irrigation while public ponds renovated were used for irrigation purposes. The execution of renovation works of private ponds provided undue advantage to owners of private ponds at public cost.

Private ponds renovated under Kuttanad package



Recommendation No. 2: Agriculture Department may devise a system for judicious selection of public ponds for renovation works for the betterment of irrigation facilities.

4.8.4 Underutilisation and consequent lapse of fund provided for soil conservation activities - ₹22 crore

NABARD had sanctioned 431 projects (up to March 2015) in 20 tranches under RIDF scheme covering an area of 1,71,686 Ha at a project cost of ₹323.56 crore (Appendix 4.2).

The Directorate had completed (March 2015) RIDF XIII up to the period covered in Audit. The 280 projects were sanctioned up to RIDF XIII involving a project cost of ₹147.54 crore covering an area of 1,01,693 Ha. Out of the sanctioned project cost of ₹147.54 crore, DSSSC had utilised only ₹125.54 crore and hence, the Directorate could not achieve Cent *per cent* saturation. Thus, there was underutilisation of ₹22 crore.

Audit test checked four out of 25 projects sanctioned under RIDF XII having a project cost of ₹18.58 crore involving an area of 10,577 hectares. There was short availing of assistance in all the four cases as shown below:

Table 4.3: Details of fund utilised and reasons for underutilisation

| Sl. No. | Name of watershed | Total area/ treatable area (Ha) | Project cost (₹ in crore) | Fund utilised (₹ in crore) | Reason for under utilisation | Short availing of assistance (₹ in crore) |
|---------|----------------------|---------------------------------|---------------------------|----------------------------|---|---|
| 1. | Choorani | 183/ 152 | 0.30 | 0.19 | The work was stopped (March 2009) as it was noticed that the soil conservation activities were undertaken in the plot which was not selected. | 0.11 |
| 2. | Kuzhumbery Thodu | 586/395 | 0.78 | 0.54 | The work stopped as the balance area (134 Ha) to be covered comes under reserved forest category. | 0.24 |
| 3. | Thoongayil watershed | 500/480 | 0.78 | 0.57 | Most of the remaining area is self protected and some of the treatable area of the watershed has been treated under NREGS. | 0.21 |
| 4. | Nellipara-Nalumukku | 480/440 | 0.65 | 0.56 | Work was implemented in the same area by <i>Grama panchayat</i> . | 0.09 |
| | Total | | 2.51 | 1.86 | | 0.65 |

Thus the absence of proper field verification and monitoring during the preparation of estimates, implementation, non-coordination with other agencies etc. by DSSSC/DSCO resulted in underutilisation and consequent short availing of assistance.

Recommendation No.3: The DSSSC may take stringent measures against the lapse of funds due to shortcomings of the implementing officers.

4.8.5 Submission of incorrect Utilisation Certificates – ₹15.20 crore

Utilisation Certificates (UCs) were required to be furnished by the grantee institutions in support of actual utilisation of funds for which, these were provided. However, test check of records in DSSSC revealed that incorrect/irregular UCs were issued against funds received as mentioned below:

- Though the Director received ₹26.86 crore, the actual expenditure was ₹17.97 crore in respect of Phase I and II of the Scheme 'Mitigation of Agrarian distress in Kuttanad Region'. However, the UCs were submitted (February 2015 and January 2015) stating that the entire amount allotted for the project had been utilised.
- An amount of ₹5.71 crore was released (March 2013, July 2013 and October 2014) to DSSSC under RKVY scheme. However, the DSSSC submitted (October 2013, December 2014) UC stating that the funds allotted for the schemes have been completely utilised while there was no expenditure as on that date.
- The Director of Agriculture transferred (February 2015) an amount of ₹0.60 crore to DSSSC for implementation of National Mission for Sustainable Agriculture (NMSA). However, DSSSC furnished (March 2015) a UC while no expenditure was incurred.

Audit observed that the Director had signed the UC without ensuring the actual expenditure as such, he was responsible for submission of incorrect UCs.

DSSSC replied that incorrect UCs were furnished in order to avoid lapse of fund and in future, UCs will be submitted based on the actual progress. The reply was not acceptable as furnishing UCs amounted to misrepresenting facts which was indicative of lack of integrity in financial reporting by Directorate. Such a situation, which is fraught with the risk of fraudulent expenditure, calls for fixing of responsibility for submitting false UCs.

Recommendation No.4: DSSSC may take steps to curtail the practice of furnishing incorrect UCs to avoid the lapse of fund as it conveys the wrong status of work.