



सत्यमेव जयते

**Report of the
Comptroller and Auditor General of India
on
Economic Sector
for the year ended March 2015**



**Government of Tamil Nadu
Report No. 5 of the year 2016**

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P R E F A C E

This Report for the year ended March 2015 has been prepared for submission to the Governor of Tamil Nadu under Article 151 of the Constitution of India.

The Report contains significant results of the Performance Audit and Compliance Audit of the Departments of the Government of Tamil Nadu under the Economic Services, including Departments of Agriculture; Animal Husbandry, Dairying and Fisheries; Environment and Forests; Handlooms, Handicrafts, Textiles and Khadi; Highways and Minor Ports; Industries; Information Technology; Micro, Small and Medium Enterprises; Public Works and Tourism and Culture. However, the other Departments are excluded and covered in the Report on General and Social Services.

The instances mentioned in this Report are those, which came to notice in the course of test audit for the period 2014-15 as well as those which came to notice in earlier years, but could not be reported in the previous Audit Reports; instances relating to the period subsequent to 2014-15 have also been included, wherever necessary.

The audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

CHAPTER I

CHAPTER I GENERAL

1.1 Introduction

Tamil Nadu is one of the largest States of India, with a population of 7.21 crore and a geographical area of 1,30,058 sq km. For the purpose of Administration, there are 37 Departments, headed by Principal Secretaries/Secretaries who are assisted by Commissioners/Directors and Sub-ordinate officers under them.

Government functioning is broadly classified as General Services, Social Services and Economic Services. This Report covers the functioning of 10 Departments of Economic Sector listed in the table given below.

Of the 10 Departments with a total expenditure of ₹ 20,356.02 crore covered here, a major portion of the expenditure was incurred by Highways and Minor Ports (30.73 *per cent*), Agriculture (25.78 *per cent*) and Public Works (20.21 *per cent*) and Animal Husbandry, Dairying and Fisheries (8.38 *per cent*) Departments during 2014-15.

1.2 Trend of expenditure

A comparative position of expenditure incurred by the Departments during the year 2014-15 along with preceding two years is given in **Table 1.1**.

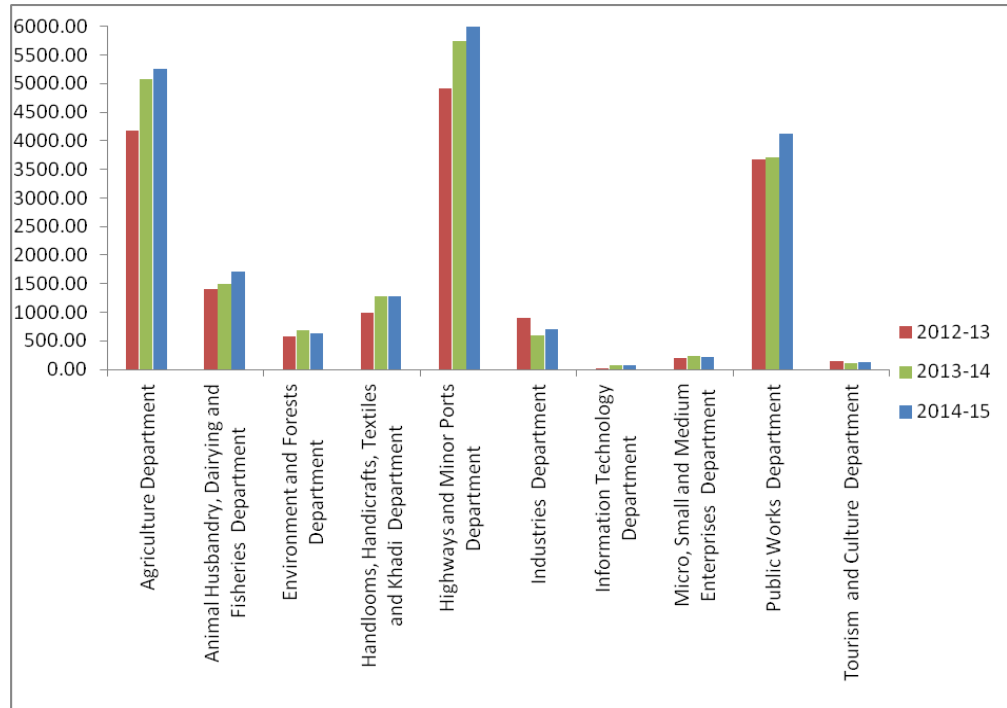
Table 1.1: Trend of expenditure for three years

(₹ in crore)

Sl. No.	Name of the Department	2012-13	2013-14	2014-15
1	Agriculture	4,173.29	5,067.84	5,247.25
2	Animal Husbandry, Dairying and Fisheries	1,398.06	1,487.60	1,705.37
3	Environment and Forests	578.32	686.75	633.96
4	Handlooms, Handicrafts, Textiles and Khadi	986.79	1,287.38	1,271.56
5	Highways and Minor Ports	4,918.07	5,744.66	6,254.65
6	Industries	896.50	591.90	703.58
7	Information Technology	6.64	75.83	81.72
8	Micro, Small and Medium Enterprises	199.17	238.63	219.06
9	Public Works	3,677.31	3,710.66	4,113.54
10	Tourism and Culture	146.42	105.50	125.33
Total		16,980.57	18,996.75	20,356.02

(Source: Finance Accounts for the years 2012-13, 2013-14 and 2014-15)

TREND OF EXPENDITURE (₹ in crore)



Reasons for increase/decrease in expenditure are stated below:

Agriculture Department: The increase in expenditure was due to payment of subsidies to the Tamil Nadu Electricity Board on behalf of farmers using pumpsets in Crop Husbandry.

Industries Department: The increase in expenditure was due to grants-in-aid for implementation of e-governance projects.

Animal Husbandry, Dairying and Fisheries Department: The increase in expenditure was due to implementation of National Programme for Bovine Breeding.

Roads and Bridges: The increase in expenditure was due to maintenance of Panchayat and Panchayat Union roads through Chief Engineer (Highways) and maintenance expenditure of Rural Roads.

Major and Medium Irrigation: The increase in expenditure was due to payment of interest on funds borrowed for implementation of Medium Irrigation schemes and provision of Wide Area Network connections to the field offices of Water Resources Department.

1.2.1 Some major schemes implemented by the Departments in the Economic Sector during 2014-15

- (i) National Agriculture Development Programme (₹ 194.43 crore), implemented by Agriculture Department.
- (ii) Comprehensive Road Infrastructure Development Programme covering State Highways, Major District Roads, Other District Roads

(including Special Component Plan) at a cost of ₹ 2,780.68 crore, implemented by Highways Department.

- (iii) Free distribution of sheep/goat/milch cows to persons living below poverty line including Special Component Plan (₹ 239.93 crore), implemented by Animal Husbandry Department.
- (iv) Free distribution of handloom cloth to the people below poverty line including Special Component Plan (₹ 536.15 crore), by Handlooms and Textiles Department.

1.3 About this Report

This Report of the Comptroller and Auditor General of India (CAG) relates to matters arising from Compliance Audit of 10 Government Departments and 48 Autonomous Bodies under the Economic Sector. Compliance Audit covers examination of the transactions relating to expenditure of the audited entities to ascertain whether the provisions of the Constitution of India, applicable laws, rules, regulations and various orders and instructions issued by the competent authorities are being complied with. Performance Audit examines whether the objectives of the programme/activity/Department are achieved economically, efficiently and effectively.

1.4 Authority for audit

The authority for audit by the CAG is derived from Articles 149 and 151 of the Constitution of India and the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) (DPC) Act, 1971. CAG conducts audit of expenditure of the Departments of Government of Tamil Nadu under Section 13¹ of the CAG's (DPC) Act. CAG is the sole Auditor in respect of Autonomous Bodies which are audited under Sections 19(3)² and 20(1)³ of the CAG's (DPC) Act. In addition, CAG also conducts audit of other Autonomous Bodies, under Section 14⁴ of CAG's (DPC) Act, which are substantially funded by the Government. Principles and methodologies for various audits are prescribed in the Auditing Standards and the Regulations on Audit and Accounts, 2007 issued by the CAG.

¹ Audit of (i) all transactions from the Consolidated Fund of the State, (ii) all transactions relating to the Contingency Fund and Public Accounts and (iii) all trading, manufacturing, profit and loss accounts, balance sheets and other subsidiary accounts.

² Audit of the accounts of Corporations (not being Companies), established by or under law made by the State Legislature, at the request of the Governor.

³ Audit of accounts of any body or authority on the request of the Governor, on such terms and conditions as may be agreed upon between the CAG and the Government.

⁴ Audit of (i) all receipts and expenditure of a body or authority substantially financed by grants or loans from the Consolidated Fund of the State and (ii) all receipts and expenditure of any body or authority where the grants or loans to such body or authority from the Consolidated Fund of the State in a financial year is not less than ₹ one crore.

1.5 Planning and conduct of Audit

The primary purpose of this Report is to bring to the notice of the State Legislature, important results of audit. Auditing Standards require that the materiality level for reporting should be commensurate with the nature, volume and magnitude of transactions. The findings of audit are expected to enable the Executive to take corrective action, as also to frame policies and directives that will lead to improved financial management, thus contributing to better governance.

Audit process starts with the assessment of risks faced by various Departments of Government based on expenditure incurred, criticality/complexity of activities, level of delegated financial powers, assessment of overall internal controls and concerns of stakeholders. Previous audit findings are also considered in this exercise. Based on this risk assessment, the frequency and extent of audit are decided.

After completion of audit, Inspection Reports (IRs) containing audit findings are issued to the Heads of the Departments. The Departments are requested to furnish replies to the audit findings within one month of receipt of the IRs. Whenever replies are received, audit findings are either settled or further action for compliance is advised. Important audit observations arising out of these IRs are processed for inclusion in the Audit Reports, which are submitted to the Governor of the State under Article 151 of the Constitution of India. During 2014-15, 248 units of various Departments/Organisations under Economic Sector were audited and 251 IRs⁵ containing 1,342 Paragraphs were issued.

1.6 Response to Audit

1.6.1 Draft Paragraphs and Performance Audit

Ten Draft Paragraphs and a Performance Audit report on Implementation of National Agriculture Development Programme were forwarded, demi-officially, to the Principal Secretaries/Secretaries of the Departments concerned between May and November 2015, with the request to send their responses. Departmental replies for all the Draft Paragraphs and Performance Audit on Implementation of National Agriculture Development Programme issued for the year 2014-15 have been received. The replies have been incorporated in the Audit Report, wherever applicable. In respect of Performance Audit, an Exit Conference was held with the representatives of the Government in December 2015 and views expressed in the Conference have been included in the Report.

1.6.2 Follow-up on Audit Reports

With a view to ensuring accountability of the Executive in respect of the issues dealt with in the Audit Reports, the Public Accounts Committee (PAC)/ Committee on Public Undertakings (COPU) directed that the Department concerned should furnish remedial Action Taken Notes (ATNs) on the

⁵ This included 33 IRs pertaining to 2013-14 and excluded 30 IRs relating to 2014-15 which were issued during 2015-16.

recommendations of PAC/COPU, relating to the Paragraphs contained in the Audit Reports, within the prescribed time frame. Audit reviewed the outstanding ATNs as of 31 March 2015, on the Paragraphs included in the Reports of the Comptroller and Auditor General of India relating to the Departments of Economic Sector, Government of Tamil Nadu and found that the Departments did not submit ATNs for 779 and 17 recommendations pertaining to the Audit Paragraphs discussed by PAC and COPU respectively.

1.6.3 Outstanding replies to Inspection Reports

The Accountant General (E&RSA), Tamil Nadu arranges to conduct periodical inspections of the Government Departments to test check transactions and verify maintenance of important accounts and other records as prescribed in the rules and procedures. These inspections are followed up with IRs, incorporating irregularities detected during the inspection and not settled on the spot, which are issued to the Heads of the offices inspected with copies to the next higher authorities for taking prompt corrective action. The Heads of the offices/Government are required to promptly comply with the observations contained in the IRs, rectify the defects and omissions and report compliance through replies. Serious financial irregularities are reported to the Heads of the Departments and the Government.

Inspection Reports issued upto 31 March 2015 were reviewed and found that 3,141 Paragraphs relating to 1,118 IRs remained outstanding at the end of September 2015 (**Annexure - 1**).

This large pendency of IRs, due to non-receipt of replies, was indicative of the fact that Heads of the offices and Heads of the Departments did not initiate appropriate and adequate action to rectify the defects, omissions and irregularities pointed out by Audit in the IRs.

1.7 Significant Audit Observations

1.7.1 Performance Audit on Implementation of National Agriculture Development Programme was conducted during this year. Significant audit observations are given below:

- Agriculture Department failed to prepare agricultural plan for the XII Five Year Plan period to ensure the selection of projects based on agro-climatic conditions and natural resources in the districts and implemented nine projects with an expenditure of ₹ 40.90 crore against the stipulations of State Level Sanctioning Committee. Shelf of projects was not prepared, on the basis of inputs from the districts for prioritisation of projects, resulting in dropping of some sanctioned projects.
- Government of Tamil Nadu failed to utilise Government of India grant of ₹ 36.62 crore during 2010-15 for implementation of projects in agriculture and allied sectors. Imprudent financial management resulted in blocking of funds of ₹ 86.26 crore in Personal Deposit/Savings bank accounts. Scheme funds of ₹ 45.06 crore were diverted for implementation of awareness programme, despite

availability of funds under Agricultural Technology Management Agency.

- Sanction of projects without definite timelines, incorrect site selection, failure to ascertain measurable output and delay in completion of projects resulted in avoidable and unfruitful expenditure of ₹ 25.25 crore, besides non-achievement of envisaged objectives of the projects.
- Inadequate convening of meetings for approval of projects, lack of third party evaluation of the sanctioned projects and deficiencies in the web based monitoring of the programme indicated weak internal control.

1.7.2 Compliance Audit

1.7.2.1 *Production improvement activities for inland fisheries*

Audit on Production improvement activities for inland fisheries by the Fisheries Department brought out the following observations:

- Fixation of targets for production of early fry and improper selection of sites for the fish seed rearing ponds indicated inadequate planning.
- Funds allotted for the schemes were under-utilised to an extent of 18 *per cent* of sanction and 20 *per cent* of the booked expenditure remained unspent.
- Actual fish seed production and exploitation of fish did not meet the expected production and productivity, despite enhancement of farm areas.
- Failure to identify suitable locations for cage culture resulted in non-achievement of desired production of fish by farmers, despite availability of Government of India grants.

1.7.2.2 *Human-Animal Conflict reduction measures of Forest Department*

Audit on Human-Animal Conflict reduction measures of Forest Department revealed the following deficiencies:

- Delay in framing of State Forest Policy and notifying the identified corridors indicated absence of proper planning to mitigate the conflict.
- There were insufficient allocations for certain mitigation measures and the Forest Department failed to fully utilise the funds.
- Inadequate creation of physical barriers, absence of periodical maintenance of the created barriers, failure to remove the invasive species and to meet fodder and water requirement of wild animals, led to increased conflict cases and loss of wild animals.
- Large scale vacancies in the frontline staff and non-conducting of periodical meetings of State Board for Wildlife also had an adverse impact.

1.7.2.3 Audit of transactions of various Departments of Government and field offices revealed unfruitful expenditure, avoidable expenditure and blocking of funds as detailed below:

- Failure to ensure the availability of funds, before the commencement of Night Safari project, had resulted in unfruitful expenditure of ₹ 6.42 crore.

(Paragraph 3.3.1)

- Incorrect foreclosure of work resulted in avoidable expenditure of ₹ 1.95 crore, besides additional expenditure of ₹ 4.00 crore due to non-enforcement of defect liability clause and blocking of funds of ₹ 3.86 crore on account of non-utilisation of acquired land.

(Paragraph 3.4.1)

- Formation of bund embankment in Middle Paravanar River utilising excess quantity of earth resulted in avoidable expenditure of ₹ 3.48 crore.

(Paragraph 3.4.2)

- Execution of improvement works in violation of Thirteenth Finance Commission recommendations resulted in irregular utilisation of Government of India grants, besides avoidable expenditure of ₹ 1.18 crore due to non-adherence to Departmental instructions.

(Paragraph 3.4.4)

- Commencement of work in respect of two bridges prior to acquisition of land, resulted in blocking of funds of ₹ 11.92 crore, besides non-achievement of envisaged objectives.

(Paragraph 3.5.1)

CHAPTER II

CHAPTER II

PERFORMANCE AUDIT

AGRICULTURE DEPARTMENT

2 Implementation of National Agriculture Development Programme

Executive Summary

Introduction

National Agriculture Development Programme, a Centrally Sponsored scheme, aimed at four *per cent* annual growth in the agricultural sector during the XI Five Year Plan period (2007-12) by ensuring holistic development of agriculture and allied sectors. Government of India assistance for the programme depended on the funds allocated in the State Plan and expenditure incurred by the State Government for agriculture and allied sectors. The programme envisaged implementation of projects through various Departments of Government and the primary responsibility of identification, selection and implementation of projects vested with the State Government. The State achieved growth rate of more than four *per cent* during 2010-15, except during 2012-13, which witnessed negative growth. Given this background, the Performance Audit on Implementation of National Agriculture Development Programme by Agriculture Department was conducted.

Planning

The Department failed to prepare agricultural plan for the XII Five Year Plan period to ensure the selection of projects based on agro-climatic conditions, natural resources, etc., in the districts and implemented nine projects with an expenditure of ₹ 40.90 crore against the stipulations of State Level Sanctioning Committee. Shelf of projects was not prepared on the basis of inputs from the districts for prioritisation of projects, resulting in dropping of some sanctioned projects.

Financial Management

Government of Tamil Nadu failed to utilise Government of India grant of ₹ 36.62 crore during 2010-15 for implementation of projects in agriculture and allied sectors. Imprudent financial management resulted in blocking of funds of ₹ 86.26 crore in Personal Deposit/Savings bank accounts. Programme funds of ₹ 45.06 crore were diverted for implementation of awareness programme, despite availability of funds under Agricultural Technology Management Agency.

Project Impact

Sanction of projects without definite timelines, incorrect site selection, failure to ascertain measurable output and delay in completion of projects resulted in avoidable and unfruitful expenditure of ₹ 25.25 crore, besides non-achievement of envisaged objectives of the projects.

Monitoring

Inadequate convening of meetings for approval of projects, lack of third party evaluation of the sanctioned projects and deficiencies in the web based monitoring of the programme indicated weak internal control.

2.1 Introduction

National Agriculture Development Programme (NADP), a Centrally Sponsored scheme, aimed at four *per cent* annual growth in the agricultural sector during the XI Five Year Plan period (2007-12) by ensuring holistic development of agriculture and allied sectors⁶. The guidelines for implementation of NADP, issued (August 2007) by Government of India (GOI), were revised in January 2014 for XII Five Year Plan period (2012-17) to achieve the desired growth rate. State Plan document envisaged five *per cent* growth in agriculture and allied sectors during the period 2012-17. GOI assistance for NADP depended on the funds allocated in the State Plan and expenditure incurred by the State Government for agriculture and allied sectors. The programme envisaged implementation of projects through various Departments of Government, Autonomous Bodies and Public Sector Undertakings. The primary responsibility of identification, selection and implementation of projects vested with the State Government.

In Tamil Nadu, various Central and State schemes like National Food Security Mission (NFSM), Integrated Scheme of Pulses, Oilseeds and Maize, Seed Village Scheme (SVS) and Integrated Horticulture Development Scheme were implemented for development of agriculture. During the XI Plan period, the State had achieved growth rate of 7.47 *per cent* during 2010-11 and 9.95 *per cent* during 2011-12. During XII Plan period, the State witnessed negative growth rate (-11.11 *per cent*) in 2012-13 due to deficit in normal rainfall and it increased to 7.33 *per cent* during 2013-14. However, the State could achieve only 4.94 *per cent* growth rate during 2014-15.

2.2 Organisational setup

Agriculture Department, headed by the Agriculture Production Commissioner and Principal Secretary to Government (APC), is the nodal Department for effective co-ordination and implementation of the scheme through implementing agencies. Government of Tamil Nadu (GoTN) nominated (October 2007) Tamil Nadu Watershed Development Agency (TAWDEVA) as the nodal agency for consolidating the project proposals and placing in State Level Sanctioning Committee (SLSC) meetings for consideration and approval of projects.

2.3 Audit objectives

Performance Audit was conducted to assess whether:

- Planning for formulation of projects was effective and according to the guidelines of the scheme;

⁶ Allied sectors include Animal Husbandry, Crop Husbandry, Dairy Development, Fisheries, Plantation and Agricultural Marketing, etc.

- Financial management ensured adequate and timely availability of funds and their effective and economic utilisation;
- Projects were implemented economically, efficiently and effectively as envisaged in the guidelines, besides achievement of the intended objectives; and
- Internal control and monitoring was adequate.

2.4 Audit criteria

Audit criteria were sourced from:

- Five Year Plans for 2007-12 and 2012-17 and Annual Plans for the period from 2010-11 to 2014-15;
- Comprehensive State Agriculture Plan (CSAP) and District Agriculture Plans (DAPs);
- NADP guidelines issued by GOI and individual project proposals and guidelines;
- Economic Survey Report and Evaluation Studies conducted by nominated agencies on the projects;
- State General Financial and Accounting Rules/procedure; and
- Information on NADP available in the website of Ministry of Agriculture, GOI.

2.5 Scope and methodology of Audit

The implementation of NADP in the State involved execution of specific projects sanctioned in the 20 defined sectors⁷. Performance Audit was conducted from March to September 2015 and covered test check of specific projects during the period 2010-15. The projects executed in these sectors were stratified and 33 out of 280 projects in 11 sectors⁸, implemented in 11 districts⁹, were selected for detailed scrutiny; covering minimum of 25 per cent of expenditure by adopting simple random sampling with replacement method. In order to assess field level implementation, 25 per cent of the block level offices were also checked.

⁷ i) Agriculture Mechanisation ii) Animal Husbandry iii) Co-operatives/Co-operation iv) Crop Development v) Dairy Development vi) Extension vii) Fertiliser and Integrated Nutrient Management viii) Fisheries ix) Horticulture x) Innovative Programmes/Others xi) Information Technology xii) Integrated Pest Management xiii) Marketing and Post Harvest Management xiv) Micro / Minor irrigation xv) Natural Resource Management xvi) Non-Farm activities xvii) Organic Farming/Bio-Fertilisers xviii) Research (Agriculture/ Horticulture/ Animal Husbandry/ etc.) xix) Seed and xx) Sericulture.

⁸ i) Agriculture Mechanisation ii) Animal Husbandry iii) Crop Development iv) Dairy Development v) Horticulture vi) Innovative Programmes/Others vii) Information Technology viii) Integrated Pest Management ix) Marketing and Post Harvest Management x) Non-Farm activities and xi) Seed.

⁹ Chennai, Coimbatore, Cuddalore, Madurai, Salem, Thanjavur, Theni, Tiruvarur, Tiruppur, Tiruvannamalai and Vellore.

Audit scope, coverage and methodology were discussed in the Entry Conference held on 4 March 2015 with the APC and Heads of all implementing agencies including TAWDEVA. Audit findings were also discussed with the APC and Heads of implementing agencies in the Exit Conference (21 December 2015) and their views have been considered while finalising the report. The reply of the Government, received in January 2016, has also been considered. We acknowledge the co-operation extended by Agriculture Department and other agencies in providing us the necessary records and information.

Audit Findings

2.6 Planning

2.6.1 Non-preparation of DAP/CSAP for XII Plan period

One of the main objectives of NADP (Paras 2.1, 3.1 and 3.2 of NADP guidelines, 2007) was preparation of agriculture plans for the districts and the State, based on agro-climatic conditions, availability of technology and natural resources. These plans would present the vision for agriculture and allied sectors within the overall development perspective of the district and the State, considering the financial requirement. It was observed that though GoTN had prepared DAPs/CSAP for XI Plan period in 2008-09, the same were not prepared for XII Plan period (2012-17) till the date of Audit. However, based on the revised NADP guidelines (January 2014), the work was entrusted (March 2014) to Tamil Nadu Agricultural University (TNAU) by TAWDEVA.

It was noticed that 22 projects were approved (April 2012) by SLSC for the year 2012-13, with the condition to ensure that the projects were reflected in DAPs, before according sanction by GoTN. However, GoTN sanctioned nine out of 22 projects, despite non-preparation of DAP for the period 2012-17, and an expenditure of ₹ 40.90 crore was incurred for the projects.

Thus, the objective of the scheme for selection of projects based on agro-climatic conditions, availability of technology and natural resources in the districts for achievement of overall development could not be fulfilled due to non-preparation of DAPs/CSAP for the XII Plan period, besides execution of nine projects against the stipulations of SLSC.

Government replied that the preparation of draft DAPs would be completed by January 2016. It was proposed to implement projects, pertaining to the year 2016-17, based on the updated DAPs. Further, the nine projects would also be included in the DAPs.

2.6.2 Projects proposed without definite time-lines

NADP guidelines, 2007 and 2014 (Paras 2.6 and 8.3) envisaged that States would initiate specific projects for agriculture and allied sectors with clear objectives and definite time-lines. It was, however, noticed that 181 out of 420 projects, sanctioned during 2010-15 for ₹ 998.82 crore, were not proposed with definite time-lines for completion and this included 14 out of the 33 test checked projects. Out of 14, seven projects were completed within one year; three projects were completed with a delay of five to 22 months over and

above one year; and others were still in progress even after 23 to 46 months from the date of sanction.

Government replied that, henceforth, all projects would be proposed with clear objectives and definite time-lines.

2.6.3 Absence of shelf of projects for prioritisation

NADP guidelines, 2007 (Para 3.5) envisaged preparation of shelf of projects for posing to SLSC under project based approach. At least 75 per cent of the total NADP funds were available for project based approach. The nodal agency was required to compile projects from each district and prioritise these projects before submission to SLSC for approval.

Scrutiny of records relating to Agriculture Department in four test checked districts revealed that shelf of projects was not prepared for their prioritisation, based on the inputs received from the districts, resulting in sanction and subsequent dropping of 13 sanctioned projects for ₹ 93.39 crore which was diverted to other NADP projects.

Government replied that separate shelf of projects would be prepared in future.

2.6.4 Deficiencies in planning SLSC meetings

2.6.4.1 Inadequate convening of meetings

As per the NADP guidelines, 2007 (Para 5.3), the project proposals submitted by the nodal agency are to be discussed and approved in the meetings of the SLSC. Based on the approval of the projects by SLSC, GOI released the funds for implementation of the projects. The guidelines (Para 6.4) also stipulated a minimum of one meeting every quarter for approval of projects and reviewing the implementation of schemes.

It was seen that only eight meetings, as against the required 20, were held during 2010-15. Absence of quarterly meetings resulted in belated sanction of projects. For instance, though GOI communicated (April/May 2011) the allotment of funds for the year 2011-12, delayed convening of SLSC meeting (July 2011) had resulted in belated sanction (October 2011 onwards) of projects by GoTN.

Government, in the Exit Conference, stated that convening of more meetings would be considered in future.

2.6.4.2 Delay in finalisation of agenda

NADP guidelines, 2007 (Para 5.4) envisaged forwarding the agenda along with the gist of projects at least 15 days in advance to enable GOI representatives to participate meaningfully in the SLSC meetings. GOI amended (July 2008) the guidelines directing the States to constitute a Committee under Chairmanship of APC for finalising the agenda for the SLSC meetings. The Committee was required to meet on monthly basis.

Though GoTN constituted the Committee in September 2008, it met only on three occasions as against the required 60 during 2010-15. The time-line of 15 days was also not adhered to, in the circulation of agenda to GOI in six out of eight meetings of SLSC conducted, during 2010-15. It was further noticed

that 15 new project proposals, eight permissions and 16 ratification orders were proposed and approved as table agenda, instead of communicating to GOI in advance, during 2010-15.

Absence of periodical meetings of the Committee had resulted in delayed finalisation and submission of agenda to GOI and initiation of projects as table agenda during the SLSC meeting, thereby deprived, NADP divisions of GOI, adequate time for detailed scrutiny of project proposals.

Government stated that the projects were proposed through table agenda considering the exigencies like drought, flood, etc. It was assured, in the Exit Conference, that necessary instructions would be issued to the line Departments to avoid table agenda to the maximum extent possible.

2.6.5 Selection of ineligible projects

NADP guidelines, 2007 (Para 2.6) envisaged that the States would initiate specific projects for agriculture and allied sectors excluding forestry and wildlife. However, in deviation to the guidelines, two projects¹⁰ related to forestry were proposed and approved (April 2012) by SLSC. Both the projects were taken up for execution by TNAU. While one project was completed (March 2014) at a cost of ₹ 11.95 lakh, another project, in which an amount of ₹ 1.69 crore was spent (August 2015), is scheduled to be completed in March 2016.

Government replied that these projects, envisaging techno-economic feasibility study for increasing the forest cover outside forest area and to improve green belt to reduce air pollution, were implemented based on policy directions by GOI under National Forest Policy. It was also stated that the income from agro-forestry components would enhance investment in agriculture. The reply is not acceptable as specific projects for forestry are excluded for assistance under NADP.

2.6.6 Selection of unsuitable site leading to delay in execution of project

With a view to help the farmers and trading community, a project was proposed for *Establishment of vegetable market at Madurai* with modern facilities like cold storage, grading and sorting hall, at a cost of ₹ 85 crore for completion within two years. SLSC approved (April 2010) ₹ 85 crore for the project with stipulations, to appoint a consultant to co-ordinate the operational aspects before commencing the project, to conduct techno-feasibility study and to form a High Level Monitoring Committee with a GOI member. GoTN sanctioned (August 2010) ₹ 30 crore and nominated Engineering Wing of Tamil Nadu State Agriculture Marketing Board (TNSAMB) with directions to commence the project with due approval of GOI. Scrutiny of records revealed that the site was identified, without proper feasibility study, and was subsequently changed to two other locations due to water stagnation and public agitation at the chosen sites. Though an alternative site (fourth) had been identified (August 2014), the same was not transferred by Department of Agriculture (December 2015).

¹⁰ (i) Techno-economic feasibility of wood based agro-forestry models (₹ 11.95 lakh).
(ii) Design and development of urban forestry models to combat environmental pollution (₹ 1.69 crore).

Thus, identification of site without feasibility study, despite instructions from SLSC, had resulted in non-utilisation of approved amount of ₹ 85 crore for more than five years, besides non-achievement of the intended objective.

Government replied that the process of land transfer and establishment of vegetable market was under progress.

2.6.7 Overlapping in implementation of schemes

NADP guidelines, 2007 (Paras 3.1, 3.2 and 6.3.4) envisaged non-duplication of efforts or resources under NADP. Test check of records revealed instances, of overlapping of NADP projects with existing GOI schemes, as detailed below:

- Certified paddy seeds were distributed to farmers as one of the components of the project *Paddy Mission* under NADP, implemented by Agriculture Department during 2013-14. It was noticed that certified seeds were also distributed to farmers under another centrally sponsored, *Seed Village Scheme* implemented during 2013-14. However, the subsidy allowed to farmers under NADP scheme, in Vellore district, was ₹ five per kg as against ₹ 17.50 per kg under SVS. This resulted in preference of farmers for the scheme with higher subsidy. Consequently, there was short achievement of distribution target by 34 per cent under NADP as compared to excess achievement of distribution target by 56 per cent under SVS.
- Similarly, National Mission on Micro Irrigation (NMMI) guidelines envisaged financial assistance at ₹ 11,200 per ha for installation of drip irrigation facilities to farmers. State Micro Irrigation Committee issued guidelines (February 2011) for implementation of NMMI and communicated the release of subsidy for drip irrigation only from NMMI funds instead of NADP funds. However, GoTN with the approval of SLSC, sanctioned (October 2011) *Special programme on Oil Palm Area Expansion* by Agriculture Department with financial assistance of ₹ 15,000 per ha for drip irrigation under NADP funds also. The total avoidable expenditure incurred for drip irrigation under NADP instead of NMMI funds worked out to ₹ 0.92 crore.

Government assured that all the centrally sponsored schemes would be converged for fixation of subsidy element to avoid excess expenditure or overlapping.

2.7 Financial Management

The projects were executed utilising the grants from GOI. NADP funds were allocated and released by GOI in two distinct streams viz., Stream I and Stream II. NADP guidelines, 2007 (Paras 7.1.6 and 7.2.1) envisaged utilisation of at least 75 per cent of the allocated amount for specific projects under Stream I and maximum of 25 per cent of allocation for strengthening of existing State schemes and filling the resource gaps under Stream II. State Government was permitted to utilise total allocation of funds for Stream I projects. In addition to the above, GOI launched scheme based grants to States as sub-schemes from 2010-11.

The details of approval by SLSC, GOI allocation and release, GoTN sanction for projects and actual expenditure (as on 31 March 2015) incurred were as follows:

Table 2.1: Details of approval, sanction and expenditure

(₹ in crore)

Year	SLSC approval	GOI allocation	GOI release	GoTN sanction	Actual expenditure
2010-11	263.69	250.03	250.03	222.69	215.99
2011-12	429.25	333.06	333.06	359.30	331.91
2012-13	652.74	669.68	613.27	667.05	636.35
2013-14	758.94	301.53	269.96	293.93	298.48
2014-15	385.09	298.95	298.95	245.60	245.92
Total	2,489.71	1,853.25	1,765.27	1,788.57	1,728.65

(Source: Details furnished by TAWDEVA)

- As against the GOI release of ₹ 1,765.27 crore, GoTN could utilise ₹ 1,728.65 crore and the balance amount of ₹ 36.62 crore was not spent till March 2015. The percentage of utilisation of funds during 2010-15 ranged between 82 and 111 per cent.
- The excess utilisation of funds during 2012-14 was due to excess sanction of funds by the GoTN based on GOI allocation. However, effective pursuance was not made for availing the complete allocation.
- Non-utilisation of released funds, which resulted in blocking of funds in Personal Deposit (PD)/Savings bank accounts, is discussed in the subsequent Paragraphs.

2.7.1 Submission of incorrect Utilisation Certificates

While releasing the funds, GOI instructed the States to submit the Utilisation Certificates (UCs) for the utilisation of NADP funds at the end of the financial year. It was, however, noticed that GoTN submitted UCs for the total GOI release of ₹ 1,765.27 crore during 2010-15. Further scrutiny of records revealed that the UCs submitted by GoTN also included ₹ 36.62 crore, which was not released by GoTN, and unspent amount of ₹ 86.26 crore lying in PD account/Savings bank account of implementing agencies.

Government accepted that UCs were given based on physical achievement of the project or supply orders placed and the allotted funds were utilised in the ensuing season.

2.7.2 Blocking of funds

GoTN sanctioned (August 2012 and August 2014) four projects¹¹ and released (March 2013, September and October 2014) ₹ 19.94 crore for implementation, through Tamil Nadu Medical Services Corporation, under Animal Husbandry and Veterinary Services Department. Despite lapse of one to three years, the

¹¹ (i) Establishment of a new Anthrax Spore Vaccine Production Laboratory of Good Management Practice (GMP) at Institute of Veterinary Preventive Medicine (IVPM), Ranipet, (ii) Establishment of Poultry Disease Diagnostic Laboratory at Palladam, (iii) Additional upgradation of Bacterial Vaccines Production Laboratory to GMP standard at IVPM, Ranipet and (iv) Provision of Modern Veterinary Diagnostic Aids to Veterinary Institutions.

projects were yet to commence due to non-finalisation of contract, resulting in blocking of ₹ 19.94 crore in the PD account of the Corporation (June 2015).

Similarly, GoTN sanctioned 11 projects during 2010-15 for implementation by TNSAMB under Agriculture Department and released (November 2010 to December 2014) ₹ 36.35 crore. Of the same, unspent amount of ₹ 7.98 crore was kept in the PD account of the Board for one to five years and no action was taken by the Department to intimate the Government for utilisation of funds in other eligible projects.

Government stated that the delay in completion of tender process had resulted in non-utilisation of released funds and assured effective utilisation of the same.

2.7.3 Non-utilisation of interest

As per the instructions of GOI, the interest accumulated from the NADP funds was to be treated as additional grants-in-aid to NADP. Scrutiny of records revealed that funds of ₹ 58.34 crore were kept in the Savings bank accounts of the implementing agencies and earned interest of ₹ 10.17 crore. Despite GOI instructions, the interest earned was not transferred to the scheme account (March 2015).

Government stated that action had been initiated for collection of details regarding accrual of interest and unspent savings for utilisation in the projects.

2.7.4 Diversion of funds

GOI released the funds for implementation of the projects approved by SLSC. Scrutiny of records revealed that ₹ 78.29 crore out of ₹ 368.10 crore (21 *per cent*) approved by SLSC for implementation of 32 projects, was diverted to other projects, during 2010-15, with ratification orders from SLSC. It was also noticed that ₹ 8.87 crore out of ₹ 45.09 crore (20 *per cent*) sanctioned by GOI for implementation of five special schemes (sub-schemes) was diverted for projects implemented under normal NADP scheme, resulting in non-achievement of the proposed objective of the projects, especially sub-schemes.

Government stated that the diversion of funds within the projects and between normal and sub-schemes was subsequently ratified by SLSC. The reply is not acceptable as diversion of funds had impacted the objective of the sanctioned projects.

2.7.5 Unwarranted sanction of administrative expenditure

NADP guidelines, 2007 (Para 3.6) permitted utilisation of upto one *per cent* of funds for incurring administrative expenditure including payments to consultants, project related recurring expenses, staff costs, etc. GoTN, with the approval of SLSC, sanctioned ₹ 10.77 crore towards administrative expenditure during 2011-15.

Scrutiny of records revealed that though GoTN sanctioned ₹ 2.06 crore towards administrative expenditure during 2011-12, no expenses were incurred by TAWDEVA. Despite this, GoTN further sanctioned NADP funds of ₹ 8.71 crore during 2012-13 (₹ 5.91 crore) and 2014-15 (₹ 2.80 crore)

towards administrative expenditure. The total expenditure incurred by TAWDEVA, during 2012-15, for staff and other administrative expenses, was ₹ 1.23 crore. Thus, injudicious sanction of further funds, without ensuring the utilisation of funds sanctioned earlier, had resulted in blockage of scheme funds amounting to ₹ 8.71 crore.

Government assured to take necessary steps for utilisation of funds for implementation of projects in future.

2.7.6 Utilisation of funds in contravention of GOI instructions

GOI emphasised utilisation of Agricultural Technology Management Agency (ATMA) funds to meet the expenditure towards training, awareness camps and publicity. GOI also instructed that it was not advisable to utilise the NADP funds when the ATMA funds remained unutilised at the end of the year.

The funds availability under ATMA and expenditure incurred out of NADP funds for mass awareness programme (Uzhavar Peruvizha) during 2011-14 were as follows:

(₹ in crore)		
Year	Funds available in ATMA as on 31 March	Expenditure for mass awareness programme out of NADP funds
2011-12	19.02	4.51
2012-13	18.20	36.17
2013-14	7.84	44.00
Total	45.06	84.68

(Source: Details furnished by Department)

GoTN utilised ₹ 84.68 crore of NADP funds towards awareness programme despite availability of funds under ATMA. Had expenditure been incurred as per the instructions of GOI, ₹ 45.06 crore could have been utilised for implementation of other NADP projects.

Government replied that the Farmers mass contact programme was a part of DAP/SAP and NADP funds were utilised, after obtaining ratification from SLSC, for implementation of the schemes during XII Plan period. The reply is not acceptable as DAPs/SAP was not finalised for XII Plan period and diversion of NADP funds for awareness programme was in contravention of instructions.

2.7.7 Ineligible expenditure

As per GOI instructions, recurring expenditure like manpower hiring, Petrol Oil Lubricants (POL), computers and consumables and transport charges were not to be incurred from the project funds but to be charged to administrative expenditure. It was noticed that the Agriculture Department incurred ₹ three crore towards POL and transport charges during 2011-14 from project funds in contravention of GOI instructions.

It was also noticed that in respect of the projects implemented by TNAU, 15 per cent of the project cost was allowed to be retained as institutional charges from the project funds. The total institutional charges allowed to be retained for the projects implemented during 2010-14 worked out to ₹ 0.88

crore. Payment of institutional charges, over and above the administrative charges, reduced the availability of funds for implementation of other projects.

While accepting the fact, Government stated that deduction of institutional charges from project funds had since been stopped.

2.8 Programme Management

2.8.1 Physical progress of projects

The status of projects sanctioned under NADP during 2010-15 and their progress (as on 31 March 2015) is as follows:

Table 2.2: Details of status of projects sanctioned under NADP

Year	Projects sanctioned	Projects completed	Projects in progress	Projects dropped		Projects not implemented/ abandoned	
				Number	Project cost (₹ in crore)	Number	Project cost (₹ in crore)
2010-11	54	51	1	1	3.99	1	30.00
2011-12	95	86	3	4	10.99	2	3.17
2012-13	149	123	19	6	74.99	1	0.44
2013-14	53	51	2	-	-	-	-
2014-15	69	37	28	2	3.42	2	15.23
Total	420	348	53	13	93.39	6	48.84

(Source: Details furnished by the TAWDEVA)

Out of 420 projects, 348 were completed and 53 projects were in progress due to delay in completion of civil/electrical works/ procurement of equipments, non-identification of suitable site, etc. Of the remaining 19 projects, 13 projects involving funds of ₹ 93.39 crore were dropped as they were technically not feasible, lapse of season, etc., and six projects sanctioned at a cost of ₹ 48.84 crore were abandoned or not implemented due to delay in land allotment, non-compliance of standards for equipment, etc.

Production oriented projects

2.8.2 Precision Farming

Based on the proposal of Horticulture Department, SLSC approved (April 2010) the project, *Precision farming*¹² for Horticulture crops, which included installation of drip irrigation system and supply of Water Soluble Fertilizers (WSF). Scrutiny of records relating to implementation of the above project revealed that

- the target area of precision farming was reduced from 800 to 500 ha in Salem district due to incorrect assessment of requirement and difficulty expressed by field level officers.
- in Madurai district, 150 (70.79 ha) out of 409 (232.80 ha) farmers were supplied (2010-11) WSF for utilisation in drip irrigation, despite non-installation of the drip irrigation, resulting in wasteful expenditure of ₹ 14.16 lakh.

Similarly, *Precision farming project* for agricultural crops was sanctioned (July 2012) for implementation in 2,000 ha at a cost of ₹ 5.22 crore for

¹² Method of farming crops with technology upgradation, which would result in saving of valuable resources like water and energy.

enhancement of yield by 40 to 50 *per cent*. The project envisaged supply of inputs like WSF with 50 *per cent* subsidy under NADP and installation of drip irrigation through NMMI funds. Project was implemented in two years *i.e.*, 2012-13 (899 ha) and 2013-14 (1,101 ha) by incurring expenditure of ₹ 5.22 crore due to staggered procurement and distribution of WSF.

- It was observed that in two out of seven test checked districts, the increase in production ranged between 11 and 32 *per cent* as against the target of 40 to 50 *per cent* due to delay in distribution of critical inputs.
- Further, WSF procured at a cost of ₹ five lakh in 2013-14, was not distributed to farmers in Vellore.
- In another case, in Mannargudi Block in Tiruvarur district, critical inputs for 20 ha were purchased (March 2014) for ₹ 5.07 lakh but distributed belatedly (June 2015) to beneficiaries, due to non-installation of drip irrigation, after the expiry of the project year (2012-13).

Thus, non-observance of revised guidelines during release of funds, delayed procurement of critical inputs and non-distribution of WSF had resulted in short achievement of the envisaged objectives of the projects.

Government stated that the two components could not be implemented in time due to long process involved in the installation of Micro Irrigation under NMMI.

2.8.3 Millets Mission

In order to revive traditional millet cultivation with modern technologies, SLSC sanctioned (January 2014) the project of *Millets Mission 2014-15* to achieve productivity of 4,000 kg per ha. The project included supply of inputs *viz.*, liquid bio fertilisers, fungicides, hybrid seeds etc., to farmers. Though Director of Agriculture instructed (May 2014) district level officers to supply inputs to farmers during the major sowing season (June/July), District Level Agricultural Procurement Committee was belatedly constituted (July 2014) for procurement of inputs. GoTN sanctioned (October 2014) the project under NADP for ₹ 3.64 crore. Delayed constitution of the Committee and delay in sanction resulted in distribution of inputs, with delay ranging from four to seven months, in the six¹³ test checked districts.

Government replied that, in future, the defects would be rectified and the scheme would be completed within time.

2.8.4 Failure to ascertain measurable output

State Plan document (2012-2017) envisaged enhancement of production of rice, pulses, etc., by adopting strategies like distribution of subsidy for certified paddy seeds, popularising System of Rice Intensification (SRI) technology, etc. The project proposals for *Paddy Mission*, *Pulses Mission* and

¹³ Cuddalore (5 months), Madurai (4 months), Salem (5 months), Thanjavur (7 months), Theni (6 months) and Tiruppur (5 months).

Millet Mission contemplated measurable outcomes to ascertain the improved yield.

Scrutiny of records revealed that Agriculture Department did not formulate any modality to ascertain the outcome of the technology in respect of projects sanctioned and implemented under NADP. In the absence of modalities to ascertain the outcome of technology, Audit could not ascertain whether the department achieved the measurable output in terms of increase in area, production and productivity, as envisaged in the project proposals.

Government assured that the Audit observation would be considered and followed in future.

Implementation of sub-schemes

2.8.5 Special Programme on Oil Palm Area Expansion

GOI initiated (April 2011) *Special Programme on Oil Palm Area Expansion*, as a sub-scheme of NADP, to augment production of palm oil. Accordingly, Agriculture Department proposed the project with the objective of enhancing area under oil palm to attain self sufficiency in edible oil production. As per the guidelines for the sub-scheme, read with cultivation practices issued by the Director of Oil Palm Research, oil palm is a humid crop that requires evenly distributed annual rainfall of 250 to 400 cm to get assured irrigation conditions. The plantations normally commence fruit bearing from fourth year onwards and continue to bear fruits for about 25 years.

The programme targeted for the area of 7,500 ha, during the three year period 2011-14. It provided for supply of planting material, subsidy for area expansion during first year, maintenance subsidy for three years, provision of drip irrigation, intercropping, etc. Based on the approval of SLSC, GoTN sanctioned (October 2011, October 2012 and August 2013) ₹ 27.54 crore for 2011-14. The sanction included subsidy for planting material at ₹ 10,000 per ha, area expansion during first year at ₹ 6,000 per ha, maintenance subsidy of ₹ 3,500 and ₹ 4,500 per ha for second and third years respectively, besides subsidies to other components.

The details of physical target with achievement for the area expansion and the actual expenditure for area expansion, including maintenance incurred under the programme during 2011-14, were as follows:

Year	Physical (in ha)		Actual expenditure (₹ in crore)	Survival (in ha)		
	Target	Achievement		2012-13	2013-14	2014-15
2011-12	3,500	2,210	4.69	1,620 (73)	1,085 (49)	746 (34)
2012-13	2,500	1,084	2.22		756 (70)	534 (49)
2013-14	1,500	927	1.75			667 (72)
Total	7,500	4,221	8.66			

(Figures in bracket depict percentages)

The survival of the palm plantations was in the decreasing trend every year and the actual survival of the saplings in the fruit bearing year (fourth year) was only 34 per cent.

As against the total expenditure of ₹ 8.66 crore incurred during 2011-15 towards planting material and maintenance thereof, the expenditure incurred towards the planting materials and maintenance of 54 per cent of palms not

survived worked out to ₹ 4.53 crore (**Annexure -2**), besides expenditure towards other components like pest management and irrigation facilities.

Scrutiny of records in the test checked three¹⁴ out of 11 implementing districts revealed that annual rainfall was less than the minimum requirement stipulated in the guidelines. It was also noticed that Vellore district was recognised as drought prone area in the DAP (2008-12). Despite this, these three test checked districts were also selected for implementation of the project, which resulted in wasteful expenditure of ₹ 1.10 crore, incurred on 68 *per cent* of the plantations which did not survive.

Thus, incorrect selection of site for the project had resulted in wasteful expenditure of ₹ 4.53 crore, incurred for planting and maintenance of palm saplings, which did not survive besides non-achievement of the objective of enhanced edible oil production.

Government stated that the poor survival of plantations was also due to uprooting of crops due to fluctuating market prices. It was also stated that the plantations required support price like paddy and stated that the scheme was implemented on experimental basis. However, the fact remains that the districts were taken up for implementation of the project without considering the agro-climatic conditions.

2.8.6 Perimetro Vegetable Cluster Development Programme

Based on the initiative of GOI, Horticulture Department proposed the project for sub-scheme *Perimetro Vegetable Cluster Development Programme* at Coimbatore including three¹⁵ adjoining districts during 2012-13, with the objective of increased area of cultivation of vegetable crops. The programme envisaged conduct of baseline survey, cluster formation, supply of inputs for cultivation and post-harvest management and infrastructural facilities. With the approval of SLSC, GoTN sanctioned (October 2012) and released (July 2013) ₹ 17.00 crore to four districts. An expenditure of ₹ 9.87 crore was incurred (July 2015), leaving unspent amount of ₹ 7.13 crore.

Scrutiny of records revealed that the baseline survey to assess the potential of the village in production and to motivate the farmers for cluster approach was not conducted, resulting in creation of only 28 *per cent* of clusters till July 2015. Despite achievement of 78 *per cent* vegetable cultivation, post-harvest components like establishment of collection centre, retail outlets, and procurement of transportation vehicles were pending completion in three districts. In the test checked Tiruppur district, Market Aggregator to co-ordinate the wholesale buyers/traders with the farmers had not been appointed thereby impacting the receipt of fair price to the produce.

Government replied that the project commenced in October 2013 after the issue of orders for implementation through Tamil Nadu Horticulture Development Agency. It was assured that implementation of the project was in progress and would be completed before October 2016.

¹⁴ Cuddalore, Tiruvarur and Vellore.

¹⁵ Erode, Nilgiris and Tiruppur.

Non-observance of guidelines/instructions

2.8.7 Non-adherence to instructions of SLSC

SLSC approved (March 2013) two projects on *Paddy Mission* and *Pulses Mission* under NADP with instructions to adhere to the norms for payment of subsidy as envisaged in the guidelines of National Food Security Mission issued during April 2012 and June 2013. Scrutiny of records revealed that GoTN provided additional subsidy of ₹ 4.81 crore under NADP, as compared to NFSM guidelines, as indicated below:

Project	Pulses Mission				Paddy Mission			
	Maximum subsidy for improved technology		Seed production subsidy		Subsidy for SRI technology		Subsidy for weedicide	
	NFSM	NADP	NFSM	NADP	NFSM	NADP	NFSM	NADP
Subsidy	₹ 5,000 per ha	₹ 7,500 per ha	₹ 10 per kg	₹ 15 per kg	With-drawn	₹ 3,000 per ha	₹ 500 per ha	₹ 750 per ha
Actual achievement		4,994 ha		2,917 MT		5,000 ha		23,872 ha
Additional subsidy (₹ in crore)		1.25		1.46		1.50		0.60
Total subsidy (₹ in crore)	4.81							

Scrutiny of records in the test checked districts¹⁶ revealed that additional expenditure of ₹ 1.37 crore (Pulses Mission - ₹ 0.79 crore and Paddy Mission - ₹ 0.58 crore) was incurred under these projects.

Thus, the Department incurred additional and avoidable expenditure of ₹ 4.81 crore, which was in contravention of SLSC approval and irregular utilisation of GOI funds.

2.8.8 Procurement without the approval of SLSC

Dairy Development Department proposed for provision of 1,000 milk analysers with printer and weighing scale to increase efficiency and accuracy of milk testing and to reduce the staff at co-operative milk societies through automation. Based on the approval of SLSC (September 2012), GoTN sanctioned (October 2012) ₹ 6.20 crore.

It was observed that

- As against the sanction for 1,000 numbers, Dairy Development Department procured 1,722 milk analysers¹⁷, without seeking approval of SLSC for the additional 722 numbers.
- 297 out of 1,722 (17 per cent) analysers were not functioning (July 2015). Of the 297 analysers, 42 were not functioning during the warranty period and effective steps were not taken to rectify the defects and only six out of 17 districts had entered into Annual Maintenance Contracts.

¹⁶ Pulses Mission – Cuddalore, Salem, Thanjavur, Theni, Tiruppur, Tiruvarur and Vellore; Paddy Mission - Cuddalore, Salem, Thanjavur, Tiruvarur and Vellore.

¹⁷ Excess procurement out of the amount saved due to low tender rate and non-procurement of printers and weighing scales.

Government agreed to obtain necessary ratification orders for the additional milk analysers procured and also stated that contracts would be entered into for maintenance.

2.8.9 Utilisation of mobile veterinary vehicles for administrative purpose

In order to provide veterinary services and breeding support to farmers at their door steps, SLSC approved (April 2012) *Procurement of mobile veterinary units* and GoTN sanctioned (August 2012) ₹ 2.05 crore. Animal Husbandry Department procured (January 2013) 31 mobile units for ₹ 1.65 crore. Scrutiny of records revealed that 28 out of 31 mobile units were diverted for utilisation by various administrative officers whose vehicles were condemned and due to non-sanction of additional posts of Veterinary Assistant Surgeons and Drivers. This not only resulted in non-utilisation of vehicles for the intended purpose but was also indicative of procurement of vehicles without ascertaining availability of staff.

Government stated that the proposal of the Department for sanction of required posts was under consideration.

Infrastructure projects

2.8.10 Establishment of market complex with cold storage

To reduce the post-harvest losses, estimated at 25 to 40 *per cent* in respect of fruits and vegetables, and to provide basic facilities to the farmers for storing and marketing their produce, 12 cold storages, three market complexes and eight market complexes with cold storage were approved by SLSC during 2010-15 at a cost of ₹ 47.42 crore. Of these, 20¹⁸ were completed with delay of four months to two years from the date of sanction by GoTN. Market complexes in three districts¹⁹ were under progress (July 2015). The following Audit observations were made in this regard:

- Market complex with cold storage sanctioned (October 2011) at Gobichettipalayam, Erode district and completed (July 2013) incurring an expenditure of ₹ 3.96 crore, could not be put to use (September 2015), due to non-availability of uninterrupted power supply.
- Though Deputy Director (Agri Business), Tiruchirappalli reported (March 2011) non-utilisation of the six existing cold storage units in Tiruchirappalli district to their optimal level, GoTN sanctioned (October 2011) a banana market complex with cold storage at Srirangam in Tiruchirappalli district and the same was completed (December 2013) incurring ₹ 3.99 crore and commissioned (June 2014). Scrutiny of records revealed that the cold storage was utilised at only two *per cent* of the installed capacity of 1,000 MT during 2014-15 and was not utilised thereafter (July 2015).

Government replied that only a particular variety of banana was stored in the cold storage and its market surplus was very low. Efforts would

¹⁸ 12 cold storages, one market complex and seven market complexes with cold storage.
¹⁹ Nilgiris, Ramanathapuram and Coimbatore.

be made to utilise the facility by storing the agricultural produce during 2016.

- Detailed scrutiny of the selected project, *Establishment of market complex with cold storage and traders shop* at Mettupalayam, revealed that the same could also not be put to use due to following reasons:

Based on the request of the Agriculture Marketing Board, Revenue Department identified (December 2010) 3.42 ha of poramboke land in Chikkadasampalayam village for the project and intimated requirement of acquisition of private land for approach road. SLSC approved (April 2012) the project and GoTN sanctioned (July 2012) ₹ 4.60 crore. For acquiring the land for approach road, Board negotiated (November 2012) and finalised the rate as ₹ 13.17 lakh. The construction was commenced (December 2012) and completed (June 2014) including procurement of machinery at ₹ 4.21 crore. The building was taken over (June 2014) by the Board. However, acquisition of private land for approach road was pending completion (July 2015) for want of funds from Agriculture Marketing Board.

Government stated (December 2015) that the negotiation process was under progress and it would be finalised soon.

2.8.11 Creation of new farmers market

Department of Agricultural Marketing and Agri Business proposed *Creation of new farmers market (Uzhavar sandhai)*, to enable farmers to directly sell their agricultural produce, to get a better price. GoTN, with the approval of SLSC, sanctioned (July 2010) the project for ₹ 6.59 crore for creation of 25 new farmers markets and 167 additional shops, in the existing farmers market. Construction of buildings, for 24 farmers market and additional shops commenced (November 2010) and was completed with the expenditure of ₹ 6.27 crore between December 2010 and July 2011. However, the construction of a farmer market, at Aduthurai, could not be taken up due to non-identification of land till the date of Audit.

Scrutiny of records revealed that ₹ 4.48 lakh was diverted and utilised (May 2011) for renovation of the existing farmer market at Kannagi Nagar, Kancheepuram district without the approval of SLSC. As the market was not functioning (September 2012), for want of arrival of produce, the expenditure incurred was unfruitful.

The new market at Edappadi, Salem was constructed (August 2011) on the land belonging to Hindu Religious Charitable Endowment Department and Administrative Sanction for assignment of land was pending (June 2015). Three out of 24 new markets created were not functioning due to non-arrival of agricultural produce.

Government stated that the urbanisation had resulted in reduced arrival of agricultural produce to the established markets. It was also stated that the land cost for market at Edapadi would be settled with proper sanction.

2.8.12 Modernisation of State Seed Farms

GoTN, with the approval of SLSC, sanctioned (December 2012) ₹ 15.23 crore for *Modernisation of State Seed Farms for strengthening of quality seed production* in 41 Seed Farms during 2012-14. The project included civil works, procurement of machinery and creation of irrigation facilities. Though the civil work and irrigation facilities were completed (March 2014) after incurring an expenditure of ₹ 10.79 crore, the same could not be made functional due to non-procurement of machinery and agricultural implements (September 2015), which had resulted in unfruitful expenditure of ₹ 10.79 crore.

Government stated (December 2015) that the procurement of machinery was cancelled due to higher rates quoted by tenderers. It was also stated that the savings were diverted for infrastructure development of the State Seed Farms and the works were under progress.

Projects on facility management

2.8.13 Installation of solar pumpsets

Agriculture Department proposed *Distribution of solar energised pumps*, with 50 per cent subsidy, to mitigate high-entry cost barriers for renewable technologies. Based on the approval of SLSC (April 2012), GoTN sanctioned (December 2012) distribution of 500 solar pumps with the funding pattern which included 30 per cent subsidy from Ministry of New and Renewable Energy (MNRE) funds. The contract for the pumps was finalised (June 2013) without ascertaining the funding pattern of MNRE. As MNRE funds were available only after completion of the project, GoTN sanctioned (December 2014) 30 per cent contribution for the pumps. Of the 500 pumps, 485 pumps were installed and others were in progress (September 2015). Thus, implementation of project, without ascertaining the funding pattern, led to non-installation of solar pumpsets for two years from the date of sanction.

Department stated that MNRE funds had since been credited (December 2015) to State Government account.

2.8.14 Establishment of liquid nitrogen plant

Animal Husbandry Department proposed (April 2011) *Establishment of fully automatic Liquid Nitrogen plant* at Ooty, for production of liquid nitrogen, in order to utilise in artificial insemination programme and to overcome the shortage of supply of frozen semen straws. Based on the approval (July 2011) of SLSC, GoTN sanctioned (October 2011) the project and transferred the amount of ₹ 5.50 crore to Tamil Nadu Medical Services Corporation for implementation. In the meantime, the site was shifted (April 2012) from Ooty to Eachenkottai due to logistical issues. Tenders, invited on two occasions (December 2011 and May 2012), were not finalised due to absence of response and receiving a single tender respectively. Department revised (December 2012) the project to outsource procurement of liquid nitrogen and for storage and supply to veterinary institutions in 10 districts by installation of 3,000 litre silo tanks besides construction of building. GoTN permitted (August 2013) the Department to utilise the services of Public Works Department (PWD) to construct the building in 10 districts for ₹ 3.40 crore

and Tamil Nadu Livestock Development Agency for installation of silo tanks for ₹ 1.25 crore and ₹ 0.65 crore for supply of Liquid Nitrogen. PWD completed nine out of 10 buildings and handed these over (May 2014 to December 2015) to the implementing Department.

Citing huge evaporation loss in 3,000 litre silo tanks, Department again modified (November 2014) the project for procurement of 600 transport containers of 50 litre capacity without the approval of SLSC. Procurement orders were issued (June 2015) to Indian Oil Corporation Limited. While 540 containers were received, the supply of balance containers was in progress (November 2015).

Thus, absence of proper feasibility study resulted in re-location, revision and subsequent modification of the scope of the project, besides non-achievement of envisaged objective, even after five years.

Government replied that the modifications in the objective of the project were on account of price variations and cost effectiveness. It also stated that necessary ratification proposals would be submitted to SLSC shortly. The reply confirms that the Department did not take effective measures for early completion of project.

Upgradation of Laboratories

2.8.15 Accreditation to State Pesticide Testing Laboratories

State Pesticides Testing Laboratories (SPTLs) enforced the statutory provisions of the Insecticides Act, 1968 and the Insecticides Rules, 1971 for assuring quality pesticides to the farmers. In order to achieve a formal recognition of their competency, GoTN, with the approval of SLSC, sanctioned (July 2012) National Accreditation Board for Testing and Calibration Laboratories, Accreditation to two SPTLs at Coimbatore and Kancheepuram and construction of buildings for six SPTLs for ₹ 6.69 crore. Construction of buildings in six SPTLs was completed between March 2014 and June 2015. Despite incurring an expenditure of ₹ 2.03 crore, towards creation of infrastructure for two SPTLs, their accreditation process was pending completion (March 2015) due to non-sanction of manpower and administrative expenses.

Government stated that the process of accreditation would be completed in a phased manner.

2.8.16 Establishment of Residue Laboratories

TNAU proposed *Strengthening the existing Pesticide Residue Laboratory and establishment of Regional Laboratory (RL)* to analyse, monitor and mitigate the level of contamination of different agricultural crop produce. SLSC (April 2010) approved establishment of RL at Madurai (₹ 50.40 lakh) and procurement of Liquid Chromatography Mass Spectrometry (LCMS) to strengthen RL at Coimbatore (₹ 0.75 crore). SLSC also suggested for assessing the impact before sanctioning additional RL. GoTN sanctioned (November 2010) ₹ 1.25 crore for the project.

Scrutiny of records revealed that instead of LCMS for Coimbatore, TNAU procured minor equipments valuing ₹17.28 lakh for three²⁰ laboratories between December 2011 and March 2012 and incurred recurring expenditure of ₹ 8.02 lakh (August 2013). The unspent balance of ₹ 99.40 lakh was retained by the TNAU.

In the meantime, Phase II of the project was sanctioned (October 2011) for establishment of pesticide Residue laboratory at Tiruchirappalli and for procurement of LCMS to Laboratory at Coimbatore for ₹ 1.17 crore. Expenditure of ₹ 1.17 crore was incurred and equipment were installed (June 2013 and December 2013) at Tiruchirappalli and Coimbatore.

However, on receipt of the revalidation orders (January 2014) for Phase I, TNAU purchased (February/March 2015) another LCMS for Coimbatore at ₹ 69.74 lakh and equipments for Madurai college at ₹ 29.71 lakh and installed them (May and July 2015), which resulted in purchase of two LCMS equipment for Coimbatore in excess of requirement.

Government replied that two units were being used for teaching, research and analysing outside samples. The reply is not acceptable as the machine procured in 2013 was put to use only from April 2015 and only 40 tests were performed, utilising the machines alternatively during 2015-16, due to absence of skilled manpower.

Information Technology projects

2.8.17 Implementation of computerisation in Regulated Markets

Based on the proposal of Director of Agricultural Marketing and Agri Business for *Development of web based software to Regulated Markets (RM)* with the objective of dissemination of transparent market information to farmers, GoTN, with the approval of SLSC, sanctioned (October 2011) ₹ 2.50 crore.

Technical Committee, constituted (November 2011) for finalisation of specifications, recommended comprehensive software to automate all aspects of marketing including outside yard operations. Department invited tenders (January 2012) and work was awarded (May 2012) to a consultant for ₹ 2.35 crore for completion within three months and for provision of man power and maintenance for one year along with data entry of transactions. Department incurred expenditure of ₹ 1.25 crore (June 2015) and the balance was pending payment.

Scrutiny of records revealed the following:

- Though the Technical Committee had recommended comprehensive software, Department limited the scope of work to auction module which resulted in continued dependence on manual records.
- Analysis of RM software and data revealed the absence of input, validation, output and logical controls as detailed below:

²⁰ Coimbatore, Madurai and Tirunelveli.

- Acceptance of non-standardised data, duplicate records and blanks in unique fields like traders-identification, farmer details.
- Non-generation of customised and consolidated reports requiring manual intervention
- Non-codification of unique identification for farmers and traders for effective data capturing
- No audit trails to identify and detect unauthorised access, modification to data, programs and table structure.
- Differences in the data captured and manual registers on the quantum of trading during November 2012 to December 2013 in eight selected RMs in four districts, indicating absence of transparent market information to farmers.
- Though the project envisaged connectivity of 20 RMs with the server installed at the Head office, they were not connected (December 2015) due to absence of connectivity.

In view of these deficiencies, the web based software could not be put into use for more than 18 months despite incurring expenditure of ₹ 1.25 crore.

Government replied that a technical committee had been formed to monitor and recommend proper implementation. Government, in the Exit Conference, also assured the rectification of the control defects by the existing contractor.

2.8.18 Comprehensive Input Supply Management System

Agriculture Department proposed *Computerisation of 398 Agricultural Extension Centres (AECs)* in the State to address the gaps in the manual maintenance of inputs inventory, provision of internet connectivity to link seed certification and testing process. APC emphasised that the project would hasten the process of supply of inputs to farmers and ensure time bound supply. GoTN sanctioned (August 2013) ₹ 5.45 crore which included procurement of hardware for ₹ 4.50 crore, enhancement of software ₹ 0.10 crore and broadband charges ₹ 0.84 crore.

The Department, instead of enhancing the existing software, diverted the sanctioned amount of ₹ 0.10 crore for payment of recurring broadband charges without the approval of SLSC. Non-enhancement of software had resulted in non-provision of linkages to seed certification and testing process, absence of provision for ascertaining the validity period and issue of inputs on the basis of first-in-first-out system, facility for cancellation of the bills by the users instead of administrators and absence of audit trails.

The analysis of data entered in the system revealed the following deficiencies:

- Out of 9,057 seed samples tested by the Department of Seed Certification (April 2014 to June 2015), 282 samples failed seed tests and absence of provision for linkages to seed certification and testing had resulted in non-ensuring the germination quality and purity of seeds.

- The data included 2,210 seed lot numbers with length less than 15 characters as against the standard of minimum 15 characters of seed lot numbers prescribed under Para XVIII of Indian Minimum Seed Certification Standards 2013. This resulted in absence of facility to maintain identity of seed, tracing back to its origin, accounting and inventory maintenance.
- The data contained 4,736 duplicate bills out of 40,337 bills, rendering the data unreliable. The reports generated on the basis of the data would result in inaccurate Management Information System and indicated absence of output controls.
- Though agreement terms for the supply of inputs stipulated for the materials to have minimum validity of nine months from the date of supply, in 994 out of 3,690 lots, inputs (value ₹ 7.28 crore) with less than nine months validity period were accepted in 299 AECs of 30 districts during 2014-15, indicating absence of validation control.
- Out of 36,503 cases of sales to farmers during the period April and May 2015 in 233 AECs in 29 districts, in 7,713 cases the data exhibited the sale of expired goods.
- A comparison of data entered in the module with the manual data revealed discrepancy in the stock register, remittance register and cash registers of AECs, indicating the data captured in the system as unreliable.

Despite incurring an expenditure of ₹ 5.45 crore towards the project, absence of enhancement of the software and discrepancy in the data resulted in non-achievement of the objective of the project.

Government replied that the deficiencies would be rectified in the subsequent version of the Module.

2.9 Monitoring and Evaluation

2.9.1 Evaluation

As per Para 6.3.6 of the NADP guidelines, 2007, SLSC was responsible for initiating evaluation studies from time to time as may be required. Even though, TAWDEVA entrusted (March 2011) the work of evaluation of 12 projects in seven districts to Director of Evaluation and Applied Research, the reports were received only for three projects (September 2015) and the balance reports were awaited for the reasons not on record.

SLSC advised (April 2012) TAWDEVA for initiation of third party evaluation on important projects. NADP Guidelines, (January 2014) envisaged (Para 12.3) compulsory third party monitoring and evaluation of 25 per cent of the sanctioned projects. However, no such monitoring and evaluation was conducted resulting in absence of third party evaluation of projects.

Government, in the Exit Conference, stated that action would be taken shortly for conducting evaluation study and third party evaluation on NADP projects.

2.9.2 Web based monitoring

NADP guidelines, 2007 envisaged (Para 5.2 (v)), establishment of Information Technology based and web enabled Management Information System by the nodal agency, for online monitoring of the programme and the same was established during 2010.

Audit observed the following deficiencies in the available web based data:

- All the projects approved by SLSC were assigned individual project identification numbers. It was, however, noticed that 17 project identification numbers were not created.
- 11 cases of duplicate project Identification Numbers; and project identification numbers available in RKVY portal but not in TAWDEVA data (10 cases) and vice versa (15 cases).

While accepting the deficiencies, TAWDEVA stated (September 2015) that, in the RKVY portal, data was being uploaded only for those projects for which sanctions were accorded by GoTN whereas Identification Numbers were also created for projects approved and awaiting sanctions from GoTN and that for about 15 projects pertaining to 2011-12 and 2012-13, the project IDs were not created. It was further stated that the discrepancies would be resolved by taking up the matter with the Agriculture Division of National Informatics Centre.

Government stated that the deficiencies were due to some technical snag.

2.10 Conclusion

Implementation of National Agriculture Development Programme in Tamil Nadu revealed that the nodal agency failed to prepare agricultural plan for the XII Plan period, ensure the selection of projects based on agro-climatic conditions and natural resources in the districts, besides implementing nine projects with an expenditure of ₹ 40.90 crore against the stipulations of SLSC. Absence of shelf of projects, for prioritisation, resulted in dropping of some sanctioned projects. Instances of overlapping of GOI schemes were also noticed. GoTN failed to utilise GOI grant of ₹ 36.62 crore during 2010-15 for implementation of projects in agriculture and allied sectors. Imprudent financial management resulted in blocking of funds of ₹ 86.26 crore in PD/Savings bank accounts. GoTN diverted ₹ 45.06 crore, for awareness programme from NADP funds despite availability of funds under ATMA. Sanction of projects without definite timelines, incorrect site selection, failure to ascertain measurable output and delay in completion of projects resulted in avoidable and unfruitful expenditure of ₹ 25.25 crore besides non-achievement of envisaged objectives. There were shortcomings also in evaluation of projects, web monitoring and internal control.

2.11. Recommendations

State Government may

- Ensure preparation of agricultural plans and shelf of projects for selection and prioritisation of projects based on agro-climatic conditions, availability of technology and resources.

- Strengthen the system of financial control in implementation of projects by ensuring complete and effective utilisation of funds sanctioned for the intended objectives and avoid diversion of funds.
- Formulate a mechanism for effective project management involving approval of projects with definite timelines and measurable outputs.
- Ensure conducting of periodic meetings of SLSC and Monitoring Committee to effectively monitor the implementation of projects. Third party evaluation of implemented projects may also be ensured.

CHAPTER III

CHAPTER III COMPLIANCE AUDIT

ANIMAL HUSBANDRY, DAIRYING AND FISHERIES DEPARTMENT

3.1 Production improvement activities for inland fisheries

3.1.1 Introduction

According to State Plan document (XII Five Year Plan - 2012-17), fisheries is an important sector, in Tamil Nadu, contributing to the livelihood as well as food security to a large section of the economically under-privileged population. The State possesses 3.73 lakh ha of water bodies²¹ for inland fishing, including brackish water fishing, which are amenable to both capture²² and culture²³ fisheries.

The fisheries sector is managed by Department of Fisheries (DoF) with the prime objective of increasing the inland fish production by adopting scientific measures of fish culture and by producing high yielding fish seed. Activities of inland fisheries, including fresh water aquaculture, covered maintenance of qualitative brood stock²⁴, production of fish seed²⁵, rearing of seed up to certain stages²⁶ and stocking of reared seed in the suitable water bodies for their exploitation. DoF manages four Fish Seed Production Centres²⁷ (FSPCs) and 28 Fish Seed Rearing Centres (FSRCs) as of 1 April 2012. During 2012-15, four FSPCs and one FSRC were established. There are 53 reservoirs that are directly managed by DoF and eight others, managed by a Public Sector Undertaking viz., Tamil Nadu Fisheries Development Corporation.

Audit was conducted between April and July 2015 to examine the production improvement activities for inland fisheries by the Department with reference to State Plan documents and scheme guidelines, covering the Office of the Commissioner of Fisheries, Assistant Directors of Fisheries and 23 out of 53 reservoirs in seven²⁸ districts for the period 2012-15. Four out of eight FSPCs and 13 out of 29 FSRCs in the selected seven districts were also covered.

²¹ Comprising of reservoirs (52,055 ha), large irrigation and seasonal tanks (2,65,641 ha) and brackish water spread area (56,000 ha).

²² Capture fisheries is exploitation of aquatic organisms without stocking the seed. Recruitment of the species occurs naturally.

²³ Culture fisheries is the cultivation of selected fish in confined areas. The seed is stocked, nursed, reared and exploited.

²⁴ Group of matured male and female fish maintained for breeding purpose.

²⁵ Fish seed produced is termed as early fry (up to five days).

²⁶ Stages of fish seed rearing viz., late fry (six to 14 days), fingerlings (15 to 44 days) and advanced fingerlings (45 to 90 days).

²⁷ Bhavanisagar, Karanthai, Manimuthar and Mettur dam.

²⁸ 16 out of 32 districts in Tamil Nadu have inland fishing exploitation in reservoirs managed by the DoF (excluding reservoirs under Tamil Nadu Fisheries Development Corporation). These 16 districts were stratified on the basis of fish production and seven districts were selected for test check. The selected districts are Dharmapuri, Erode, Kancheepuram, Krishnagiri, Salem, Tiruchirappalli and Tiruvallur.

3.1.2. Planning

According to State Plan document (XII Five Year Plan - 2012-17), the potential inland fish production of the State was 4.50 Lakh Metric Tonne (LMT). Though the actual production of inland fisheries in the State had increased from 1.85 LMT during 2012-13 to 2.40 LMT during 2014-15, there existed a gap of 2.10 LMT (47 per cent). The document also indicated fish seed demand as 22.32 crore numbers as against the existing production of 19.20 crore numbers, resulting in shortfall of 3.12 crore numbers. To address the gap between demand and production of fish seed, DoF developed new nursery area for early fry *i.e.*, fish seed in the early stage of upto five days, production by renovating the existing fish seed farms.

3.1.2.1 Fixation of targets for early fry production

The targets fixed for the early fry production, the usable nursery area and brood stock available during 2012-15, in respect of four departmental farms, were as under:

Table 3.1: Fixation of targets for early fry

Fish Seed Production Centre	Year	Usable area of farm ponds (in sq m)	Availability of female brood fish stock (in numbers)	Targets fixed for early fry (in lakh)	Comparative analysis of targets arrived for early fry production (in numbers) with reference to	
					Usable area per sq m	Per brood fish
1	2	3	4	5	Col. 5/Col. 3	Col. 5/ col. 4
Bhavanisagar	2012-13	11,324	612	725	6,402	1,18,464
	2013-14	11,324	669	775	6,844	1,15,845
	2014-15	14,924	651	1,255	8,409	1,92,780
Mettur dam	2012-13	13,378	502	400	2,990	79,681
	2013-14	13,378	502	750	5,606	1,49,402
	2014-15	25,400	516	1,320	5,197	2,55,814
Manimuthar	2012-13	43,798	649	480	1,096	73,960
	2013-14	43,798	1,015	550	1,256	54,187
	2014-15	24,055	1,198	1,250	5,196	1,04,341
Karanthai	2012-13	1,565	324	240	15,335	74,074
	2013-14	1,565	315	400	25,559	1,26,984
	2014-15	2,945	288	330	11,205	1,14,583

(Source: Details furnished by the Department)

- The targets for production of early fry were neither fixed adopting usable area of the farms nor based on the stock of female brood fish.
- Audit analysis of the targets fixed by the Department revealed that production of early fry targeted per sq m of usable area ranged between 1,096 and 25,559 numbers. Similarly, targeted production of early fry, for each female brood fish, ranged between 54,187 and 2,55,814 numbers.

Thus, fixation of targets for early fry production without any uniformity, even in respect of the same farms, resulted in ineffective planning to optimise the fish seed production.

Government replied (December 2015) that various factors like female breeder, fertilisation rate, recovery rate and environmental conditions were considered and targets were fixed at slightly higher than the previous year's production capacity. The reply is not acceptable due to the fact that, during the year 2014-15, though the usable area had been increased in three out of four farms, the stock of brood was not proportionately enhanced and in fact, it was reduced from 669 to 651 numbers and from 315 to 288 numbers, in Bhavanisagar and Karanthai farms respectively.

3.1.2.2 *Inadequate field investigation in selection of sites*

The Department forwarded (June and August 2012) a proposal to GoTN for establishment of 102 numbers of earthen fish seed rearing units²⁹ to meet the fish seed demand in the selected sub-basins. The estimated cost of the project was ₹ four lakh³⁰ with subsidy of ₹ three lakh per earthen unit under externally aided project, Tamil Nadu Irrigated Agriculture Modernisation and Water bodies Restoration and Management (IAMWARM). The proposal also included conduct of field verification of water source and quality of water besides digging of borewells. GoTN sanctioned³¹ (September and October 2012) ₹ 3.06 crore and entrusted (January 2013) the civil work for ₹ 2.60 crore to Agricultural Engineering Department (AED). The construction of the ponds was completed between September 2013 and March 2015.

Scrutiny of records revealed that 20 earthen ponds, created at a cost of ₹ 51 lakh³² in the selected sub-basins, were not functional due to non-availability of water and, hence, sanctioned operational cost subsidy³³ of ₹ 9.14 lakh could not be utilised. Thus, inadequate field investigation in selection of sites for establishment of fish seed rearing units had resulted in non-achievement of the envisaged objective.

Government, while accepting the fact, stated (December 2015) that non-availability of water, despite creation of borewells, was due to drought and fish seed breeding commenced in the subsequent season after getting rainfall. However, Department failed to identify proper location for creating borewells to augment water during drought.

3.1.3 **Financial Management**

Inland fish production improvement activities were undertaken through schemes implemented with financial assistance from GOI and loan assistance from National Bank for Agriculture and Rural Development (NABARD) and IAMWARM. Details of sanction, expenditure during 2012-15 and unutilised amount as on 31 March 2015 are given in the following table:

²⁹ Small ponds dug in natural earth for rearing of fish seed.

³⁰ Capital cost ₹ 2.70 lakh; operational cost ₹ 1.30 lakh for two years.

³¹ G.O. Ms No.150 Animal Husbandry, Dairying and Fisheries Department dated 04 September 2012 and G.O. Ms No.186 Animal Husbandry, Dairying and Fisheries Department dated 29 October 2012.

³² 20 units x capital cost ₹ 2.55 lakh = ₹ 51 lakh.

³³ Subsidy towards input cost and farm equipment.

Scheme	2012-13			2013-14			2014-15		
	Sanction	Expenditure	Unutilised	Sanction	Expenditure	Unutilised	Sanction	Expenditure	Unutilised
GOI assistance	26.98	21.78	5.20	9.58	3.77	5.81	6.66	4.69	1.97
NABARD	7.41	6.09	1.32	23.57	23.52	0.05	6.07	5.62	0.45
IAMWARM	5.67	4.78	0.89	2.11	1.80	0.31	2.75	2.47	0.28
Total	40.06	32.65	7.41	35.26	29.09	6.17	15.48	12.78	2.70

(Source: Details furnished by the Department)

The Department failed to utilise the sanctioned funds of ₹ 16.28 crore out of ₹ 90.80 crore (18 per cent) during 2012-15 due to delay in completion of the approved schemes. Out of the unspent amount of ₹ 16.28 crore, ₹ 14.73 crore (90 per cent) was kept either in the Savings bank account or Personal Deposit (PD) account and the balance was surrendered to GoTN. Deficiencies noticed in financial management are as under:

3.1.3.1 Non-availing of GOI grant

Department proposed (July 2012) for stocking of 100.78 lakh numbers of advanced fingerlings³⁴ in eight reservoirs under financial assistance of ₹ 52 lakh from National Fisheries Development Board (NFDB). NFDB released (August 2012) the first instalment of ₹ 26 lakh with instructions to adhere to its guidelines. DoF could utilise only ₹ 20.04 lakh for stocking of advanced fingerlings in six reservoirs due to drought. However, Department furnished (June 2013) Utilisation Certificate (UC) belatedly and the unutilised amount was remitted to NFDB. The request of DoF for release of second instalment was not considered by NFDB as the guidelines did not allow carry forward of sanctioned funds to subsequent financial year. Thus, failure of the Department to utilise the released funds within the financial year, as stipulated in the scheme guidelines, had resulted in not receiving of GOI funds of ₹ 26 lakh, besides non-achievement of envisaged objective.

Government, while accepting the fact, stated (December 2015) that the funds released in the first instalment could not be utilised due to failure of monsoon and drought conditions.

3.1.3.2 Submission of incorrect Utilisation Certificates

National Agriculture Development Programme (NADP) guidelines stipulated submission of UC for the grants received indicating the actual utilisation of the amount for the sanctioned scheme. Scrutiny of records revealed that, out of the GOI grants of ₹ 36.03 crore, received during 2012-14 under NADP, only ₹ 25.16 crore was utilised and remaining amount was kept in PD account. However, Department furnished UC for the entire amount in contravention of the guidelines.

Government stated (December 2015) that UC was issued in anticipation of expenses towards operational inputs like seed, feed, etc., and the expenditure would be incurred shortly. However, submission of UC without actual utilisation is incorrect.

³⁴ The stage of fish seed rearing from 45 to 90 days.

3.1.4 Programme Management

Inland fish production improvement activities were undertaken through various measures like fish seed production and rearing, exploitation of fish from reservoirs through culture and capture fisheries, cage culture, brackish aquaculture, integrated aquaculture, ornamental fish culture, etc. Deficiencies in implementation of these measures are detailed in the subsequent Paragraphs.

Fish Seed Production and Rearing Centres

3.1.4.1 Fish seed production

Efficiency and effectiveness of fish production depends on success of qualitative/quantitative outcome of fish seed production. The fish seed production involves maintenance of brood fish for breeding in ponds, hatching of eggs and production of young fish, i.e., early fry. Production of early fry in departmental farms during the period 2012 -15 is furnished below:

Table 3.2: Target and achievement of early fry

Year	Target	Achievement
	(numbers in lakh)	
2012-13	1,845	1,827
2013-14	2,475	2,808
2014-15	4,661	3,529

(Source: Details furnished by the Department)

Despite 100 *per cent* achievement of target during 2012-14 and more than 75 *per cent* during 2014-15, the rearing of fish seed was not effective, as discussed in Paragraph 3.1.4.2.

3.1.4.2 Fish seed rearing

The Department undertook measures to bridge the gap between demand and production of fish seed by constructing, repairing and renovating FSRCs with funds from NADP, NFDB and NABARD. During 2013-14, 46,988 sq m of rearing area had been repaired and renewed in eight out of 29 FSRCs, after incurring expenditure of ₹ 32.14 crore. The details of late fry³⁵ and fingerlings³⁶ produced in FSRCs during 2012-15 are as follows:

Table 3.3: Target and achievement of late fry and fingerlings

Year	Late fry (numbers in lakh)			Fingerlings (numbers in lakh)		
	Target	Achievement	Percentage	Target	Achievement	Percentage
2012-13	127	122	96	222*	174*	78
2013-14	326	183	56	447	207	46
2014-15	603	296	49	498	333	67

(Source: Details furnished by the Department)

(*included advanced fingerlings, production of which was discontinued from 2013-14, to reduce cost of rearing and to increase the cycle of production)

³⁵ The stage of fish seed rearing from six to 14 days.

³⁶ The stage of fish seed rearing from 15 to 44 days.

The percentage of achievement of rearing of late fry had decreased from 96 per cent during 2012-13 to 56 per cent during 2013-14 and the Department could achieve only 49 per cent of the target during 2014-15. Similarly, in case of fingerlings, the production declined from 78 per cent in 2012-13 to 46 per cent in 2013-14 and increased to 67 per cent in 2014-15. The reasons for decline in production were attributed by the Department, to change in quality of water, temperature and health conditions of brood fish.

Thus, non-achievement of required fingerlings/advanced fingerlings resulted in reduced stocking of fish seed, leading to under-production of fish, as discussed in Paragraph 3.1.4.3.

Government did not furnish (December 2015) specific reply for non-achievement of targets, but stated that actual late fry and fingerlings production had increased as compared to earlier years. However, the actual achievement of fish seed production was not in proportion to the target fixed.

3.1.4.3 Fish production from reservoirs

The 53 reservoirs, managed by DoF, were stocked with advance fingerlings up to 2012-13 and fingerlings during 2013-15 for culture fisheries (stocked variety). In addition, Department undertook capture fisheries (un-stocked variety) by exploiting the naturally growing varieties of fish in the reservoirs.

The details of targets, achievement and productivity of stocking of fish seed for culture fisheries, exploitation of culture fisheries and capture fisheries during 2012-15 are shown in Table 3.4:

Table 3.4: Stocking and exploitation in reservoirs

Year	Culture fisheries						Capture fisheries			
	Stocking of fingerlings (in lakh)			Exploitation of stocked variety (in tonnes)			Productivity in tonnes per lakh fingerlings	Exploitation of un-stocked variety (in tonnes)		
	T	A	P	T	A	P		T	A	P
2012-13	267.83	137.54	51	3,330	1,808	54	13.15	1,469	1,515	103
2013-14	267.10	163.51	61	3,080	1,092	35	6.67	1,558	1,257	81
2014-15	275.11	158.82	58	2,640	1,714	65	10.79	2,346	1,695	72

(Source: Details furnished by the Department)
(T- Target; A – Achievement; P – Percentage)

- Department could achieve stocking of fingerlings by 51 to 61 per cent, resulting in short achievement of 39 to 49 per cent.
- The target for exploitation of fish varieties produced through stocking of fingerlings had been decreasing during 2012-15. Even the reduced targets were not achieved and the actual achievement of fish production for culture fisheries was between 35 and 65 per cent of the target.
- The productivity of fish had reduced from 13.15 tonnes per lakh during 2012-13 to 6.67 tonnes per lakh during 2013-14 and subsequently increased to 10.79 tonnes per lakh during 2014-15.
- Despite increase in targets every year, the percentage of exploitation of capture fisheries decreased from 103 to 72 per cent during 2012-15.

Thus, significant share of production of inland fisheries was from capture fisheries and the production improvement activities by the Department did not yield the desired production of culture fisheries, due to absence of scientific methods in enhancing production.

Government stated (December 2015) that insufficient water level in the reservoirs and drought conditions resulted in fixation of reduced production targets and exploitation of culture variety. The reply is not acceptable, as the targets fixed for exploitation of capture variety in the same reservoirs was on increasing trend.

Implementation of other rearing techniques

3.1.4.4 Cage Culture

Cage culture is a process in which fish are reared, from late fry to marketable size, in an enclosed space that maintains free exchange of water with the surrounding water body. Guidelines for good management practices in fish seed farm and production envisaged operation of cage culture in large perennial tanks with water depth of eight to 10 feet and these cages were not to be floated in deep reservoirs. Department decided to promote cage culture under assistance of NADP and IAMWARM.

The Department proposed (August 2012) promotion of cage culture in two reservoirs under NADP for enhanced fish production and to increase the availability of protein supplement to the community. The project proposals included construction of 48 cages, cost of seed, feed and creation of marketing facilities like refrigerated van, deep freezers and collapsible tanks for transport of live fish. GoTN sanctioned (October 2012) ₹ 7.08 crore.

Scrutiny of records revealed the following:

- DoF revised the installation of cages to four reservoirs instead of the sanctioned two reservoirs. The cages proposed for three reservoirs were installed in two reservoirs³⁷ at a cost of ₹ 1.41 crore, due to non-receipt of permission for use of reserve forest area in Manimuthar reservoir. As regards the fourth reservoir (Thoppaiyar), the cages installed (October 2013) at a cost of ₹ 33.89 lakh were dismantled due to low depth of water. Installation of cages without sufficient water depth and subsequent dismantling had resulted in reduced yield of fish production by 70.81 tonnes³⁸. Department attributed the reasons for shortfall to low water depth and stated that the cages were shifted (April 2015) to Krishnagiri reservoir.

³⁷ Kolavai Lake and Poondi.

³⁸ Target 89 tonnes – actual achievement 18.19 tonnes = shortfall 70.81 tonnes.

- DoF procured four Bolero vehicles, instead of refrigerated van for transportation of fish, at a cost of ₹ 21.66 lakh. The procurement of vehicles was not in consonance with the proposals for the project submitted to SLSC for procurement of refrigerated van to transport the fish.

Similarly, cages were installed (September 2013) at Mettur dam with financial assistance of ₹ 54.00 lakh under IAMWARM Scheme. Though fish seed³⁹ was stocked and fish exploited, realising revenue of ₹ 3.44 lakh during 2013-14, Assistant Director of Fisheries, Mettur dam reported (December 2014) that the nets of the cages required replacement due to huge water depth (100 feet). Department decided (February 2015) to shift the cages to Krishnagiri reservoir and the work was in progress (December 2015).

Thus, non-adherence to the guidelines in identification of suitable site for cage culture project resulted in non-achievement of the desired production of fish, despite availability of suitable site and GOI funds, besides ineligible expenditure towards purchase of vehicles.

Government replied (December 2015) that drought conditions led to shifting of cages under NADP project and increase in water depth was the reason for shifting of cages under IAMWARM project. However, the fact remains that Thoppaiyar reservoir was rainfed and not a perennial reservoir and Mettur dam had huge water depth, which were not ideal for cage culture, as per the Departmental Guidelines.

3.1.4.5 Brackish Water Aquaculture

The existing model demonstration brackish water fish farm at Vaniyanchavadi, Kancheepuram district was proposed (March 2012) for upgradation⁴⁰ to revive the shrimp farming activities in the coastal districts at an estimated cost of ₹ 83.11 lakh. GoTN sanctioned (August 2012) the project under NADP for the year 2012 -13 for completion within one year. The execution of infrastructure facilities entrusted (October 2012) to Fishing Harbour Project circle, Chennai, were completed (July 2015) after incurring ₹ 38.52 lakh, except compound wall due to encroachment. The created infrastructure was not taken over (December 2015) by the Assistant Director of Fisheries, Kancheepuram due to poor quality of water in the bore well resulting in non-achievement of the intended objective of revival of shrimp farming activities even after three years from sanction, besides parking of funds.

³⁹ Varieties stocked – 9,832 Amur carp; 14,158 Pangasius and 795 Entroplus.

⁴⁰ Upgradation included Bio-Security arrangements and additional infrastructure facilities in shrimp culture pond to undertake Specific Pathogen Free (SPF) Shrimp culture.

Government replied (December 2015) that fish farming could not be commenced due to non-receipt of license from the Coastal Aquaculture Authorities. It was also stated that water treatment methods to make water quality suitable for shrimp farming would be considered after the commencement of the farm.

3.1.4.6 Rearing of fast growing fish species

Water bodies having short water retention period of four to five months in a year required fast growing fish culture. To encourage the agricultural farmers of Tamil Nadu, to undertake fish culture simultaneously and augment income, multi-purpose farm ponds were constructed by Rural Development Department.

DoF proposed (May 2014) to NFDB for stocking of fast growing short seasonal fish species, viz., Genetically Improved Farmed Tilapia, in these ponds with 40 *per cent* input subsidy. As against the total amount of ₹ 72.40 lakh proposed for 1,000 ponds, NFDB sanctioned and released (May 2014 and March 2015) ₹ 25.38 lakh. The Department reduced input subsidy by 66 *per cent* to the farmers, which resulted in lesser income. Despite the fact that the fast growing fish were to achieve their maturity within short span upto five months, the Department had not, till date (December 2015), reported on the outcome of the scheme implemented.

Government replied (December 2015) that outcome of the project would be assessed after completion of the scheme, which is in progress.

3.1.4.7 Integrated Aquaculture Unit

The Department proposed (September 2012) establishment of three integrated aquaculture units⁴¹ to strengthen aquaculture sector in Thanjavur and Tiruvarur Districts. Based on the proposals, GoTN sanctioned and released (October 2012 and September 2013) ₹ 7.55 crore⁴² under NADP.

Scrutiny of records revealed that three individual feed mills, initially proposed, were revised (July 2014) to a single mill with increased production capacity considering the financial viability. This led to delay in identifying suitable land and taking up further measures in its implementation. The tender process had not commenced till the date of audit. Despite completion (April 2015) of fish seed hatcheries, nurseries and ponds incurring expenditure of ₹ 1.47 crore, creation of marketing infrastructure could not be commenced due to non-identification of appropriate site.

Thus, failure of the Department to consider the financial viability initially and non-creation of marketing facilities led to non-achievement of intended objective even after three years from release of funds.

Government, while accepting the facts (December 2015), stated that the land had been finalised and preliminary works commenced.

⁴¹ Construction of fish seed hatcheries, nurseries, ponds, feed mill plant and marketing infrastructure.

⁴² G.O. Ms. No.241 Agriculture Department dated 22 October 2012 and G.O. Ms. No.197 Agriculture Department dated 30 September 2013.

3.1.4.8 Ornamental Fish Culture

Tamil Nadu with ambient tropical climate provides scope for development of ornamental fish culture in the drought prone rural areas. With a view to create employment opportunities to the rural women and increase ornamental fish production, the Department proposed (April 2014) to establish ornamental fish hubs⁴³ in 10 districts as a pilot scheme for ₹ 5.30 crore. The project envisaged establishment of ornamental fish culture units in the backyard at an estimated cost of ₹ one lakh each, with 50 *per cent* subsidy from NFDB and remaining 50 *per cent* as loan from NABARD. This included establishment of ornamental fish park for linking all the ornamental hubs for providing good quality seed, feed, training, technology, medicines and to buy back the grown ornamental fish for export.

NFDB approved the proposal and accorded sanction (May 2014) for an amount of ₹ 2.13 crore. The first instalment of ₹ 1.06 crore was released (May 2014) and the guidelines of NFDB envisaged submission of UC on physical completion of units by the beneficiaries to the DoF for release of second instalment. The Department identified 237 beneficiaries in 10 districts and released first instalment of subsidy of ₹ 59.25 lakh during February to June 2015. The Department incurred ₹ 5.41 lakh for training of beneficiaries in 10 districts. The progress of completion of works of units, for which subsidy had been released, was awaited (September 2015).

The Department had not initiated establishment of ornamental fish retail outlets and transportation vehicles despite sanction and release of funds by NFDB. Thus, failure to establish ornamental fish park, delay in completion of fish hubs and units, impacted the achievement of the envisaged objective.

Similarly, establishment of integrated ornamental fish culture centre at Government Seed Farm, Mettur dam sanctioned (January 2013) under NFDB for ₹ 13.50 lakh could not be commenced (May 2015), due to delay in handing over of the site by DoF, even after expiry of more than two years from the date of release of first instalment (March 2013) of ₹ 6.75 lakh.

Government replied (December 2015) that the work of ornamental fish breeding centres would be completed after the receipt of second instalment. In respect of ornamental fish hub and park, reply of the Government was awaited.

3.1.5. Conclusion

The prime objective of Fisheries Department was to increase the inland fish production by adopting scientific methods of fish culture and high yielding fish seed. Fixation of targets for production of early fry and improper selection of sites for the fish seed rearing ponds indicated inadequate planning. The funds allotted for the schemes were under-utilised to an extent of 18 *per cent* of sanction and 20 *per cent* of the booked expenditure remained unspent, besides submission of incorrect UCs. The actual fish seed production and exploitation of fish did not meet the expected production and productivity, despite

⁴³ Each hub is to have five production centres and 20 rearing centres for benefiting 250 women beneficiaries.

enhancement of farm areas. Failure to identify suitable locations for cage culture resulted in non-achievement of desired production of fish by farmers, despite availability of GOI grants. Non-commencement of feasibility study for ornamental park and delay in completion of rearing centres defeated the objective of empowering rural women. Thus, the objective of the Department is yet to be achieved due to gaps in planning and implementation of the schemes.

ENVIRONMENT AND FORESTS DEPARTMENT

3.2 Human-Animal Conflict reduction measures of Forest Department

3.2.1 Introduction

The National Forest Policy, 1988 envisaged enhancement of forest area and tree cover to 33 *per cent* of geographical area in order to conserve biodiversity and augment water resources. The Planning Commission emphasised achieving the same by 2012. Tamil Nadu has 28,710⁴⁴ sq km of forest area and tree cover as on 31 March 2014, which constituted 22 *per cent* of geographical area of the State. There are 28 wildlife and bird sanctuaries, four elephant reserves and five national parks in Tamil Nadu. Forest Department (FD) identified 16 species comprising of 79,964 animals including 3,987 elephants, 8,110 Indian gaur and 6,171 wild boars. Fragmentation of the forest area, diversion of forest area for non-forestry development works, encroachments, presence of invasive and exotic species resulted in scarcity of food and water for animals in the forest area and led to movement of animals outside the forests in search of food and water, which paved the way for Human-Animal Conflict (HAC).

Though wild animals like Indian gaur, tigers, leopards, wild boars were involved in conflict, 133 out of 166 cases of loss of human life reported during 2012-15 were caused by wild elephants in the State. To mitigate the conflict, FD initiated measures like digging of Elephant Proof Trenches (EPT), erection of solar fences, creation of fodder, augmentation of water supply etc., through various measures⁴⁵.

Audit was conducted from April to July 2015 to examine the measures taken for reduction of HAC by Government of Tamil Nadu (GoTN) during 2012-15. The Audit covered the Department, Office of the Principal Chief Conservator of Forests (PCCF) and 10⁴⁶ out of 48 Divisions.

⁴⁴ Forest area – 23,844 sq km and tree cover - 4,866 sq km.

⁴⁵ Physical prevention measures, Habitat management, Deployment of anti-depredation force, Farmer support services.

⁴⁶ Coimbatore, Dharmapuri, Erode, Gudalur, Hosur, Kodaikanal, Pollachi, Sathyamangalam, Theni and Vellore.

3.2.2 Status of the instances

3.2.2.1 Loss of human life and property

In recent years, unrestricted biotic influences in wildlife habitats had created disastrous consequences on human life and crops. FD maintained year-wise details of the loss of human life due to attack by wild animals. The consolidated details of cases of human injury, damage to property and crops, death of livestock, based on their occurrences, were not maintained. However, based on compensation payments made to victims, the details of loss of life and property during the years 2012-15 are as under:

Table 3.5: Details of loss of life and property due to conflict

Particulars		2012-13	2013-14	2014-15	Total
Human death	Wild elephants	50	52	31	133
	Other animals	5	13	15	33
Human injury		60	71	128	259
Crop damages		2,253	1,117	2,843	6,213
Property damages		132	94	172	398
Loss of livestock		100	132	137	369
Total		2,600	1,479	3,326	7,405

(Source: Details furnished by the Department)

- The total number of human deaths reported during the three year period 2012-15 was 166, which included 133 deaths due to elephants and the remaining deaths were attributed to other animals like tiger, leopard, wild boar, wild gaur, etc. The loss of human life due to other animals, during the three years 2012-15, had increased from five to 15. 24 deaths were reported due to attack by elephants and nine due to other animals during April 2015 to September 2015. Though the number of deaths due to other animals had increased, the Department neither proposed nor formulated any mitigation measures.
- The cases of human injury had increased sharply in 2014-15, as compared to 2012-13. Similarly, crop damages, property damages and loss of livestock had also increased during 2014-15.

Government replied (December 2015) that, despite implementation of various schemes, the conflict could not be controlled due to various reasons including shortage of frontline staff.

3.2.2.2 Loss of wildlife

Movement of wild animals out of the protected areas in search of food and water also leads to mortality of wild animals due to poaching, electrocution and accidents. The details of death of some wild animals are indicated below:

Table 3.6: Details of death of wild animals

Year	Elephants	Leopard	Tiger
	Unnatural	Unnatural	Unnatural
2012	2	0	0
2013	10	0	0
2014	7	1	3
2015 (upto March 2015)	4	0	0
Total	23	1	3

(Source: Details furnished by the Department)

Out of the total 23 cases of unnatural death of elephants reported in the State during 2012-15, 16 cases were due to electrocution, which included 10 cases reported in the four⁴⁷ test checked divisions. The unnatural death of leopard and tiger reported in three Divisions⁴⁸ was due to poaching/poisoning. Measures to create physical barriers, removal of invasive species and creation of food and water facilities inside the forest would not only mitigate the HAC but also save the wildlife.

Government agreed (December 2015) that the loss of animals was due to illegal tapping of electricity in the agricultural farm lands to prevent damage to agricultural crops, presence of invasive species, etc. It was also stated that necessary legal action was initiated against the land owners who illegally tapped electricity. As regards removal of invasive species, it was stated that a strategy for removal in a phased manner from area to area basis would be examined. However, despite the stated actions, loss of wildlife remained unabated and the Department could remove only four *per cent* of the assessed area of invasive species, as discussed in paragraph 3.2.6.3.

3.2.3 Planning

3.2.3.1 State Forest Policy

The National Forest Commission recommended (March 2006) framing of State Forest Policy for sustainable management of forest and wildlife resources in line with the National Forest Policy. Though FD prepared (October 2007) the draft policy and modified subsequently (September 2011 and December 2014), as directed by GoTN, the same was not finalised till the date of Audit. Failure to evolve State Forest Policy resulted in unfocused approach in the protection of forest and conservation of bio-diversity and genetic resources to reduce conflicts.

Government replied (December 2015) that the adopted objectives and strategies of forest management supported reduction of conflicts indirectly. It also assured that the State Forest Policy would be finalised.

⁴⁷ Coimbatore, Erode, Hosur and Sathymangalam.

⁴⁸ Gudalur, Kodaikanal and Sathyamangalam.

3.2.3.2 *Forest Working Plan*

National Working Plan Code, 2004, issued by Ministry of Environment and Forest, stipulated preparation of forest working plan for 10 year period for each forest Division to facilitate monitoring, evaluation and impact assessment of forest management practices. It also stipulated mid-term review of the working plan for assessment of progress and mid-course corrections. Based on the approved working plan, Divisions had to submit proposals every year to the PCCF for recommendation and sanction by GoTN. The approved working plan of the Divisions included various measures to address mitigation of HAC.

The measures planned for execution in the approved working plan and the proposals submitted every year to the PCCF in 10 selected Divisions are as detailed below:

Table 3.7: Measures planned for execution as per working plan and actual proposals

Measures	2012-13		2013-14		2014-15		Total	
	Plan	Proposal	Plan	Proposal	Plan	Proposal	Plan	Proposal
Creation of EPT (in km)	53.6	583.5	53.6	236	13.60	179	120.8	998.5
Creation of solar fencing (in km)*	189	89	189	0	24	0	402	89
Removal of invasive species (in ha)	100	2,870	100	1,406	160	600	360	4,876
Creation of water impounding structures (in numbers)	55	168	56	154	144	43	255	365
Creation of fodder (in ha)	190	1,465	190	1,186	225	485	605	3,136

(Source: Details furnished by the Department)

(*Despite inclusion in the working plan, the project was discontinued from 2012-13)

The HAC reduction measures, planned for execution in the approved working plan, did not correlate with the actual proposals submitted by Divisions every year to PCCF indicating absence of proper feasibility study in addressing the mitigation measures while preparing the working plan of the Divisions.

Government accepted (December 2015) that long term vision was not possible in reduction of HAC and could not be achieved in full. The proposals were made according to the past incidents occurred in the sensitive areas and action was being taken to include HAC mitigation measures in the present working plans, which were under preparation. However, the Department failed to initiate mid-term review/ revision of working plans on the basis of incidents in the respective Divisions for effective management of the conflicts, as stipulated in the Plan Code.

3.2.3.3 *Delay in notifying elephant corridors*

Elephants being migratory in nature, stick to their routes (corridors⁴⁹) between the seasonal ranges. Any intervention or interference in the corridors impacts their behaviour adversely leading to conflicts. Wildlife Trust of India identified (2005) 12 elephant corridors in the State of Tamil Nadu which was approved by FD. However, only one corridor (Sigur plateau) was notified (2010) on the basis of recommendations of the Expert Committee constituted by GoTN. Delay in notifying the other corridors resulted in inadequate

⁴⁹ A narrow strip of land with optimal tree cover that forms a conduit for elephant movement between habitats. This movement helps to enhance species survival and birth rate.

migratory passage to the elephants, paving way for conflict and loss of human life and property, as discussed in Paragraph 3.2.2.

Government stated (December 2015) that migratory passage involved in the notified corridor could not be acquired due to legal appeals against the orders. However, the fact remains that the other corridors were yet to be notified even after 10 years from their identification.

3.2.4 Allocation of funds

The details of funds allocated and expenditure incurred under various components by GoTN, to mitigate the HAC, during 2012-15 are given below:

Table 3.8: Details of allocation of funds and expenditure

Name of the component	2012-13			2013-14			2014-15		
	Allocation	Expenditure	Unutilised	Allocation	Expenditure	Unutilised	Allocation	Expenditure	Unutilised
Elephant depredation physical prevention barriers	12.83	12.70	0.13	35.08	31.57	3.51	8.53	7.61	0.92
Habitat Management	9.25	8.26	0.99	14.29	12.24	2.05	8.76	9.06	-0.30
Deployment of anti-depredation force	0.48	0.48	0.00	0.42	0.40	0.02	0.07	0.06	0.01
Compensation	3.49	3.21	0.28	2.81	2.76	0.06	4.98	4.93	0.05
Monkey Menace	2.20	0.49	1.71	1.71	1.00	0.71	0.67	0.52	0.15
Total	28.25	25.14	3.11	54.31	47.97	6.35	23.01	22.18	0.83

(Source: Details furnished by the Department)

FD failed to utilise ₹ 10.29 crore out of ₹ 105.57 crore (10 per cent) allocated for mitigation measures during 2012-15. This included GOI grant of ₹ 0.59 crore sanctioned for creation of EPT during 2014-15, which had lapsed due to expiry of 13th Finance Commission Plan Period (2010-11 to 2014-15).

In reply, the Department stated (December 2015) that the delay in release of funds had resulted in non-utilisation of sanction.

3.2.5 Programme Management

HAC existed in Tamil Nadu as early as 2001-02. Though FD commenced construction of physical barriers like EPT, solar fencing to restrict the wildlife within the forest area from 2001, HAC was identified as a perennial problem resulting in loss of human life and damage to property, in November 2010. GoTN decided to strengthen the existing physical barriers and also identified (August 2011) certain mitigation measures like anti-depredation activities, habitat management viz., creation of fodder and water facilities, to restrict the movement of elephants within the forest.

3.2.5.1 Creation of Elephant Proof Trench

The establishment of EPT was found to be effective in preventing the movement of elephants from the forest to farm lands and habitations. GoTN sanctioned and established EPTs for 1,435 km during 2012-15.

The requirement and sanction of EPTs in the 10 test checked Divisions are as follows:

Table 3.9: Details of proposals, sanction and execution of EPT

Year	Proposals (in km)	Sanction (in km)	Percentage sanctioned	Actual execution
2012-13	584	318	54	319
2013-14	286	469	164	430
2014-15	233	81	35	81
Total	1,103	868	79	830

(Source: Details furnished by the Department)

- During the period 2012-15, GoTN sanctioned 79 *per cent* of the requirement proposed. As against the proposal of 233 km during 2014-15 in nine Divisions, only 81 km of EPT (35 *per cent*) was sanctioned and established in six Divisions, despite increase in cases of human injury and crop damages.
- Though there were four cases of human injury and a human death, besides 30 cases of crop damages due to elephants, no proposal was made by Sathyamangalam Division.
- Though there were 24 conflict cases involving two human deaths due to elephants, no proposals were submitted and sanctioned in the O'valley Range under Gudalur Division.
- Despite increased number of conflicts during 2012-15, the sanction and execution of EPT was inadequate in the following Ranges of the test checked Divisions.

Division	Range	Proposed (in km)	Sanctioned and executed (in km)	Cases of HAC
Vellore	Sarangal	16	5	48 (crop damage)
Gudalur	Chrambadi	50	6	2 (human death), 11 (human injury) 6 (crop damage), 3 (property damage), Total - 22

Government replied (December 2015) that the proposal was restricted considering the availability of funds and man power for execution of works.

3.2.5.2 *Non-adherence to technical recommendations while establishing physical barrier*

PCCF constituted (April 2013) Technical Committee (TC) to suggest uniform type design for laying effective EPT with the objective of reducing the HAC. TC recommended (May 2013) for EPT with top width of three metre and height of two metre and the same was accepted.

- GoTN, based on the proposals (June 2013) of PCCF, accorded (July 2013) sanction for creation of 80 km of EPT in 11 Divisions⁵⁰ (including six⁵¹ test checked divisions) under Tamil Nadu Bio-diversity Conservation and Greening Project (TBGP) and incurred expenditure of ₹ 1.65 crore for laying of 75 km of EPT. Scrutiny of records revealed that, in three out of six test checked Divisions⁵², EPT works for 20 km were constructed at a cost of ₹ 52.20 lakh, with a top width of two metre, instead of the recommended type design of three metre top width, resulting in inadequate width of EPT to reduce the conflict cases.
- Though the Department had undertaken the maintenance of 140 km of existing EPTs for ₹ 33.88 lakh during 2013-14, the provision of increasing the width of EPT from the existing two to three metre was not included to enhance the effectiveness of the existing EPTs.

Government replied (December 2015) that the works were executed as per the sanction and approved works could not be changed. No reasons were furnished, for non-adherence to the recommendations of the Committee, for creation of effective EPTs.

3.2.6.1 *Short-allocation of funds for maintenance*

The maintenance of EPTs was required to ensure removal of silt formed in the EPTs due to rain, flood, etc. FD created EPT for a length of 510 km upto 2011-12 and 1,435 km during 2012-15. However, GoTN sanctioned ₹ 0.99 crore for maintenance of the created EPTs for a length of 437 km during 2012-14. This included maintenance of EPTs for 247 km in the 10 test checked Divisions as against the proposal of 930 km. Funds were not allocated for maintenance of EPTs for the year 2014-15, despite increase in the conflict cases.

Thus, inadequate sanction of funds for periodical maintenance, to remove the silt in the existing EPTs, resulted in ineffective physical barrier to prevent the movement of animals outside the forest area.

Government stated (December 2015) that the absence of periodical maintenance was mainly due to non-availability of funds.

⁵⁰ Coimbatore, Dharmapuri, Dindigul, Erode, Gudular, Hosur, Kodaikanal, Megamalai, Nilgiris (North), Srivilliputhur and Tirunelveli.

⁵¹ Coimbatore, Dharmapuri, Erode, Gudalur, Hosur and Kodaikanal.

⁵² Erode, Hosur and Kodaikanal.

3.2.6.2 *Delay in establishment of elephant rehabilitation and rescue centre*

GoTN proposed (July 2009) establishment of elephant rehabilitation and rescue centre in Reserve Forest at M.R. Palayam, Tiruchirappalli district in an area of 19.70 ha for ₹ 5.88 crore, to accommodate abandoned wild elephants besides old and sick captive elephants. GOI sanctioned (March 2010) ₹ 1.25 crore and released (March 2010) the first instalment of ₹ 90 lakh. FD incurred an expenditure of ₹ 34.06 lakh and the balance of ₹ 55.94 lakh was not utilised during 2010-11. FD completed some components such as elephant shelters, compound wall, etc. during 2012-13 and the total expenditure incurred was ₹ 90 lakh.

Scrutiny of records revealed that, after partial completion of the rescue centre, the site was inspected (September 2014) by PCCF, Chennai, who suggested constituting a Technical Committee to study the feasibility of making the centre operational considering the insufficient water availability in the area. However, no decision was taken for constitution of Technical Committee till the date of audit, which resulted in unfruitful expenditure of ₹ 90 lakh towards partial infrastructure created.

Government replied (December 2015) that the second instalment had since been released by GOI and the field officers were instructed to complete the balance work urgently.

3.2.6.3 *Habitat Management*

Habitat Management is one of the most important conflict mitigation measures implemented by the FD, which included removal of invasive species, planting of fodder species, augmentation of water for the animals, etc.

Insufficient removal of invasive species

The Department assessed (December 2011) the area of occupation of invasive species in the forest of the State as one lakh ha. As against this, invasive species in 3,715 ha was removed till March 2015, leading to removal of only four *per cent* of the assessed invasive species available in the forest area. Despite assessment, the Department did not propose revision of the Forest Working Plan to address the issue.

The Department reported death of 304 elephants during 2012-15 due to natural causes. However, Dharmapuri Division highlighted the cause of natural death of many elephants due to their eating of pods of prosopis (exotic variety of plants) during summer.

Non-achievement of the objective of improvement of the habitat for restricting the movement of wildlife and augmenting fodder availability resulted in movement of elephants outside the forest area, besides loss of wildlife.

Government replied (December 2015) that an Expert Committee comprising of Chief Conservators of Forest and District Forest Officers was formed to study the strategy for removal of invasive species in sustained manner as per ecological condition and the removal would be undertaken on area to area basis, in a phased manner.

Water resources

A severe ordeal arises for wildlife during peak summer months when there is acute water scarcity. GoTN created water impounding structures like check dam, percolation pond, water hole and water troughs at an expenditure of ₹ 17.14 crore in the forest area during 2012-15.

However, the requirement of water impounding structures was not adequately sanctioned in the 10 test checked Divisions as detailed below:

Table 3.10: Details of sanction against proposal for water resources

Year	No. of proposals submitted	Sanctioned (in numbers)	Percentage sanctioned	Actual achievement (in numbers)
2012-13	168	64	38	64
2013-14	154	34	22	34
2014-15	43	35	81	33
Total	365	133	36	131

(Source: Details furnished by the Department)

Though the test checked Divisions submitted proposal for creation of 365 water resources, the Department sanctioned only 133 (36 *per cent*) water resources. Despite sanction of less number of water resources, the Divisions failed to complete all the water resources.

It was noticed that Sathyamangalam Division had 35 major and 90 smaller ponds, 246 check dams, 219 percolation ponds, 17 wells and 76 borewells constructed prior to 2008-09, which required desilting to augment water. In Coimbatore Division, the requirement of funds for the improvement and development of existing water holes was proposed as ₹ five lakh per annum. However, no funds were sanctioned for maintenance of the existing water resources.

Government, while accepting the audit observation, stated (December 2015) that the proposals were restricted due to non-availability of funds.

3.2.6.4 Deployment of Anti-depredation force

Anti-depredation forces, consisting of elephant trackers and anti-depredation watchers, selected locally among the respective forest tribes, were engaged to prevent wild animals from moving out of reserve forest area to human habitations. PCCF proposed (December 2010) to engage three professional tribal elephant trackers per herd for monitoring the movement of elephants. It was also proposed to form anti-depredation squad of 10 trained, skilled watchers to prevent depredation.

As against the requirement of ₹ 4.85 crore for anti-depredation activities in 10 test checked Divisions, GoTN sanctioned only ₹ 0.53 crore (11 *per cent*) for these activities during 2012-15. Non-sanction of sufficient anti-depredation squads impacted the restriction of conflicts and loss of human life.

Government stated (December 2015) that more allocation of funds would be considered for this mitigation measure in future.

3.2.6.5 *Farmer Support Services*

The farmers living and cultivating in the fringe area of forests were the most affected persons due to straying of elephants outside the forest area. GoTN initiated Farmer Support Service to create awareness on cropping pattern and to form forest committees with participation of villagers. Though GoTN accorded (August 2011) Administrative Sanction for ₹ 35.75 lakh under the scheme Asian Elephant Depredation and its Mitigation measures, it did not allocate any funds till March 2015. Thus, failure to allocate funds for Farmer Support Service resulted in non-achievement of objective of creation of awareness among farmers and non-formation of forest committees to mitigate HAC.

3.2.6.6 *Payment of Compensation*

Compensation was paid by the Government as a relief to the human beings, for death and injury due to attack by wild animals and also for the damages to their crop, properties and livestock, to win the confidence of people. The details of compensation claims admitted and paid and pending settlement, during the period from 2012-13 to 2014-15, are given below:

Table 3.11: Details of payment of compensation

Particulars	2012-13		2013-14		2014-15		Total		Pending settlement	
	No. of cases	Amount (₹ in lakh)	No. of cases	Amount (₹ in lakh)	No. of cases	Amount (₹ in lakh)	No. of cases	Amount (₹ in lakh)	No. of cases	Amount (₹ in lakh)
Human Death	53	122.13	50	141.00	66	186.62	169	449.75	13	35.25
Human Injury	60	11.50	71	13.14	128	28.69	259	53.33	21	4.6
Crop Damages	2,253	173.45	1,117	109.64	2,843	255.44	6,213	538.53	310	21.52
Property Damages	132	7.11	94	7.31	172	15.70	398	30.12	13	1.27
Live stock Damages	100	7.05	132	5.31	137	7.06	369	19.42	4	0.10
Total	2,598	321.24	1,464	276.40	3,346	493.51	7,408	1,091.15	361	62.74

(Source: Details furnished by the Department)

Scrutiny of records revealed that the Department maintained details of compensation claims admitted. Out of the admitted claims, 361 cases of compensation claims were pending as on 31 March 2015. The reasons for pendency in settlement of compensation claims were delay in receipt of supporting documents like death certificate, legal heir certificate, etc., and non-availability of funds. Of these pending cases, 13 cases related to human death which included two cases pending over three years from the date of death. Of the 361 cases, 209 cases (58 per cent) were pending in Dharmapuri Circle alone. Thus, delayed settlement of compensation claims resulted in non-achievement of the objective of creation of confidence among the people on the conservation of wildlife.

Government replied (December 2015) that compensation claims would be settled early.

3.2.6.7 Curbing monkey menace

FD proposed (October 2012) establishment of a nodal centre and 10 cluster rehabilitation centres at an expenditure of ₹ 4.23 crore. GoTN accorded (January 2013) Administrative Sanction of ₹ 2.20 crore for establishment of nodal centre at Vandalur and 10⁵³ cluster rehabilitation centres. Against this, expenditure of ₹ 2.01 crore was incurred upto 2014-15 for creation of animal houses in the 10 centres, hiring of vehicles, medical equipments, etc. Despite incurring expenditure of ₹ 2.01 crore towards creation of infrastructure, the rehabilitation centres were pending completion (August 2015), for reasons not on record.

Government stated (December 2015) that revalidation orders for procurement of equipments and medicines would be issued shortly.

3.2.7 Encroachment of Reserve Forest

Section 68 A of the Tamil Nadu Forest Act, 1882 stipulated that any person occupying any land in reserved forest or any land at the disposal of Government without any authority may be summarily evicted by an officer of the FD after 15 days notice. Further, GOI instructed (May 2002) all States to frame a time bound programme for eviction of the encroachers from the forest lands. The details of area of encroachment in the Reserve forest, new encroachment, encroachment evicted and area yet to be evicted during the period 2012-15 are as follows:

Table 3.12: Details of encroachment of forest area

(Area in ha)

Year	Opening Balance	Fresh encroachment	Eviction	Closing Balance
2012	15,374.403	2.110	181.957	15,194.556
2013	15,194.556	7.778	62.564	15,139.770
2014	15,139.770	173.647	49.664	15,263.753
2015 (Upto 30 June 2015)	15,263.753	65.088	3.426	15,325.415
	Total	248.623	297.611	

(Source: Details furnished by the Department)

As of June 2015, 15,325 ha of forest land was under encroachment. The extent of encroachment in terms of area remained at the same level during 2012-15 since the FD could evict only two *per cent* of the total encroached area during 2012-15. FD not only failed to evict the existing encroachment but also allowed new encroachment during 2012-15, resulting in non-restoration of fragmented elephant corridors.

Government replied (December 2015) that 8,629 ha of the encroachment was in the forest tribal area. Forest Rights Committee had been formed and action was being pursued through Tribal Welfare Department on the same. In respect of encroachment by others, consistent efforts were being made for eviction with the assistance of Revenue and Police Departments. However, despite the efforts, the area encroached by others continued to be constant.

⁵³ Coimbatore, Erode, Kanyakumari, Madurai, Ooty, Ramanathapuram, Salem, Tirunelveli, Tiruchirappalli and Vellore.

3.2.8 Monitoring

Monitoring and evaluation of the mitigation measures helps to watch the progress of the implementation of schemes by the Department. In addition to the mitigation measures undertaken, the frontline staff of the Department *viz.*, Range Officers, Foresters, Forest Guards also contribute for its effective implementation.

- Scrutiny of records revealed that on an average 29 *per cent* of these posts were vacant as of March 2015. The vacancy position of each post was at 35, 23 and 28 *per cent*, in the cadre of Range Officer, Forester and Forest Guard respectively. Large scale vacancies also impacted the effective implementation of mitigation measures.
- GoTN re-constituted (November 2013) the State Board for Wildlife to advise the State Government in formulation of policy for protection and conservation of the wildlife and for harmonising the needs of the tribal and other dwellers of the forests. Rule 4 (1) of Tamil Nadu State Board for Wildlife, 2014 envisaged that the State Board for Wildlife shall meet twice in a year. In the only Board meeting held in September 2014, identification and provision of corridors in high conflict areas, constitution of anti-depredation squad, and creation of corpus fund for managing emergency situations in respect of HAC was emphasised. However, the recommendations of the meeting were neither implemented by the Department nor ever reviewed by the Board.

3.2.9 Conclusion

The intended objective of the Department to mitigate the Human-Animal Conflict is yet to be achieved due to absence of proper planning in framing of State Forest Policy and notifying the identified corridors. There was insufficient allocation for certain mitigation measures and also failure by FD to fully utilise the funds. Inadequate creation of physical barriers, absence of periodical maintenance of the created barriers, failure to remove the invasive species and to create fodder and water requirement of wild animals led to increased conflict cases and loss of wild animals. Mitigation measures were confined to elephants despite increase in loss of human life and property due to other animals. Large scale vacancies in the frontline staff and non-conducting of periodical meetings of State Board for Wildlife also had an adverse impact in implementation of HAC in the State.

3.3 Unfruitful expenditure

ENVIRONMENT AND FORESTS DEPARTMENT

3.3.1 Improper planning resulting in unfruitful expenditure

Failure to ensure the availability of funds, before the commencement of Night Safari project, had resulted in unfruitful expenditure of ₹ 6.42 crore.

Government of Tamil Nadu (GoTN) decided (March 2007) to establish Night Safari⁵⁴ (NS) at the Arignar Anna Zoological Park, Vandalur (AAZP), a reserve forest area, to attract domestic and foreign tourists and to provide an unique and educative experience, besides entertainment. The work of preparation of Detailed Project Report (DPR) for NS was entrusted (April 2007) to the retired Director of AAZP (consultancy charges ₹ 10 lakh) after considering the exorbitant⁵⁵ rates quoted by the foreign consultants. DPR envisaged establishment of Entertainment zone⁵⁶ on Build, Operate and Transfer (BOT) basis, a Safari zone to accommodate mammals, birds and reptiles in 42 enclosures, at a cost of ₹ 256 crore and for completion of the project within two years. The DPR forwarded (June 2007) to Central Zoo Authority, New Delhi (CZA) was approved (07 December 2007) intimating availability of 100 *per cent* Government of India (GOI) assistance for creation of animal enclosures and 50 *per cent* for drainage facilities.

Before approval of the DPR, GoTN proposed⁵⁷ (04 December 2007) to meet ₹ 125 crore of the project cost, from the contributions of State Government (₹ 25 crore), GOI (₹ 40 crore) and private investments⁵⁸ (₹ 60 crore). GoTN sanctioned ₹ five crore for preliminary works⁵⁹, including ₹ 0.25 crore for raising of nursery. During the review meeting⁶⁰ (September 2008), it was decided that mobilisation of funds through BOT basis was not viable since action of leasing out of Reserved Forest area to private parties did not conform with the existing Forest Conservation Act. Finance Secretary emphasised that State funds would be released after receipt of financial commitment from CZA. Department, however, reworked (October 2008) the funds requirement for NS as ₹ 156.33 crore and funding pattern was revised with enhanced GOI share as ₹ 83.90 crore and GoTN share as ₹ 72.43 crore. While refusing

⁵⁴ Safaris are specialised zoos where the captive animals are housed in any large naturalistic enclosures.

⁵⁵ Bernard Harrison and Friends Limited, Singapore – US \$ 1,60,000 and HKS designer and consultant International Company Limited, Bangkok – 10 *per cent* to 16 *per cent* of the total project value.

⁵⁶ Amphi-theatre, Plaza, Souvenir shops, Musical fountains, Interpretation centres, staying facilities, various types of food courts, etc.

⁵⁷ G.O. Ms. No. 134, Environment and Forests Department dated 4 December 2007.

⁵⁸ Private parties were required to pay upfront payment along with annual lease rent for utilisation of forest land.

⁵⁹ Survey and clearing of jungle growth, construction of compound wall, formation of roads and drainage, raising nursery, digging bore wells and water harvesting structures, water supply lines, etc.

⁶⁰ Review meeting for the establishment of NS was attended by Secretary of Finance Department, Secretary to Environment and Forest Department and Principal Chief Conservator of Forests.

(December 2008) to provide financial commitment of ₹ 83.90 crore citing paucity of funds, CZA, agreed to release financial assistance for those animal species in excess of carry capacity in the existing zoo. Accordingly, CZA released ₹ 2.79 crore (upto November 2010) for construction of six animal enclosures. Department, citing paucity of funds, reduced (August 2010) the project cost to ₹ 82.02 crore and requested (October 2010) the GoTN for sanction of funds. The request of the AAZP for release of funds was rejected (July 2011) by GoTN and the project was abandoned, without recording any reasons thereof.

Meanwhile, AAZP invited (December 2008) tenders for various works⁶¹ and these works were awarded to contractors. AAZP had incurred ₹ 7.79 crore⁶² for the project which included ₹ 1.73 crore for raising nursery.

Scrutiny of records revealed the following:

- The project proposed for ₹ 256 crore was revised twice and finally, reduced to ₹ 82.02 crore. Despite reduction in the project cost, GOI funding was enhanced from ₹ 40 crore to ₹ 83.90 crore, without considering the norms for release of GOI funding.
- Finance Department emphasised (September 2008) that State Funds would be made available only after receipt of financial commitment from CZA. However, AAZP incurred an expenditure of ₹ 6.13 crore⁶³ during 2009-12, without considering the inability expressed by CZA for providing financial commitment.
- As against the sanction of ₹ 0.25 crore for raising of nursery, AAZP incurred ₹ 1.73 crore resulting in diversion of ₹ 1.48 crore, sanctioned for other components, without specific orders from GoTN.
- Six enclosures constructed utilising GOI funds for ₹ 2.79 crore and other infrastructural facilities such as roads, compound wall, bore wells, created using ₹ 2.79 crore of State funds, remained unutilised for about four years.

Thus, submission of the proposal of Night Safari project by the AAZP, without ascertaining the funding pattern from CZA and commencement and execution of work without sufficient funds, had resulted in unfruitful expenditure of ₹ 6.42 crore for creation of infrastructure except compound wall, besides non-establishment of NS.

⁶¹ Construction of compound wall, formation of circular road and enclosures for tigers and elephants.

⁶² ₹ 7.79 crore (GOI share ₹ 2.79 crore and GoTN share ₹ 5.00 crore) spent during 2007-12 for (i) construction of compound wall - ₹ 1.37 crore; (ii) formation of roads, drainage - ₹ 0.74 crore; (iii) raising nursery and planting - ₹ 1.73 crore; (iv) digging of bore wells - ₹ 0.68 crore; (v) creation of animal enclosures - ₹ 2.79 crore and (vi) miscellaneous expenditure - ₹ 0.48 crore.

⁶³ 2009-10 - ₹ 4.52 crore; 2010-11 - ₹ 1.31 crore; 2011-12 - ₹ 0.30 crore.

Government did not furnish specific replies to the audit comments and stated (August 2015) that the infrastructure created was being utilised for Advanced Institute for Wildlife Conservation (Research, Training and Education). The reply is not acceptable as the infrastructure created such as animal enclosures and roads had become unusable as of now. The utilisation of the other infrastructure created for the Advanced Institute, scheduled to be operational in 2021-22, could not be ensured.

3.4 Avoidable expenditure

HIGHWAYS AND MINOR PORTS DEPARTMENT

3.4.1 Undue benefit to contractor

Incorrect foreclosure of work resulted in avoidable expenditure of ₹ 1.95 crore, besides additional expenditure of ₹ 4.00 crore due to non-enforcement of defect liability clause and blocking of funds of ₹ 3.86 crore on account of non-utilisation of acquired land.

Government of Tamil Nadu (GoTN) administratively sanctioned ₹ 10 crore (September 2004)⁶⁴ for widening⁶⁵ of Medavakkam - Sholinganallur Road (MSR) to cater to heavy movement of vehicles. Technical Sanction for the work was accorded (December 2004) by Chief Engineer (CE) (General), which included provision for shifting of utilities. Specification report accompanying the estimate indicated the availability of land for the entire stretch and, hence, no land acquisition (LA) was considered.

Highways Department (HD) invited tenders and the work was awarded (May 2005) to the lowest tenderer for ₹ 8.53 crore, with contract period of one year. The site was handed over to the contractor and work commenced (June 2005). The contractor intimated (July 2005) that there were obstructions in a portion of the stretch and HD requested (July 2006) Revenue Department for demarcation of Highways land. After demarcation, the requirement of LA was assessed and HD forwarded (May 2007) the proposal for acquisition of 20,304 sq ft of private land. The contractor, after completing 65 per cent of work for ₹ 5.52 crore, requested (January 2008) for foreclosure of work citing delay in LA and shifting of utilities. The contract was foreclosed in March 2008.

HD, before completing the LA process, invited (April 2008) tenders for completion of balance work of ₹ 3.01 crore and awarded (July 2008) the work to the lowest tenderer for ₹ 5.98 crore (with tender premium of ₹ 2.97 crore) for completion in one year. The second contractor executed works for ₹ 3.94 crore⁶⁶ (including tender premium of ₹ 1.95 crore) and stated (July 2010) that the balance works⁶⁷ could be completed only after LA. Work completion

⁶⁴ G.O.Ms.No.264, Highways and Minor Ports Department, dated 23 September 2004.

⁶⁵ Widening to four lane and strengthening of Medavakkam-Sholinganallur Road km 0/0 – 4/6.

⁶⁶ Value of work executed by second contractor was ₹ 3.94 crore; payment for bills of quantity - ₹ 1.99 crore; payment of tender premium at 98.45 per cent of ₹ 1.99 crore = ₹ 1.95 crore.

⁶⁷ Road work – (i) 0/825 – 0/900 (LHS) for 75 m widening; (ii) 1/450 – 1/650 (LHS) for 200 m widening; Drain work - 0/800-0/900 RHS, for a length of 100 m.

(24 August 2010) certificate was issued (September 2010) to the second contractor under the orders of CE, Metro. This indicated that the foreclosure of the first contractor was not correct since the second contractor had executed works without completion of LA.

The stretch (MSR) was transferred to City Roads Division, Chennai for regular maintenance, with intimation about the availability of defect liability clause of the contract for a period of 36 months, wherein rectification of defects in the work was required to be carried out at the cost of the contractor. However, Department sanctioned and incurred ₹ 4.00 crore⁶⁸ towards temporary restoration and special repair works for the same stretch during the defect liability period. (December 2011 to 16 August 2013) As such, expenditure of ₹ 4.00 crore towards special repairs and temporary restoration was irregular and resulted in undue financial benefit to the contractor.

In the meantime, GoTN approved (April 2010) the acquisition of land and accorded (September 2010) Revised Administrative Sanction⁶⁹ for ₹ 14.36 crore. Divisional Engineer, Chennai Metro remitted (March 2011) ₹ 3.86 crore to Revenue Department for LA. Though the land was taken over (July 2012) by Chennai Metro Division, City Roads Division was not intimated regarding the acquisition of private land, indicating absence of co-ordination between Divisions of HD. No work was also executed in the acquired land till the date of audit (July 2015).

Though the Department indicated the availability of land for widening in the estimate of the work, initiation of LA process indicated absence of information on Right of Way and inadequate survey regarding the availability of land.

Thus, inadequate survey regarding the availability of land for widening the road and incorrect foreclosure resulted in avoidable expenditure of ₹ 1.96 crore, besides additional expenditure of ₹ 4.00 crore due to non-enforcement of defect liability clause and blocking of funds of ₹ 3.86 crore on account of non-utilisation of acquired land.

Government stated (November 2015) that the condition of the road necessitated award of the balance work to the second contractor. Special repair works were carried out by the subsequent contractors only on the works executed by the first contractor, for which defects liability period had concluded. The reply is not acceptable as the first contractor could have executed the works in the available stretch, which were, completed by the second contractor. The second contractor executed the balance works and laying of wearing course for the entire stretch. Hence, non-operation of defect liability period on the second contractor is not in order.

⁶⁸ (i) Temporary restoration km 1/6-2/6- ₹ 0.25 crore and km 0/0-1/6 - ₹ 0.24 crore.
(ii) Special repairs Km 0/0-1/2 - ₹ 1.58 crore and km 1/2-2/4 - ₹ 1.60 crore.
(iii) Improvements at km 4/215-4/460 - ₹ 0.33 crore.

⁶⁹ G.O. (2D) No.8, Highways and Minor Ports Department, dated 20 September 2010.

PUBLIC WORKS DEPARTMENT**3.4.2 Avoidable expenditure in formation of bund embankment****Formation of bund embankment in Middle Paravanar River utilising excess quantity of earth resulted in avoidable expenditure of ₹ 3.48 crore.**

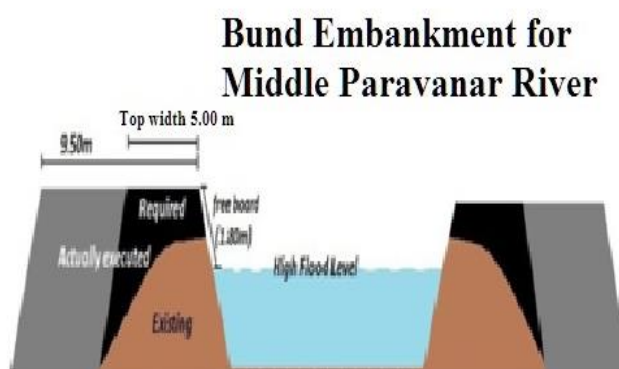
Government of Tamil Nadu (GoTN) accorded⁷⁰ (November 2010) Administrative Sanction to carry out flood protection works (six packages) in various rivers in Cuddalore District at an estimated cost of ₹ 68.41 crore, which included the “Formation of flood bank and improving drainage facilities to Middle Paravanar River for ₹ 6.80 crore”. Chief Engineer, Public Works Department, Water Resources Department, Chennai Region (CE) accorded (November 2010) Technical Sanction for the estimate of the work for ₹ 6.80 crore. The objective of the scheme was to ensure carriage of maximum discharge safely into the sea and to prevent flood havoc and flood damage to village roads, agriculture produce and livestock. The work was awarded (January 2011) by Special Project Division, Cuddalore to the lowest tenderer for ₹ 6.88 crore. The agreement was entered (February 2011) into with the contractor for completion of work within 12 months. The work was completed (March 2012) after incurring an expenditure of ₹ 6.58 crore.

According to Paras 4.3.2 and 4.4.1 of guidelines for Planning and Design of River embankments (IS 12094:2000) issued by Bureau of Indian Standards, the design of the embankment determined based on High Flood Level (HFL), required minimum free board of 1.50 m over HFL for rivers with design discharge upto 3,000 cu m per second and 5.00 m of top width.

Scrutiny of records revealed that though the maximum discharge of the River Middle Paravanar was 303 cu m per second, report accompanying the estimate provided for free board of 1.80 m over HFL and top width of 5.00 m as per IS 12094:2000. The earth required for formation of bund was approved for transportation from borrow areas⁷¹, on payment of lead charges for one km and tenders were finalised accordingly. However, the requirement of earth for the bund was erroneously calculated as 11,27,150 cu m in accordance with the desilting area in the detailed estimates, as against the actual requirement of

4,47,070 cu m for top width of 5.00 m, which was approved by the CE. Department formed the bund, utilising the desilted earth instead of transportation from borrow areas.

The bund was formed with top width of 5.50 m to 9.00 m utilising the desilted earth of



⁷⁰ G.O. Ms. No. 326 Public Works Department dated 10 November 2010.

⁷¹ The area from which additional earth required for formation of embankment are procured.

11,03,323 cu m and the contractor was paid ₹ 5.86 crore, including lead charges. The excess formation of bund had resulted in excess utilisation of earth of 6,56,254 cu m and avoidable excess expenditure of ₹ 3.48 crore⁷². Though the agreement did not provide for utilisation of desilted earth, the same was utilised for bund formation and the contractor was paid lead charges of ₹ 0.62⁷³ crore for the desilted earth, which resulted in undue benefit to the contractor.

It was also noticed that two packages⁷⁴ of flood protection works, administratively sanctioned in the same Government Order and Technical Sanction accorded by the same CE were executed in the Vellar Basin Division, Vriddhachalam adopting the norms prescribed in IS 12094:2000 with the free board of 1.50 m over HFL and top width of 5.00 m.

Thus, erroneous adoption of quantity of earth required and utilisation of the same in the formation of bund embankment had resulted in formation of bund with excess width on both the sides of the river and avoidable excess expenditure of ₹ 3.48 crore, besides undue benefit to the contractor towards lead charges.

Government replied (September 2015) that the work was executed with higher width as per the existing site conditions to protect the adjacent ayacut lands during high flood season. The reply is not acceptable as the bund with top width of more than 5.00 m was not in consonance with the design discharge of the river and only the free board above HFL would reduce the flood damage to adjacent lands and not the width of the bund.

AGRICULTURE DEPARTMENT

3.4.3 Non-utilisation of the revolving fund

Non-utilisation of the revolving fund resulted in non-achievement of the objective of timely supply of inputs to farmers, besides additional burden of ₹ 1.33 crore to Government.

Commissioner of Horticulture and Plantation Crops, Chennai (CHPC), stressing the importance of timely availability of seeds and water soluble fertilisers for all three major seasons⁷⁵ for better productivity of agriculture and horticulture crops, proposed (May 2013) creation of Special Purpose Vehicle (SPV) and requested Government of Tamil Nadu (GoTN), for sanction of ₹ 112.49 crore. The proposal was considered by the Departments

⁷² 11,03,323 cu m – 4,47,070 cu m = 6,56,253 cu m x ₹ 53.10 per cu m = ₹ 3,48,47,034.

⁷³ 11,03,323 cu m x ₹ 5.60 per cu m.

⁷⁴ (i) Formation of flood bank and improving drainage facilities to Gadilam River from Kamatchipettai Village to Naduveerapattu village in Cuddalore district.
(ii) Formation of flood bank on the South Malattar River from Arasur village to confluence point with Gadilam River in Panruti Taluk of Cuddalore district.

⁷⁵ Kar/Kuruvai/Sornavari (April to July), Samba/Thaladi/Pishanam (August to November) and Navarai/ Kodai (December to March).

of Government who recommended creation of a revolving fund⁷⁶, to overcome the delay in allocation of funds for various schemes due to passing vote on account, receipt of proposals from the Departments and issue of Government orders for release of funds. GoTN sanctioned (November 2013)⁷⁷ an interest free amount of ₹ 50 crore as the revolving fund for the procurement of liquid fertilisers and seeds. It nominated Tamil Nadu Horticulture Development Agency (TANHODA) as the SPV to establish the modalities of operation as per the existing rules of TANHODA. The amount of ₹ 50 crore was drawn (March 2014) by CHPC and disbursed to TANHODA. TANHODA deposited (April 2014) the amount in savings bank account.

Scrutiny of records revealed that the modalities of disbursement of funds for timely procurement of agricultural inputs, utilising the revolving fund and their subsequent recoupment, were yet to be finalised (June 2015) by TANHODA. The revolving fund, received in April 2014, was not utilised (August 2015) for procurement of inputs despite receipt of requests from the Departments as illustrated below:

- Director of Agriculture (DoA) submitted proposals (May, July and September 2014) to Government for procurement of water soluble fertilisers for ₹ 21.83 crore during 2014-15 for supply under various⁷⁸ schemes. As the proposals were under active consideration of the Government, DoA requested (September 2014) TANHODA to release the funds from the revolving fund for timely completion of the procurement. However, the request of the DoA was not considered by TANHODA, the reasons for which were not on record.
- The requirement of inputs for Agriculture and Horticulture Departments for the year 2014-15 was assessed by TANHODA as ₹ 25.10 crore. However, these inputs were not procured utilising the revolving fund. The requirement of inputs for the year 2015-16 was yet to be assessed (June 2015) by TANHODA.
- The proposals of DoA (June 2014) for payment of dues to farmers for procurement of certified/foundation seeds on credit basis, by utilising the revolving fund were also not considered by TANHODA and the dues were settled after obtaining the orders of Government in August 2014.
- Non-utilisation of the revolving fund of ₹ 50 crore and its retention in the Savings bank account resulted in burdening the State exchequer by way of loss of interest of ₹ 1.33 crore (**Annexure - 3**), being the difference between the interest earned and the average rate of open market borrowings as the GoTN had resorted to borrowing of ₹ 20,749 crore during 2013-14 and ₹ 25,550 crore during 2014-15.

⁷⁶ A Revolving Fund is a fund or account that remains available to finance an organisation's continuing operations without any fiscal year limitation, because the organisation replenishes the fund by repaying money used from the account.

⁷⁷ G.O. Ms. No.227 Agriculture (H1) Department dated 14 November 2013.

⁷⁸ Sustainable Sugarcane Initiative in sugarcane - ₹ 13.05 crore; Precision farming ₹ 0.48 crore; Cotton cultivation mission - ₹ 6.76 crore; Promoting redgram cultivation under NADP - ₹ 1.54 crore.

Thus, the failure to finalise the modalities for operation of the revolving fund and its consequent non-utilisation had resulted in non-achievement of the objective of timely availability of inputs for the three major seasons, even after 17 months from the release of ₹ 50 crore by Government, besides loss of interest of ₹ 1.33 crore.

Government replied (September 2015) that after the receipt of the revolving fund, scheme funds were released from Government at appropriate time and hence, the utilisation of revolving fund was not necessitated. However, the scheme funds were released only during August/September 2014 in the cases illustrated and the revolving fund was created for supply of inputs during April to July every year.

HIGHWAYS AND MINOR PORTS DEPARTMENT

3.4.4 Avoidable expenditure due to non-adherence to instructions

Execution of improvement works in violation of Thirteenth Finance Commission recommendations resulted in irregular utilisation of Government of India grants, besides avoidable expenditure of ₹ 1.18 crore due to non-adherence to Departmental instructions.

Ministry of Road Transport and Highways, in the Report of the Committee on norms for Maintenance of Roads in India, classified the maintenance activities of the roads into four heads, viz., (i) Ordinary Repairs⁷⁹ (ii) Periodical Renewals⁸⁰ (iii) Special Repairs⁸¹ and (iv) Emergent Repairs⁸². The Twelfth Finance Commission, recognising the importance of proper maintenance of roads, for the first time recommended and provided specific grants-in-aid to the States for maintenance of roads and bridges. The Thirteenth Finance Commission (TFC), while recommending continuation of grants-in-aid for maintenance of roads and bridges, restricted the grants-in-aid to Ordinary Repairs. The grants-in-aid were in addition to the States' own budget provisions for maintenance of roads and subject to incurring appropriate level of Non-Plan revenue expenditure by the State Governments from its own resources.

Based on the recommendations of the TFC, Government of India (GOI) released ₹ 1,359 crore⁸³ as grants-in-aid for maintenance of roads and bridges during 2011-14. Government of Tamil Nadu apportioned and allocated ₹ 853.90 crore for Highways Department (HD) through the Budget and the balance to Rural Development and Panchayat Raj Department. Grants-in-aid of ₹ 71.30 crore out of ₹ 853.90 crore⁸⁴ were assigned, during 2011-14, to

⁷⁹ Ordinary Repairs involve routine maintenance such as patch repairs, crack sealing, roadside drainage, painting of highway signs, etc.

⁸⁰ Periodical Renewals involve provision of renewal coat to the wearing surface at a predetermined frequency with the help of mechanised equipments.

⁸¹ Special Repairs involve urgent works of original nature, such as, minor improvement to curves, improvement to visibility, etc.

⁸² Emergent Repairs involve repairs to roads affected by heavy rains/flood, cyclone, landslides, etc.

⁸³ 2011-12 - ₹ 428 crore; 2012-13 - ₹ 453 crore; 2013-14 - ₹ 478 crore.

⁸⁴ 2011-12 - ₹ 275 crore; 2012-13 - ₹ 260.23 crore; 2013-14 - ₹ 318.67 crore.

three test checked Divisions⁸⁵ of HD. Scrutiny of records revealed that, in violation of the recommendations of TFC restricting the grants-in-aid only to ordinary repairs, the Divisional Officers of HD accorded Technical Sanction for execution of 214 works for ₹ 65.97 crore (**Annexure - 4**). Out of this, expenditure of ₹ 2.62 crore was incurred towards Ordinary Repairs and the remaining expenditure of ₹ 63.34 crore was incurred on Periodical Renewals, Special Repairs and Improvements to the existing roads.

Further scrutiny of records revealed that Section 507.1 of Ministry of Road Transport and Highways specifications for Road and Bridge works (Fifth Revision) (MORTH) prescribes that Bituminous Concrete (BC) has to be used as a wearing and profile corrective course on a previously prepared bituminous bound surface (Dense Bituminous Macadam (DBM) or Bituminous Macadam (BM)). It further provides⁸⁶ that Close Grade Premix Carpet (CGPC) surfacing consists of preparation, laying and compaction of 20 mm thickness composed of graded aggregates premixed with a bituminous binder on a previously prepared surface (tack coat) to serve as a wearing course.

CE also instructed⁸⁷ (May 2012) the Divisional Engineers to adopt CGPC for wearing surface of the Other District Road (ODR) works having traffic volume upto three million standard axles (msa).

However, two⁸⁸ Divisions of HD executed, during 2013-14, 21 ODR works of laying BC as a wearing course on non-bituminous bound surface, in contravention of MORTH guidelines, resulting in sub-standard works. Since the traffic volume in all the 21 works was less than three msa, laying of expensive BC instead of CGPC, as instructed by CE, had resulted in avoidable extra expenditure of ₹ 1.18 crore.

Thus, irregular utilisation of Government of India grants-in-aid of ₹ 63.34 crore for improvement works in contravention of recommendations of TFC and non-adherence to Departmental instructions, resulted in avoidable extra expenditure of ₹ 1.18 crore besides execution of sub-standard works in violation of MORTH specifications.

Government stated (November 2015) that various roads, which were not maintained for five to ten years due to financial constraints, were required to be rebuilt instead of merely providing patch works. These roads were improved utilising the grants for increasing the life period of the roads and to achieve better riding quality for free flow of traffic. The reply is not acceptable as diversion of funds sanctioned for maintenance towards rebuilding the roads, in contravention of guidelines, resulted in absence of routine maintenance of roads to ensure safety to the road users. In respect of non-adherence to Departmental instructions, reply of the Government was awaited (December 2015).

⁸⁵ Dharapuram, Namakkal and Tiruvallur.

⁸⁶ Clause 508.1.1 of MORTH.

⁸⁷ Chief Engineer (Highways), C&M, Circular memo No.6596/Roads and Bridges/2012 dated 14 May 2012 and 17 May 2012.

⁸⁸ Dharapuram and Namakkal.

HIGHWAYS AND MINOR PORTS DEPARTMENT

3.4.5 Avoidable expenditure due to non-adherence to guidelines

Non-adherence to guidelines and utilisation of expensive low viscosity paving bitumen as binder for laying tack coat in road works, resulted in avoidable expenditure of ₹ 1.05 crore.

Indian Road Congress (IRC) specification 16: 2008 prescribed usage of either cationic bitumen emulsion⁸⁹ or low viscosity paving bitumen⁹⁰ as binder for laying tack coat⁹¹ in road works. The Chief Engineer (Construction & Maintenance), Chennai (CE) submitted (April 2012) a proposal for execution of road works under Comprehensive Road Infrastructure Development Programme (CRIDP) for the year 2012-13 to the Government of Tamil Nadu (GoTN). CE also issued (May 2012) circular instructions, communicating the guidelines for preparation of estimates for execution of works under CRIDP and stipulated the use of cationic bitumen emulsion as binder for laying tack coat. Usage of low viscosity paving bitumen was expensive as it required excess quantity of one kg⁹² of bitumen for laying of tack coat for every 10 sq m as compared to bitumen emulsion.

Based on the proposals of CE, GoTN accorded (October 2012) Administrative Sanction for execution of road works in the State for the year 2012-13. Scrutiny of records revealed that the works approved by Government included 172 road works for ₹ 289 crore in respect of four Divisions. The execution of these works involved laying of tack coat for ₹ 4.81 crore. Though the CE had issued instructions to use cationic bitumen emulsion for tack coat, the estimates were prepared by the Sub-Divisional Engineers for utilisation of low viscosity paving bitumen (Bitumen VG 10) and these estimates were approved by the Divisional Engineer/Superintending Engineer. Non-adherence to the instructions was also not ensured by CE despite recommending the proposal to GoTN for sanction. This had resulted in avoidable excess expenditure of ₹ 1.05 crore (**Annexure - 5**).

Government accepted (August 2015) that the guidelines issued by CE for use of bitumen emulsion were aimed at preparation of estimates with optimal provisions and stated that whenever there was change in design provisions for the pavement for uniformity/field condition/economic considerations, the same had to be substantiated in the specification report. However, the specification reports pertaining to the works executed did not justify adoption of expensive low viscosity paving bitumen for tack coat.

⁸⁹ Bitumen emulsions are usually dispersions of minute droplets of bitumen in water with varied bitumen contents to suit different requirements. Cationic bitumen emulsion is a rapid setting bitumen emulsion used as binders.

⁹⁰ Low viscosity paving bitumen is non-crystalline viscous material substantially soluble in carbon disulphide, possessing adhesive and water-proofing qualities. Generally, VG-10 (80/100) grade bitumen is used as binders.

⁹¹ Tack coat is a very light application of low viscosity liquid bituminous material to an existing bituminous, cement concrete or primed granular surface to provide adequate bond between the surface being paved and the overlaying course.

⁹² 2 kg / 10 sq m of bitumen emulsion whereas 3 kg / 10 sq m of VG-10 bitumen for bituminous surface. 2.5 kg / 10 sq m of bitumen emulsion whereas 3.5 kg / 10 sq m of VG-10 bitumen for granular surface.

3.5 Blocking of funds

HIGHWAYS AND MINOR PORTS DEPARTMENT

3.5.1 Commencement of work prior to Land Acquisition

Commencement of work in respect of two bridges prior to acquisition of land, resulted in blocking of funds of ₹ 11.92 crore besides non-achievement of envisaged objectives.

Para 176 of Tamil Nadu Highways Manual, Volume IV stipulates that, except in the cases of emergent works, no work had to be commenced on land which was not handed over to the Highways Department (HD). Government of Tamil Nadu (GoTN) also instructed (September 2007) that the bridge works had to be commenced after completion of Land Acquisition (LA).

Scrutiny of records relating to two bridge works undertaken by the Highways Department revealed the following:

3.5.1.1 Construction of subway at Tiruppur

GoTN accorded (August 2010) Administrative Sanction⁹³ for the work⁹⁴ of construction of subway at a cost of ₹ 5.00 crore to ease the traffic congestion near old bus stand in Tiruppur. Chief Engineer (Construction & Maintenance (C&M)), Chennai (CE) accorded (January 2011) Technical Sanction for the above work for ₹ 9.50 crore. The estimate also included a lump sum provision of ₹ 2.40 crore, for LA, as the work involved acquisition of private land, besides alienation of Corporation land.

Scrutiny of records revealed that Highways Department, without conducting survey to ascertain the land requirement, invited (February 2011) tenders for the work and issued (February 2011) work order to the lowest tenderer for ₹ 6.06 crore for completion within 18 months from the date of agreement (March 2011) and the contractor commenced the work.

Further scrutiny of records revealed that Divisional Engineer (C&M), (DE) Tiruppur, after survey of land, forwarded (May 2011) the proposals to District Revenue officer(DRO), Tiruppur for acquisition of private land (1,195 sq m) on one side and alienation of Corporation land (3,321 sq m) on the other side.

DRO issued (August 2011) public notification⁹⁵ to private land owners calling for objections. Despite receipt of objections (December 2011) from land owners, DE did not furnish complete reply and forwarded (August 2014) revised proposals for additional requirement of private lands of 816 sq m to DRO. Thus, acquisition of 2,011 sq m of private land required for one side of subway was not completed till the date of audit.

⁹³ G.O. (D) No. 122, Highways and Minor Ports Department, dated 02 August 2010.

⁹⁴ Construction of subway at km 12/10 of Avinashi –Tiruppur – Palladam – Pollachi – Cochin road (via) Meenkarai.

⁹⁵ Notification under Section 15 (2) of the Tamil Nadu Highways Act, 2001.

Considering the inability expressed to alienate 3,321 sq m by Tiruppur Corporation, DE revised (August 2013) the land requirement as 590 sq m and the same was approved⁹⁶ (December 2014) by GoTN.

Due to non-availability of land, the contractor could complete only 58 out of 505 m (11 *per cent*) of the subway and requested (February 2012) for foreclosure of contract. The same was foreclosed (November 2012) after incurring an expenditure of ₹ 1.09 crore at the time of audit.

3.5.1.2 Construction of Bridge in Sadayankuppam village

GoTN administratively sanctioned⁹⁷ (July 2007) construction of a new Bridge⁹⁸ across Buckingham canal (B-Canal) for ₹ 9.00 crore in the Tsunami affected area under Tsunami Rehabilitation Programme. The main reasons attributed for necessity of the new bridge were flooding of B-Canal during rainy season resulting in interruption of traffic for weeks and facilitation of vehicular traffic for transportation of agricultural and industrial products to the nearby marketing centres. Consequent on declaration (November 2008) of B-Canal as National Waterway by Inland Waterways Authority (IWA), HD revised the scope⁹⁹ of the bridge work and GoTN accorded (September 2009)¹⁰⁰ Revised Administrative Sanction for ₹ 16.46 crore. Chief Engineer (General) Highways, Chennai accorded (January 2010) Technical Sanction for ₹ 13.25 crore with provision for LA (₹ 2.50 crore) and shifting of utilities (₹ 0.03 crore).

HD invited (March 2010 and June 2010) tenders and the tender with the lowest rate in the fifth call was finalised and awarded (September 2010) for ₹ 9.82 crore and the same was cancelled (November 2011) due to non-commencement of work. The work was re-tendered (December 2011) and the contract was awarded (January 2012) to the single tenderer (with tender premium of 42.96 *per cent*) for ₹ 12.19 crore. Agreement for the work was executed (February 2012) for completion within 18 months.

In the meantime, HD forwarded the Land Plan Schedule (LPS) to Revenue Department for acquiring private land to an extent of 4,850 sq m (February 2011) and for alienation of Government land (5,401 sq m) (November 2012). Though there was remittance (March 2014 and February 2015) of ₹ 3.53 crore¹⁰¹, LA and Land alienation were not completed till the date of Audit.

Due to non-completion of LA and land alienation, the contractor could complete only 52 *per cent* of work¹⁰² and requested for foreclosure, which was accepted (November 2013). The total expenditure incurred (February 2014) for the bridge work was ₹ 10.83 crore¹⁰³.

⁹⁶ G.O. (Ms) No. 163, Municipal Administration and Water Supply Department, dated 19 December 2014.

⁹⁷ G.O. Ms. No. 401 Revenue Department dated 25 July 2007.

⁹⁸ Construction of bridge across Buckingham canal in Sadayankuppam panchayat road with approaches.

⁹⁹ The minimum Linear Water Way required as per IWA norms was 30 m.

¹⁰⁰ G.O. Ms. No. 363 Revenue Department dated 30 September 2009.

¹⁰¹ March 2014 - ₹ 2.53 crore + February 2015 - ₹ 1.00 crore.

¹⁰² 50 piles out of 72 piles, 9 pile caps out of 17 pile caps, 8 piers out of 15 piers, 8 capping beams out of 15 capping beams, 9 spans out of 16 spans.

¹⁰³ Contractor payment ₹ 6.29 crore; payment towards LA ₹ 3.53 crore; shifting of utilities ₹ 0.81 crore; others ₹ 0.20 crore.

Thus, commencement of two bridge works before completion of LA resulted in blocking of funds of ₹ 11.92 crore, besides non-achievement of the envisaged objective of providing better access to the people of a remote village and transport facilities to enhance marketability.


Government assured (August 2015) that efforts were being made to complete the land acquisition and to complete the bridge works.



(ALKA REHANI BHARDWAJ)
Accountant General
(Economic and Revenue Sector Audit)
Tamil Nadu

Chennai
Dated 21 March 2016

Countersigned



(SHASHI KANT SHARMA)
Comptroller and Auditor General of India

New Delhi
Dated 22 March 2016

ANNEXURES

Annexure-1
(Referred to in Paragraph 1.6.3)

**Department-wise details of Inspection Reports
and Paragraphs pending**

Sl. No.	Name of the Department	Number of Outstanding	
		Inspection Reports	Audit Observations
1	Public Works Department (Water Resources)	69	229
	Public Works Department (Buildings)	139	348
2	Highways	244	637
3	Environment and Forests	161	472
4	State Autonomous Bodies	4	38
5	Agriculture	238	795
6	Animal Husbandry	88	166
	Dairy Development	17	37
	Fisheries	46	109
7	Handlooms and Textiles	37	143
	Khadi and Village Industries	2	10
	Sericulture	16	26
8	Industries and Commerce	34	72
9	Tourism	23	59
Total		1,118	3,141

Annexure - 2

(Referred to in Paragraph 2.8.5)

Expenditure incurred on the planting materials

(₹in crore)

Year	Area (in ha)	Programme expenditure	II year maintenance	III year maintenance	IV year maintenance	Total
2011-12	2,210	3.36	0.55	0.49	0.29	4.69
2012-13	1,084	1.74	0.26	0.22	--	2.22
2013-14	927	1.48	0.27	--	--	1.75
Total						8.66

Expenditure on maintenance of 54 per cent of palms not survived

Year	Description	Expenditure incurred
2011-12	Plantation and area expansion (2,210 - 746 = 1,464 ha) 1,464 x ₹ 16,000 (₹ 10,000 + ₹ 6,000)	2,34,24,000
	II year maintenance 590 x ₹ 3,500	20,65,000
	III year maintenance (1,620 - 1,085 = 535 ha) 535 x ₹ 4,500	24,07,500
	IV year maintenance (1,085 - 746 = 339 ha) 339 x ₹ 4,000	13,56,000
2012-13	Plantation and area expansion (1,084 - 534 = 550 ha) 550 x ₹ 16,000	88,00,000
	II year maintenance 328 x ₹ 3,500	11,48,000
	III year maintenance 222 x ₹ 4,000	8,88,000
2013-14	Plantation and area expansion 260 x ₹ 16,000	41,60,000
	II year maintenance 260 x ₹ 4,000	10,40,000
		4,52,88,500

Annexure - 3

(Referred to in Paragraph 3.4.3)

Statement showing the loss of interest

Amount kept outside Government Account (₹)	Average rate of borrowing of Government of Tamil Nadu	Period (days)	Interest (₹)	Interest earned in Bank Account (₹)	Loss of interest (₹)
(1)	(2)	(3)	(4)	(5)	(6)
		12.04.2014 to 31.03.2015	$(1) \times ((2)/100) \times ((3)/365)$		(4) - (5)
50,00,00,000	8.11 per cent	354	3,93,27,945	3,35,41,851	1,33,19,974
		01.04.2015 to 07.06.2016			
50,00,00,000	8.11 per cent	68	75,33,880		
			4,68,61,825		
Average rate of borrowing of Government of Tamil Nadu for the year 2014-15 is adopted.					
Available balance as on 7.6.2015 in the bank account including interest- ₹ 53,35,41,851.					

Annexure - 4
(Referred to in Paragraph 3.4.4)

**Statement showing the expenditure incurred under the
Thirteenth Finance Commission grants**

Name of the Division	Number of works	Total length of the road in which repair work was carried out (km)	Total Expenditure (₹)	Expenditure towards ordinary repairs (₹)	Expenditure towards PR / SR / Improvements (₹)
Year 2011-12					
Tiruvallur	15	32.550	4,89,69,407	15,70,240	4,73,99,168
Namakkal	27	51.390	4,78,93,261	38,36,514	4,40,56,747
Dharapuram	24	52.870	4,64,03,499	41,36,516	4,22,66,982
Sub - Total	66	136.810	14,32,66,167	95,43,270	13,37,22,897
Year 2012-13					
Tiruvallur	31	77.134	20,06,03,129	22,42,877	19,83,60,252
Namakkal	25	52.810	4,65,96,689	38,09,674	4,27,87,014
Dharapuram	25	48.400	4,20,39,042	31,81,911	3,88,57,131
Sub - Total	81	178.344	28,92,38,859	92,34,461	28,00,04,398
Year 2013-14					
Tiruvallur	21	45.070	11,86,72,493	6,54,739	11,80,17,754
Namakkal	23	42.340	5,82,29,349	40,36,942	5,41,92,406
Dharapuram	23	40.100	5,02,68,145	27,75,041	4,74,93,103
Sub-Total	67	127.510	22,71,69,986	74,66,722	21,97,03,264
Grand Total	214	442.664	65,96,75,012	2,62,44,454	63,34,30,558

Annexure - 5

(Referred to in Paragraph 3.4.5)

Statement showing avoidable expenditure due to adoption of low viscosity paving bitumen

(₹in crore)

Sl. No.	Name of the Division	Number of works	Administratively sanctioned amount	Expenditure for low viscosity paving bitumen	Expenditure if Bitumen emulsion adopted	Avoidable expenditure
1	Cuddalore	39	61.00	1.12	0.87	0.25
2	Thanjavur	61	108.00	1.75	1.39	0.36
3	Tiruvarur	42	59.00	0.96	0.74	0.22
4	Villupuram	30	61.00	0.98	0.76	0.22
	Total	172	289.00	4.81	3.76	1.05

Glossary

Sl. No.	Abbreviation	Description
1	AAZP	Arignar Anna Zoological Park
2	AEC	Agricultural Extension Centre
3	AED	Agriculture Engineering Department
4	APC	Agriculture Production Commissioner and Principal Secretary to Government
5	ATMA	Agricultural Technology Management Agency
6	ATN	Action Taken Note
7	BC	Bituminous Concrete
8	B-Canal	Buckingham Canal
9	BM	Bituminous Macadam
10	BOT	Build Operate and Transfer
11	C&AG/CAG	Comptroller and Auditor General of India
12	C & M	Construction and Maintenance
13	CE	Chief Engineer
14	CGPC	Close Grade Premix Carpet
15	CHPC	Commissioner of Horticulture and Plantation Crops
16	COPU	Committee on Public Undertakings
17	CRIDP	Comprehensive Road Infrastructure Development Programme
18	CSAP	Comprehensive State Agriculture Plan
19	cu m	Cubic metre
20	CZA	Central Zoo Authority
21	DAP	District Agriculture Plan
22	DBM	Dense Bituminous Macadam
23	DE	Divisional Engineer
24	DoA	Director of Agriculture
25	DoF	Department of Fisheries
26	DPC	Duties, Powers and Conditions of Service
27	DPR	Detailed Project Report
28	DRO	District Revenue Officer
29	E&RSA	Economic and Revenue Sector Audit
30	EPT	Elephant Proof Trench
31	FD	Forest Department
32	FSPC	Fish Seed Production Centre
33	FSRC	Fish Seed Rearing Centre

34	GOI	Government of India
35	GoTN	Government of Tamil Nadu
36	GMP	Good Management Practice
37	ha	Hectare
38	HAC	Human-Animal Conflict
39	HD	Highways Department
40	HFL	High Flood Level
41	IAMWARM	Tamil Nadu Irrigated Agriculture Modernisation and Water bodies Restoration and Management
42	IRC	Indian Road Congress
43	IR	Inspection Report
44	IS	Indian Standards
45	IVPM	Institute of Veterinary Preventive Medicine
46	IWA	Inland Waterways Authority
47	LA	Land Acquisition
48	LCMS	Liquid Chromatography Mass Spectrometry
49	LMT	Lakh Metric Tonne
50	LPS	Land Plan Schedule
51	m	Metre
52	MNRE	Ministry of New and Renewable Energy
53	MORTH	Ministry of Road Transport and Highways
54	msa	million standard axles
55	MSR	Medavakkam - Sholinganallur Road
56	MT	Metric Tonne
57	NABARD	National Bank for Agriculture and Rural Development
58	NADP	National Agriculture Development Programme
59	NFDB	National Fisheries Development Board
60	NFSM	National Food Security Mission
61	NMMI	National Mission on Micro Irrigation
62	NS	Night Safari
63	ODR	Other District Road
64	PAC	Public Accounts Committee
65	PCCF	Principal Chief Conservator of Forests

66	PD	Personal Deposit
67	POL	Petrol Oil Lubricants
68	PWD	Public Works Department
69	RKVY	Rashtriya Krishi Vikas Yojana
70	RL	Regional Laboratory
71	RM	Regulated Markets
72	SLSC	State Level Sanctioning Committee
73	SPF	Specific Pathogen Free
74	SPTL	State Pesticides Testing Laboratory
75	SPV	Special Purpose Vehicle
76	sq km	Square kilometre
77	sq m	Square metre
78	SRI	System of Rice Intensification
79	SVS	Seed Village Scheme
80	TANHODA	Tamil Nadu Horticulture Development Agency
81	TAWDEVA	Tamil Nadu Watershed Development Agency
82	TBGP	Tamil Nadu Bio-diversity Conservation and Greening Project
83	TC	Technical Committee
84	TFC	Thirteenth Finance Commission
85	TNAU	Tamil Nadu Agricultural University
86	TNSAMB	Tamil Nadu State Agriculture Marketing Board
87	UC	Utilisation Certificate
88	WSF	Water Soluble Fertilisers

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