



ABSTRACT

Forests – Announcement for the year 2021– 2022 – Establishment of Tamil Nadu Forests Archives and Data Centre – Administrative Sanction accorded – Establishment of the Tamil Nadu Forest Archives Repository – Financial sanction accorded- Orders issued.

ENVIRONMENT, CLIMATE CHANGE AND FORESTS (FR.7) DEPARTMENT

G.O.(Ms)No.13

Dated: 13.01.2025

குரோதிவருடம், மாகழி-29

திருவள்ளூர்ஆண்டு-2055

Read:

1. Announcement made by the Hon'ble Minister (Forest) on the Floor of the Assembly on 03.09.2021.
2. From the Principal Chief Conservator of Forests (HoD), Letter No:GIS/036970/2021 dated 05.10.2021.
3. G.O.(D) No.157, Environment, Climate Change and Forests (FR.7) Department, dated. 30.10.2021.
4. From the Principal Chief Conservator of Forests, Letter No.GIS/36970/2021, dated 13.12.2022.
5. Government Letter No.19239/Environment, Climate Change and Forests (FR.7) Department/2022-20, dated 18.10.2024.
6. From the Principal Chief Conservator of Forests, Letter No.GIS/36970/2021, dated 12.11.2024.

ORDER:

Hon'ble Minister (Forests) has made an announcement in the legislative assembly on 03.09.2021 that Forest Archives and Data Centre will be established at Chennai. Based on the above announcement, Government issued administrative sanction for setting up of Tamil Nadu Forest Archives and Data Centre at Chennai and also sanctioned Rs.5.00 lakh for preparation of Detailed Project Report (DPR). Government directed that funds for the project shall be met out from the CSR funds of TAF CORN vide Government Order third read above.

2. In the letter fourth read above, the Principal Chief Conservator of Forests has sent proposals to Government and requested the Government to sanction an amount of Rs.11.35 crore for Establishment of Tamil Nadu Forest Archives and Data Centre at Panagal Maaligai, Saidapet, Chennai-15.

3. After examination, the Principal Chief Conservator of Forests was instructed to discuss with Tamil Virtual Academy who have experience in digitization and related works and to utilize their services and to send a revised proposal to Government vide Government letter fifth read above.

4. In the letter sixth read above, the Principal Chief Conservator of Forests has sent the revised proposal in the name of Tamil Nadu Forest Archives Repository for Forest Archives and Data Centre in consultation with Tamil virtual Academy as follows:-

PROJECT COMPONENTS

The Principal Chief Conservator of Forests has proposed to carryout the work under two components

1. Digitization of Forest Records.
2. Preservation of Forest Records.

The details of the work to be carried out under these two components are described below.

COMPONENT 1: DIGITIZATION OF FOREST RECORDS

As Tamil Virtual Academy has already attempted to digitize historical records of Tamil literature, they were approached to assist and execute this work of digitizing the Forest Records of Tamil Nadu and to create a Digital Platform to access these digitized records by using the cloud server facility provided by ELCOT. The budget for this component as provided by Tamil Virtual Academy is included in the section below.

Scanning and archiving software turns standard printed documents into scannable files. They utilize software known as OCR (Optical Character Recognition). OCR software converts images of typed, handwritten or printed texts into PDF or other text documents. These documents can then be searched using archiving software. This means that users can search for keywords or phrases. This can be a continual process given that the Department has a large quantum of documents.

The scope of this component focuses on scanning service which consists of:

- A. Scanning the documents and storing them on a server of the organization.
- B. Document scanning and archiving software tools and platform, which makes locating, tracking and retrieving archived documents easy and secure, in paper or digital format.
 - If the documents have been scanned and are stored digitally, the Department will have access to the entire archive.
 - If the documents have been stored in paper format, this software can be used to view where they are stored and basic information such as the date of creation, date of physical preservation, Possession details, etc.
- C. This platform/tool usually has the following features:
 - An online portal where one can search for the required documents based on the metadata search engine facility.
 - Controlled secure access so only authorized personnel can view and download the documents.
 - An audit trail to see who has accessed or downloaded documents.

Process of Digitization

The usual process of digitization consists of the following steps:

- Pre-Scanning Process
- Metadata entry
- Scanning
- Processing
- Quality control
- Packaging

With respect to this work of the Digitization of Forest Records the following stages of digitization are proposed. Step wise details are listed below,

Pre-Scanning Process

- Scanning space will be prepared, machines will be installed and electricity with UPS backup and internet facilities will be ensured.
- Necessary arrangements for the safety and security of materials will be ensured.
- Materials will be carefully selected and checks for duplicates in published materials will be conducted.
- Materials will be cleaned with care before scanning.
- A register for material tracking and retention will be maintained.

Scanning Process

- Overhead scanning technology with CCD/CMOS and TIFF capturing mode will be used.
- A minimum resolution of 400/600 dpi for printed text will be ensured.
- For photographs, a minimum resolution of 600/1200 dpi will be applied.
- Scanned output will be saved in TIFF, PDF, or PDF-A file formats.
- OCR, preferably Google OCR (excluding manuscripts), will be applied.
- Metadata, including Access No., Title, Sub-Title, Author, Subject, Series number, Year, and Publication details, will be prepared in xlsx format or a customized application.
- A first-level quality check will be conducted on the spot, ensuring no pages are missing, duplicated, skewed, blurred, cut off or below the required dpi.
- Auto-QC process should be able to ensure that the PDF is/has: Clean, without spots, de-skewed, rasterized, optimized, linearized, stripped of unneeded content, flattened, without form submissions/import/reset actions, flattened forms, without JavaScript, removed alternate images, removed print settings, no cut off text, no crooked pages, no dark gutters (the margins where shadows occur from curvature in the book's spine or from corner of pages), good contrast, no pages that are rotated 90/180 degrees, no stains and no stray marks

Post-Scanning Process

- Materials will be re-bound if required.
- A second-level quality check will be performed after editing to ensure color accuracy, clear images, no page missing, no duplication, correct orientation, clarity, completeness and dpi standards.
- Files will be hosted on the web with proper accession numbers, renaming, file compression, MARC21 cataloging, keywords and descriptions.

Under this component of Digitization of Forest Records, the following two works will be carried out

1. Digitization service - Scanning and archiving
2. Development of software/ online platform with metadata management for storage and retrieval of the forest records from the digital repository of the forest records.

The proposed budget requirement for Component 1- Digitization of Forest Records is Rs. 1.78 crores.

Budget for Component 1: Digitization of Forest Records

Sl. No.	Activities	Pages / documents (approx.)	Cost Rs. (approx.)	Total Cost Rs. (approx.)
1.	Material selection and duplicate checking		Rs.29,482 × 5 Manpower × 12 months (including GST)	17,68,920
2.	Metadata Preparation		Rs.29,482 × 5 Manpower × 12 months (including GST)	17,68,920
3.	Document Scanning A4 & A3 (black & white / colour) as per ELCOT rate contract 2024-25	18,00,000	Rs.1.16 (incl. GST, excluding ELCOT service charge)	20,88,000
4.	Document Scanning A2 (black & white / colour) as per ELCOT rate contract 2024-25	2,00,000	Rs.2.83 (incl. GST, excluding ELCOT service charge)	5,66,000
5.	ELCOT service charge 2.5% + 18% GST for sl. no. 4 & 5		Service charge – Rs.66,350 GST – Rs.11,943	78,293

6.	Material binding		Rs.125 x 5,000 documents	6,25,000
7.	1 st level quality checking - per month – concurrent Q.C. (at the site)		Rs.29,482 x 5 Manpower x 12 months (including GST)	17,68,920
8.	2 nd level quality checking - per month		Rs.29,482 x 5 Manpower x 12 months (including GST)	17,68,920
9.	Cataloguing (MARC21)		Rs.36,300 x 5 Manpower x 12 months (including GST)	21,78,000
10.	Expert fee (Cataloguing for old and unknown data)	5,000	Rs.150	7,50,000
11.	Project Co-ordinator		Rs.36,300 x 1 nos. x 12 months	4,35,600
12.	Software charges (upgrading the Tamil Digital Library website for Forest Department and creating a separate webpage and hosting)			25,00,000
13.	Hardware charges including 20TB NAS Storage, external hard disk, etc. (For backup and transfer purpose)			5,00,000
14.	Miscellaneous (travel, meeting, stationery, purchase of electrical and scanning related items, handling charges, etc.)			10,00,000
Total				1,78,00,000

*TVA has indicated that the manpower required for executing this project shall be recruited through outsourcing agency.

COMPONENT 2: PRESERVATION OF PHYSICAL COPIES OF FOREST RECORDS USING CHEMICAL AND PHYSICAL METHODS

Preserving the physical copies of Tamil Nadu's historic forest records is a crucial to protect the state's cultural, environmental, and administrative heritage. These documents

contain invaluable information on forest management practices, biodiversity, ecological changes, and foundational decisions that have shaped the region's natural landscape. By maintaining these records in their original format, their authenticity as primary sources is preserved, supporting credible research, legal referencing, and historical insight. Ensuring their long-term preservation will enable future generations to access and understand the legacy of Tamil Nadu's forests.

To achieve this, the Tamil Nadu Archives Department will be consulted to provide technical expertise and guidance on preservation techniques. Drawing on their knowledge, Tamil Virtual Academy and Tamil Nadu Forest Department will oversee the execution of the preservation work, engaging reputed agencies through an outsourcing approach to ensure adherence to best practices.

This preservation process includes specialized chemical and physical methods, such as careful cleaning to remove contaminants, applying deacidification treatments to stabilize and protect paper from acid-related decay and selectively using lamination or archival-quality encapsulation to protect fragile pages without altering their appearance. Minor repairs will be performed with acid-free materials to reinforce delicate sections, while controlled environmental conditions regulated temperature, humidity, and light exposure will further minimize degradation.

Each preservation action will be meticulously documented to ensure transparency and continuity in maintenance, securing the records' long-term stability and accessibility while preserving their historical integrity.

In consultation with Tamil Nadu Archives Department a SOP will be drawn

1. to identify documents that requires physical conservation,
2. the methodology for the physical processing and preservation technique to be adopted and
3. guidelines for storage of such physical copies.

Budget for Component 2: Preservation of Physical Copies of Forest Records Using Chemical and Physical Methods

Sl. No.	Components	Estimated cost in Rs. (incl. GST 18%)
1	Processing of important historic forest records and documents – cleaning, removal of dirt etc	30,00,000
2	Lamination, encapsulation and book binding service	30,00,000
3	Other Miscellaneous expenditure (5%)	6,00,000
	Sub Total	66,00,000

TOTAL FINANCIAL OUTLAY OF THE PROJECT

The Total Budget requirement towards the **Tamil Nadu Forest Archives Repository** is proposed to be **Rs.2.60crores**.

The Annual Requirement of the Budget for 2024-25 is

Sl. No.	Components	Estimated cost in Rs. (incl. GST 18%)
1	Digitization of Forest Records (TVA)	1,78,00,000
2	Preservation of Physical Copies of Forest Records Using Chemical and Physical Methods (TVA)	66,00,000
3	Contingencies (5%): Printing, collection and gathering of records, identification of records for digitization, expert consultation, manpower for assistance on need basis, and other related works. (TNFD)	16,00,000
	Total	2,60,00,000

5. The Principal Chief Conservator of Forests has also stated that, the proposed digitization and preservation of physical copies of forest records shall be carried out through Tamil Virtual Academy who would be engaging experienced agencies to execute this work under their guidance. Deputy Conservator of Forest (Codes and Manuals) will act as the Nodal Officer for this project who will coordinate with TVA and TNFD to ensure the timely completion of this work. A committee at the level of Office of PCCF shall be formed to oversee the progress of the works. All the wings of the Principal Chief Conservator of Forest (PCCF) office including State Forest Research Institute (SFRI) and Advanced Institute of Wildlife Conservation (AIWC) will be involved in providing the forest records for the purpose of digitization. Preference will be given to historic records as the total number of pages estimated to be digitized initially are about 20,00,000 (Twenty lakh). The work shall be executed with the assistance of all the Forest department wings and Circle/District Forest administration. Nodal Officers at the level of ACF will be appointed for each Division and Circle to coordinate and assist the agency. All the digitized records will be uploaded with the metadata fields in the software.

6. The Principal Chief Conservator of Forests has therefore requested the Government to approve the proposal for Establishment of Tamil Nadu Forest Archives Repository at the project cost of Rs. 2.60 crore.

7. The Government, after careful examination, accept the above proposal of Principal Chief Conservator of Forests and accord sanction of Rs.2,60,000/- crore (Rupees Two crore sixty lakh only) towards establishment of the Tamil Nadu Forest Archives Repository.

8. The expenditure sanctioned at para 7 above shall be debited under the following head of account:-

2406 FORESTRY AND WILD LIFE – 01 Forestry – 101
Forest Conservation, Development and Regeneration –
State's Expenditure – AZ Digitalisation of Forest Archives –
309 Grants-in-aid – 03 Grants for Specific Schemes.

(DPC:2406 01 101 AZ 30903) – Rs.2,60,00,000/-

9. The expenditure sanctioned in para 7 above shall constitute an item of "New Service" and the approval of the Legislature will be obtained in due course of time by an inclusion in the Supplementary Estimates for the year 2024-2025. Pending approval of the Legislature, the expenditure may be initially met by drawl of an advance from the Contingency Fund. The Principal Chief Conservator of Forests is directed to calculate the actual amount required for the period upto next Supplementary Estimates and apply for sanction of the same as advance from the Contingency Fund to Finance (BG-I) dept directly in Form "A" appended to the Contingency Fund Rules, 1963 along with a copy of this order. Orders for sanction of an advance from the Contingency Fund will be issued from Finance (BG-I) Department. The Principal Chief Conservator of Forests shall also send necessary draft explanatory notes for inclusion of this expenditure in the Supplementary Estimates for the year 2024-2025 to the Government in Finance (AHDF&FW) Department at an appropriate time without fail.

10. The Principal Chief Conservator of Forests is the Estimating, Reconciling and Controlling authority for the above said new head of account which is opened in this order. The PAO / Treasury / Sub-treasury Officer concerned is directed to open the above said new head of account in their Registers.

11. This orders issues with the concurrence of Finance Department vide its U.O.No.19239/E,CC&F/2024, Dated:13.01.2025 with ASL No.1968 (One thousand nine hundred and sixty eight) (IFHRMS ASL No.2025011968)

(BY ORDER OF THE GOVERNOR)

**P. SENTHILKUMAR
PRINCIPAL SECRETARY TO GOVERNMENT**

To

The Principal Chief Conservator of Forests (HoFF), Chennai-32

The Principal Accountant General, Chennai-18

The Pay and Accounts Office, Chennai – 9

Copy to:

The Special Personal Assistant. to Hon'ble Minister(Forest), Chennai-9

The Finance (E,CC&F/BG-I&II/W&M-1) Department, Chennai-9.

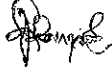
Environment, Climate Change and Forest (OP.II) Department,
Chennai-9 (for updation in IFHRMS portal)

The Private Secretary to Principal Secretary to Government,
Environment, Climate Change and Forest Department, Chennai-9

C.No.19239/FR.7/2022

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// FORWARDED BY ORDER //


13/01/25
SECTION OFFICER
