

## **ICFRE – Institute of Forest Genetics and Tree Breeding Coimbatore**

### **Preparation of Forest Soil Health Cards of Tamil Nadu**

Soil is a vital natural resource that supports life on earth. However, soil degradation and low carbon sequestration are major global challenges that threaten the sustainability of ecosystems and human well-being. Therefore, it is essential to assess and improve the soil health and fertility of different land uses. In 2015, at the UNFCCC conference in Paris, the Indian government committed to creating a carbon sink of 2.5 to 3 billion tons of carbon dioxide by increasing forest cover by 2030. To achieve this goal, the soil health of forest areas needs to be enhanced. The Ministry of Agriculture and Farmers Welfare launched a soil health card scheme for agricultural lands in 2015 with an expenditure of Rs 568.84 crore. This scheme provides farmers with a soil fertility report card, that indicates the status of the soil for 12 parameters and recommends appropriate fertilizer and soil amendment practices.

However, the forest areas of the country, which cover about 21% of the total geographical area, were not included in this scheme. Hence, the Ministry of Environment, Forest and Climate Change initiated an All India Coordinated Research Project (AICRP-22) on “Preparation of Forest Soil Health Cards under different Forest Vegetation’s in all the Forest Divisions of India” with a funding of Rs 19.57 crores. The objective of this project is to prepare soil health cards for all 788 forest divisions in the country, covering different forest types and classes. The project uses Geographic Information System (GIS) and Remote Sensing technology to select the sites for soil sampling. About 5,00,000 soil samples are collected and analyzed for 12 soil parameters in soil testing laboratories. The soil sampling methods are adapted to suit the different forest areas such as dense forests, moderately dense forests, open forests, scrub forests and non-forest areas. The soil samples are taken at depths of 0–30, 30–60, and 60–90 cm using a grid approach from various forest areas.

The Forest Soil Health Cards of different forest divisions are released in a phased manner. The soil health card for the Union territory of Puducherry prepared by ICFRE - Institute of Forest Genetics and Tree Breeding - Coimbatore was released by the Honourable Union Minister of Forests, Shri. Bhupender Yadav. In line with this, Smt. Leena Nandan, IAS, Secretary, Ministry of Environment, Forest and Climate Change, released the Soil Health Cards for 28 Territorial Forest Divisions of Tamil Nadu in the 61<sup>st</sup> Board of Governors meeting of the Indian Council of Forestry Research and Education on 19.02.2024. The meeting was attended by Dr. C. Kunhikannan, Director, ICFRE-IFGTB, Coimbatore. A team led by Dr. A.C. Surya Prabha, Soil Scientist, is involved in the preparation of the soil health card for the state of Kerala and Union territories of Andaman and Nicobar Islands, and Lakshadweep.

The soil health cards will be useful to identify the problems related to soil, enhance the productivity of forests, and recommend management practices for them. The soil health cards will also help in monitoring the soil quality and carbon stock over time and evaluating the impact of various interventions on soil health. The soil health cards will contribute to the national and global efforts to combat climate change and promote sustainable development.



Release of Soil Health Cards by Smt. Leena Nandan, IAS, Secretary, Ministry of Environment, Forest and Climate Change