

MAPPING FOR RESTORATION

A Two-Phase Approach in Sri Lankan Catchments

The Neo Synthesis Research Centre (NSRC) employed a two-phase watershed approach to map vegetation in two research model sites: Serukele in the Deduru Oya catchment and Lemastota in the Walawe Ganga catchment. This comprehensive mapping project provides crucial baseline data for monitoring restoration efforts and informing future catchment-scale restoration initiatives

Phase 1: Establishing Baseline Data

This initial phase focused on creating detailed maps of both sites, incorporating existing data and conducting new surveys. The following activities were undertaken:

- Three-Dimensional (3D) Mapping: Drone technology was used to create high-resolution 3D maps of both the Serukele and Lemastota sites. These detailed maps provide a visual representation of the terrain and existing vegetation cover.
- Acquisition of Digital Maps: High-quality (1:10,000 scale) digital maps were purchased from the Survey Department of Sri Lanka for both sites. These maps incorporated topographic, hydrological, and land-use layers, providing a comprehensive base for further analysis.





 Field Data Collection: Comprehensive field data collection was completed at both sites to complement the existing map data and provide ground-truthing for the remotely sensed data. This involved detailed on-the-ground surveys to verify and supplement information obtained through the drone surveys and digital maps.

Phase 2: Mapping Established Plants and Future Applications

The second phase focuses on mapping the vegetation established in both locations and using this data to inform future restoration efforts. Specific activities include:

- Plant Mapping: Using a GPS recorder, the NSRC team is meticulously mapping the location, scientific name, and planting date of all established plants at both sites. This detailed record allows for precise monitoring of plant growth and survival rates.
- Data Collection Timeline: Field data collection was completed at Serukele. Data collection at Lemastota is ongoing and expected to be completed by April 2025.
- Future Applications: The comprehensive vegetation maps, expected to be finalised by May 2025, will form the core of the Final Report submitted in June 2025. This data will be invaluable for monitoring the rehabilitation efforts in the demonstration models and facilitating third-party assessments by researchers from local and international universities. Furthermore, the data will provide a robust foundation for developing a proposal to restore entire catchments, benefiting hundreds of people both upstream and downstream.









Conclusion:

This two-phase mapping project provides a comprehensive and detailed record of vegetation in two key research sites. The data gathered will be crucial for monitoring restoration progress, informing future research, and supporting the development of largescale catchment restoration projects. The project's success will contribute significantly to the long-term sustainability of these important ecosystems and the well-being of the communities that depend on them.





