

Title of AICRP	Population status, collection, conservation, characterization, and evaluation of genetic resources of Indian Rosewood, <i>Dalbergia latifolia</i>
Project Duration	5 Years (2020-2025)
Approved Budget (Rs.)	58.08 lakhs
Name & Designation of PI(s)	1. Dr. D. Thangamani
Name & Designation of Co-PI(s)/ Associate (s)	1. Mrs. S. Lalitha 2. Dr. S. P. Subramanian
Previous NPC/PIs/Co-PIs, who retired/repatriated/transferred	1. Dr. K. R. Sasidharan (Retired NPC)
Project Objectives: (Indicate midterm revision, if any)	1. Undertake studies on population structure and natural regeneration in different forest areas. 2. Selection of superior trees from identified populations. 3. Clonal propagation of identified superior trees and establishing of Field Gene Bank (FGB). 4. Characterization and evaluation of the clones.

Progress

Field surveys were conducted across Tamil Nadu and Kerala, resulting in the collection of seeds that exhibited a germination rate ranging from 64% to 83%. Progeny trials were successfully established at the Ahalia Foundation (Palakkad) and Kerala Forest Development Corporation (KFDC). Phytochemical analyses of methanol extracts from both leaves and root-hardwood revealed significant findings. The flavonoid content was markedly higher in root-hardwood extracts (114 ± 11.7 mg QE/g) compared to leaf extracts (30.7 ± 3.3 mg QE/g). Additionally, the wood extract demonstrated strong antioxidant activity and moderate antibacterial activity, outperforming the leaf extract in both aspects. Molecular studies were done using 39 cross-species SSR primers. Furthermore, germplasm assemblages of *Dalbergia latifolia* and *Dalbergia sissooides* have been established and are being maintained under optimal conditions.