

Small-Scale Forest Nursery Development in Rural Community of Vanima Village, Gahuku LLG, Goroka District, Eastern Highlands Province

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Abstract

This paper presents a classic example of a small-scale forest nursery project developed at Vanima village, 5 Mile out of Goroka town, in the Gahuku LLG of Eastern Highlands Province. The interest in establishing this rural community-based project was triggered by FM 312 Silviculture course undertaken as part of Forest Management Degree program at the School of Forestry, Bulolo Campus. The nursery was constructed between late January and early February 2025. Occupying a total area of approximately 60 m², the facility comprised of one nursery bed (10 m × 2 m) and two germination beds (3 m × 1 m and 1 m × 0.5 m respectively). Currently, the nursery holds over 500 seedlings of diverse tree and plant species including *Casuarina equisetifolia*, *Eucalyptus spp.*, *Aquilaria malaccensis* (eaglewood), dragon fruit, and apple.

The future forecast is to expand the nursery size to two-three times over the next three years using permanent infrastructures with modern irrigation and drainage systems. The intention of the nursery expansion is to increase annual seedling production between 8,000 and 10,000. The core mission of the nursery project is to conduct research on native and exotic species to assess their responses to climate change with the aim of developing adaptive strategies to conserve endangered and endemic flora. The second mission is to educate the locals on the importance of tree-planting (community forestry/extension) and participate in conservation and restoration initiatives for ecosystem services. Ultimately, it is anticipated that this community project will create job opportunities and contribute to improving socio-economic activities at district and provincial levels. In order for the project to be successful, I need collaborative supports from the School of Forestry (Bulolo and Taraka campuses) and NGOs for technical advice as well as government agencies for funding.