Notable achievements of the program

- A network of permanent sampling plots covering 80 percent of the country. Maintenance of data base (PERSYST) on monitoring of logged forest since 1993
- Manuals on the methods for establishing permanent sampling plot.
- Development of growth simulation model for natural forests called PINFORM Model
- Plots data being recognized as valuable and used in estimation of the biomass that provided an excellent coverage of the country that alone helped PNG on climate development
- Natural Forest Regeneration and forest rehabilitation information
- Tree phrenology information
- Database of forest soils of PNG
- Permanent long term research in Fin-chafen site for ecosystem studies
- All research activities have been published in the PNGFRI Bulletins and recent work was ACIAR Publication in 2011
- Initiated research on quantifying carbon pools in forestry land use as subscribed to internationally accepted methods and technical standards such from the United Nation Intergovernmental Panel on Climate Change (IPCC).
- Well trained, qualified and experienced research staff in areas of forest inventory, forest rehabilitation, soil surveys and plot establishment and data management for forest management.

Measuring sectional volume of Kwila logs in Vanimo.

Natural Forest Management Researchers

Patrick Nimiago	*Program Leader*
	Forest Ecosystem
Forova Oavika	*Growth and Yield*
Kunsey Lavong	*Growth and Yield*
Dr Cossey Yosi	*Silviculture*
Maman Tavune	*Silviculture*
Agnes Sumareke	*Silviculture*
Miller Kawanamo	*Climate Change*
Michael Jonathan	*Climate Change*
Bruno Kuroh	*Climate Change*

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PAPUA NEW GUINEA FOREST AUTHORITY

Papua New Guinea Forest Research Institute

Vision

We are a leading provider of tropical forest research services supporting sustainable management and development of forestry

Natural Forest Management Program

The Natural Forest Management Program is one of the four research programs of the PNG Forest Research Institute. The research program focuses on promotion of sustainable management of natural forests of PNG.

There are four research sections :

1. Growth and Yield
2. Silviculture
3. Ecosystem Management
4. Climate Change

"PROMOTING SUSTAINABLE FOREST MANAGEMENT THROUGH RESEARCH AND DEVELOPMENT"

Natural Forest Management Program

Function

Providing reliable scientific information to assist in the sustainable management of the nation's forest resource for the benefit of the future generations.

Measuring the diameter of a buttress tree (Taun) in Busiga, Mongi Forest, Morobe.

Research Goals

1. *Enhance economic, social and environmental benefits of natural forests on a sustainable basis*
2. *Promotion of measures for addressing climate change*

Objectives/Purposes

1. Growth and yield measurement and modeling
2. Rehabilitation of logged-over areas.
3. Improved silviculture techniques.
4. Determine logging impact, nutrient budgets and forest watershed and soils mapping.
5. Improve logging and harvesting techniques – reduced impact logging.
6. Development of community REDD and CDM
7. Provide data on carbon stock CDM, REDD+ development, green house gas (GHG) management and market options.
8. Assessment of forest vulnerability and adaptation to climate change impacts.

Current Research Activities

1. Growth and Yield Studies and Inventory

I. Literature search collect, data from available data sources and literature

II. Compile manuals

III. Establishment of permanent study plots systems and data base

IV. Development of growth models and published results

2. Improved Silviculture Techniques

I. Site preparations and tree planting in degraded forests.

Forest enrichment planting using native tree species (Taun, Rosewood, Kwila & Walnut) in logged forests of Sogeram, Madang.

II. Assessment of performance and publish results.

3. Phenology of major forest systems

I. Establish trial plots in Morobe and Milne Bay Provinces.

II. Monitor flowering and fruiting.

III. Analyze results and publish results.

4. Climate change adaptation, Mitigation and vulnerability

I. Forest carbon stock assessment and reporting.

II. Observations and reporting of vulnerability status of high priority forest and human settlement areas

5. Development of forest carbon data base

I. Forest soil survey and publication of results

II. Development of allometric equations

III. Forest carbon inventories

6. Logging Studies, Forest Soils and Water

I. Monitoring of changes to the environment due to logging

II. Soil nutrient surveys and chemical laboratory analyses

III. Studies towards improved logging practices for SFM

Landowners engaged in sampling of trees in Morobe Province for biomass measurement.