



Forest Conservation Values and Threats

Department of Environment and
Conservation

Background



This presentation briefly describes the ongoing work being carried out by the Department of Environment and Conservation in partnership with the United Nations Development Programme, The Nature Conservancy, World Wide Fund for Nature and the Bishop Museum.

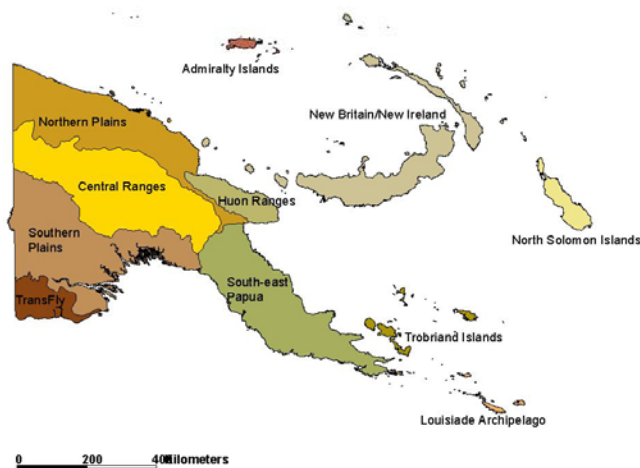
Scope of Work



- a) Protected Areas Policy
- b) Review of Legislation
- c) Priority Setting Work
- d) Spatial Database Development

Focus of this presentation is the
Conservation Priority Setting Work

PNG Conservation Planning Regions

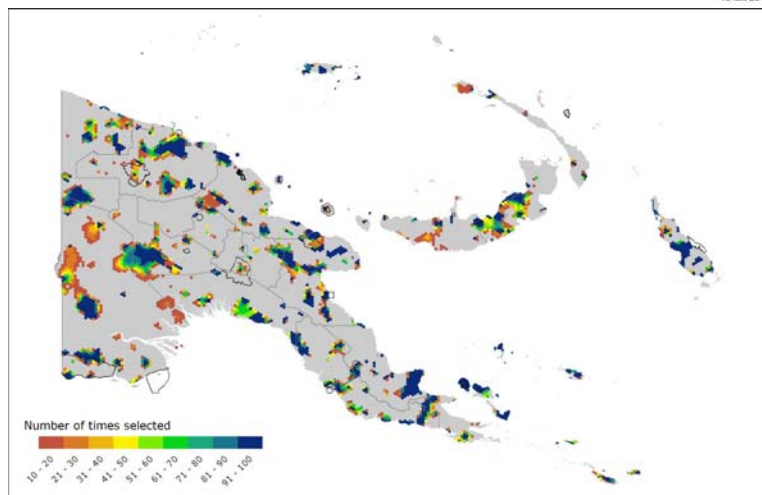


High Conservation Value Areas



- The Program Of Work Protected Areas (POWPA) identified a range of biodiversity surrogates to include in the analysis and set targets for each surrogate:
 - Vegetation Types from FIMS
 - Land Systems
 - Rare and Endemic Species

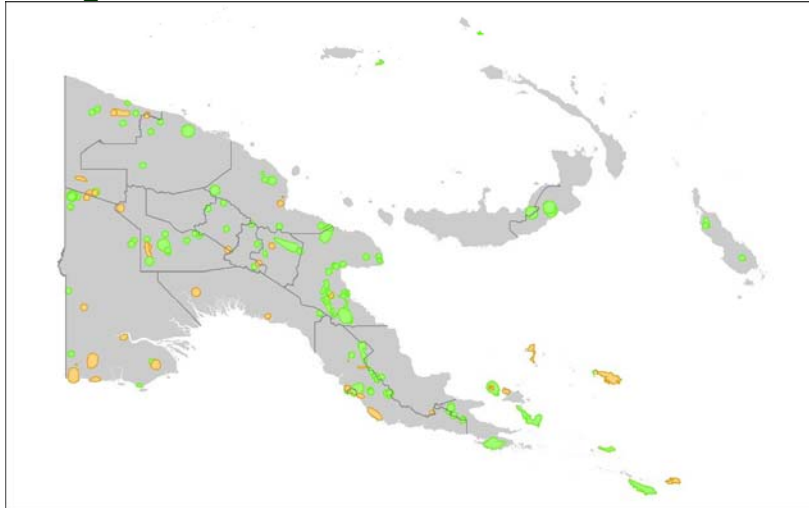
Interim Priority Areas Map



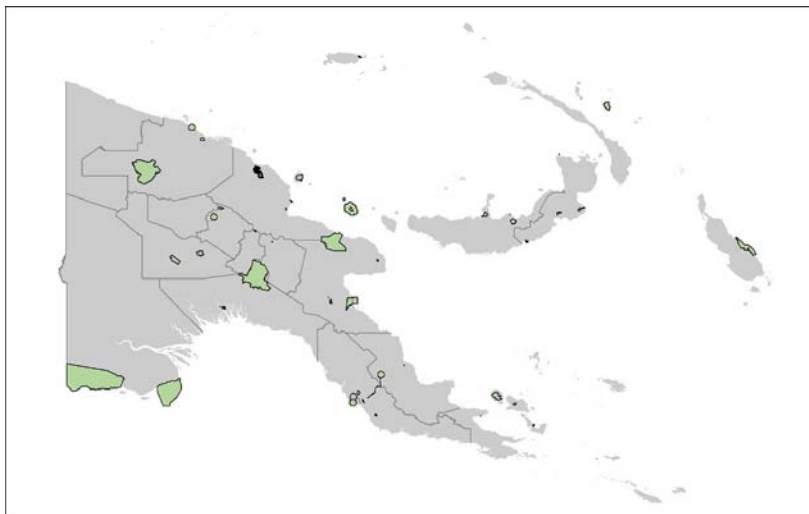
Restricted Range Endemics

Green: Reptiles & Amphibians

Orange: Mammals



Existing Protected Areas Map



PNG Protected Areas Table



Protected Area Type	Count	Hectares	%
Wildlife Management Area	30	1,631,360	84%
Conservation Area	1	164,070	8%
Sanctuary	5	58,353	3%
Memorial Park	3	39,567	2%
National Park	8	28,025	1%
Protected Area	2	20,068	1%
Provincial Park	1	198	0%
Reserve	2	126	0%
District Park	1	3	0%
	53	1,941,771	100%

Forest Threat Assessment



- An assessment of the extent of threat to different forest types in PNG bioregions.
- Indicators of threat used in the analysis were:
 - Forest conversion through high intensity agriculture
 - Forest change through commercial logging and subsistence agriculture
- Data used for the analysis was the early 1970's FIMs and Land use mapping and 1996 updates of both these datasets

Threats to Forest Conservation Values



- Commercial Agriculture (Oil Palm)
 - Expansion into new areas
 - “Infilling” of secondary forest and garden areas
 - Agro-forestry Projects
- Extractive Industries (Mining)
 - Downstream Sedimentation – Forest “Die-back”
- Commercial Logging
- Forest Fires and Natural Hazards (Geo-hazards)
- Transport Infrastructure & Ribbon Development
- Cash Cropping Agriculture

Forests At Risk

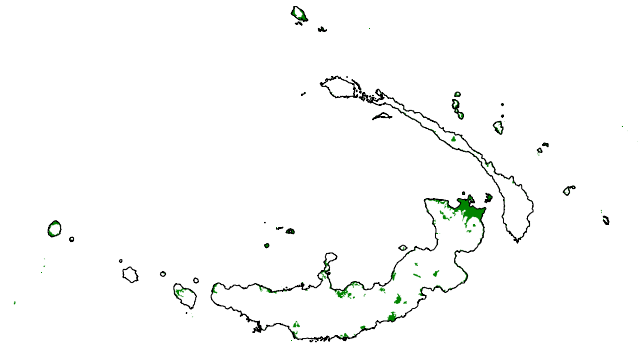


Information to date from all CPRs indicates:

- Low altitude forest types across all CPRs have been most affected by logging and significant agricultural land use, and this will likely continue into the future
- Low montane forests are also particularly threatened

Significant proportion of the priority forest types are found in New Britain and New Ireland Provinces

Map of Land Use Change New Britain/New Ireland - 1975

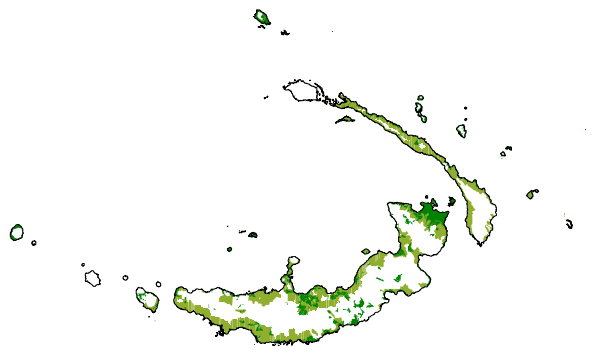


0 100 200 Kilometers

■ Logging
■ Significant Intensity Agriculture



Map of Land Use Change New Britain/New Ireland - 1996

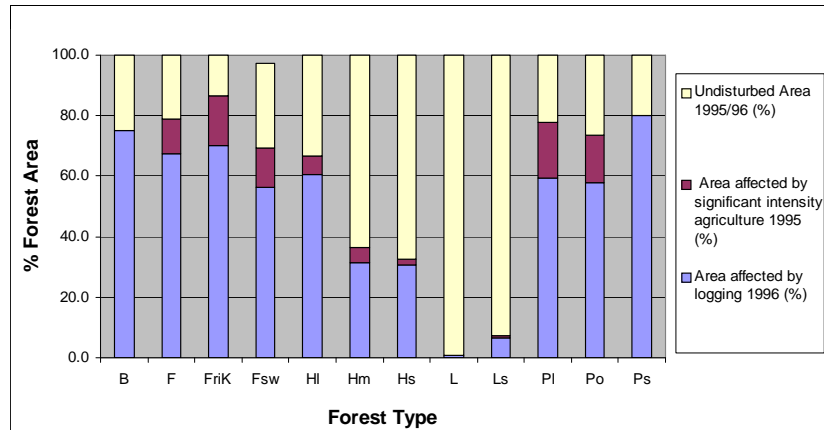


0 100 200 Kilometers

■ Logging
■ Significant Intensity Agriculture



Land Use Change by Vegetation Type 1975 - 1996



Next Steps



- High Conservation Value (HCV) Areas
 - Compiling information on key areas for PNG plants
 - Extending the animal database to additional species
- Threat Assessment
 - Updating of spatial database to include land use change between 1996 and the current time
- Integration of the HCV and Threat Datasets to identify Priority Areas for Conservation Protection