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

<table>
<thead>
<tr>
<th>Protected Area Type</th>
<th>Count</th>
<th>Hectares</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wildlife Management Area</td>
<td>30</td>
<td>1,631,360</td>
<td>84%</td>
</tr>
<tr>
<td>Conservation Area</td>
<td>1</td>
<td>164,070</td>
<td>8%</td>
</tr>
<tr>
<td>Sanctuary</td>
<td>5</td>
<td>58,353</td>
<td>3%</td>
</tr>
<tr>
<td>Memorial Park</td>
<td>3</td>
<td>39,567</td>
<td>2%</td>
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<tr>
<td>National Park</td>
<td>8</td>
<td>28,025</td>
<td>1%</td>
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<tr>
<td>Protected Area</td>
<td>2</td>
<td>20,068</td>
<td>1%</td>
</tr>
<tr>
<td>Provincial Park</td>
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<td>198</td>
<td>0%</td>
</tr>
<tr>
<td>Reserve</td>
<td>2</td>
<td>126</td>
<td>0%</td>
</tr>
<tr>
<td>District Park</td>
<td>1</td>
<td>3</td>
<td>0%</td>
</tr>
</tbody>
</table>

|                       | 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
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