



## Mountain Biodiversity for REDD+ [Thematic project] [2015 - ongoing]



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Biodiversity plays a critical role, particularly in mountain forests, for the maintenance of ecosystems' resilience and capacity to provide essential goods and services to populations, both upstream and downstream. For this reason, a comprehensive assessment and monitoring of biodiversity should be an essential component of all forest inventories.

All countries participating in the activities for Reducing Emissions from Deforestation and forest Degradation (REDD+) under the UN Framework Convention on Climate Change are required to establish a multipurpose National Forest Inventory (NFI) and a National Forest Monitoring System to measure carbon stocks and their changes over time, as well as other forest values.

Including a biodiversity protocol in a NFI can provide evidence of the multiple value of forests and invaluable information on the trade-offs between forest biodiversity and carbon sequestration. This knowledge and understanding can support decision

making and policies that aim at maximizing carbon sequestration while protecting biodiversity and delivering additional benefits in forest management.

### Goal

Monitoring forest biodiversity to assess the trade-offs between protecting biodiversity and reducing emissions in order to support a more sustainable management of forests.

### Achievements

Since 2015, the Mountain Partnership (MP) has been supporting the development of a comprehensive biodiversity component for Papua New Guinea's NFI in collaboration with the University of Queensland, Sapienza University of Rome, the PNG Forest Authority, the PNG Forest Research Institute and the Binatang Research Centre. In coordination with FAO and UNREDD, data collection of all PNG forests is currently ongoing and expected to be completed in 2020.

The NFI developed in PNG, where 87 percent of the population depends on forest goods and services, represents an innovative reference model that can be replicated in other countries involved in REDD+.

## Outputs

### Biodiversity mainstreaming methodology:

- A scientific methodology and a computerized sampling tool [Biodiversity Collect App] were designed to integrate biodiversity indicators of non-tree plant species, vertebrates and invertebrates into a traditional forest inventory. This builds an innovative carbon-biodiversity inventory that complies with UNFCCC requirements and recommendations, including the involvement of the local communities.

### Training:

- A training programme was conducted on field tests and implementation of the biodiversity

protocols and sampling methodology, including collection and preservation of specimens and data collection;

- Four Masterclass training sessions were organized on interpretation and use of the biodiversity data resulting from the NFI for understanding the relationship between carbon sequestration and forest biodiversity. Training includes: core research skills, research project planning, research writing, advanced research analysis and publishing processes. An online platform called The PNG Forest Publication Initiative serves as the working forum for the researchers involved in the NFI and as a portal for the scientific papers resulting from the analysis of the NFI's biodiversity data.

### Data Dissemination:

- Publication and dissemination of biodiversity analysis results;
- Development of policy recommendations for REDD+ implementation.



### Mountain Partnership Secretariat

FAO Forestry Department

Viale delle Terme di Caracalla – 00153 Rome, Italy

Contact: [yuka.makino@fao.org](mailto:yuka.makino@fao.org)

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