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Vanuatu Forests: Reducing Emissions from Deforestation and Degradation

UNFCCC, SBSTA Workshop, Cairns, March 2007

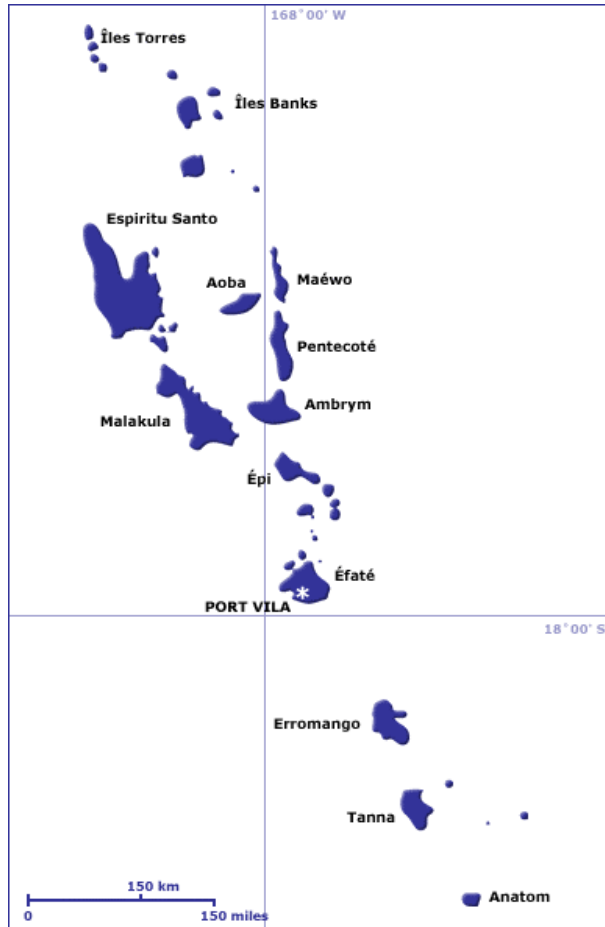
<http://www.vuw.ac.nz/geo/research/climate-change/vanuatu-forests/index.html>

Sean Weaver
Robert O'Sullivan
Ioan Viji
on behalf of
Government of Vanuatu



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Background

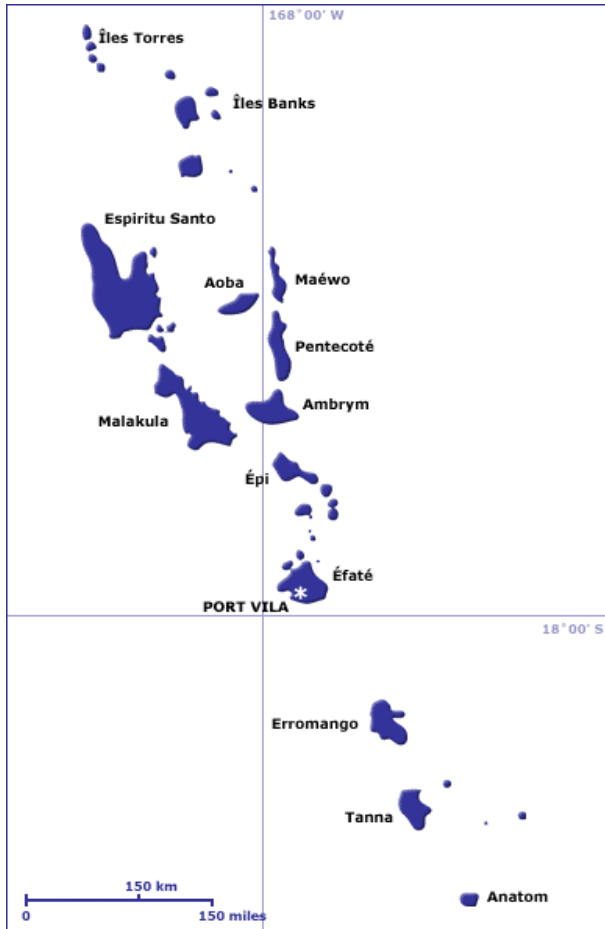


12,200 km² total land area



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Background



12,200 km² total land area



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Vegetation



Tropical lowland and montane forest

WWF: Distinct terrestrial ecoregion
“Vanuatu rain forest”

Conservation International: “East
Melanesian Biodiversity Hotspot”



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Vegetation



Limited forest data sets

Low historic rates deforestation reported

Rates expected to increase

No historical/future baselines calculated

No current carbon stock estimates



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Project Objectives

Phase I

RS - Forest Area Change Assessment: 1990 - 2006

Design positive incentives:

Carbon Stock

Sectoral Crediting Baselines

Direct Barter

Capacity building to enable Vanuatu's participation in UNFCCC/KP negotiations

Phase II

Forest Inventory

Test Crediting Mechanisms

Training, Capacity Building



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Project Objectives



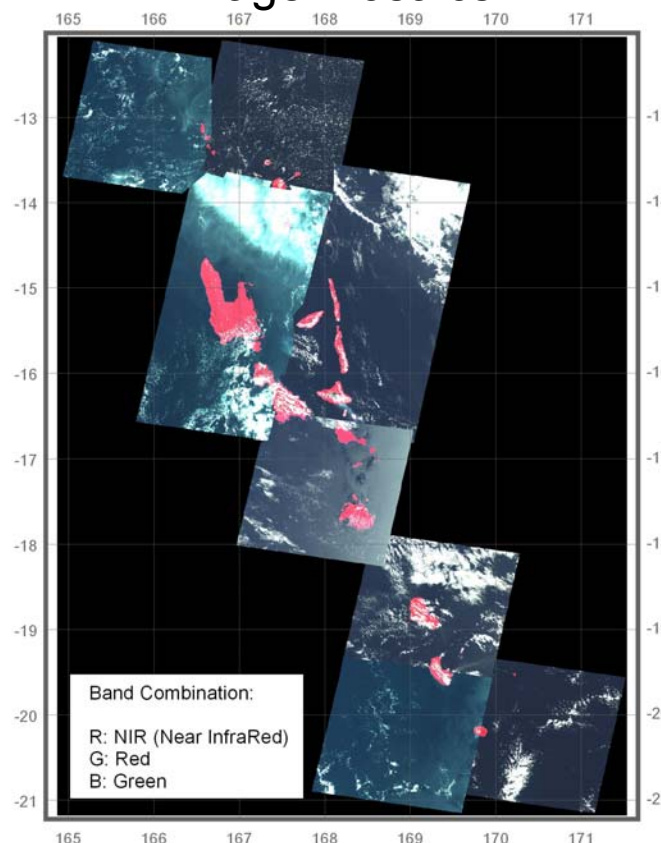
RS - Forest Area Change Assessment: 1990 - 2006

Performed by GOFC-GOLD

Consensus technical guidance on current and future capabilities for monitoring deforestation

Ongoing RS case studies (incl. Vanuatu)

Image Mosaics





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Project Objectives



RS - Forest Area Change Assessment: 1990 - 2006

Performed by GOFC-GOLD



Landsat 4 1990 North Éfaté



Landsat 7 2000 North Éfaté



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Project Objectives



RS - Forest Area Change Assessment: 1990 - 2006

Vanuatu presents interesting challenges:

- ➔ No major previous satellite based land cover monitoring studies
- ➔ Continuous optical observations challenged by persistent cloud cover
- ➔ Only basic/limited satellite coverage: needing large initial data sets to cover all islands
- ➔ Topography complicates image interpretation and mapping
- ➔ Degradation and change in vegetation complicates image interpretation



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Project Objectives



RS - Forest Area Change Assessment: 1990 - 2006

Emerging story: **Forest degradation**





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Project Objectives



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Design positive incentives:

- Carbon Stock*
- Sectoral Crediting Baselines*
- Direct Barter*

Context



- International, national, and local policy
- National / local environment & development priorities
- Deforestation drivers (national & local)
- Institutional capacity to avoid deforestation
- Vanuatu land law
- Economic impact and use of financial incentives



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Design positive incentives:

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Direct Barter



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Direct Barter

Project based mechanism within a national context

May compliment or act as an alternative to national baseline and credit approach

A reserve of stock is created and carbon stock outside the reserve is traded



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Direct Barter



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Project Objectives



Design positive incentives:

Carbon Stock

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Direct Barter

Programmatic or sectoral scale

Similar to programmatic CDM

Calculate historical and future baseline carbon stock – credits gained for performance below baseline



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Design positive incentives:

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Sectoral Crediting Baselines

Direct Barter



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Design positive incentives:

Carbon Stock

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Direct Barter

Sectoral or national scale – can work outside or within carbon market

Large scale bilateral negotiations

Seller nation commits to forest protection

Buyer agrees to range of negotiated benefits (e.g. cash, debt cancellation, trade opportunities, employment, technology transfer, education...)



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Vanuatu's View on Positive Incentives



Any incentive mechanism should be inclusive

Countries with low historical deforestation baselines should not be disadvantaged

Degradation is a significant issue and should be included

Incentive mechanisms should be adaptable to small as well as large nations

Seeks to work in collaboration with other nations



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Project Team



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