

A Common National Land Use Monitoring System—Fiji

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Introduction - USFS Climate Fellow

- Development of a national land use monitoring system
 - Collaboratively designed
 - Produces land use change data required by the Climate Change Act of 2021 for greenhouse gas/ climate change reporting
 - Informs progress on Sustainable Development Goals (SDGs)
 - Produces consistent, defensible data using transparent methods
 - Expandable to satisfy other needs



Briefly

- According to their specific mandates, different ministries must report on land use change for various international agreements & national initiatives (e.g. climate change, SDGs)
- The agreements & initiatives frequently require data from broad land use classes described by the Intergovernmental Panel on Climate Change (IPCC)
- Different methodologies can lead to data inconsistencies among ministries

IPCC CLASSES

Forestland

Cropland

Grassland

Wetlands

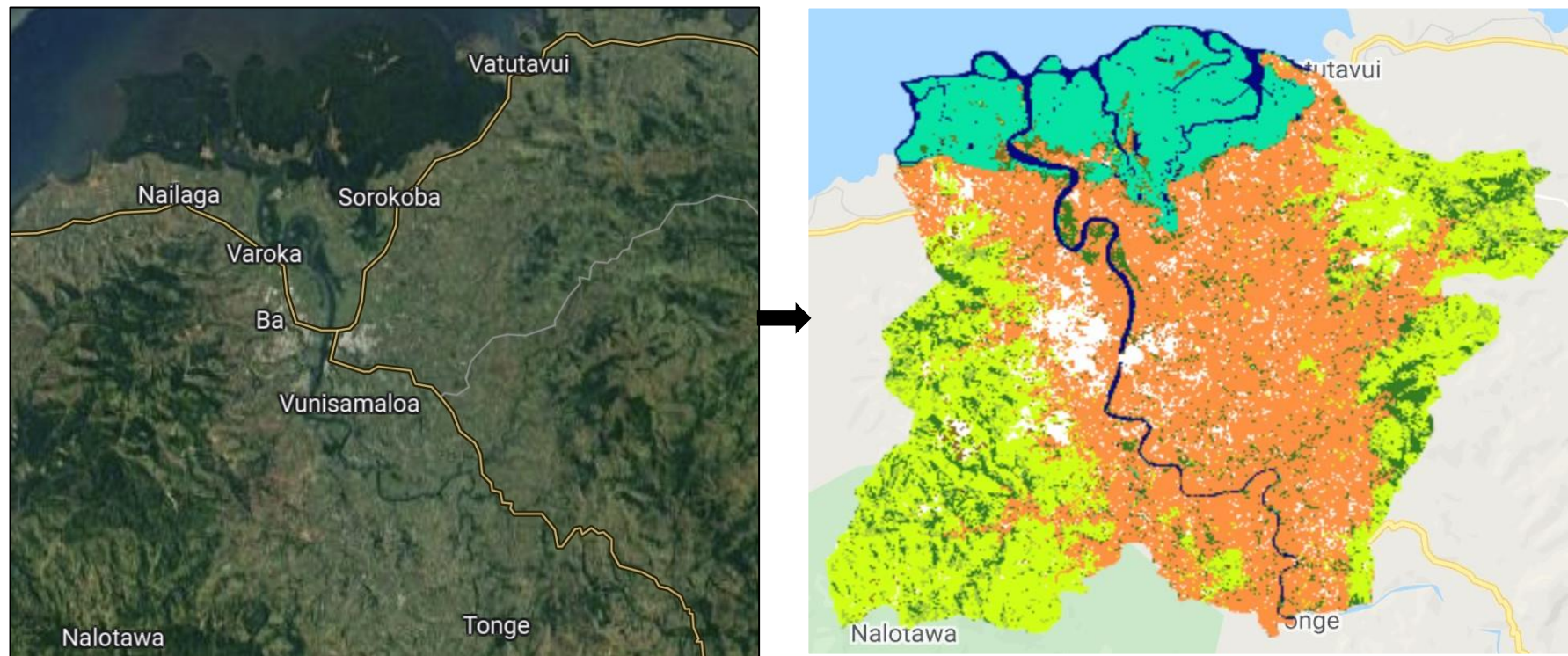
Settlements

Other Land

What it is

Remote sensing–based mapping

- Show land use distribution
- Locations of changes



Example: Ba Catchment 2016. Map adapted from: Davies, K. 2021. Draft Landcover Transitions in the Ba Catchment 2016 – 2020. University of Sydney, School of Geosciences.

What will it look like

2016 (rows) to 2017 (columns) km ²							
	Other	Wetland	Forest	Settlement	Cropland	Grassland	TOTAL
Other	15.2	1.0	0.3	0.4	1.0	1.9	19.8
Wetland	0.4	46.7	0.1	0.0	0.0	0.0	47.3
Forest	0.1	0.6	41.2	0.0	3.1	7.3	52.4
Settlement	1.6	0.0	0.9	10.0	7.7	4.3	24.5
Cropland	2.9	0.1	10.4	6.7	124.8	8.7	153.5
Grassland	0.9	0.0	18.7	1.0	4.4	286.4	311.4
TOTAL	21.0	48.6	71.7	18.1	140.9	308.6	

Data from: Davies, K. 2021. Draft Landcover Transitions in the Ba Catchment 2016 – 2020. University of Sydney, School of Geosciences.

2018

Why?

- Understanding the distribution and changes in Fiji's land (land use and land cover) is essential to:
 - National and international reporting
 - Inform and track the effectiveness of environmental and developmental policies
 - Guide land use planning
 - Guide land management
 - Inform decisions
 - Etc.



2021



Why?

- Understanding the distribution and changes in Fiji's land (land use and land cover) is required for reporting:
 - United Nations Framework Convention on Climate Change (UNFCCC)
 - Reducing Emissions from Deforestation and forest Degradation (REDD+)
 - Convention on Biological Diversity (CBD)
 - United Nations Convention to Combat Desertification (UNCCD)
 - UN Forest Instrument
 - Sustainable Developments Goals (SDGs)
 - State of the Environment Report
 - State of Forest Genetics Report
 - FAO's Global Forest Resource Assessment
 - Others required by Ministry of Agriculture, Lands, Environment, Etc.



United Nations
Framework Convention on
Climate Change

REDD+
FIJI



United Nations
Convention to Combat
Desertification



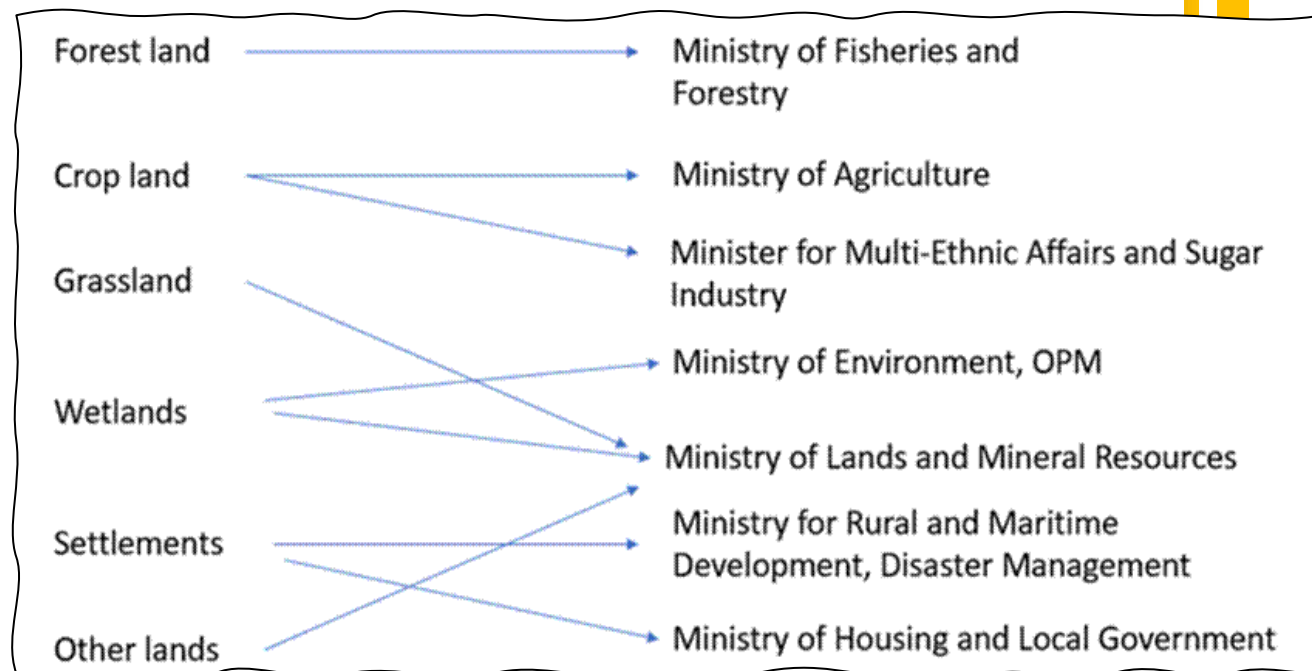
**Convention on
Biological Diversity**



THE STATE
OF THE WORLD'S
FOREST GENETIC RESOURCES

Climate Change Act of 2021

- PART 7—MEASUREMENT, REPORTING AND VERIFICATION OF EMISSIONS AND EMISSIONS REDUCTIONS
 - 30.—(1) The following permanent secretaries must biennially estimate, and compile data related to emissions and emissions reductions activities from within their portfolio and submit it to the Committee—
 - (c) the permanent secretary or permanent secretaries responsible for agriculture, forestry and other land use in relation to the agriculture, forestry and other land use sector;



What we need

- Nationally adopted land use and land use change data for **Fiji**.
- Consistent, Comparable, Reliable, Transparent
- For everyone to be on the same page.

What more can be done?

- The monitoring system based on the 6 IPCC classes will provide:
 - A framework upon which collaborating ministries could build to monitor more detailed land use classes of interest
 - Ability to integrate field data

The Council is Invited to:

1. Acknowledge the need:
 - i. For land use change monitoring of Fiji
 - ii. To have a common nationally adopted land use dataset for Fiji
2. Establish/revive a land use monitoring working group (through FGTAC?) which will report annual land use change figures to the Council for endorsement and adoption.

Vinaka Vakalevu
