# Use of Environmental Accounts in Policy Framing: Country Examples

Pablo Benitez, Ph.D. World Bank

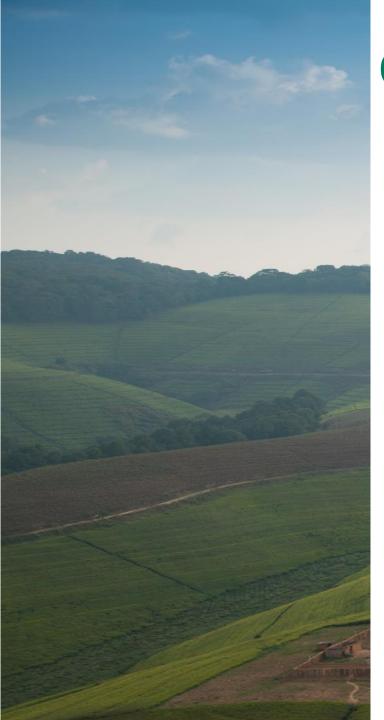
Date: June 28, 2022











# **Outline**

Introduction

Use of Accounts in the Policy Cycle

Country Examples

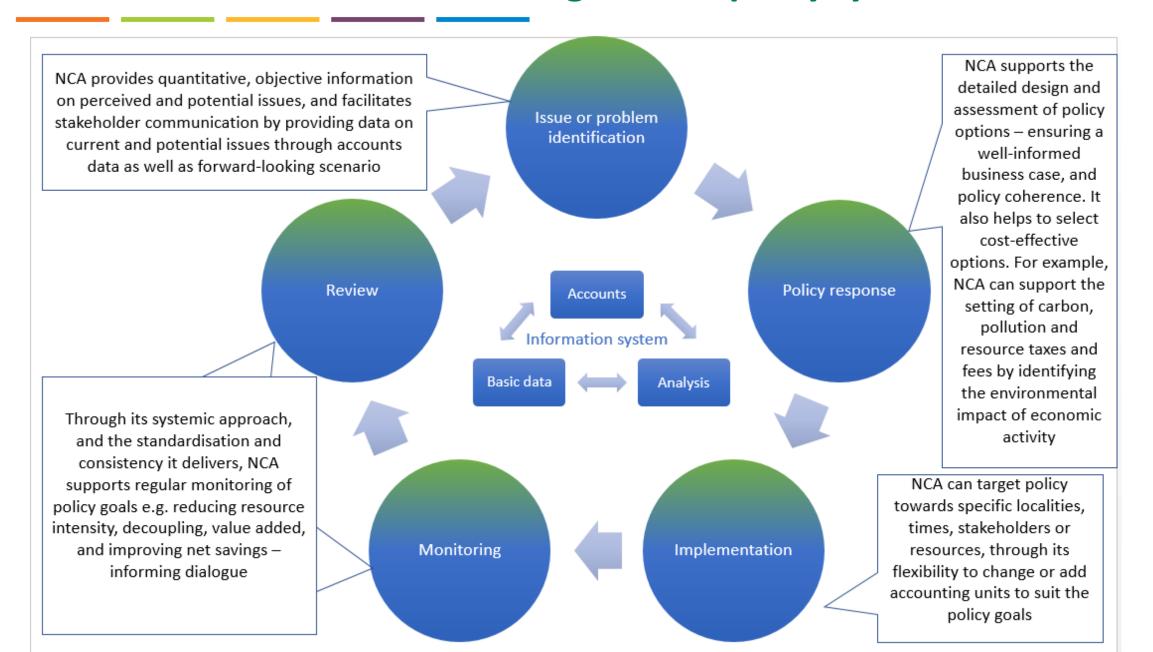
Forward Looking

# Recent country engagement has covered four key areas...



...Influencing WB country programs and operations

# Accounts have been used in all stages of the policy cycle

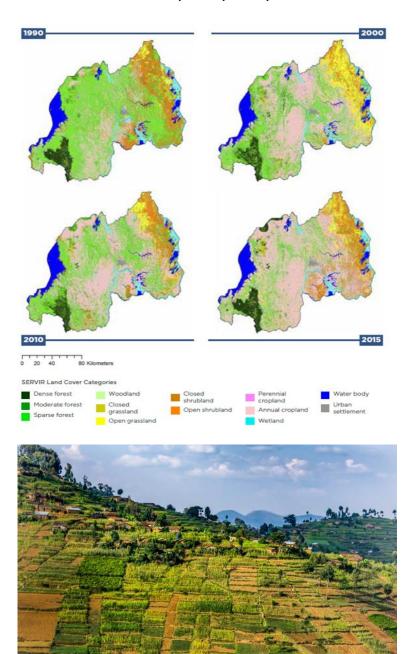


# **Country Examples:** Rwanda

#### **Land Accounts**

- Used for the revision of the Land Use Master Plan and the State of the Environment Report
- Input into the revision of the National Land Use Development Master Plan and the Land Administration Information System
- Used in plans to improve climate resilience and forest investments. As part of its Vision2020 plan, Rwanda partners with the Climate Investment Fund
- Land and water accounts; provided input into investment plans to safeguard energy security, for large-scale landscape protection investments, to maintain dam capacity and to increase the capacity of water utilities

#### Land cover in Rwanda, 1990, 2000, 2010 and 2015



# Indonesia



#### **Accounts Developed**

- National land cover accounts (1990-2014)
- Land extent accounts for Sumatra and Kalimantan (2017)
- Feasibility analysis for the development of water account in the Citarum Watershed (2014 and 2016).
- Ecosystem Accounts for Peatlands (Sumatra and Kalimantan 1990-2014)

#### **Decisions**

- Provided data and modeling techniques for the Low Carbon Development Initiative for Indonesia (LCDI)
- A draft strategic Plan for SEEA Implementation (SEEA Roadmap) was developed
- Bappenas issued a new decree, replacing the 2016 decree, on the establishment of the Coordinating Group for SISNERLING implementation, similar to the WAVES Steering Committee.
- fed into the policy dialogue on the regulation on Fiscal Potential of Natural Resources, a new draft regulation largely based on the lessons learned from other WAVES countries.

## Guatemala

### **Forest Accounts**

- The forest section of the National Development Plan K'atun: Our Guatemala 2032 was built on the findings of the accounts.
- The National Strategy for Production and Use of Fuelwood is related to a new public-private strategy for sustainable production and use of natural resources including firewood and soils. This includes policy measures and incentive systems for forest protection, forest recovery and reforestation, as well as 20,000 direct and 60,000 indirect jobs in the future.

Multiple accounts: accounts served as basis for modelling fuelwood use and impacts of sanitation on development











## **Botswana**

### **Water Accounts**



#### **Development plans**

# - Inform the revision of the National Water Master plan, the Master Plan for Wastewater and Sanitation and the 2013 Integrated Water Resources Management Plan.

# Policy intervention / policy instruments

Improved water
 distribution and
 water use prices for
 the mining industry,
 considering water
 scarcity and cost
 recovery.

#### Legislation / investment

- Used for water reforms as part of the National Water Master Plan.
- Used to agree on covenants with the mines to encourage efficient water use.
- Used to reduce water distribution losses of the water utilities, increase waste water reuse and improve irrigation and distribution systems.

#### Other policy uses

- Monitor treated
  effluent and non fresh water by
  mines
- Monitor
  competition over
  water resources
  between mines and
  settlements.

# **Forward Looking**

Integrating Natural Capital in Macro-Economic Models in India



Policy question

Calibrate IEEM

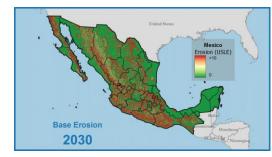
Run BASE + scenarios in IEEM

Spatially attribute LULC change, **Dyna-**CLUE

Model ES with InVEST and IEEM+ESM data packets







• IEEM is linked with the Dyna-CLUE Land Use Land Cover (LULC) change model and InVEST ES models to enable estimation of economic, LULC and ES impacts.