Madagascar in context

• Resource-rich fragile country
• Recurrent political crises
• As a result, GDP growth lower than population growth, poverty rates increasing
  • 2014: per capita income fell to 2005 level: USD 275
  • Absolute poverty at 92.8 % (2010)
• Population and economy highly reliant on natural resources
• WAVES program will help government ensure development is sustainable and equitable
• Challenges of working during a transition and through political instability
Accounts being produced

MACRO-ECONOMIC INDICATORS

TIMBER ACCOUNTS

MINERAL ACCOUNTS

WATER RESOURCES ACCOUNTS
Macroeconomic indicators

Context:

- Half of Madagascar’s assets lie in its natural capital
- However, weak growth for last 30 years
- Majority of population caught in poverty trap
- Inclusion of natural capital values in national accounts to:
  - (i) monitor the sustainability of economic development; and
  - (ii) manage key natural resource based sectors.
Macroeconomic indicators

Current status:

• Focus on adjusted net savings (ANS) and natural capital wealth
  • Depletion of natural capital represented 2.7 percent of the country’s GDP in 2010
  • Total wealth is declining (GNI growth of -6.5 percent), and ANS has always been negative since the 1980s

• Macro-economic policy note drafted

• Communication and training workshop planned to build capacity
Timber accounts

Context:

• Population is highly reliant on fuelwood for energy and timber for construction purposes
• Poor law enforcement in timber concessions
• Between 1950 and 2000, Madagascar lost half of its forest cover
• Population is expected to double by 2040

The timber accounts will inform policy on:

• Sustainable exploitation of timber resources
• Household energy
Timber accounts: current status

Data collected on:
- Timber stocks (surface area and volume), for different forest type, in/out of PAs
- Exploitation permits granted

Ongoing works:
- Monetary value of different forest types
- Yearly formal and informal timber consumption;

Proportion of forest cover per forest type (2013):

- Woodland: 63%
- Dense humid forests: 19%
- Dense dry forests: 8%
- Spiny forest: 8%
- Mangrove: 6%
- Tapia: 2%
- Pine plantation: 5%
**Forest cover and volume (2013):**

- Total forest cover: 25m ha, of which 18m are within non PAs.
- Plantations amount to only 80,000 ha: 0.31% of forest cover

**Surface loss (2005-2013):**

- 1.6m ha (24%) of dense humid forests
- 1.4m ha (42%) of dense dry forests
- Plantation surface area stagnating

**Volume loss (2005-2013):**

- 26% of dense dry forests
- 54% of dense humid forests
Mineral accounts: context & policy issues

Context:

- Geologically rich country (ilmenite, cobalt, nickel, iron ore, coal, bauxite..)
- Potential to underpin country’s economic takeoff (sector contribution to GDP could grow from <1% to 14% by 2025)
- Royalties captured are low compared to other countries (1-2%)

Identified policy entry points:

- Maximize resource rent
- Investment of resource rents in productive assets
- Manage land use conflicts and control other adverse effects
## Mineral physical stock accounts

<table>
<thead>
<tr>
<th></th>
<th>Ilmenite</th>
<th>Nickel</th>
<th>Cobalt</th>
<th>Chrome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Closing stocks (2012)</strong></td>
<td>7 million tons (Commercially viable)</td>
<td>1.6 million tons</td>
<td>132,000 tons</td>
<td>1.4 million tons</td>
</tr>
<tr>
<td></td>
<td>39 million tons (Potentially viable resources)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Extraction</strong></td>
<td>1.6 million tons between 2008-2012</td>
<td>16,150 tons between 2010-2012</td>
<td>1,385 tons between 2010-2012</td>
<td>833,000 tons between 2008-2010</td>
</tr>
<tr>
<td><strong>Observations</strong></td>
<td>Given current use, the life time of the three fields (Toliary Sands, QMM and Mainland) would be over 64 years.</td>
<td>Real extraction is low compared with capacity, could be due to price fluctuation</td>
<td>Extraction has grown rapidly but remains far from the full capacity of 5,600 tons per year</td>
<td>The life time of reported reserves is 7 years Reserves could be underestimated.</td>
</tr>
</tbody>
</table>
Water resources accounts

Context:
• Abundant water resources (>1,500mm/yr)
• Major seasonal and subnational differences
• Water exploitation low (<5%)
• Demographic growth and rapidly increasing demand agricultural production

Some observations:
• 58% of food production from irrigated systems (remaining from rain-fed agriculture)
• Agriculture use 97% of water resources, but contributes to 27% of GDP
Water resources accounts: current status

• Data on physical stocks collected for 2001-2013
• First attempt at compiling values for national water assets and flows
• Data collection on flow account ongoing
Next steps

MACRO-ECONOMIC INDICATORS
- Update indicators
- Update policy note

TIMBER ACCOUNTS
- Compile the monetary account for legal and illegal harvest
- Publish a policy brief on timber physical and monetary accounts

MINERAL
- Refine physical stock account
- Calculate rent
- Policy analysis related to mineral rent recovery, distribution & investment

WATER
- Refine priority policy question
- Select pilot basin for flow accounts
- Compile the water accounts
- Publish a policy brief on stock and flow accounts
Enhancing Sustainability of Outcomes

- Build capacity within Ministries, including the NCA unit and champions
- Launch a major communication campaign based on Program outputs and briefs
Government support

- Despite challenges, government has supported the Partnership:
  - Establishment of the Steering Committee
  - Technical working groups, headed by a champion in each Ministry
  - USD 500,000 of co-financing

- Political context: elections in 2013, new government in 2015, continued support:
  - Creation in 2014 of a NCA unit in the Ministry of Economy
  - Recognition of the importance of NCA in the National Development Plan

- Next year of WAVES will be used to communicate results and further institutionalize NCA in Madagascar