Natural Capital and NDP III 2021-2025

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Summary

GDP is a good measure of annual production in a country. It is however an insufficient indicator of development as it only records income. In addition, it does not sufficiently cover the flows and stocks of natural resources, which is key to achieve both economic and ecological sustainability. Natural Capital Accounting can contribute directly to three of the five objectives of NDP III.

This brief demonstrates importance of different NCA accounts for development planning, based on experiences from Uganda and other countries.

Background

The Uganda Natural Capital Accounting program aims to mainstream natural capital into development policy dialogue and planning by integrating a set of accounts that will inform the Third National Development Plan (NDP III) and other national and sectoral policies.

The aim of the program is to increase understanding of the contribution of natural assets and ecosystem services to the economy and the impact of the economy on this natural asset base.

The theme of the third National Development Plan for Uganda is 'sustainable industrialization for inclusive growth, employment and wealth creation.' Uganda aspires to become an upper middle-income country and, to achieve this, its per capita wealth must increase significantly. This will require investments not only in produced and human capital, but also in natural capital.

- Natural capital is critical to development and green growth as it provides direct and indirect benefits to society.
- Uganda's per capita assets have consistently increased since 1994, growing by 52% to US$ 13,732 in 2014. This means that the country's productive potential has expanded.
- However, per capita natural capital only recorded a marginal increase of 1.8% since 1994. It has fluctuated between US$4,000 to 6,000 since 1995.
- Natural Capital Accounting is a framework to consistently measure and monitor a country's natural capital and its use of natural resources.
- Natural Capital Accounting can contribute directly to three of the five objectives of NDP III:
  - i) value addition in key growth opportunities,
  - ii) consolidate and increase the stock and quality of productive infrastructure and increased productivity,
  - iii) inclusiveness and wellbeing of the population.

The National Plan for Advancing Environmental-Economic Accounting (NP-AEEA) prioritises the development of water accounts, forest accounts, energy accounts, land accounts, air emission and waste accounts, and ecosystems extent and condition accounts. Most accounting efforts in Uganda are ongoing and documented results are still limited.

1. Land resources, land accounts and ecosystem

Land use and land cover accounts were produced for the period 1990-2015 for Uganda, with data points for 1990, 2000, 2005, 2010, and 2015.

The land cover accounts showed a huge decrease in woodland, a decline in tropical high forests, and a reducing wetland area. Bush and small-scale farmland increased rapidly; built-up areas and plantation also increased. Wetlands increased from 1990 but reduced from 2000.

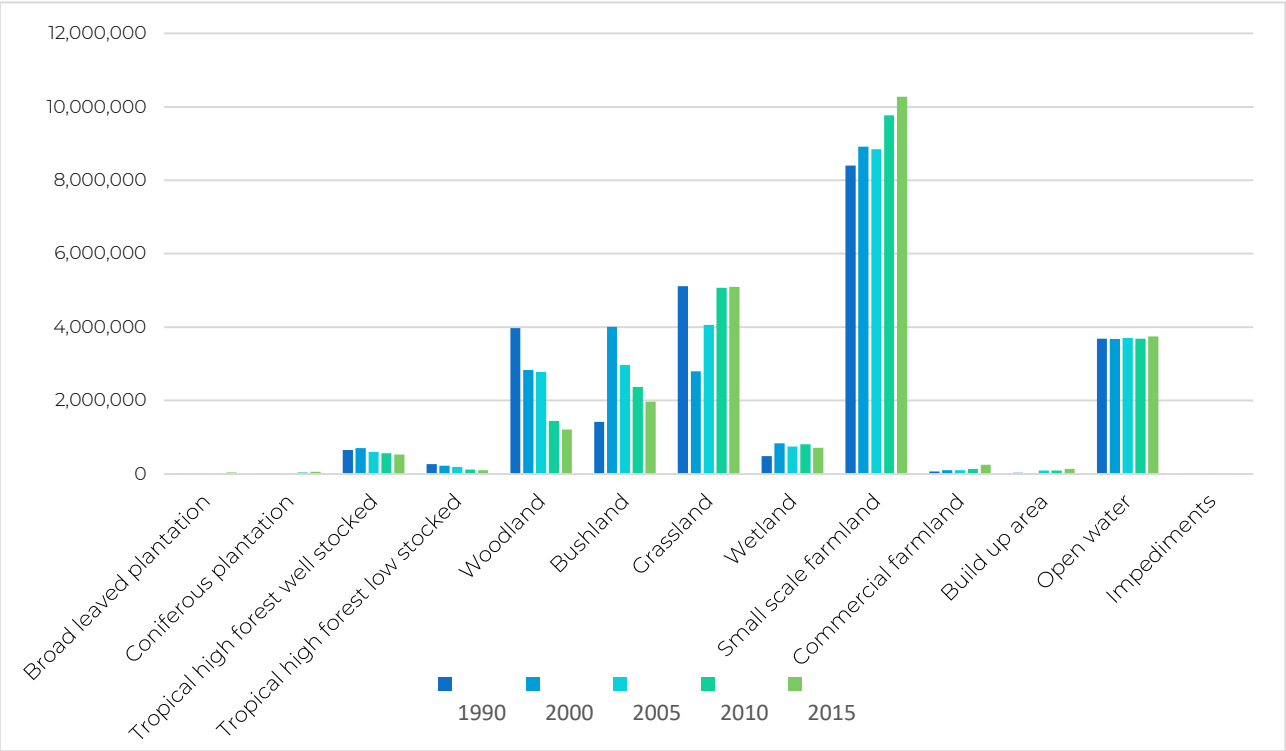
Tree plantations increased. Small-scale agriculture has rapidly expanded, as it is the foundation of rural livelihoods and there are no significant alternatives. Economic diversification, including industrialization and tourism development, should offer livelihood alternatives in future and reduce the deforestation pressure. Biodiversity accounts reconfirmed the importance of protected areas for biodiversity.

They showed that investments are warranted in protected areas not only from an ecological perspective, but also from an economic standpoint as they are important for tourism.

Furthermore, there is an undertapped use potential of plant and animal species, such as Gum Arabic, Shea tree, Prunus Africana and many others.

The land accounts have been compiled at national, sub regional and district level, making them highly relevant for sectoral and local government planning. They are also compiled for different spatial zones relevant to related policy areas: ecological zones, water management zones, agro-ecological zones, climate zones and administrative regions. Based on the accounts, CO_2 sequestration associated with changes in land cover can be readily derived.

Figure 1: Trend in land cover changes Uganda 1990-2015 (ha).



2. Water resources and accounts

Uganda has abundant water resources, most of which are transboundary in nature (69%). These abundant water resources are not evenly distributed. Several parts of northern and north-eastern Uganda as well as the cattle corridor have annual water deficits (MWE 2013). Therefore, the Government regularly has to intervene to improve distribution of water for production and domestic use. Additionally, water pollution and siltation of dams are concerns as are future water demands from irrigation, hydropower and the mineral and industrial sectors. Climate change will require investments in extra water storage. In the quest to obtain middle-income status, it is important to delink economic growth from increased water consumption.

Water accounts show the extent of delinking, the intensity of water use (value added/m3 of water is often low for irrigation compared to other water uses), trends in water losses and the importance of water service providers and so-called self-providers (the latter are often overlooked in policy). Water asset accounts show water availability by type (ground and surface water) as well as nature (renewable or not and internal or not). This is important information for water resource management.

3. Forests and forest accounts

Uganda's forests are rapidly declining: 60% have been lost since 1990. Forests are also being degraded due to forest conversion for crop production and overharvesting (e.g. for firewood and charcoal). Deforestation has led to a serious loss of ecosystem services such as carbon sequestration, habitat provision, non-timber forest products, water regulation and soil retention.

Deforestation takes place because the value of forests is underestimated and hence the immediate perceived benefits of deforestation are perceived to be bigger than the benefits of forest conservation.

The 2018 forest accounts study showed that the value of forests is higher than the benefits of deforestation. In Costa Rica, a country with a longer history of doing forest accounts, they provided better appreciation of the value of forests and led to more private and public forest investments an afforestation. Indeed, Costa Rica demonstrates a scenario of economic growth and growth in forest cover and population growth.

4. Energy sources and energy accounts

Uganda aspires to expand energy supply and to achieve a more balanced mix of energy sources (renewable and non-renewable). The target is to connect 60% of the population to the national grid at affordable electricity costs.

The future energy mix is expected to include more hydropower (now only 15% of the potential is used), geothermal power, nuclear, solar and biomass. Energy accounts demonstrate who the main users/ sectors are, their resource use efficiency in time, trends in energy security (e.g. domestic production, imports and consumption) and the energy mix (e.g. renewable versus non-renewables).

In addition, they provide figures for CO_2 emissions associated with energy production, which is an important indicator for green growth.

5. Minerals and mineral accounts

Uganda's mining sector is still small (on average 1.5% of GDP in period 2014-2016), limestone and pozollana being the most important minerals up till now. This will change soon with the discovery and exploitation of oil and gas. Opportunities for beneficiation are important to boost resource-based industrialization (e.g. planned oil refinery). For mineral resources, most countries develop physical and monetary asset accounts.

Economic rents of specific minerals ranges from marginal to high. The rent is associated with global market prices and are volatile. The accounts further show how much of the economic rent is captured by government to boost development. It is furthermore important to account if the revenues from subsoil assets are re-invested in other sources of wealth, in order to ensure that growth is sustainable in the long term. Finally, expected mineral lifetime is important to assess regularly, as it is typically much longer than initially estimated, and this will change the wealth estimates of the country.

Key policy messages

- NCA offers empirical and quantitative information to support evidence-based development planning and sectoral planning. Through time series data, it also assists in monitoring resource stocks and user trends over time, which can be used to analyse the impacts of various development and resource policies. The information can also be used to generate future development scenarios (e.g. resource intensity by sector).
- Natural resources and biodiversity offer new opportunities for green growth and development, which can be estimated through the NCA.
- Efficiency gains in resource use (sectoral and allocative) are important to decouple economic growth from resource use. NCA is particularly suited to derive indicators on resource efficiency, monitor the development over time and explore how development plans may affect resource use.
- NCA can be applied at different spatial levels, making it relevant for national development planning as well as sectoral development planning and local government planning.
- NCA shows the country's natural wealth and its use. It shows the degree of sustainable development and contributes to the monitoring of NDP III and various SDG indicators, including the level of savings and investments adjusted for depletion and degradation of assets (ANSI or SBI).

NCA related indicators for development and sectoral planning

- Abstraction, use and access trends of natural resources by economic sector and by households (physical & monetary).
- Efficiency or intensity of use of natural resources (e.g. value added/resource unit or per capita)
- Stocks of renewable and non-renewable resources (physical & monetary).
- Environmental expenditures & revenues by resource.
- Sustainable use of resource revenues (e.g. ANSI and SBI).
- Pollution indicators, including CO2 emissions and sequestration.
- Green Growth and Sustainable Development (sustainable wealth creation).

> ***Most NCA activities in Uganda are currently funded by external sources. It is important that NDP III, sectoral plans and local government plans support the implementation of Uganda's own NP-AEEA with finances and human resources.***

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