



WAVES
Brief

UGANDA
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Uganda

Adjusted Macroeconomic Indicators

Brief

Summary

Uganda's per capita wealth has been increasing slowly, by 2.4 percent a year in real terms over the period 1995-2014.

This indicates that in the most recent period, the accumulation of wealth has been slower than population growth. The largest single contribution comes from human capital, illustrating investment in education.

Background

The Natural Capital Accounting framework being developed in Uganda reflects recent developments and global trends in broadening the measurement framework for economic activity. Traditional measures of economic activity, such as GDP and the conventional national accounting framework measures, do not consider some of the broader impacts of that activity, such as the consumption of natural resources, pollution and environmental degradation. An important initiative to address these shortcomings is the System of Economic-Environmental Accounts (SEEA).

Increased attention is being paid around the world to enhancing the range of economic indicators used to assess the long-term sustainability of economic progress. As part of this, two important sets of new economic indicators have been developed;

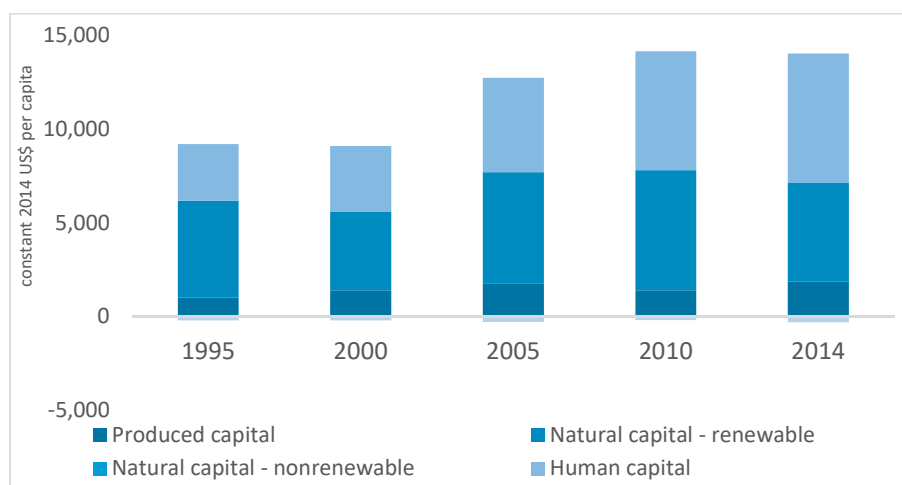
- adjusted macroeconomic measures of national income and savings, reflecting a wider range of asset depletion than conventional measures, as well as environmental damage and income saved for investment in human capital.
- information on national wealth, based on a comprehensive measure of different types of wealth / assets, including renewable and non-renewable natural capital, produced capital, human capital and financial assets.

The two sets of indicators are complementary. Adjusted national income measures whether income is growing in the short-term, while wealth indicates the prospects for maintaining that income and its growth over the long term. (Adjusted) savings provides the link between income and wealth.

The largest single contribution to Uganda's comprehensive wealth comes from human capital, illustrating the importance of investment in education.

This is followed by cropland and pastureland, reflecting the importance of agriculture, and then by produced capital (buildings, infrastructure etc.). The contribution of forest land to overall wealth is low, due to the rapid depletion and deforestation seen over many years.

Figure 1: Per capita wealth of Uganda

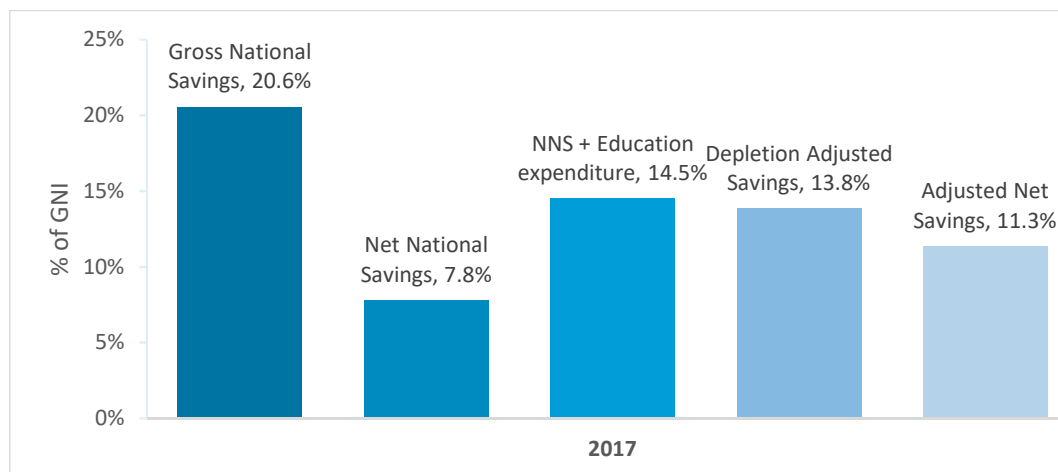


Findings

Adjusted Macro-economic Indicators

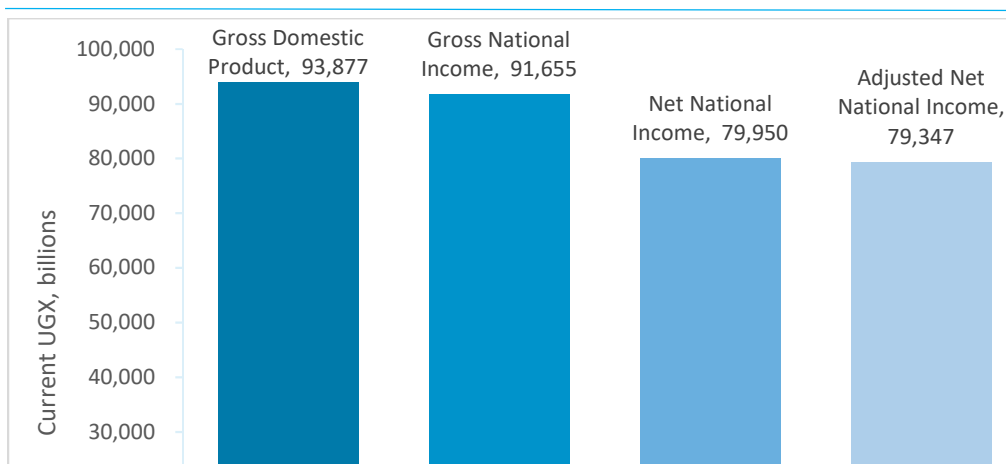
Uganda demonstrated a positive **Adjusted Net Savings** in 2017 (Figure 2) due to high education expenditure (public and private), and a decrease in the monetary value of net forest depletion as a result of using local market prices of timber products which are lower than the World Bank estimates.

 Figure 2: ANS visualisation as a % of GNI (2017)



Adjusted Net National Income is also relatively high (Figure 3), as a result of a low net natural capital depletion. This is because timber products have such a low monetary value in Uganda, and consumption of fixed capital may be an underestimate.

 Figure 3: ANNI visualisation in current Ugandan Shillings (2016/17)



The data suggests that Uganda's current growth does not come at the expense of running down its capital, since Adjusted Net Saving is positive. Two main adjustments in the calculation have contributed to this.

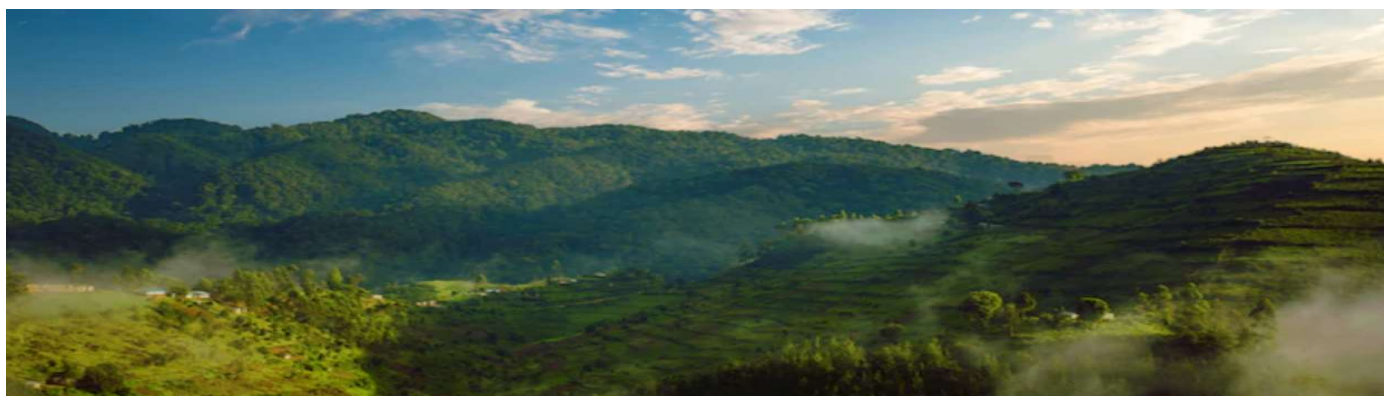
- High investment in **human capital** in form of education expenditure (both public and private) which has adequately compensated for natural capital use.
- Low **market prices** attached to wood which drastically reduces the loss in natural capital compared to the global estimates.



Policy Recommendations

- Increasing the rate of domestic financial savings.
- Ensuring that domestic financing, in the context of increased savings, is used as far as possible to finance domestic investment (using foreign borrowing to finance investment does not lead to an increase in national wealth, as increased produced capital is offset by reduced net financial assets).
- Reducing (preferably reversing) the rate of net forest depletion.
- Reducing pollution from CO2 and related emissions and particulate emissions damage.
- Ensuring productive assets are properly maintained so as to extend their lifespan and reduce annual consumption of fixed capital.
- Increasing (public and private) education spending.
- Increasing the productivity of farmland (hence increasing its capital value from higher future earnings).
- Shifting the balance of government spending towards capital and education spending (both of which are investment and add to capital), while ensuring that investment spending is prioritised on high-return projects;
- Minimising recurrent budget deficits (which reduce Adjusted Net Savings).
- Considering the adoption of a 'Sustainable Budgeting Rule' and accompanying measures to ensure that future fiscal revenues from minerals and energy are spent only on public investment (including education spending).

The importance of natural capital accounting will become even greater when Uganda begins commercial production of oil and gas in the coming years, and also as production of other minerals is expanded. With an increasing proportion of Uganda's national income derived from the production of non-renewable resources, it will be crucial to ensure that sustainability is central.



1. Adjusted Macro-economic Indicators

Adjusted net national income (ANNI): conventional measures of gross national income (GNI) are adjusted by deducting the value of depletion of assets, including produced capital (consumption of fixed capital) and natural capital (both renewable and non-renewable).

Adjusted net savings (ANS): conventional measures of gross national savings (GNS) are adjusted by adding the value of investment in human capital, deducting the value of depletion of assets (as above), and deducting the value of pollution damage.

2. Comprehensive wealth components

Produced capital is also referred to as capital stock. It includes buildings, machinery, equipment and urban land.

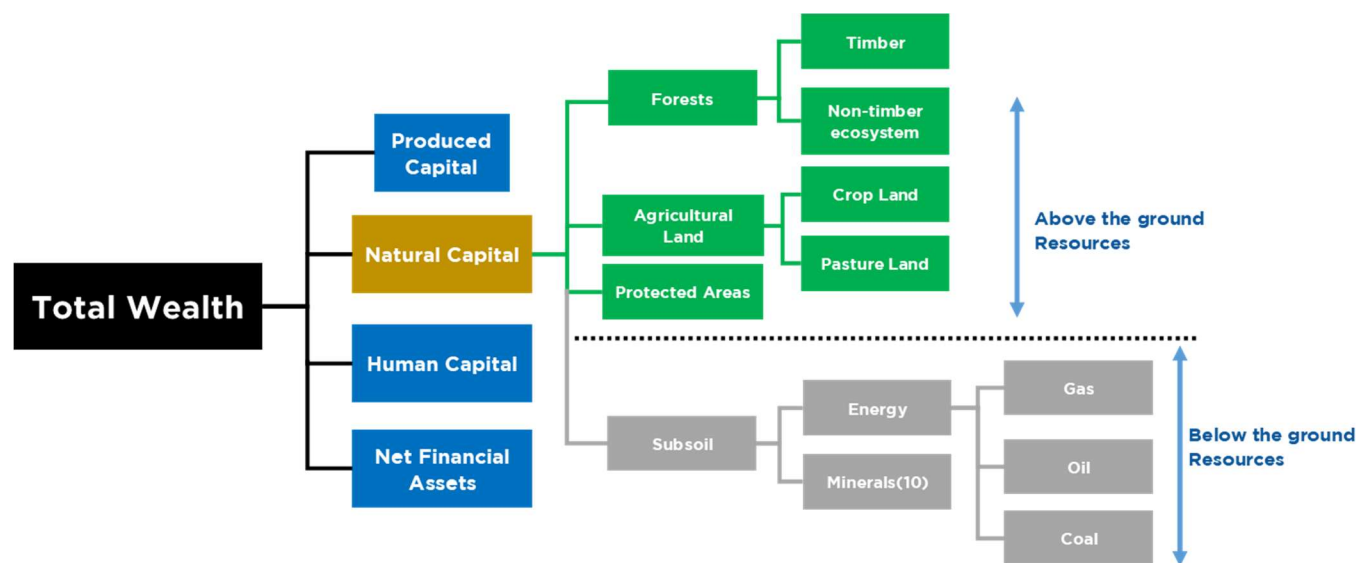
Natural capital:

- i) *Non-renewable resources*, this includes minerals and energy resources below the ground. Energy resources include coal, oil and gas, while minerals include the ten major commodities mined globally: copper, nickel, tin, gold, bauxite, iron ore, phosphate, lead, silver and zinc.
- ii) *Above ground resources*: this is divided into several sub-categories, including agricultural land, forests and protected areas.

Financial capital (Net financial Asset) refer to the value of overseas assets owned by a nation, minus the value of its domestic assets that are owned by foreigners, adjusted for changes in valuation and exchange rates.

Human capital is the value embodied in the education, training and skills of the population, which is as important an input to the production of economic value as the produced capital stock conventionally measured.

 Figure 4: Composition of comprehensive wealth



References

1. Lange, G-M., Q. Wodon & K. Carey (eds) (2018) *The Changing Wealth of Nations*, 2018: Building a Sustainable Future (Washington DC: World Bank)
2. United Nations (2014) *System of Environmental-Economic Accounting 2012— Central Framework*
3. World Bank (2006) *Where is the Wealth of Nations? Measuring Capital for the 21st Century* (Washington DC: World Bank)
4. World Bank (2011) *The Changing Wealth of Nations: Measuring Sustainable Development in the New Millennium* (Washington DC: World Bank)