DYNAMIC ANALYSIS OF SUSTAINABLE DEVELOPMENT GOALS:

Achieving the SDGs with Uganda's Third National Development Plan

Policy Brief

This brief is based on the full report by National Planning Authority (NPA) of Uganda, with technical and financial support from the United Nations Economic Commission for Africa (UNECA), and the United Nations Development Programme (UNDP) Uganda.

Background

Uganda has made significant progress towards achieving the Sustainable Development Goals (SDGs) and integrating SDGs into national planning and budgeting processes, starting with the Second National Development Plan (NDP) II. The Government has now begun implementation of the Third National Development Plan (NDP III) to achieve increased household income and quality of life. The primary objective of this report was to examine the potential medium- to longer-term impact of the Third National Development Plan (NDP III) on Uganda's sustainable development. The impact is measured using targets set both within the international framework of the Sustainable Development Goals (SDGs), and NDP III for Uganda. NDP III is the third of six five-year national development plans, covering the period 2020/21-2024/25 in fulfilment of Vision 2040. The Vision 2040 focuses on key sectors, resources and fundamentals to address strategic bottlenecks to encourage sustainable socio-economic transformation in the country (National Planning Authority, 2013). The analysis identified three SDG Accelerators - Environment, Governance and Industry - as the priority investment areas that increase SDG performance. To be clear, these are not, in a general sense, SDGs that accelerate other SDGs, but rather specific, actionable intervention areas that can accelerate SDG achievement. These accelerators would improve the overall SDG attainment by 10.1% by the end of 2030, as compared with the case where NDP III were not implemented. Additionally, interventions in Human Capital Development (which includes Health, Education and Water and Sanitation), and Infrastructure and Agriculture categories of interventions, are important for the achievement of specific SDGs.

Methods

The SDGs are interlinked in complex ways, both explicit and implicit. The Goals embody a complex system of interconnected feedback loops, lengthy-time lags between causes and effects, and nonlinear relationships that can lead to unforeseen or counterintuitive policy outcomes. Interventions to achieve a particular SDG target may cause underachievement or failure in another, and interventions that have an immediate desirable effect may have an undesirable long-term impact. Likewise, a successful intervention in one sector might create synergies that further progress in others. In this regard, analysis was undertaken to better understand which interventions and activities can be leveraged to more rapidly achieve multiple SDGs simultaneously.

The analysis was performed using the integrated Sustainable Development Goals model (iSDG) for Uganda (hereafter iSDG-Uganda), an integrated long-term simulation model. In the model, the simulations for the analysis start in the year 1995. They reproduce historical behaviour until 2019, and project development trends into the future until 2030. These development trends are affected by the policy interventions that are introduced to the model, which are linked to the policy interventions of NDP III. In order to provide a reference for the comparison of effects of the NDP III interventions, a base-case scenario referred to as Business as Usual (BAU) has first been developed. This scenario assumes no policy change, maintaining the observed historical growth trends into the

future as well as keeping constant the government and the private sector investment levels indexed to GDP, without any external shocks.

NDP III contains interventions that fit into the broad categories of agriculture, industry, services, transportation infrastructure, water and sanitation, health, education, environment, and governance. The SDG and NDP III target outcomes are compared to the BAU scenario both individually and together in the first component of analysis in order to assess their impact. Next, the comparison and further analysis across the 17 SDGs1 provides insights that help to identify SDG Accelerators. These accelerators are then used to critique and assess the impact of NDP III as a whole.

Key Results

The analysis identified potential medium and long-term outcomes for NDPIII's own targets and SDG targets. In the Base scenario, where no additional investment is made through NDP III, the average SDG progress in absolute terms is 7.0%. NDP III improves SDG performance by an average of 3.17%.

Further, the synergy and Return-on-Investment analysis identified the following three categories of interventions are key SDG accelerators: **Environment, Governance and Industry**. These three categories of accelerator interventions can be mapped back to the eighteen programmes in NDP III and their responses. It should be noted, however, that the synergistic combination of cross-cutting programmes delineated in NDP III, which include investments in categories such as Health, Education and Infrastructure, would be necessary in addition to the SDG accelerators, to fully realize the potential of the investments.

NDP III's Contribution to SDG Attainment

NDP III would improve the overall SDG attainment by 10.1% by the end of 2030, as compared with the case where NDP III were not implemented.

* Assuming a conservative scenario, where additional investment after 2025 is halved SDG 9 (Industry, Innovation and Infrastructure) improves the most of any goal

improves from 40.4% to 52.0% in the baseline scenario with NDP III

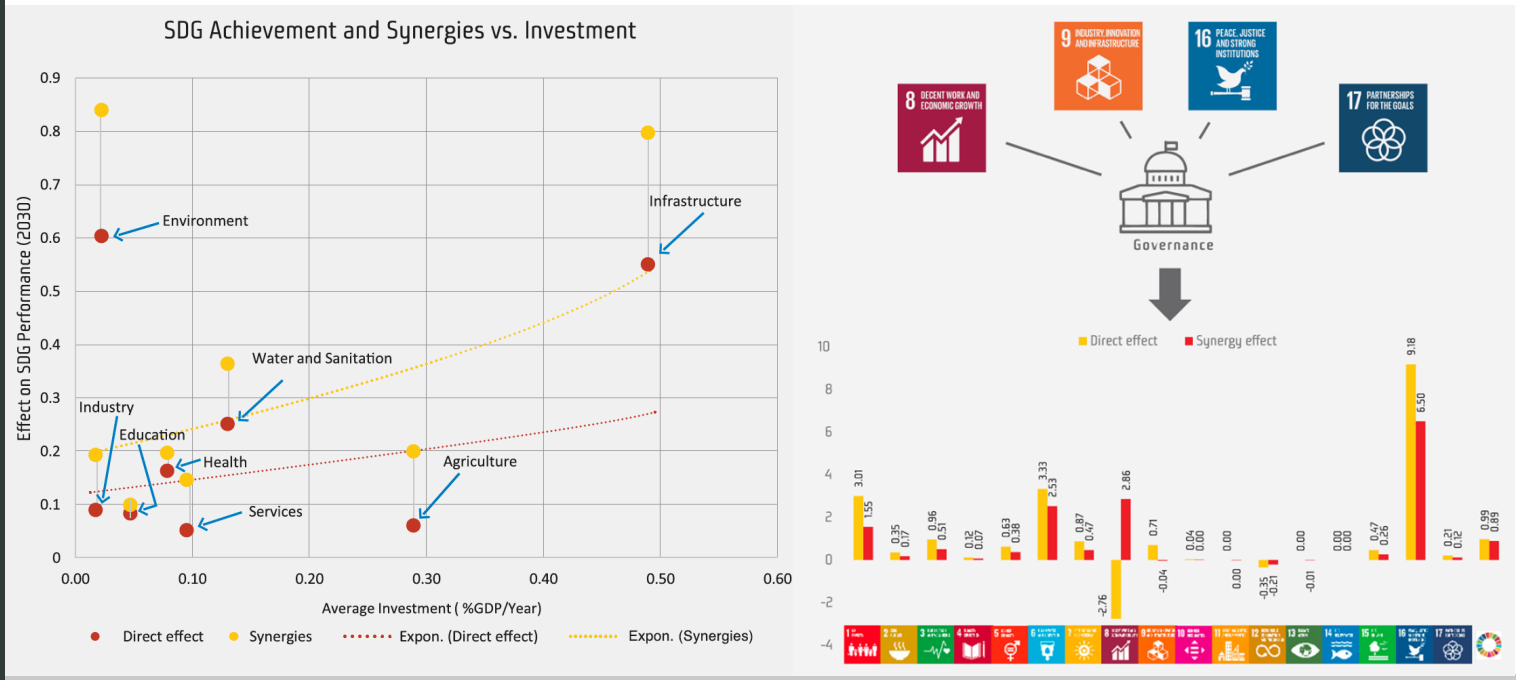
The improvement is driven primarily by investment into paved roads under the NDP III's Integrated Transport Infrastructure and Services Program and the Agro-industrialization, Mineral Development, Sustainable Development of Petroleum Resources, Private Sector Development, Manufacturing, and Sustainable Urbanization and Housing Programmes

improves under NDP III, from 34% for the Base scenario to 41.1% with NDP III for the former, and from 36.1% to 45.4% for the latter

The improvement is driven by a multitude of factors, including NDPIII programmes which emphasize the areas of Governance, Environment and Agriculture. Agricultural interventions contribute significantly to reducing poverty, as they typically target those earning the least, while environment programmes help minimize the impact of climate change. Governance interventions help implement these programmes, as well as improve the business environment.

improves from 40.4% to 52.0% in the baseline scenario with NDP III

The NDPIII Programmes that drive improvements in SDG6 are primarily Sustainable Urbanization and Housing, and Regional Development. However, Private Sector Development, Development Plan Implementation, Community Mobilization and Mindset Change, Governance and Security Programme, Public Sector Transformation, Human Capital Development, Regional Development, Agro-Industrialization and Climate Change, Natural Resources, Environment and Water Management programmes also drive improvement in SDG6, SDG1, and SDG9.



Figures: Left: Value invested (x-axis) vs direct effect (red on the y-axis) and synergy effect (yellow on the y-axis) of each category of intervention. The corresponding synergy for each direct effect is represented by the yellow dot directly above the direct effect (red dot). Right: The direct and synergy effects of Governance interventions on SDG attainment.

Governance interventions in NDP III have the highest overall impact on the SDGs (an average of 0.99%) and a positive effect on 12 of the 17 SDGs. **Environment interventions have the highest average return on investment** (26.81% improvement for every percentage of GDP spending) and a positive effect on 14 of the 17 SDGs. **Industry interventions have the second highest average return on investment** (6.87% improvement for every percentage of GDP spending) and a positive effect on 12 of the 17 SDGs. **Environment and Industry work synergistically together to eliminate their negative effects on SDG 8 in particular.**

Policy Implications

The NDP III is a well-rounded plan that targets overall sustainable development. For the attainment of both the SDGs and the goal of NDP III, there is no silver bullet, and the cross-cutting programmes of the NDP III work harmoniously together. Because of its integrated nature, where programmes cross many investment areas, it should be implemented in its entirety.

While the study finds that the programmes of NDP III are most effective for SDG achievement when implemented together, priority in implementation should be given to programmes that offer interventions in the three accelerator areas: Governance, Environment, and Industry.

Along with the analysis of NDP III and its effects on sustainable development in Uganda, this project has developed a fully calibrated model reflective of key sector dynamics. This model includes an easy-to-use interface that allows introduction of different combinations of interventions to show their effects on SDG and other indicator achievements. It is an effective tool to facilitate discussion between stakeholders with different perspectives and show trade-offs and synergies between different policies.

In times of crisis, such as with the COVID-19 pandemic, the ability to quickly simulate various scenarios becomes increasingly important, as the longer-term impacts and consequences of different scenarios can be rapidly tested within the model. The model can, therefore, serve as an additional tool for the development of effective policies to mitigate the effects of the pandemic. Beyond responding to crises by gaining a systemic understanding of such crises, effective and cost-efficient solutions can be adopted to increase the resilience of social and economic systems to future shocks, while protecting finite environmental resources. Additionally, systemic issues can be addressed by using the model to plan for potential future crises and develop policy responses that enhance resilience to future shocks, fostering inclusive, equitable and sustainable development.