



Geographically prioritizing commodity investments in Uganda

Agriculture, a key driver of economic recovery

According to International Monetary Fund (IMF)'s projections, the two first years of the COVID-19 pandemic (2020–2021) have led to a growth rate of approximately 3 percent, which is only half of the projected pre-pandemic growth rate. Given the direct implications of economic growth on well-being and poverty, the faster Uganda is able to reverse this trend, the better.

One way in which the Government of Uganda is tackling this is through the Third National Development Plan (NDP III), which could inject the much-needed funds to support a faster economic recovery.

A key sector for investment identified by the government is agriculture. This sector currently accounts for approximately one-quarter of gross domestic product (GDP) and two-thirds of total employment. To support agriculture's growth, the government plans to invest UGX 9.2 trillion (approximately USD 2.4 billion at current exchange rate) over five years.

Spatial targeting of investments in agriculture is key for their cost effectiveness

To maximize the potential impacts of investments, the government must spend wisely. However, ensuring that investments are cost effective and bring about the desired impacts, is challenging. This is the case because value chain selection and the functional and spatial composition of investments will influence important outcomes such as agricultural growth and poverty. In other words, decisions from policymakers regarding which value chains to invest in, and where to invest, are critical.

This highlights the need to develop and use tools to support policymakers in making more informed choices about where to invest in specific commodities.

KEY MESSAGES

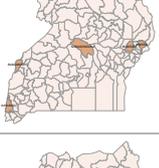
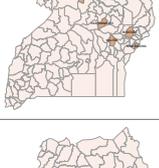
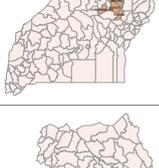
- ▶ The same investment in agriculture will have different impacts depending on the setting; therefore, improving the spatial targeting of investments is critical to make them more cost effective.
- ▶ Several districts are strong candidates for investments in Uganda's agriculture but selecting them should be context and commodity specific.
- ▶ Spatial targeting of commodity-specific investments in agriculture becomes even more important in Uganda where policy initiatives and services are becoming ever-more decentralized.

Identifying high-potential geographical areas

A key step is to identify the geographical areas that are likely to have large impacts in terms of both agricultural growth and poverty reduction. The basic premise for this identification is where a given commodity is culturally acceptable and this land is characterized by high agricultural potential, large productivity gaps and high poverty.

Applying this logic to Uganda, five prioritized districts have been identified for seven commodities (bananas, cassava, coffee, goats, maize, millet and sugar cane) and the results are summarized in Table 1. The commodities have been selected from a ranking of the sectors that produce them, according to how the same investment in productive infrastructure in these sectors impacts economic and social variables at the national level.

TABLE 1. List of selected districts in Uganda and maps at the step of the iterative elimination process

| Commodity | List of selected districts | Selected districts |
|--|---|---|
| Banana (PC, GDP, PO) | Kasese (western) Kabarole (western) Kyenjojo (western) Kalungu (central) Bukomansimbi (central) |  |
| Cassava (PC, PO) | Gomba (central) Kassanda (central) Kiboga (central) Kyenjojo (western) Jinja (eastern) |  |
| Coffee (Ex, AGDP) | Kyankwanzi (central) Kassanda (central) Mitooma (western) Kayunga (central) Kagadi (western) |  |
| Goats (PC, GDP, EX, PO) | Kween (eastern) Bukedea (eastern) Kanungu (western) Nakasongola (central) Bundibugyo (western) |  |
| Maize (PC, GDP, EX, PO) | Kaliro (eastern) Kaberamaido (eastern) Omoror (northern) Namisindwa (eastern) Bukedea (eastern) |  |
| Millet (GDP, AGDP, PO) | Ngora (eastern) Kaberamaido (eastern) Soroti (eastern) Amuria (eastern) Kapelebyong (eastern) |  |
| Sugar cane (PC, GDP, AGDP, EX, PO) | Bugweri (eastern) Luuka (eastern) Iganga (eastern) Kamuli (eastern) Jinja (eastern) |  |

Notes: PC = private consumption; GDP = gross domestic product; AGDP = agrifood GDP; EX = exports; PO = rural poverty. These acronyms indicate dimensions for which the sector that produces the respective commodity was ranked in the top-ten sectors as a result of the same simulated investment. An acronym in *italics* indicates the sector ranked first in the respective dimension. Districts in **bold** are selected for two different commodities.

Source: Adjin, K.C., Fontes, F. & Sánchez, M.V. 2022. *A tool to support the spatial prioritization of commodity-specific investments – An application to Uganda*. FAO Agricultural Development Economics Working Paper 22-12. Rome, FAO.

Priority districts are highly commodity specific

As illustrated in the maps in Table 1, selected districts differ greatly for the different commodities. This is to be expected given pervasive differences in cultural factors, agroecological suitability and constraints faced in different geographical areas of the country.

In the case of millet and sugar cane, results show that all the selected districts are located in the eastern region, with selected areas for millet generally more to the north, which is in line with the suitability of millet for more arid climates.

For maize, however, the selected districts are located in northern and eastern Uganda as the highest unrealized potential and poverty rates tend to be higher in those parts of the country. In the case of bananas, selected regions are predominantly in the western region, whereas the western-central region split is more even in the case of cassava and coffee.

In contrast to all analysed crops, for goats, there is a lack of spatial concentration, consistent with the fact that goats are reared in very different areas of the country, and which is equally evident in the choice of selected districts.

The name and region of each identified district are provided in Table 1.

A new policy tool to support policymakers

Policymakers have to make very important choices regarding where to invest in very data-scarce environments. This is particularly important in the context of Uganda, where the process of decentralization is very important and where there is a shift towards the provision of public services at very decentralized levels. This is encapsulated in important policy initiatives, such as the Parish Development Model. Yet, the planning tools that would provide evidence to support investment decisions at a granular level are often lacking.

On a technical level, the proposed tool, approach and results reported here can help fill this gap by allowing policymakers to identify, based on certain flexible criteria, the geographical areas where investments in agriculture are likely to have a higher impact. On a policy engagement level, they provide a basis for a broader discussion on what are additional important factors (e.g. conflict, protected areas, equity concerns, and so forth) that need to be taken into account when deciding where to invest.