



POLICY ANALYSIS

Reprioritizing public expenditure to accelerate agricultural transformation in Burkina Faso

Agricultural transformation in Burkina Faso

Despite steady economic growth over the last two decades, agricultural productivity remains low in Burkina Faso and subsistence farming is still the predominant production system.¹

The government of Burkina Faso made agricultural transformation a top priority with a view to increase production and rural incomes. Ongoing government programmes focus mainly on irrigation, input subsidies, extension services and agricultural equipment. This brief addresses two interrelated questions:

1. If Burkina Faso increases the level of expenditures in support of food and agriculture to 10 percent by 2025 (from 8.2 percent in 2019), what will be the effect on productivity?
2. How should additional investments be allocated to maximize their impact?

Increase of public expenditures positively affects production, yields and incomes

For the purpose of this study, the following scenarios were developed and analysed:²

- ▲ **Business as usual scenario:** For this scenario, public expenditure annual growth was paired to gross domestic product growth projections (6 percent)³ and agricultural expenditure growth follows historical trends, so that its share over the total reaches 6.4 percent in 2025.

¹ World Bank. 2017. Burkina Faso: Agriculture as a Powerful Instrument for Poverty Reduction. In: *The World Bank* [online]. Washington, DC. [Cited 29 January 2019]. www.worldbank.org/en/results/2017/06/29/burkina-faso-agriculture-as-a-powerful-instrument-for-poverty-reduction

² The study uses an economy-wide modelling framework (STAGE-DYN-MAFAP) fed with a social accounting matrix and other data provided by Burkina Faso's Ministry of Agriculture and Hydraulics in the context of the Monitoring and Analyzing Food and Agricultural Policies (MAFAP) programme.

³ International Monetary Fund. 2019. *World Economic Outlook: Global Manufacturing Downturn, Rising Trade Barriers*. Washington, DC.

KEY MESSAGES

- ▶ Burkina Faso could increase its agriculture and food expenditures to maximize its productivity potential and meet the Maputo target of 10 percent spending by 2025, while also selecting the right policy mix.
- ▶ Ongoing programmes support largely maize and rice production, while support for other important income generating crops for rural households, such as millet and sorghum, falls short.
- ▶ A balanced public investment strategy that couples spending on millet, sorghum, beans and sesame production with rural infrastructure expenditures (mainly extension services and mechanisation) has the highest potential to boost agricultural transformation in the medium- to long-run.

- ▲ **Alternative scenarios:** Five alternative scenarios are generated whereby Burkina Faso is presumably able to increase its agricultural expenditure to 10 percent in 2025. In four scenarios, half of the additional budget is allocated to the ongoing programmes, following their historical trends, while the other half is allocated entirely to only one of them. In the fifth (balanced) scenario, the entire additional budget is distributed to all ongoing programmes, following historical trends (Figure 1).

- ▲ **Effect on production and yields:** The simulated increase in agricultural public expenditure results in significant improvements of maize and rice yields; although not enough to reach the targets (Figure 2). Investments in perimeter irrigation would be the most beneficial for maize productivity, as they would help close the maize yield gap by 30 percent. Increased investments in all programmes altogether would have the biggest impact

on filling the rice yield gap (by 40 percent).⁴ The scenario with a focus on agricultural equipment results in the smallest yield effects for maize and rice (Figure 2), mainly because of the lower simulated expenditure compared to other programmes (Figure 1). Yield effects for sorghum and millet, however, are as high as of those of the scenario on input subsidies (Figure 2).

FIGURE 1. Public expenditure allocation scenarios

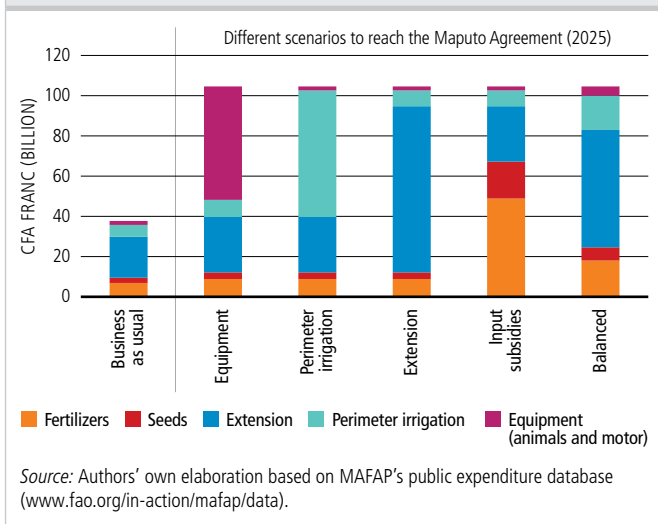
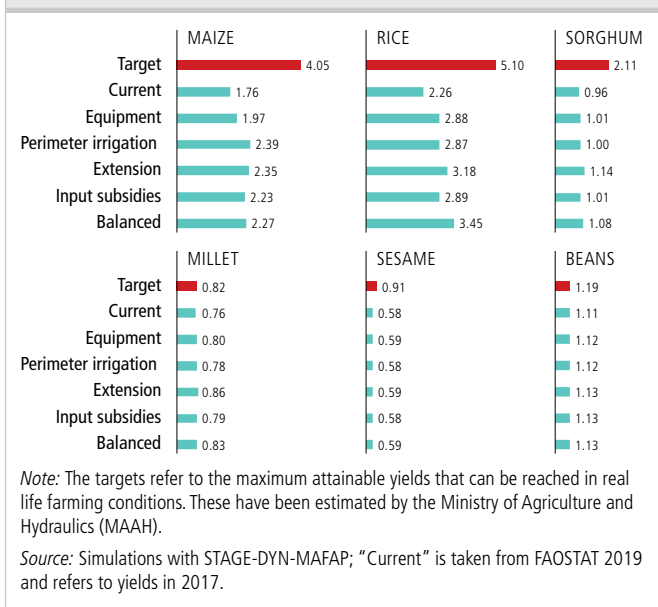


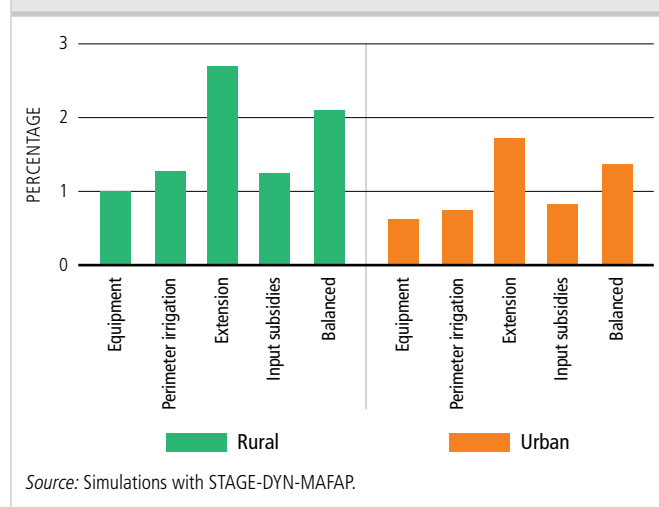
FIGURE 2. Effects on crop yields (in tonnes/ha)



⁴ Perimeter irrigation is applied to rain fed and not to lowland rice or rice irrigated through other techniques, which in turn accounts for more than two-third of rice production in Burkina Faso.

▲ **Effect on household incomes:** Sorghum, millet, sesame, and beans are predominantly rain-fed crops and benefit only slightly from irrigation and input subsidy programmes. They benefit the most from extension services and from recently initiated mechanization programmes. In particular, millet and sorghum are a significant source of income and calories for rural households in Burkina Faso. This is why the simulated investments on extension services stand out as the most impactful in terms of household income (Figure 3). These effects could be augmented not only if the simulated expenditure for extension services and mechanization would be higher, but also if domestic markets in rural areas were developed for supplying farmers with agricultural equipment, creating new jobs for rural households.

FIGURE 3. Effects on household income (differences to baseline, in 2025)



A multi-investment strategy that couples expenditures on extension and mechanisation and focuses on previously underfunded crops, such as sorghum, millet, sesame and beans has the highest potential to boost agricultural transformation

Enhancing agricultural transformation and reaching productivity targets in Burkina Faso can be achieved if the country not only intensifies but also diversifies its investments and pursues a multi-investment strategy. Re-designing ongoing programmes with a focus on extension services can help increase agricultural production and boost incomes at a higher pace. At the same time, expanding expenditure on mechanisation can have visible positive impacts on improving the productivity of crops that have received less support by existing programmes, such as sorghum, millet, sesame and beans.