



A mid-term perspective on agricultural diversification in Guyana

Guyana's agriculture sector

Guyana's agrifood systems are facing three main challenges: 1) oil discoveries in front of Guyana's coast will bring an immense inflow of revenues affecting labour, prices, and competitiveness of the agrifood economy; 2) climate-change-induced rising sea levels threaten the arable land along the coast; and 3) the loss of preferential access to the market of the European Union resulted in a crisis of Guyana's sugar industry and triggered the ongoing restructuring of the agricultural sector.

Guyana's agriculture sector contributed 16.85 percent to GDP in 2020 and represented 15.44 percent of total employment in 2019, and is, hence, an important source of income. Sugar, rice, fruits and livestock are the most important agricultural sub-sectors. Historically, agriculture has played a central role: large plantations of sugar and bananas were an important sector of the economy. Reforms of the European Union preferential market access for sugar, however, reduced export demand for sugar and bananas and stimulated the restructuring of farming systems and a shift of exports to niche products (Figure 1).

Today, Guyana's agriculture is more diversified, but the prevailing dependency on a limited number of export commodities (with an agricultural export concentration index of 0.42 in 2017) exposes its agricultural sector to market risks.

Against this backdrop, the government should rethink the future of the agrifood systems, policies, and investments. Diversification could hold a vital role for the sustainable development of the country's agrifood system. Diversifying agricultural exports has the potential for high economic returns and reducing economic vulnerability. The importance of economic diversification was recognized by the Government of Guyana and the 2030 Agenda for Sustainable Development. Diversification into climate change-resilient commodities could further mitigate Guyana's elevated risk from natural disasters and help to shift agricultural production from being concentrated in coastal regions, which are threatened by rising sea levels.

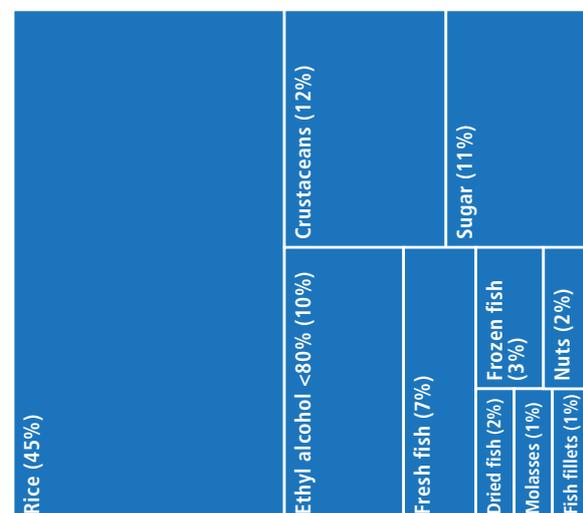


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KEY MESSAGES

- ▶ Diversification of agricultural exports is a feasible strategy to mitigate Guyana's market risks.
- ▶ Commodities, that are currently produced and have a positive outlook to promote development include fish, ethyl alcohol, crustaceans and rice.
- ▶ Potential products for future export and diversification include sunflower seeds/oil, palm oil, bovine, fish flour, cocoa beans/paste.
- ▶ Financial windfalls from oil discoveries put Guyana in a favorable position to develop an evidence-based investment strategy for agriculture and its diversification.

FIGURE 1. Agricultural export composition in Guyana, 2017



Source: Author's own elaboration based on data from United Nations. 2020. UN COMTRADE. Cited 3 December 2020. <https://comtrade.un.org/data>

Guyana's current export basket

To reveal commodities currently exported by Guyana with the potential to promote development, a combination of comparative advantage analysis and export sophistication is used. The normalized revealed comparative advantage (NRCA) provides an indication of Guyana's underlying comparative advantage in exporting a commodity. Commodities with a positive trend in NRCA are likely to be saleable on international markets. The export sophistication index measures the quality of exports and captures the implied productivity of exported commodities. Countries exporting commodities with high sophistication tend to have higher growth rates. In combination, a product with a high sophistication index and a comparative advantage can be sold on the international market and should promote development. The six commodities identified for Guyana along such lines are shown in the left panel of Table 1.

Guyana's potential future export basket

To identify not-yet exported commodities that would contribute to production and export diversification, we rely on the export sophistication index and a complementary measure of proximity, i.e. distance. Distance is the probability of moving from a given set of commodities (current export basket) to a not-yet exported product. Using these metrics, we identify ten commodity groups of sophisticated commodities that are the 'closest' to the current export basket in Guyana's product space. This implies that expanding exports to these goods should not be costly and will likely promote growth. The resulting commodity groups are shown in Table 1, right panel.

However, the results of this analysis should be considered as a first step to identify agricultural commodities, given the purely macroeconomic perspective of the analysis. A more exhaustive analysis is required to understand the agronomic and climatological suitability and resilience of the proposed product groups, their potential to contribute to food security objectives, as well as the cost of developing value chains.

Policy options to diversify Guyana's export basket

It is necessary to analyse the value chains of the proposed commodity groups to understand how and where to invest to promote diversification and growth of Guyana's agricultural sector. FAO's Hand-in-Hand Initiative, which informs governments, donors and investors on opportunities that bring inclusive agriculture and social development through an evidence-based territorial development

TABLE 1. Current products with comparative advantage and closest products with high sophistication

Current products		Closest products	
1	Fish: frozen*	1	Other oil seeds
2	Fish: fresh, chilled*	2	Bovine
3	Ethyl alcohol <80%	3	Sunflower seed oil
4	Crustaceans	4	Fish flour, for animal feed
5	Rice	5	Palm oil
6	Fish: dried, salted, brine	6	Fowl
		7	Sheep
		8	Cocoa beans
		9	Cocoa paste
		10	Sunflower seeds

Note: * excluding fillets.

Source: Author's own elaboration based on data from United Nations. 2020. UN COMTRADE. Cited 3 December 2020. <https://comtrade.un.org/data>

approach, could be a next step. Hand-in-Hand's stochastic frontier analysis, a methodology to typologize micro-regions according to investment potential in the agricultural sector, could be used to understand which areas to prioritize for investment.

The promotion of trade and intra-regional trade is also a potential solution given the limited size of Guyana's domestic market. Guyana's membership in the Caribbean Community (CARICOM), an intra-regional trade body, could be an opportunity to boost trade, an avenue that is not yet fully explored.

An agricultural feasibility analysis should be conducted such that any proposed commodity group and investment is feasible from a social, nutrition, environmental and climatological perspective. Furthermore, it should consider how developing agricultural production areas outside of the coastal zone could contribute to the development of local economies, markets and communities that attract people from coastal regions. This could reduce the level of vulnerability associated with a concentration of the population in coastal areas.

The financial windfalls from oil production leave Guyana in a very favourable position: they enable smart investments in agricultural sector reforms and holistic sector development. Developing an evidence-based investment strategy for the agricultural sector to guide government investments, that promote diversification and achieve long-term goals for the agricultural sector and food security, should be considered a priority.