



Guyana's diversification perspectives to overcome vulnerability

Guyana's agriculture sector

Guyana's agricultural sector is undergoing the typical structural transformation for middle-income countries since the 1990s. The agricultural sector is losing in importance, with a decreasing contribution to gross domestic product (GDP) from over 40 percent in 1990 to around 15 percent in 2015, which is due to growth in other sectors.

Nevertheless, the agricultural sector is still important in terms of employment. In 2017, around 18 percent of Guyana's population were employed in this sector representing an important source of income for many households.

Guyana and its agricultural sector are facing currently three main challenges:

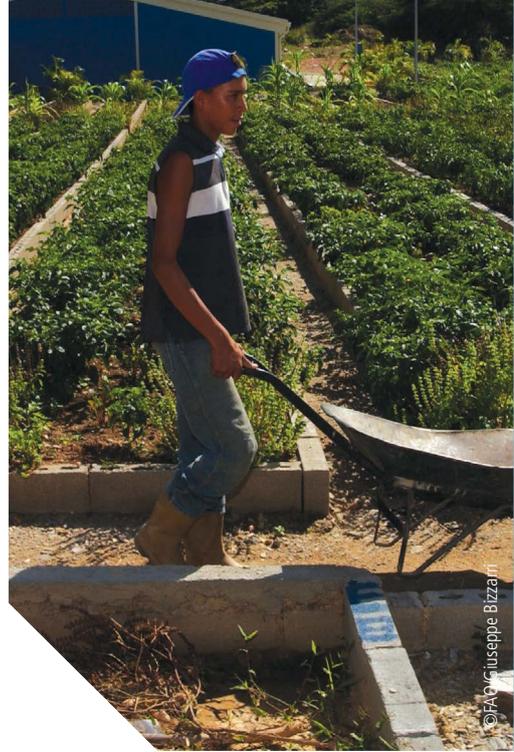
1. Loss of preferential access to the EU market, resulting in a crisis of Guyana's sugar industry.
2. Climate change with rising sea levels threatening arable land along the coast.
3. Oil discoveries before Guyana's coast will bring an immense inflow of revenues affecting labour, prices and competitiveness of the agricultural sector.

All this together required the government to rethink the future of the agricultural sector and to identify diversification perspectives for the coming years.

Economic vulnerability and diversification

Guyana is vulnerable according to the Economic Vulnerability Index (EVI). The EVI measures the likelihood that a country's economic development is obstructed by an external shock. The EVI ranges from 0 to 100 with higher scores corresponding to higher vulnerability.

Guyana's EVI remained relatively stagnant at around 50 since 2009 (Figure 1). This level is relatively high when compared to the Caribbean, Central and South America, and middle-income countries. Moreover, the EVI for these country groupings followed a declining trend, while it is still at around 50 in Guyana.

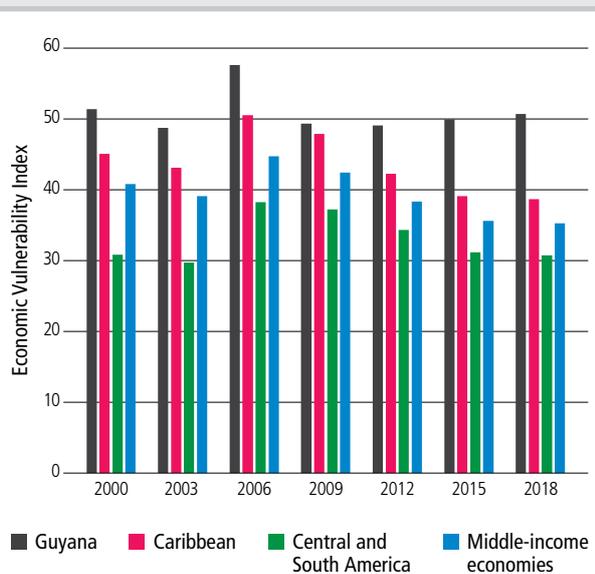


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KEY MESSAGES

- ▶ Diversification could be a feasible strategy to mitigate Guyana's economic vulnerability.
- ▶ Currently produced commodities with 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.

FIGURE 1. Economic vulnerability in Guyana and in selected country groups



Source: Bubbico, A., Keller, M. & Morales Opazo, C. 2020. *Perspectives on diversification prospects for the agrifood industry in Guyana*. FAO Agricultural Development Economics Technical Study 6. Rome, FAO.

The EVI combines eight variables to determine economic vulnerability¹ and evaluating each of them reveals that Guyana's high vulnerability can be explained mainly by four of them. First, Guyana's small domestic market with a population of only 750 000 people is not able to cushion external shocks. Second, the concentration of the export basket on legacy crops, which is a result of colonial institutions and past preferential access to the EU market. Third, the instability of agricultural production due to volatile international commodity prices. And, finally, the fact that 90 percent of Guyana's population is living in coastal areas.

The promotion of trade is a potential solution given the limited size of the domestic market. However, trade should be promoted in a diversified manner to avoid concentration on a few export goods and reduce instability of agricultural production due to volatile commodity prices, which would, in turn, come with high vulnerability again.

Guyana's current export basket

Comparative advantage analysis and the export sophistication index are used to reveal commodities currently exported by Guyana with the potential to promote development.

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 preferred because these commodities 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 weighted by the income levels of countries that produce them. Countries exporting commodities with high sophistication tend to have higher growth rates. Countries "become" what they export by converging to the income level implied by their export baskets.

In combination, a product with a high sophistication index and a comparative advantage can be sold in the market and should promote development at the same time. The six commodities identified for Guyana to which this applies are shown in Table 1, left panel.

Guyana's potential future export basket

To identify potentially new commodities that can contribute to diversification and growth in Guyana we rely again on the export sophistication index and a complementary measure of proximity, i.e. distance.

1 The EVI was developed by the United Nations with the objective to contribute to the identification of Least Developed Countries. The variables included are population size, remoteness, export concentration, agriculture share in GDP, homelessness owing to natural disasters, instability of agricultural production, instability of exports, and the share of population living in coastal areas.

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

Source: Authors' own elaboration based on data from the Guyana Bureau of Statistics (*excluding fillets).

Distance is the probability of moving from a given set of commodities (current export basket) to a new not-yet exported product.

Using these indexes, we identify 10 commodity groups of highly sophisticated commodities that are the closest to the current export basket, implying that expanding exports to these goods should not be costly and promote growth. The commodity groups are shown in Table 1, right panel.

However, this list is a preliminary step, as a more exhaustive analysis of the agricultural suitability as well as the cost of developing the value chains will be needed.

Policy options to diversify Guyana's export basket

It is necessary to analyse the value chains of the proposed commodity groups to get a better understanding on how and where to invest to promote diversification and growth of Guyana's agricultural sector. The analysis should be conducted with a focus on the distribution of value added and benefits created along the value chains to ensure that small farmers are included and not left behind.

Agricultural feasibility analysis should be conducted to ascertain that any proposed commodity group and investment is feasible from an environmental, social, and climate perspective. Furthermore, it should consider how the development of 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.

This work has been edited by Michael Keller and Cristian Morales Opazo.

The findings of this brief have been adapted from the technical study Bubbico, A., Keller, M. & Morales Opazo, C. (forthcoming). *Perspectives on diversification prospects for the agrifood industry in Guyana*. FAO Agricultural Development Economics Technical Study 6. Rome, FAO.