

**Belize Food System Transformation Pathway 2023-2030**  
**National Task Force (National Convenor, FAO, WFP, PAHO/WHO UNRCO)**  
**21 JULY 2023**

Belize, a mainland country of Central America, lies along the north-eastern coast next to the Caribbean Sea. Offshore Belize has hundreds of low-lying islands called “cayes” which host rich marine life. The country consists of 8,867 square miles inhabited by a population of 432,500 (2021).

Belize has a subtropical climate, with a well-marked dry season from late February to May and a wet season from June to November, interrupted from August to September by another dry season. The mean annual rainfall rises sharply from about 50 inches in Corozal on the northern frontier to 175 inches in Punta Gorda in the south, while Belize City sees rainfall of about 75 inches. There are, however, considerable yearly variations with increasing weather extreme events and seasonal variability.

Over 50% of Belize’s population resides on its low-lying coast. According to the Climate Change Policy Assessment, Belize already faces challenges of weather extremes, like, hurricanes, flooding, sea level rise, coastal erosion, coral bleaching, and droughts, with impacts likely to intensify given expected increases in weather volatility and sea temperature. Based on existing vulnerability and exposure, the country can anticipate it suffering severe damages from inundation if the sea level rises and storm surges intensify. Coastal erosion and coral bleaching will undercut tourism (as more than 70% of tourism infrastructure is found on its coast) and the blue economy. Economic assets including residential and commercial buildings and infrastructure are most at risk. The oceanic influence on its climate and economy contributes to the country’s vulnerability leading to the country’s ranking of being 3rd at risk for natural disasters, and 5th at risk from climate change among states, with an Annual Average Loss (AAL) from hurricanes estimated at US\$ 7.7M (0.45% of GDP) and from earthquakes at US\$883,000 (0.05% of GDP).<sup>1</sup>

Fifty-six percent of its land remains forested with seven percent under agriculture. Small farmers account for more than 75 percent of the farming population. These farmers produce a wide variety of food crops (corn, rice, beans, vegetables, roots) and livestock (poultry, beef) products. The agricultural export sector, with its sugarcane, citrus, and bananas, is an important driver of export earnings, and is central to local livelihoods in the Northern (Corozal and Orange Walk) and Southern (Stann Creek and Toledo) districts (four of six districts) of the country. Food availability, measured purely as daily food energy availability (kcal/per capita), is considered adequate as Belize’s daily average of nearly 3000 kcal/person exceeds the average recommended level by 30 percent.

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<sup>1</sup> Available at <https://belize.un.org/en/150296-united-nations-belize-common-country-analysis-cca-2021>; page 58

Belize has a small and vulnerable economy with a gross domestic product (GDP) of USD 2,969 billion and a per capita income of approximately USD \$ 6687 (2022). The tourism and agricultural (inclusive of forestry and fisheries) sectors drive the Belizean economy and its food security. The two sectors account for 12.1 and 11.3 percent of national employment, contributing 21 and 10 percent to the GDP, respectively.

Belize has a stable food supply system characterized by agricultural production and processing enterprises producing more than 80 percent of the cereals it consumes. About 40 percent of the total food consumed is imported. Food import structure of Belize consists of 13.4% for mostly processed food (major ticket items being powder milk/ liquid milk, cereals, and cooking oil with the remainder being mostly canned and other processed products), 5.3% for agriculture inputs mostly agro-chemicals and animal feed and the rest of the import bill (81.3%) is for non-agriculture (industrial products).

**Nutrition and Health**

Some challenges identified by the Food System Dashboard include the following: Agricultural land change during the last 10 years reflecting an increasing trend in deforestation; Prevalence of moderate or severe food insecurity; Adult diabetes prevalence and adult obesity (BMI >= 30).

Nutrition & Health Statistics	Belize	World	Central America	Year
Prevalence of Moderate or Severe Food Insecurity	42%	32%	39%	2020
Prevalence of Under-nourishment	7%	9%	10%	2020
Adult Diabetes Prevalence	13%	10%	10%	2014
Adult Raised Blood Pressure	23%	24%	20%	2015
Adult Obesity	25%	21%	25%	2016
Anaemia in Women	21%	27%	15%	2019
Overweight in children under 5 years	7%	5%	6%	2015
Stunting in Children	15%	29%	25%	2015
Wasting in Children	2%	7%	1%	2014

Source: <https://www.foodsystemsdashboard.org/countries/blz>

Some actions being recommended for Belize to have impact on the Food system challenges being faced include:

- Research and develop alternative proteins sources and share the research in the public domain to increase availability, affordability and appeal of alternative micronutrient-rich protein sources and reduce appeal of red meat to high red-meat consumers.
- Focus cash transfer, voucher and food delivery programmes on increasing the availability, affordability and appeal of local, safe and nutritious foods and limiting the appeal of processed foods high in fats, sugars and salt.

- Set mandatory limits on trans fats, sugar, salt/sodium and/or saturated fat in packaged foods to promote awareness and nutrition-sensitive consumption.
- Recommendation has been made for nutrition warnings for foods with high levels of sodium, calories. The Ministry of Health and Wellness has a formal stance on this. The Ministry recommends for the front of package warning labels, and fully support the black octagonal warning signs.
- Restrict all forms of marketing, advertising and in-store promotions of foods high in salt and sugar (HFSS), particularly to reduce appeal of foods high in fat, sugar and salt to children and eliminate industrially produced trans-fatty acids.
- Implement taxes to decrease affordability and incentivise reformulation of sugary drinks and foods high in fats, sugars and salt food together with promotion of local healthy fresh food certified for social, environmental, and climate services.

### **Charting Belize’s food systems transformation pathway**

During July – September 2021, a “Food System Profile for Belize” was prepared through collaboration between the Government of Belize, the Food and Agriculture Organization (FAO) with support from the European Union and the French Agriculture Research for Development (CIRAD) in support of Belize’s sustainable, resilient and inclusive transformation food systems. The assessment integrated qualitative and quantitative data analysis with participation of public, private and civil society partners. The “Food System Profile for Belize” has now been accepted by the Government of Belize (June 22, 2022).

### **Vision**

The vision is for a holistic transformation of Belize’s food systems from local production to consumption that promotes enhanced food security and safety, nutrition and healthy diets, improved livelihoods, equitable, sustainable and greater resilience to shocks and stresses.<sup>2</sup>

### **The challenges**

- External shock of the Ukraine-Russian war has led to rising food prices for farmers but with the irony of a reduced profit margin for Belizean farmers due to the cost of critical inputs and agro-chemicals (fertilizer, pesticides, insecticides etc) increasing by more than 100% and much greater than their product prices. This offers an opportunity for local fertilizer production linked to composting and other types of manure (for example earthworms) with reducing reliance on imported chemical fertilizers.
- Access to quality and safe food is a challenge as Belize’s relatively high-income per capita hides a high level of income inequality and income disparity across its six districts, with territorial inequality most pronounced in the most northern (Corozal) and southern (Toledo) districts.

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<sup>2</sup> This is rooted in the existing and emerging national strategy for agriculture, food security, health and livelihoods and commitment to a resilient development pathway.

- Higher cost of healthy diets and increasing unemployment and poverty during the COVID-19 pandemic have further pushed healthy diets out of the reach for a large proportion of the population.
- High levels of poverty (52% income poverty for 2018/2019 and 37.5% household deprivation poverty) and unemployment, higher among youth and women, contribute to food insecurity and vulnerable livelihoods. Adopting agro-ecology practices with climate and nature positive approaches will generate employment and income provided the proper incentive regime (finance and technical) is offered.
- Use of conventional methods of production by most farmers result in low productivity as well as inadequate and inconsistent supply of food products. With weak transportation, storage and marketing systems and additional food loss and waste, this reduces the share of national production in food consumption.

Belize has not made progress in addressing its diet related Non-Communicable Disease (NCD) targets. Obesity and diabetes remain high, especially among women, at 34.6 percent and 17.4 percent, respectively.

Natural-hazard related disasters, climate change and poor environmental management increase the vulnerability of Belize's food systems. The climate proofing of its agrifood system should be integral to development planning and investment considering the nation's economic development ties to production sector earnings. However, local consumption patterns also need to be strengthened.

### **Food Systems Transformation**

Based on the action tracks of the United Nations Food System Summit (UNFSS) 2021 proposed by the Secretary-General and Plan Belize Medium Term Development Strategy 2022-2026 as the primary guiding instrument, Belize has identified six central goals, to achieve food systems transformation by 2026:

1. Ensuring access to safe, local and nutritious and culturally appropriate food for all (enabling all people to be nourished and healthy, progressive realization of the right to food). The proposed systemic levers:

- Strengthening markets and value chains for local production and consumption.
- Providing nutrition education through community health initiatives and school garden, building on existing local, traditional and indigenous/ cultural food systems
- Promoting labelled/certified local minimally processed and fresh products linked to better nutrition and healthy diets and reduced climate and environmental footprint (i.e., deforestation and pesticide free food) access to such products.
- Strengthened partnership and collaboration with other public institutions to improve access to safe and nutritious food.

- Build and expand on the National Healthy Start School Feeding Program (NHSFP). The NHSFP will be expanded in the 2023-2024 school year to five secondary schools located in the Stann Creek and Toledo Districts.
- Local and healthy and climate and nature sensitive food procurement linked to the tourism industry.
- Regulation of ultra-processed foods (health taxes, marketing restriction, front of package warning label, food standards in schools, trans-fat ban and salt/sodium reduction) for healthy food environments for all. Recognize, maintain, boost, certify and scale up resilient local and traditional and Indigenous/ cultural food systems!
- Providing a healthy meal at the primary and secondary school levels through the National Healthy Start School Feeding Programme
- Develop and implement policy on basic food and agriculture products that will seek to satisfy domestic market demand

2. Shifting to inclusive, resilient and sustainable consumption patterns (promoting and creating demand for local and healthy, climate-friendly diets, and reducing waste). The proposed systemic lever:

- Target health education and capacity development for children, in-school youth through the National Competency Based Curriculum as well as the provision of meals of the NHSSFP launched by Ministry of Education, Culture, Science & Technology (MoECST).
- Targeted educational and capacity development for youth and women and other marginal and most vulnerable groups.
- Target health and nutrition education into national curriculum at all levels including vocational schools and capacity development of school personnel, parents and relative stakeholders.
- Empowerment and governance of cooperatives, strengthening forest and farm producer organizations as well as diversifying fishing cooperatives to ensure that small-scale producers have easier access of services and finance.
- Government policy promoting use of local products and fortified rice and flour at meeting and feeding programs led by Government of Belize (GOB).
- Promote the use of technology/equipment of low-cost finance, inputs, tools, and better markets, with social and environmental co-benefits, also preserve and storage of food, both at the household level and at the distributive/ commercial level.
- Encourage research in the area of consumption and waste, as well as research related to waste reduction, recycling and reuse so as to provide evidence based recommendations on regional and global best practices in these areas.

3. Boosting nature-positive production at sufficient scale (acting on climate change, reducing emissions and increasing carbon capture, regenerating and protecting critical ecosystems and reducing food loss and energy usage, without undermining health or nutritious diets). The proposed systemic levers:

- Strengthening land use plan policy to ensure sustainable land use. Land tenure also needs to be addressed since squatting on land for farming is common. This type of tenure discourages investment in developing the land and reduces farmer's access to financing for farm development.
- Promoting resilient and sustainable agriculture practices, increase productivity, agroecology, regenerative agriculture and conservation agriculture to reduce expansion of the agriculture frontier and halt habitat loss.
- Promoting integrated value chain farming and circular economy and production model
- Promoting innovation and technology such as renewable energy alternatives, storage facilities, etc.
- Promoting green jobs and livelihood, address de-risking of sector, expand financial support mechanisms which supports small holders' ability to expand preventive, anticipative, absorptive or coping capacity and ahead of multiple disaster and climate shocks and stresses.
- Setting up a "Payment for Ecosystem and Climate Services" (PES) scheme where small holders are receiving technical and financial incentives for adopting climate and nature sensitive practices. Such finance could be mobilised from tourism taxes.
- Freshwater quality-Watershed Management

4. Advancing equitable livelihoods and value distribution (raising incomes, distributing risk, expanding inclusion, promoting full and productive employment and decent work for all). The proposed systemic levers:

- Creating public policy incentives enabling the development of entrepreneurs and micro-enterprises. Supporting regulations and financial measures that assist rural residents, farmers and non-farm enterprises to invest in inclusive, resilient and sustainable practices.
- Creating effective partnerships and productive linkages between local agriculture, fisheries, forest, food value chains, and tourism sectors, emphasizing market-driven enterprises that are inclusive and climate resilient, low carbon, nature positive and have a dynamic development path.
- Promoting youth and women led agribusiness models that build resilient agricultural livelihoods and value chains through innovation, transformation, digitization, technology and local value processes.
- Increase investment in value added products that contribute to improved nutrition.

5. Building resilience to vulnerabilities, shocks and stress (ensuring the continued functionality of healthy and sustainable food systems). The proposed systemic levers:

- Implement and disseminate climate services and related early warning systems with actionable alerts for all food actors along the Belize agrifood system.
- Increase development, adoption and promotion of disaster risk management and green climate technologies, waste management regulation and enforcement are required.
- Encourage the adoption and implementation of environmental and climate-smart, resilient and sustainable development policies in the context of a circular economy.
- Invest in risk-proofing agricultural value chains and food related infrastructure across the food system!
- Invest in the protection of coastal, marine eco-system and land that protects and mitigates us from the impacts of climate change.
- Reinforce emergency preparedness, anticipatory action and emergency response and recovery to climate related disasters threatening and affecting the agrifood sectors, including fishery and forestry sectors.
- Advance disaster risk financing strategies to ensure availability of resources to support affected populations that meet/and or afford food when events occur.

6. Improved and inclusive disaster and climate risk informed policies and programmes are critical for agriculture and food system transformation in Belize. The proposed systemic levers:

- Increased inter-ministerial and inter-sectoral collaboration and the strengthening of current partnerships to promote food and nutrition education, balanced diets, physical health and appreciation for food production and food security.
- Poverty, vulnerability and gender inequalities should be addressed with targeted policies, including safety nets, which create income opportunities while promoting healthy and local sustainable consumption patterns.
- Build a more sustainable and resilient food system following integrated and decentralized, climate-smart food and agricultural system policies and strategies, including scaling up that incorporates the use of digital economy tools and equipment.
- Public and private sector, free of conflict of interest, collaboration on credit for investment and promotion of local consumption of healthy diets, supporting increased domestic and regional market opportunities, is essential for greater economic inclusion and territorial balance.
- Increased collaboration between the public and private (including cooperative) sectors, free of conflict of interest, is essential to achieving the inclusive, resilient and sustainable food and nutrition goals of Belize.
- Decentralized Implementation - Improved inclusive governance at the national, district and community levels is essential to the integrated and multi-sectoral and multi-risk approaches, necessary for resilient and sustainable food and agriculture systems transformation.

- Risk and insurance policies
- Aligning climate, biodiversity, food security and nutrition and health policies and integrating the food systems transformation perspective into country policies and together with policies, plans and investments related to climate change and disaster risk management (or comprehensive risk management). Invest and partner with academic institutions, to conduct research in traditional crops, new technology, innovation, and capacity gaps.
- Strengthened the data collection, analysis and dissemination of relevant data through a national mechanism.
- Establish a mechanism that applies a “whole of society approach” to facilitate communication, coordination and collaboration among all stakeholders.
- Increase funding and investment opportunities for prioritized value-added products that contribute to improved nutrition.
- Subsidies and incentives other financial sustainability measures.