

INDEPENDENT DIALOGUE - BOTSWANA

**FOOD SYSTEMS
SUMMIT 2021**



DIALOGUES

ADVANCING SMART, CLIMATE FRIENDLY &
SUSTAINABLE FOOD PRODUCTION:
EXPLORING ALTERNATIVE & INDIGENOUS
FOOD SYSTEMS TRANSFORMATION IN BW

21 JULY 2021

10:00HRS - 12:30HRS CAT
(GMT +2HRS)

VIRTUAL - ZOOM

**ADVANCING SMART, CLIMATE FRIENDLY & SUSTAINABLE FOOD PRODUCTION: EXPLORING
ALTERNATIVE & INDIGENOUS FOOD SYSTEMS TRANSFORMATION IN BOTSWANA**

CONCEPT NOTE

Introduction

According to a United Nations report from 2019, the world's population is expected to reach 9.8 billion in 2050: this means that there will be immense pressure globally on food production to sustain our diets. Sustaining our current diets in itself poses a dire threat to global food and agriculture systems due to the earth's limited supplies which are currently overexploited. So the question then arises, how will Botswana sustain nutritious and reliable food systems as the pressure increases? Can we turn to using foods that occur naturally to augment our cultivated food systems and diversify our diets without undue pressure on the environment? The dialogue also aims to explore ways in which unexplored ideas and the addition of technology in agriculture can help expedite the process and minimize losses?

Our food systems are still a very complex mix of needs and wants that collide and result in many negative effects on the different aspects of our lives including health, environment, and climate. The way we produce our food can be practised with more responsibility for the environment. What if we could transform our food systems by taking charge of how we produce specific kinds of food that our natural climate can give us sustainably?

In this dialogue, the focus is for an exploratory discussion on what place Indigenous and Alternative foods (as in edible insects) have in Botswana's food system. The objectives of the dialogue are to explore and exchange ideas and formulate strategies to make the food system more nutritious, dependable, and lucrative using these foods by bringing forward solutions that are:

1. Smart

Involving more agri-tech to make processes from farm to fork faster and more efficient. To minimize losses at the production level and keep costs low for affordable products at the end of the value chain.

2. Climate Friendly

We will be highlighting climate-friendly practices from farm to fork when it comes to Indigenous and Alternative foods.

3. Sustainable

Can we really meet the demands of National Food Security while preserving the environment?

Botswana like many African countries is home to a wide variety of indigenous - mostly drought tolerant and pest & disease resistant foods. Yet, for a very long time - as a result of westernization and urbanization, alternative and indigenous foods have been neglected. Although indigenous foods are adapted to their natural environment and their yield is contingent upon drastic climate changes; there's an opportunity to benefit from their resilience and abundance to establish a nutritional value chain to combat malnutrition and non-communicable diseases (NCDs).

Botswana houses alternative foods such as Mophane worms, termites and crickets. Although the idea of these make some cringe, insects have been consumed globally for millennia for many beneficial reasons and are fast becoming the food of the future. For starters, insects contain 30 to 70% protein, fatty acids and large quantities of iron. They are pure nutrition that presents practically zero health complications as compared to traditional protein sources such as meat - which largely cause high cholesterol and non-communicable diseases. Insects are also so radically different from humans that their diseases do not affect human beings. Farming them in high numbers uses way less land and water than any livestock; furthermore, they even clean up the environment by eating food waste.

According to the United Nations, Food and Agricultural Organization (UN FAO) insects are consumed by over 2 billion people in over 80% of the countries around the globe. More than 2,000 species have been reported to be edible and it is likely that many more of the +1 million species will be categorized as edible in the future. (source: UN FAO, Edible insects: Future prospects for food and feed security, 2013) <https://aspirefg.com/shop/people.aspx>

The Sustainable Development Goals (SDGs) 2030, the ICN Decade of Action 2025, AUDA Nutrition & Food Systems Implementation Plan, 2014 AU Malabo Declaration and the African Nutrition Strategy 2025 are some of the global and regional commitments signed by African leaders to improve nutrition, economic growth, health status and reducing poverty throughout the continent. Many hands are working to realize this dream. Alternative and Indigenous foods could be a force to reckon with to combat malnutrition globally. Furthermore, it is a lucrative business to get into. In a report by Meticulous Research, insect farming is estimated to be worth US\$7.96 billion by 2030 (source: [Press Release Distribution and Management](#)). Insect farming doesn't only end with it being for human consumption, other areas to be looked into include pharmaceutical use, animal feed, and cosmetic use.

Climate plays a pivotal role in agriculture and aquaculture. Every region, not just in Botswana but on the African continent grows something that is indige opportunities are there for indigenous foods and alternative foods all over the African continent

About the Food Systems Summit Dialogues:

In 2019, the UN Secretary-General called for a Food Systems Summit and engagement process to unleash the power of food and deliver progress on all 17 UN Sustainable Development Goals (SDGs).

Food brings us together as families, communities and nations. It underpins our culture, our economy, and our relationship with the natural world. The world's food systems touch every aspect of human existence, making them essential and valuable and important instruments of change. Notably, food is a common thread linking all 17 SDGs, given the interconnected economic, social and environmental dimensions of food systems.

Rationale: Why the Independent Dialogue

We all want the same thing, nutritionally robust food that can feed us consistently within an efficient food system we can rely on. Also, those producing the food desire a decent living from their effort. There may be an opportunity to realize all these needs by bringing our indigenous foods to the forefront to fortify our general Botswana menu; also, there are 'other', naturally occurring food alternatives (insects) that could widen our options and offer dietary variety. In this dialogue, each group will explore these ideas, highlighting the role of youth and technology in accelerating solutions. The discussion will stem from these five standpoints:

Action Tracks

1. Ensure access to safe and nutritious food for all

The goal here is to end all forms of malnutrition, reduce the incidence of non-communicable disease and increase the availability of nutritious food.

- How can we make indigenous and alternative foods affordable and more accessible to all?
- What are the nutritional benefits of including indigenous food and insects in our diets, especially across tribes [tswii, phane, flying ants]?

2. Shift to sustainable consumption patterns

The goal is to build consumer demand and strengthen local value chains by producing foods that require fewer resources; all while eliminating wasteful patterns of food consumption.

- How do we control the over-gathering and overconsumption of these foods?
- What government laws, regulations and penalties are in place?

3. Boost nature positive production

The goal is toward environmentally safe production techniques to preserve soil, water, and reduce pollution and biodiversity loss.

- What constraints do food producers such as smallholder farmers and small-scale enterprises face in the food value chain?
- What opportunities can solve their problems (e.g. workshops that teach on drones detecting soil fertility or plant disease outbreak or pests)
- Can we encourage environmental tax penalties to protect and regulate indigenous food harvesting and production as a way to collect tax and regulate natural resource abuse?

4. Advance equitable livelihoods

The goal is to create productive employment and decent work for all people in the food value chain and enable entrepreneurship. Here we want to focus on improving the livelihoods of people in villages and smallholder farmers who usually farm and provide these raw materials. Most especially, we want to focus on youth inclusion. Youth need not view food production at any level in the value chain as a second rate job.

- How can we show young people the huge opportunities in the industry?
- How can we attract them?
- Can we allow their new methods and technology into the existing system?
- How can we increase the value of indigenous foods through processing for export?
- What international trade opportunities since the Africa Free Trade Area can we identify?

5. Build resilience to vulnerabilities, shocks and stress

The goal is to secure our food systems from shocks and stressors like conflict, pandemics or natural disasters. To empower people within the food system and help them withstand and recover from instability.

- How do we protect our food sources so as to not deplete them; what regulations does the government enforce to this effect?
- Are there safe food storage places to stockpile these foods during their off-seasons?

Specific Objectives of the Dialogue

- Create a safe space for open discussion to raise awareness on the state of our food systems to expose challenges, gaps and opportunities to anyone
- Highlight the role of youth and technology in accelerating and advancing identified solutions.
- Encourage collaborative projects between attendees and spark problem solving or improvements in certain food industries.
- Highlight benefits of insect farming as a way to diversify alternative food sources [no disease transfer from insects, the high productive capacity of insects, they use less space and water making them environmentally safe, they eat organic food waste etc]
- Share benefits of foods fortified with insect protein for consumers and impoverished communities