Background

Although one of the world’s driest countries, agriculture is essential to the livelihood of 70 % Namibia’s population, and is the nation’s biggest (23%) employing sector. Agriculture production is mainly based on crop and livestock and dominated by subsistence farmers. Commercial farmers produce staple cereal crops such as maize, wheat, potatoes etc for domestic consumption. Livestock is produced for domestic and lucrative international markets, and Namibia is a net-exporter of livestock and livestock products. A myriad of challenges spanning from climatic, edaphic, technical, institutional and socio-economic factors greatly constraints agricultural production and productivity. Market access, financing, land ownership, farm machinery, lack of agro-inputs and irrigation are distinctive challenges amongst small holder farmers. With only 5 % contribution to the GDP, and accepting that agriculture is constrained, and underperforming, it remains a crucial sector to Namibia, and the global food system to promote economic growth, food security and poverty reduction.
Food systems represent a holistic range of activities in the production, processing, distribution, marketing, preparation, consumption and disposal of goods that originate from agriculture, forestry or fisheries, while also considering the social, ecological and economic interactions of the value chain. This includes food security and the wider set of systems in which food operates which can be traditional, modern and informal channels (FAO, 2018). Namibia food system role players are diverse in nature, comprising of subsistence small holder farmers, commercial farmers, farmers unions, specialised agricultural agencies, government, and private sector among others. Each stakeholder plays a significant role in contributing to the full functionality of the system. Meanwhile, Namibia’s food system is in disarray and lack proper stakeholder coordination.

The Namibian food system can supply enough food either through production or trade. The main challenge is that many people cannot afford a healthy and nutritious diet food they need. Namibia faces a “double burden” of persistent malnutrition, and rising rates of diet-related non-communicable diseases. According to FAO (2020), 330,925 people are food insecure: 447,577 moderately food insecure and 859,898 food secure. Therefore the focus of efforts to improve food security is on increasing agricultural production, incomes through social grants or increasing employment or entrepreneurship, reducing inequalities on access to factors of production (land, labour, capital), caring for the environment and building resiliency to ensure sustainable diets.

Namibia has strong national commitments to food security, safety, sovereignty, nutrition, and a strong centralized model of government, and decentralized systems that link national ministries to the regional government. This opens opportunities for government funding, but there is need to address how benefits which can accompany grassroots approach can be harnessed. As a result, urban and peri-urban areas and rural areas contribute to agriculture. However, the pressure exerted on the food system and the state of food insecurity varies by region across the country’s 14 regions, but more prevalent in north western regions and informal settlements, thus issues of sound governance comes into play.

The country has several policies that support the food system approach and in all its developmental strategies (FAO, 2020), it has mainstreamed the food system approach. Vision 2030 aims to create a prosperous industrialized country where peace,
harmony, health, food security and political stability prevail (WFP, 2017). It is supported by the fifth National Development Plan 2017–2022 (NDP5), the Blueprint on Wealth Redistribution and Poverty Eradication, and the Harambee Prosperity Plan, which seek to end poverty and hunger by ensuring inclusive growth with a focus on gender equality and “leaving nobody behind”. The Blueprint on Wealth Redistribution and Poverty Eradication aims to end hunger by means of the Zero Hunger Road Map and expansion of food safety net programmes such as the national urban safety net initiative through the food bank scheme and school feeding programme. The Government’s commitment to improved food and nutrition security governance is evident in its endorsement of the Zero Hunger Road Map with a call to mainstream the recommendations of the zero-hunger strategic review in NDP 6.

There is a consensus that meaningful food system transformation for the attainment of sustainable dietary, economic, social and economic development goals require concerted efforts in understanding the current situation of the food system at which transformation is targeted at.

**Key issues underlying Namibia’s food systems**

- Namibia imports 60% of the total domestic consumption needs with most of the imports originating from South Africa. Given that, on average in Namibia, 70% of Namibians rely on market access for food. This poses high food insecurity risk for the unemployed and those that live below poverty line (WFP, 2017). Meanwhile, efforts are made through the Namibia Agronomic Board to regulate the market share promotion (MSP) scheme which advocates for import substitution with local production. The Namibian horticultural industry has recorded a growth trend over the years as evidenced by increases in production and (even) exports of some horticultural produce.

- Dietary diversification is low and largely cereal based. The cost of a healthy diet is more expensive than a high calorie diet especially in rural areas. The intake of fruits and vegetables are below the recommended levels. All forms of malnutrition exist in Namibia but vary with location. Stunting and wasting are prevalent in rural areas, whilst obesity is common in urban areas (NPC and WFP, 2021).

- Wide inequality exists on incomes and food access. The COVID-19 pandemic has exacerbated food insecurity and revealed inequalities among people on accessing nutritious and affordable diets and contributed to considerable job losses. It is the most hard-hit distribution channel resulting in loss of incomes and increasing vulnerability to food insecurity, especially due to absence of business insurance.

- The focus of reducing hunger by increasing crop yield’s results in loss of agrobiodiversity.
Agriculture practices focusing on increasing food production, without paying attention to the environment contributes to land and water degradation. Agricultural best practices are focusing on feeding the crop and increasing yields and livestock productivity, but neglect nourishing the soil. Specifically soil disturbances due to tillage operations, exceeding carrying capacity leading to overgrazing, irrigation systems, prioritizing intensification of major crops (maize, wheat, potatoes etc) cultivation, and livestock breeds over indigenous crop and livestock breeds, use of chemical fertilisers and pesticides negatively upset the ecosystem.

- Inadequate public and private sector investments in agriculture for infrastructure development, extension services and research and development to support science-based policies. Dearth of expertise and human capital development coupled with a lack of sectoral coordination.
- Formal businesses are faced with shortage of obtain key raw materials locally, and therefore rely on imports for the bulk of their production requirements to meet the supply side. Throughout the value chain, Namibia is a net importer of agro-inputs and processed products, mostly from neighbouring South Africa and other countries, which negatively affects the country’s BOP.
- Emerging farmers, including small scale, youth and women farmers are increasing, however, inadequate capital, lack of inputs, and expertise result in poor quality of produce as often which is unmarketable, and market access is a challenge in remote areas.
- Currently the government has approved a policy that provides market platform through local procurement of food from local producers. The directive compels public institutions to support local production of food through procurement from local producers. This can also be complemented by bringing markets, finance and technologies to small holders using the business to business ecommerce platforms. The Ministry of Trade has launched the Buy Local, Grow Namibia campaign to support the initiative. However, meanwhile there are no provisions which dictate whether business can source their raw materials local or outside the country.
- Climate change adaptation strategies are not prioritising traditional livestock breeds and indigenous crops, and solutions adopted are not tailored on local conditions to build resiliency.
Recommendations to transform the food systems

Nutritious diverse and dense diets are at the core of a sustainable, and resilient food systems and is crucial for economic proliferation and SDG acceleration. The over-arching requirement to transform Namibia’s and global food system was well articulated by all the multi-stakeholder participants. Broadly, Tefft et al. (2020) put forward a transform framework for sustainable food systems, facilitated by enabling factors each strongly influenced by national and local contexts should be considered. The enabling factors include:

I. Transformative institutions;
II. Conducive policy environments and progressive instruments e.g., planning, programmes, regulations and rules;
III. Open data, knowledge, and evidence base;
IV. Availing resources for effective public and private financing; and
V. Multi-stakeholder engagement and multi-level governance.

Moving forward to transform Namibian food systems towards sustainable and nutrient dense diets, actions and pathways, these factors well explicitly outlined and therefore the pathways will be anchored on the following five pillars as proposed by the UNFSS:

1) Access to adequate, affordable, safe and nutritious food for all;
2) Sustainable and balanced consumption patterns;
3) Promotion of sustainable agriculture practices and environmental care;
4) Advancement of equitable livelihoods for both rural and urban poor; and
5) Resilience building.

Since the issues surrounding the five pillars are interconnected, overlapping, can share key actors, and therefore indispensable for a sustainable food system. The following policy actions were recommended:

- Strengthen efforts to promote people centred health diets through nutrition education and advocacy. This will include food interventions and advocacy in the first 1000 days, using schools, health facilities as platforms to improve nutrition, health, and digital learning outcomes for all children. In addition, ensure access to, demand for and consumption of affordable diets.
- Ensuring access to healthy and nutritious diets and shift in consumption patterns strategies should account for food sovereignty of indigenous community groups and uphold people’s rights to healthy and culturally appropriate food at the targeted nutrition interventions.
- The recommended nutrition sensitive and specific interventions are shock responsive social nets, school feeding programs, home gardening programs, community food baskets etc. There were calls for increased community food production through intensified household
horticulture gardens. The roles of public institutions for micro-level production and participate in the local production system for example through schools, clinics, prison facilities and other public centres were well acknowledged, however there is need for sectoral coordination amongst various line ministries and developmental partners with an interest in food systems.

- Improvement on sanitation and water infrastructure especially in informal settlements to eradicate food borne and water diseases. There is need to increase support through social protection programmes linked to access to basic services, including food assistance. There is need for decent wages for farm workers and urban dwellers in order to access nutritious foods.

- Addressing micronutrient deficiency remains crucial for Namibia. Food fortification is at the fore front of government policy, to ensure that food consumed by the citizens is enriched with the necessary required nutrients for health diets. There is also need to promote biofortification of varieties to provide Vitamin A, Beta carotene and zinc readily from farm produce. However, there is need to complement the interventions with supplemental tablets e.g., Iron tablets.

- To promote dietary diversification, mainstreaming of indigenous crops in daily diets and to diversify cropping systems there is need to introduce new alternative crops cultivars such as moth bean, mungbean, horse gram, dolichos, marama bean, water lilies, *Cleome gyna*dra, amaranthus, *hibiscus*, etc. Some of these crops can be used as animal fodder especially for communal farmers.

- Ensure affordability, accessibility of food especially in rural communities and informal settlements and urban areas for food security. The cost of nutritious diets is higher in rural areas, than rural areas. There is need for interventions along the value chain to ensure reduced cost of commodities and creating market access for rural farmers.

- Investing in appropriate technologies throughout the value chain and encouraging initiatives on value addition, and long storage life of products. Improving food handling, storage, processing, and preservation would enhance supply chain efficiency and resilience, and reduce post-harvest losses and food waste which is at present 24%. Raising awareness and encouraging initiatives on re use and recycling of products, especially for women as prime handlers of domestic waste is important.

- Develop an efficient and accessible food retail distribution
for both formal and informal sectors. This has an impact on both smallholder farmers and consumers, and it is crucial for promoting short supply chains, facilitating, access to nutritious food and promoting healthy diets for all. Together this promotes resilient regional food systems.

- Regional governments to spearhead various crop and livestock projects for nutrition, income generation, and equitable livelihoods. However, challenges including skills for value addition, water scarcity which affects progress of various initiatives and programmes need to be addressed. Technologies such as hydroponics and aquaponics can promote access to fresh and nutritious foods in urban areas where space for production is limiting.

- Capacity building and partnering of private sector and developmental partners for sustainable diets, infrastructure and technological developments, and climate change mitigation. Working in partnership and collaborations amongst organizations to learn, adapt, and synergize different approaches to work towards common food system objectives.

- Strengthening of the value chain through Localism as a values-based approach, which prioritizes what is “local,” thereby supporting livelihoods, businesses, and the production and consumption of food from nearby rural/territorial areas in urban and peri-urban areas. Localism can lead to the promotion of diverse interventions that support a range of key issues: sustainability and resilience; equity, food justice, and food security; social inclusion; and/or health and nutrition.

- Leveraging on Regional and International agreements to facilitate market access, acquire agro inputs and diversify value chains. There were clear calls for Namibia to explore additional markets through the Africa Free Trade Continental area agreement to deepen the economic integration and diversify value chains. To acquire the much-needed seed inputs, and in the absence of variety breeding programmes of most crops, there in need to consider Namibia to adopt the SADC seed harmonised regulatory system and import seeds from elsewhere to reduce cost of improved seeds.
- Transforming institutions for research and development and capacity building and to generate updated and open data. Digital transformation: offer data driven and data enabled solutions that support rural livelihoods. Emphasis was given to regularly conduct nutrition surveys to generate timely data on issues pertaining to wellness and survival as the last survey was conducted in 2013. Considerations should be given to indigenous knowledge availed within indigenous communities and to evidence base to promote science-based policies. There is lack of research investments throughout the value chain, and a lack of coordination of research hubs. There is need to foster multidisciplinary research across the value chain.

- Cross-cutting skills and Human capital is acknowledged by government and other stakeholders as a key factor for development. There is need for tertiary institutions, private sector and government to collaborate to generate well trained and industry ready labour force. There is need to provide mentor-ship support on agribusiness to ensure success and accountability especially for emerging business and farmers, youth and women to promote innovations and entrepreneurship.

- Transformation of the rural economy while creating jobs for youth and increasing support for women and marginalized communities is a top priority for Namibia. There is need to attract and increase participation of women and youth in agriculture to reduce rural-urban migration and encourage sectoral growth and sustainability through funding of modern technologies, e.g. mechanization, ICT and data driven agriculture solutions, and value addition.

- Relax collateral requirements to encourage participation of asset-deficient communal farmers, women, and youth. Reclassify some assets, e.g. cattle, crop production and viable business plans to serve as collaterals. There is need to guarantee of small holder production through expansion of risk insurance coverage for small holder farmers.

- In the short, medium and long term, Namibia should focus on promoting climate smart and regenerative agriculture practices. Specifically, Namibia as a dry country, should promote regenerative agricultural practices and microorganisms build-up to ensure soil fertility, moisture retention and carbon storing, to reverse biodiversity loss, halt bush encroachment, improve pastures, and restoration of the ecosystem to unlock ecosystem benefits. For a dry climate, it is commendable that some beneficial microbes have
been identified opening prospects for inoculant technology or biofertilizers which can substitute synthetic nitrogen-based fertilisers. The use of nature-based solutions which are environmentally friendly can greatly support organic farming and contribute to nutritious, safe foods. Due to high variability, these solutions/strategies need to be tailored per agro-ecology and consider environmental variations (soils, water, temperature) for adaption.

- Applying a water-energy-food nexus approach provides an avenue to identify and promote integrated natural resource planning, management and governance. It is important to ensure provision of affordable water for agriculture production. Fund solar power projects for agriculture to supply power at an affordable price by taking advantage of the abundant sunshine in the country.

- Resilience building in terms of climate change through development of disaster proof food system infrastructure, strengthen climate adaptation infrastructure and early warning systems for enhanced preparedness and response capacity to mitigate the impact of climate change on food production and ensure sustainability of production.

- Avail additional resources for effective public and private financing. Government to uphold the Maputo Declaration of setting aside 10% of national budget for agriculture. There is need to increase financing, which is crucial for boosting agricultural production and productivity. Across the value chain there is chronic underfunding which inhibits effective contribution to nutritious diets. An innovative governance is required that encompass appropriate policies and adequate financing for increased sustainability.

- Considering the current status of the food system, for an effective roadmap strategy should facilitate a multi-stakeholder coordination throughout the value chain. In terms of systemically addressing food issues and overcoming barriers it is crucial to harmonize national and municipal level and private entities – a multisectoral co-ordination approach. This goes further to issues of governance for rural and urban food systems, and devising strategies to ensure the grassroots inclusion across
Existing policy gaps and institutional framework

In view of the proposed recommendations, progressive policies and adjustments are required for the recommended strategies. During the stakeholder consultations, the participants have identified the following gaps in policies and institutional frameworks related to food systems in Namibia: Existing policies, strategies and schemes can lead to sustainable food systems, but emphasis should be placed on implementation. There were calls to review trade policies on procurement to support the “buy local Grow Namibia” initiative and the need to finalise on key policies such as nutrition and climate change should be given urgent attention. Revision of legislation on rangeland policy, animal health act, water Act, land and resettlement act were recommended, particularly to incorporate communal farmers to restock after drought, increase offtake of livestock from NCA, issue permits for irrigation for <1 ha and have access to land for crop and livestock production. It is important to mainstream gender in the implementation strategies to increase support for youth and women in agriculture to access land, capital and SME establishment to promote equitable livelihoods. The lack of collaboration between government departments at national and provincial government levels stall progress on achieving food security targets. Minimal inclusion of smallholder farmers in policy development and limited research and development to inform science-based policies. Lack of updated data on nutrition, as last report date back to 2013, is detrimental to the current efforts to combat hunger and malnutrition.

References and resources


