DESCRIBE, DIAGNOSE, DECIDE:

A new dashboard to support Mozambique's food systems transformation

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KEY MESSAGES

- To effectively transform Mozambique's national food systems in alignment with the United Nations Food Systems Summit pathways, it is crucial to have access to current data and analytics. Mozambique's Food Systems Dashboard, hosted by SETSAN[1] (the National Secretariat for Food and Nutrition Security under the Ministry of Agriculture), plays a pivotal role in this transformation.
- Launched in March 2024, the Mozambique Food Systems Dashboard consolidates vital data to support SETSAN's Food and Nutrition Security and Scaling Up Nutrition objectives, aiding in the implementation of the national pathway. The dashboard provides a comprehensive set of indicators by province, offering insights into Mozambique's food system while identifying key opportunities and challenges.
- With a variety of data visualizations and diagnostics, the Mozambique Food Systems Dashboard empowers policymakers, NGOs, businesses, and civil society leaders to better understand the intricacies of Mozambique's food systems across different provinces and to develop effective strategies and interventions for food systems transformation.

1 SESTAN https://setsan.gov.mz/

MOZAMBIQUE'S COMMITMENT TO STRENGTHENING FOOD SYSTEMS – KEY CHALLENGES

In Mozambique, national food systems are a vital cornerstone for economic development, given their crucial role not only in providing sustenance for much of the population, but also livelihoods. Over the past three decades, the agricultural sector has consistently contributed around 30% to the gross domestic product (GDP), with a significant portion of this stemming from family farming. More than 70% of the economically active population relies on agriculture and fisheries as their primary source of income, although much agriculture in Mozambique remains subsistence-oriented, with limited use of improved inputs. This results in low levels of production and productivity, contributing to food and nutritional insecurity.[2]

Mozambique's agricultural sector faces a range of challenges that can be categorized as technical, economic, environmental, and political. Key technical challenges include farmers' limited access to extension services, the sparse use of improved inputs and seeds, and issues related to the application of quality standards and certification processes. On the economic side, there is inadequate financing, restricted access to market and price information, and significant post-harvest losses. Enhancing the transportation infrastructure is also crucial, as approximately 75% of access roads remain unpaved and difficult to navigate.[3] Environmental concerns such as land degradation, rapid deforestation, and diminishing soil fertility, particularly impact the livelihoods of the rural poor. These are further exacerbated by climate change, which leads to shifting weather and precipitation patterns, along with the increased frequency of adverse weather events. Nearly every year, the country is hit by at least one natural disaster, be it flood, drought, or cyclone. A stark illustration of this occurred between March and April 2019, when Mozambique was struck by two powerful tropical cyclones, Idai and Kenneth, back-to-back, with devastating impacts. The cyclones, hitting hardest in the country's central region, destroyed over 715,000 hectares of various crops, approximately 240,000 homes, more than 3,500 schools, and 93 health centres, in addition to other critical infrastructure such as roads and warehouses. As a result, over 2.5 million adults and 1.3 million children were left in dire need of humanitarian assistance.[4] Finally, political challenges manifest through inconsistent policy implementation and governance issues that hinder agricultural development and resource allocation.

These interconnected challenges collectively impede Mozambique's efforts to achieve the Sustainable Development Goals (SDGs) and its national vision of sustainably transforming food systems to eradicate hunger.[5] A significant number of Mozambicans lack access to diverse and nutritious diets, leading to concerns about chronic and acute malnutrition, micronutrient deficiencies, and rising rates of overweight and obesity. Some statistics on malnutrition, food insecurity, and related non-communicable diseases are shared in **Figure 1**.

A comprehensive transformation of Mozambique's food systems, as envisaged in the national pathways, holds great potential to improve lives and livelihoods. Empowering small-scale farmers, notably young individuals and women, to diversify their production and adopt nutrition-smart agricultural practices could play a pivotal role in the sustainable transformation of the country's food systems.[6] Any such transformation can aim to enhance resilience to perennial shocks, ultimately contributing to the country's ability to achieve the Sustainable Development Goals (SDGs) and its national vision for sustainable food systems contributing to achieving zero hunger.[7]

2 Benfica, Rui; Diao, Xinshen; Pauw, Karl; Thurlow, James; and Ellis, Mia. 2023. Mozambique's agrifood system structure and drivers of transformation. Agrifood System Diagnostics Country Series 10. https://doi.org/10.2499/p15738coll2.136789.

3 Three Quarters of Mozambican Roads Are Unpaved – 2023.

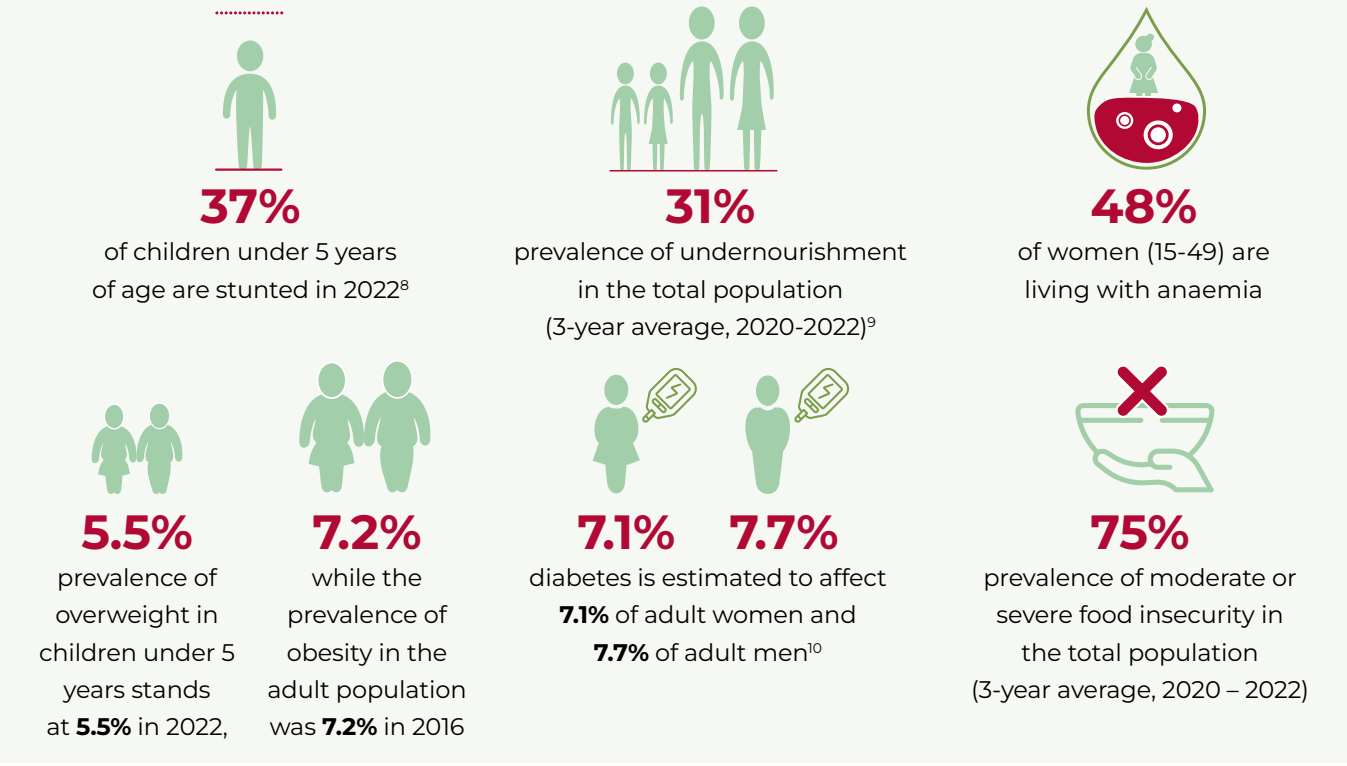
4 Mozambique: Tropical Cyclones Idai and Kenneth - Emergency Appeal n° MDRMZ014, Final Report.

5 Mozambique's Food Systems Transformation Pathway.

6 Food System Profile – Mozambique Catalysing the sustainable and inclusive transformation of food systems 2021.

7 Mozambique's Food Systems Transformation Pathway September 2021.

Figure 1: Prevalence of Malnutrition in Mozambique – a snapshot



For Mozambique to effectively implement its national food systems transformation pathways and the UN Food Systems Summit (UNFSS) action tracks – **Box A** – timely data and analytics are essential.

Food systems encompass an entire range of actors – including, but not limited to, farmers, traders, processors, wholesalers, distributors, retailers, and consumers – and the processes that get food from the fields to markets to tables. Well-functioning food systems can ensure the availability, accessibility, affordability, and desirability of nutritious foods for healthy diets.

Box A: The five UNFSS action tracks – desired outcomes of transformed food systems

1. Ensuring access to safe and nutritious food for all.
2. Shifting to sustainable consumption patterns.
3. Boosting nature-positive production.
4. Advancing equitable livelihoods.
5. Building resilience to vulnerabilities, shocks, and stresses.

Source: [11]

In alignment with action tracks 1, 3 and 5, Mozambique has developed its own national food systems transformation pathways, which necessitate robust data and analytics for successful implementation. These pathways aim to meet SDG targets through focusing on three main pillars:[12]

1. **Sustainable food and nutrition security**
2. **Food systems' value chains**
3. **Conflicts, resilience and climate changes.**

8 Mozambique Food Systems Dashboard.

9 FAO, IFAD, UNICEF, WFP and WHO. 2023. The State of Food Security and Nutrition in the World 2023. Urbanization, agrifood systems transformation and healthy diets across the rural–urban continuum. Rome, FAO. https://doi.org/10.4060/cc3017en.

10 Global Nutrition Report: Country Profiles Mozambique – accessed 1st Nov 2023.

11 Food Systems Summit: Action Tracks https://www.un.org/en/food-systems-summit/action-tracks.

12 Mozambique's Food Systems Transformation Pathway 2021.

The Global Alliance for Improved Nutrition (GAIN) is committed to supporting Mozambique's food systems transformation agenda. One of the ways GAIN is contributing is by aiding in the development, launch, and uptake of Mozambique's Food Systems Dashboard, a tool designed to facilitate informed decision-making and foster the sustainable transformation of the country's food systems.

WHAT IS THE FOOD SYSTEMS DASHBOARD?

Launched in 2020, the global Food Systems Dashboard (FSD)[13] initiative is led by GAIN, The Columbia Climate School, Cornell University's College of Agriculture and Life Sciences, and the Food and Agriculture Organisation (FAO) and supported by numerous partners.[14] The FSD consolidates data from diverse sources to offer insights into hundreds of food systems indicators. Tailored for policymakers, non-governmental organizations, businesses, civil society leaders, and other stakeholders, the FSD serves as a vital tool for visualizing national food systems.[15] This tool (detailed further in **Box B**) empowers stakeholders to establish actionable priorities, monitor progress, and evaluate the effectiveness of policies and interventions.

A NEW DASHBOARD LAUNCHED FOR MOZAMBIQUE

Building upon the global dashboard initiative, GAIN has been supporting efforts to create country dashboards with subnational data in several countries, including Mozambique. The National Food Systems Dashboard in Mozambique adapts the core concept of the global FSD to a country-specific context (see **Box C**). This facilitates an in-depth examination of food systems at the sub-national level, allowing for a comparison of the drivers, challenges, components, and outcomes of food systems across specific provinces of the country, and helping policymakers, researchers, and stakeholders to identify targeted actions to enhance nutrition, health, and environmental outcomes within Mozambique's diverse sub-national contexts.

Box B: The Food Systems Dashboard's three pillars: Describe, Diagnose, Decide

DESCRIBE

The global FSD consolidates existing data from over 275 indicators, offering users a comprehensive perspective on food systems, covering their drivers, components, and outcomes. These indicators are sourced from over 40 public and private entities, including United Nations agencies, the World Bank, the Consultative Group for International Agriculture Research (CGIAR), Euromonitor, and cross-country project-based datasets. Continuously updated, the FSD incorporates new indicators, ensuring that users have access to the most recent and relevant data for informed decision-making and analysis.

DIAGNOSE

Each country's performance is evaluated based on 39 diagnostic indicators that encompass food supply chains, food environments, nutrition and health outcomes, and environmental outcomes. For each of these diagnostic indicators, countries are categorized into green (indicating a likely area of success), yellow (indicating potential challenges), or red (indicating likely challenges), providing a clear visual representation of their strengths and areas needing improvement.

DECIDE

The FSD incorporates policies and actions focused on enhancing diets, nutrition, and environmental sustainability. Stakeholders have the opportunity to explore and prioritize these actions according to the specific requirements of their food systems, fostering a tailored approach to address their unique challenges and goals.

Find out more about the Food Systems Dashboard and how to navigate at:
https://www.foodsystemsdashboard.org/

13 Link To Global FSD: https://www.foodsystemsdashboard.org/.

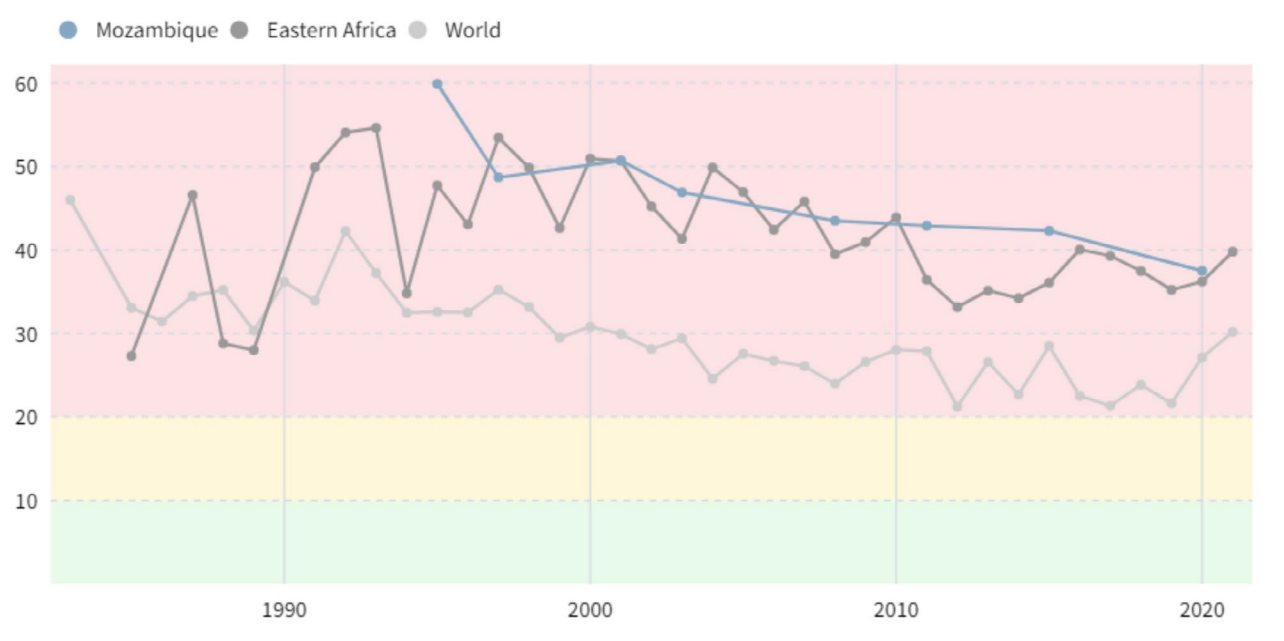
14 Including Harvard University, The Alliance of Bioversity International and CIAT, The University of Edinburgh , and The International Food Policy Research Institute.

15 For an example of its use to policymakers, see "Using the Food Systems Dashboard to examine the food supply, nutrition, and health outcomes in Kenya & Tanzania for policymakers." Brief #2. March 2023.

Box C: Subnational and global perspectives – an example[16]

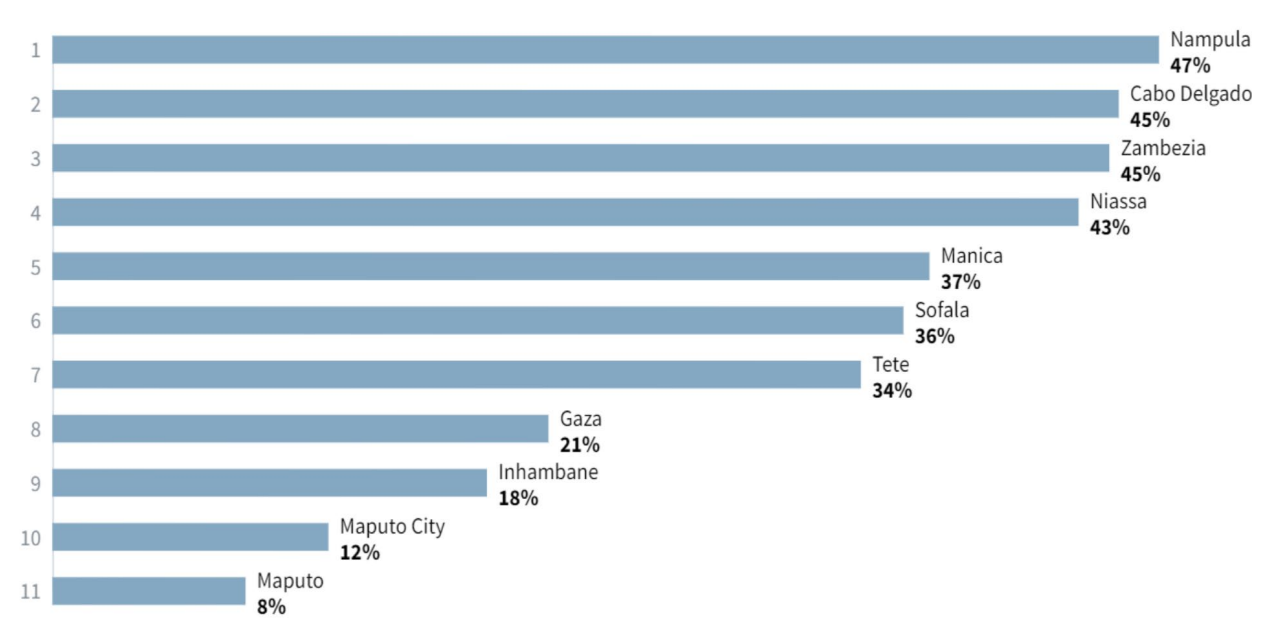
The global FSD tells us that in Mozambique nationally, the prevalence of stunting is 38% (data from 2020) compared to Eastern Africa and global averages of 40% and 30% respectively.[17] The global FSD gives us a comparative view of what is happening globally, regionally and nationally. **The global FSD also shows that stunting is a challenge area for Mozambique, Eastern Africa, and the world as all three are above this 20% threshold and classified in the red.**

Figure C1: Stunting in children under 5 globally, in Eastern Africa and in Mozambique



Mozambique's FSD shows us the breakdown of this same indicator sub-nationally (**Figure C2**). The inequality is stark, with stunting much higher in the northern and central provinces.

Figure C2: Stunting in children under 5 across Mozambique's 11 provinces in the year 2020



16 Mozambique http://foodsystemsdashboard.org/countries/moz/subnational-data.

17 UNICEF Malnutrition Data https://data.unicef.org/resources/dataset/malnutrition-data/.

A CLOSER LOOK AT THE DATA

How can disaggregated data be used to target assistance more precisely? Consider the issue of millet yield and losses. Mozambique's FSD provides detailed data on millet yield and losses rates per province. According to the latest figures from 2020, millet yield in Tete stood at 741kg/ha contrasting with 239kg/ha in Maputo (**Figure C**). Furthermore, millet losses can be seen per province with Inhambane standing at 60% and only 10% in Cabo Delgado (**Figure D**). Understanding what causes this diversity in productivity can be helpful for drawing lessons and targeting interventions like technical assistance or other farm support.

Figure C: Mozambique's Millet Yield (Kg/Ha) per province, 2020

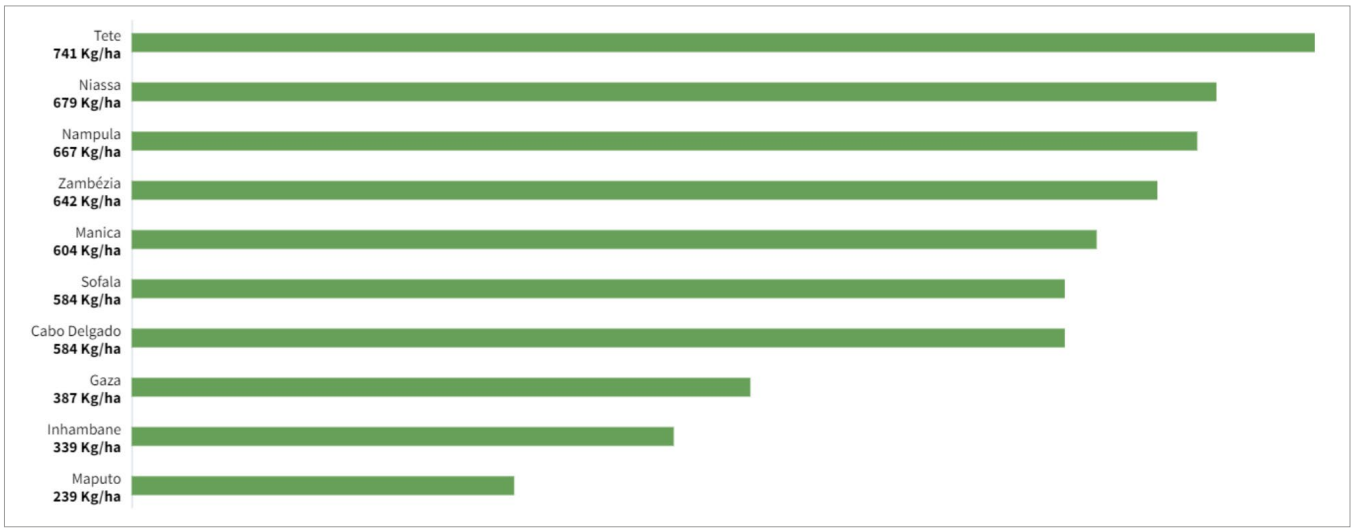
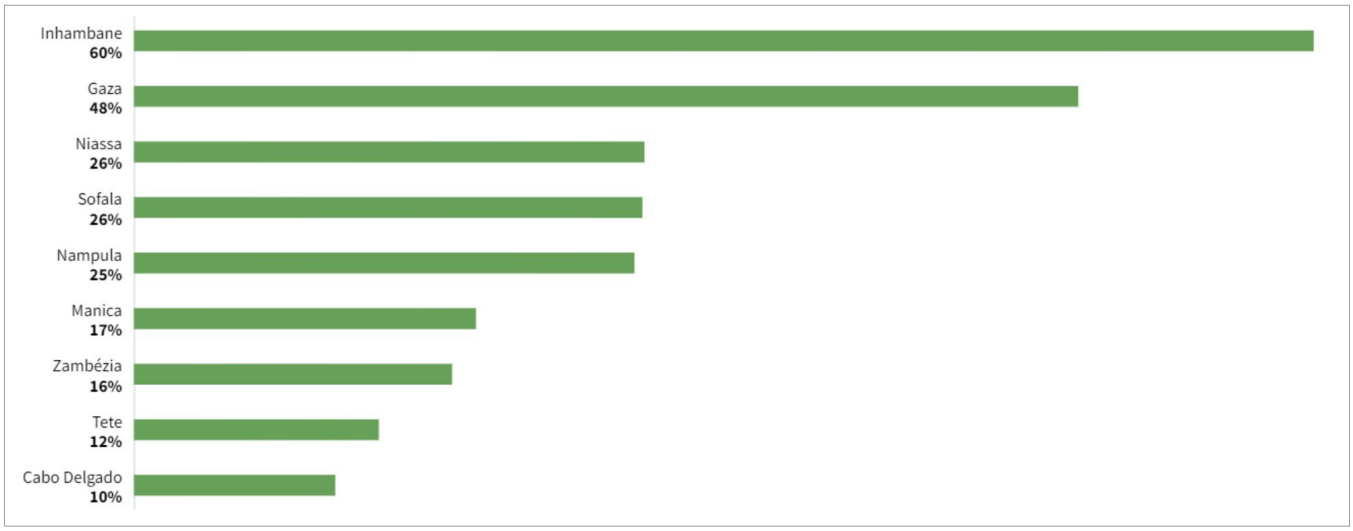
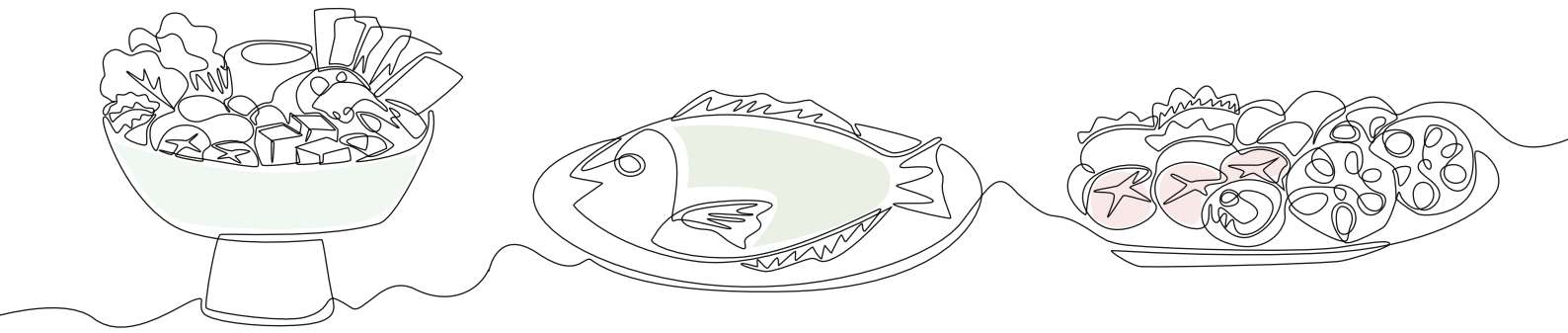


Figure D: Millet losses (%) in Mozambique per province, 2020





16 Global Alliance for Improved Nutrition. I-CAN https://www.gainhealth.org/sites/default/files/publications/documents/Initiative-on-climate-action-and-nutrition-I-CAN.pdf. Accessed 24 April 2024.

17 COP28 UAE Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action https://www.cop28.com/en/food-and-agriculture.

18 United Nations Development Programme. https://www.undp.org/blog/10-ways-forward-transform-food-systems-climate-and-nature.

THE NEED TO DIAGNOSE PROBLEMS, FORMULATE SOLUTIONS, AND TRACK PROGRESS

The transformation of Mozambique's food systems, with the goal of nourishing the population sustainably while preserving the environment and promoting prosperous livelihoods for those employed within the sector, requires significant backing. Understanding must be built using data to evaluate various facets of the food system, identifying what needs to change, agents of change, and the methods of transformation within the system. Thus, a thorough diagnosis is essential to assess:

(a) The impact of the food system on food security, nutrition, health, the environment and climate change, socio-economic factors, and territorial balance and equity;

(b) The root causes of these impacts, including underlying drivers and activities;

(c) The stakeholders and actors who have either positive or negative influences on the food systems and all activities along the food value chain.

Gaining local insights by disaggregating national statistics is crucial for devising more focused and effective responses. Mozambique's FSD is poised to play a crucial role in providing policymakers with the evidence necessary to formulate impactful policies. By compiling key data on food systems that is often scattered and hard to access, the dashboard offers a comprehensive and easily accessible resource, supporting the informed decision-making needed for the sustainable transformation of Mozambique's food systems.

A DASHBOARD TO INFORM POLICY DEVELOPMENT AND IMPLEMENTATION

Mozambique's Food Systems Dashboard launched in March 2024, now stands to offer valuable insights into potential policy priorities. The transformation of Mozambique's food system necessitates actions at both the national and provincial levels. To achieve the goal of increasing access to safe and nutritious food for all, Mozambique requires data and analytics to inform decision-making regarding various aspects of food consumption, including types of food consumed by different demographic groups, their affordability, safety, and accessibility. Furthermore, timely and closely monitored data on food policies, food environments, food production, and waste are essential for understanding whether food systems are progressing towards a sustainable equilibrium. This assessment is vital for implementing corrective measures. To advance towards transformed food systems, policymakers need to grasp the current state of systems and how they link to the action tracks, outcomes, and drivers of change. This entails analysing data on levers of change[18] to capture the evolving state of these elements over time, across different stakeholder groups, and across other disaggregated categories, enabling informed decision-making.

18 Levers of Change: A lever of change can be understood as an area of work that has the potential to deliver wide-ranging positive change beyond its immediate focus. With regards to the Food Systems Summit, four levers of change have been identified: human rights, innovation, finance, and gender equality and women's empowerment. Each of these levers cuts across all five of the Summit's Action Tracks and each has the power to bring about significant progress, on both food systems transformation and the achievement of all 17 Sustainable Development Goals (SDGs).

CALL TO ACTION

Mozambique has achieved notable strides toward inclusive and sustainable development in recent years, showcasing the potential for implementing effective strategies and policies related to food systems. The Mozambique FSD offers critical insight into the country's food systems, enabling the comparison of drivers, components, and outcomes both nationally and provincially. We strongly encourage the government to commit to the regular collection and upkeep of data in the Mozambique FSD. By capitalizing on the capabilities of the dashboard, the government can better guide its decision-making processes. Adopting this proactive stance will not only deepen understanding and foster connections across various sectors, but also facilitate comparisons between provinces, spotlight key challenges, and help in setting priorities for sustainable interventions.

Healthier Diets. For all.

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