



Tools to support food systems transformation

Releasing the brake on food systems transformation: Africa-focus

POLICY BRIEF SERIES





Mandate

- Provide knowledge-based advisory services and technical assistance to African Union Member States and Regional Economic Communities to strengthen their capacity
- Act as the continent's technical interface on policy development recommendation and implementation with partners and stakeholders
- Undertake the full range of resource mobilisation
- Coordinate and execute priority regional and continental projects enshrined in Agenda 2063 with the aim of accelerating regional integration so as to achieve "The Africa we want"



Vision

Healthier diets for all people, especially the most vulnerable, from more sustainable food systems.

Mission

Improve the consumption of healthier diets for all, especially the most vulnerable, by improving the availability, affordability, desirability, and sustainability of nutritious and safe foods, and reducing the consumption of unhealthy and unsafe foods.

About this document: This collection of briefs, developed in collaboration between GAIN and AUDA-NEPAD, has been produced in advance of the Second United Nations Food Systems Summit Stocktake, known as the UNFSS + 4, four years on from the inaugural UN Food Systems Summit of 2021.

Table of contents

Foreword	vi
Key Messages	1
Seven Tools in Brief	2
The Food Systems Countdown to 2030 Initiative	3
The Food Systems Dashboard	7
Diet Quality Questionnaire	11
Diagnosing Food Systems Policy Coherence	15
Initiative on Climate Action and Nutrition (I-CAN)	19
The Political Economy Decision Toolkit	23
Innovative Finance for Food Systems Transformation	27

ANNEX: Further Exploring the Food Systems Dashboard 31



Barriers to food systems transformation are large, but surmountable. This suite of tools can be used to: diagnose food systems to identify critical gaps and untapped opportunities; articulate action plans aligned with national priorities; identify necessary policy reforms to ensure coherence; and effectively navigate the political, financial, and technical constraints that impede progress.





Every child eats a nutritious, affordable meal daily.

Farmers thrive as entrepreneurs, not subsistence workers.

Africa feeds itself - and the world.

This is not a dream. It is our responsibility.

It is our destiny

??

H.E. NARDOS BEKELE-THOMAS AUDA-NEPAD Chief Executive Officer





Foreword



MRS ESTHERINE LISINGE-FOTABONG AUDA-NEPAD Director of Agriculture, Food Security and Environmental Sustainability



DR LAWRENCE HADDAD GAIN Executive Director Stocktakes should start with a reality check. Our food systems globally, including across Africa, continue to fail hundreds of millions when it comes to hunger and malnourishment. Too many people are unable to afford healthy diets contributing to epidemic proportions of premature deaths and disability. All the while, the natural resource environment – our home – continues to be significantly harmed.

No country has managed to reshape their food systems to deliver evenly on people's nutrition, on planetary welfare, or in terms of widespread prosperity. The interests, contributions, and agency of women and girls, youth, and indigenous people in food systems are still not fully embraced.

But change is constant. Food system change is no exception, and meaningful progress is visible, with Africa in many ways a leading region, bringing adjustments across different parts of their food systems at national and sub-national levels.

However, the consensus view is that the widespread and deep systemic transformation needed to deliver for people and planet is not happening at sufficient speed and scale; that now we need to work harder and smarter to accelerate progress. Indeed, in the four years since the first United Nations Food Systems Summit (UNFSS) brought ministers and representatives from hundreds of countries together in 2021, the animating question has gone from – "Why do we need to transform food systems?" to, "How do we transform food systems faster?"

At the Global Alliance for Improved Nutrition (GAIN), and the African Union Development Agency – New Partnership for Africa's Development (AUDA-NEPAD), we firmly endorse the multilateral approach to planning and supporting food system transformation. As organisations in the ecosystem that work to further government-led, food system transformation – we need to be able to measure and better understand what is working and why, in order to speed and scale improvement. Since the lead-up to the UNFSS, we have been supporting countries to draw up pathways to better food systems, and to begin walking the talk. But many constraints still hinder progress, and reforms are sorely needed.

That's why we have worked with governments to develop and implement a series of practical tools to strengthen policy decision making processes and capacities. These are tools created to give users a hand over major, common barriers. They are also designed to align with or to support ongoing national processes, such as monitoring plans, or indeed continental and transnational ambitions, including the Comprehensive Africa Agriculture Development Programme (CAADP), and the seven aspirations of Agenda 2063 which call for a more prosperous, integrated, democratic, peaceful, pan-African, people-driven, and influential Africa by 2033.

The tools collected here can be instrumental: in diagnosing food systems to identify critical gaps and untapped opportunities; in shaping nimble action plans in line with national priorities; in identifying much-needed policy reforms to ensure sectors act alongside each other, rather than against; and in providing new ways to effectively navigate political, financial, and technical impediments. Barriers have stood in the path of meaningful progress for too long – we must break through them.

The objectives of this showcase are to:

- 1. Introduce each of seven tools that can be used to strengthen policy decision making processes
- 2. Illustrate results and insights generated in African countries
- 3. Demonstrate how these results and insights are being used to progress food systems transformation

The moment of the 2025 UNFSS +4 stocktake in Addis Ababa provides Africa, and the rest of the world, with an important time to reflect, to gather support for strong government policy, and to remind stakeholders across the board of the urgency – and of what is at stake if we do too little. We must accelerate the transformation of food systems to deliver on their promise and put our resources behind work to shape a healthier, fairer future.

Key Messages

- WHAT'S IN THIS COLLECTION? This set of tools represents the labour of many organisations in partnership over recent years. Each of the tools described here have been designed and developed with the intention of supporting national efforts to transform food systems to deliver better outcomes for people's health, planetary wellbeing, and society as a whole. The tools deal with data, evidence, and information, with policy design and coherence, with political economy, finance, and capacity considerations. They support the governance and development of more coherent, evidenced, and better-budgeted policies, plans and processes to enable the large scale systemic change that is needed in food systems across the globe.
- MONITORING PROGRESS TO UNDERSTAND WHAT WORKS. The Food Systems Countdown to 2030 Initiative (FSCI) provides a rigorous, science-based framework and indicators to monitor food systems transformation. Its thematic analyses have examined changes over time and interactions between indicators, and its annual monitoring updates allow users to determine areas requiring more attention and resources.
- TRACKING NATIONAL AND SUB-NATIONAL TRENDS. The Food Systems Dashboard, a source
 of national and increasingly subnational food systems data, supports users to transform food
 systems. Through three steps—describing (data visualisation), diagnosing (identifying food
 system areas of challenge and opportunity), and deciding (recommending evidence-based
 policies and targeted interventions)—the Dashboard can help decision-makers to develop
 targeted interventions for more equitable, sustainable, and resilient food systems.
- UNDERSTANDING WHAT PEOPLE ARE EATING. The Diet Quality Questionnaire (DQQ) collects data that policymakers can use to understand dietary challenges and how women and men are eating, including to track new Sustainable Development Goal indicators looking at minimum dietary diversity for women and children.
- **DO POLICIES CONSPIRE OR CLASH?** The Policy Coherence Tool can help users to identify policies that may be undermining the achievement of food systems outcomes and to understand the extent to which governance structures support coherent policy across food systems, with emerging recommendations for strengthening policy coherence.
- **INTEGRATING AND FINANCING CLIMATE AND NUTRITION GOALS.** The Initiative on Climate Action and Nutrition (I-CAN) tool provides an evidence base on climate-nutrition integration across policies and financing, helping to highlight opportunities for closer integration and areas where actions might be taken.
- IDENTIFYING AND CHARTING A COURSE AROUND POLITICAL HURDLES. The Political Economy Decision Toolkit unpacks political economy factors across six domains, from policy stability and inclusionary decision-making, to administrative capacities. It allows users to identify political economy dynamics that might derail progress towards a common policy agenda, and looks at ways around likely constraints.
- FUNDING SMALL AND MEDIUM SIZED ENTERPRISES AT THE HEART OF FOOD SYSTEMS. The Nutritious Foods Financing Facility (N3F) is an innovative fund with a linked technical assistance facility and continual assessment feature. While investing in innovative financing and developing tailored solutions for food system transformation, it is also designed to demonstrate that food that is good for nutrition is good for business, as well as for socioeconomic and environmental goals.
- **THESE TOOLS FORM PART OF THE FOOD SYSTEMS ECOSYSTEM OF SUPPORT.** While they can be deployed on a standalone basis, like a natural ecosystem, they are stronger together. Mutually supportive and reinforcing, these tools operate in an interconnected way. They are designed to be flexible, widely-applicable, and agile, as well as to align and underpin existing agendas guiding socio-economic transformation— including the African Union's Agenda 2063, and the United Nations Sustainable Development Goals.

Seven Tools in Brief

Each piece in this series is available to download separately









COLUMBIA CLIMATE SCHOOL Climate, Earth, and Society



Cornell**CALS** College of Agriculture and Life Sciences

The Food Systems Countdown to 2030 Initiative

Africa regional focus

What is the tool and why is it needed?

There is wide agreement on the urgent need for food systems transformation to be more equitable, sustainable, and resilient for people and the planet. However, improving what is not measured is difficult. Food systems monitoring is essential to evaluate and improve performance, and can help align food systems decision-makers (e.g., governments, civil society, and international organizations) around key priorities, incentivize action, hold stakeholders accountable, sustain commitment by demonstrating progress, and enable course corrections. The **Food Systems Countdown to 2030 Initiative** aims to contribute rigorous, science-based monitoring to support food systems transformation.

The **Food Systems Countdown Initiative** emerged from the UN Food Systems Summit as a global interdisciplinary collaboration that now includes over 65 food systems experts from dozens of institutions worldwide. The Countdown published a monitoring framework (**Figure 1**) comprising five themes:



The Countdown then undertook a consultative process to select a set of 50 indicators across these themes, which constitutes the comprehensive indicator framework.

Figure 1. The Countdown monitoring framework

Governance • Shared vision and strategic planning • Effective implementation • Accountability									
	 Diets, nutrition, and health Food environments Food security Diet quality Environment, natural resources, and production Greenhouse gas emissions Production • Land use, water use Biosphere integrity • Pollution Livelihoods, poverty, and equity Poverty and income Employment • Social protection Rights 								
	Resilience		hocks • Resiliend - and food divers			onses and strate	egies		
 The Countdown can provide policymakers and other food systems stakeholders with: A rigorous, science-based framework and indicators to monitor food systems transformation An understanding of interactions and trade-offs between different areas and indicators across food systems A look at which indicators are moving in the right direction and which ones are not, requiring more attention and resources 									
SER TIP	A rigorous, sc An understa across food s A look at wl	ience-based i nding of inte systems nich indicato	framework an eractions and rs are moving	d indicators to trade-offs be g in the righ	o monitor food tween differe	d systems tran ent areas and	nsformation I indicators		

Africa region food systems trends captured by the Countdown

The Countdown has published two global monitoring analyses to date. The first 2023 analysis provided a baseline assessment of the 50 indicators and emphasised food system opportunities and challenges in **every region and country**. The second 2024 analysis presented how these 50 indicators have changed over time globally, showing progress worth celebrating with 20 indicators moving in a desirable direction. However, the analysis also showed challenges with 7 indicators worsening and 15 remaining unchanged globally, highlighting the clear need for governments to more actively shepherd food systems in positive directions.

In 2024, the Countdown baseline report on Africa showed wide variations across the diverse countries in this large region. Highlighted findings are presented for **Africa overall** below. Figures 2 to 6 show five examples of the latest Countdown indicator data capturing Africa; the two African countries recording the highest and lowest levels; the other global regions; and the global average.

In the area of **diets**, **nutrition**, **and health**, the African continent is not on track to meet SDG 2 (Zero Hunger) by 2030 or the Malabo targets for ending malnutrition by 2025. Africa's prevalence of undernourishment was declining but began to rise since 2017. It remains higher than the global average (20% vs 14% in 2021). Some 64% of African people experience moderate food insecurity – much higher than the global average (30%). This has been increasing since 2015. Fruit availability (193 g/day) and vegetable availability (177 g/day) are lower than the global means (268 and 300 g/day, respectively) across 2010-2022. The cost of a healthy diet has been increasing both globally and in Africa, which closely mirrors the global trend of 3.7 PPP per dollar per day. While globally, the proportion of people able to afford a healthy diet is growing, in Africa this figure shows no improvement over time.

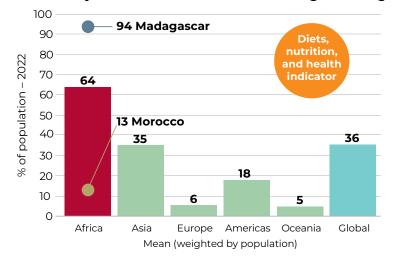
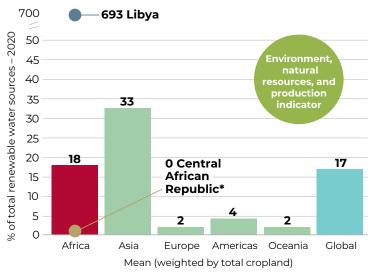


Figure 2. Cannot Afford a Healthy Diet indicator – Africa vs other regions and globally





Note: The two African countries shown in each figure exhibit the highest and lowest levels in the region

In the area of **environment**, **natural resources**, **and production**, Africa's food system greenhouse gas emissions remain low (52,756.8 kt CO2eq). Emissions intensities measure greenhouse gas emissions from the production of different crops and livestock within the farm gate. While cereal and rice emissions intensities in Africa are similar to global means, both beef and dairy emissions intensities are higher in Africa, owing to inefficiencies. Yields of rice, fruit, vegetables, milk, and beef, while all lower than global means, have trended upward in a significant way. Cropland area change is quite similar to the global mean and has remained steady at 1%. Agricultural water withdrawals have also remained steady, though Africa's rate (18%) surpasses the global mean (17%).

In the area of **livelihoods**, **poverty, and equity**, Africa's potential is substantial, boasting 64% of the world's uncultivated arable land and a youthful workforce. Africa has a much higher share of agriculture in GDP than the global average, though the figures have varied considerably over time. Africa's regional mean has been nonetheless consistently higher at around 16% versus the global mean of about 4%. Both rural underemployment (9%) and unemployment (6%) are high in Africa compared to global means (6% and 4%, respectively) and are the highest among all UN regions.

The area of **governance** shows that 70% of countries in Africa had a food system transformation pathway in 2024, compared to 60% of countries globally. The food safety capacity score looks at the mechanisms in place for detecting and responding to foodborne disease to determine if governments can effectively manage food safety challenges. African governments' food safety capacity has remained a steady 51.6, but is below the global mean of 69.5. Overall government effectiveness (which assesses the quality of the government based on several factors including public and civil service, quality of policy formulations and implementation, and commitments) and government accountability (the degrees of oversight of a government) are quite different in that effectiveness in Africa is much lower than the global mean, but accountability is similar. Civil society participation in Africa has seen a slight decline in the last several years.

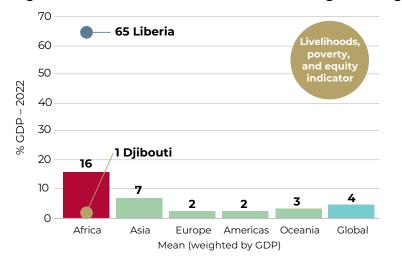
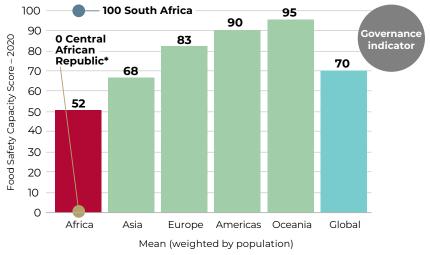


Figure 4. Share of Agriculture in GDP indicator – Africa vs other regions and globally





Notes: The two African countries shown exhibit the highest and lowest levels in the region. *(Fig 5) Cote d'Ivoire also scores 0

In the area of **resilience**, conservation of plant (14,023.7) and animal genetic resources (0.8) is much lower in Africa than global means (166,534.7 and 5.1 respectively), though somewhat increasing since 2000. However, Africa maintains higher minimum species diversity as a percentage of agricultural land with 24 or more species (37% compared to global 25%). This diversification improves the ability to cope with both environmental and market changes. Food supply variability (28.7 kcal/day) and food price volatility (0.7 index) parallel the global means (29.3 kcal/day and 0.7 index, respectively).

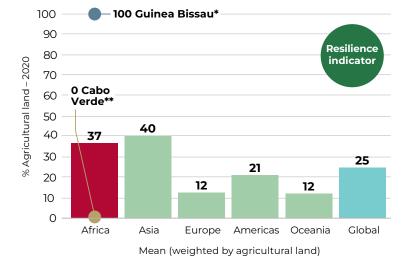


Figure 6. Minimum Species Diversity indicator* – Africa vs other regions and globally

Notes: *Proportion of agricultural land with minimum level of species diversity (crop and pasture). *And 8 other African countries. ** Comoros also scores 0. The two African countries shown exhibit the highest and lowest levels in the region.

Summary

The Countdown data for Africa reveals a region with significant potential for food system innovation and development, but one facing critical and chronic challenges in food security, nutrition, and sustainable development. Urgent and comprehensive transformation of African food systems is needed – beyond production increases, this must improve market access, enhance food security, diversify nutrition, and boost climate resilience, and overall sustainability. Such a holistic approach is imperative to address the multifaceted challenges facing African agriculture and to harness the continent's immense potential for food system innovation and development.

Countdown data, which can be found on the Food Systems Dashboard <u>www.foodsystemsdashboard.org</u> can help African stakeholders target critical interventions – from improving the region's food security to optimizing its extensive arable land potential. By focusing on both challenges and strengths identified in this baseline, Africa can build more resilient and sustainable food systems that align with both regional needs and global sustainability goals.

References

GAIN, Columbia Climate School, FAO, Cornell College of Agriculture and Life Sciences (2024) The Food Systems Countdown to 2030 Initiative (FSCI) Baseline State of Food Systems for the Africa region. Policy Brief.

Food Systems Countdown Initiative (2023) The food systems countdown report 2023: The state of food systems worldwide. New York: Columbia University; Ithaca: Cornell University; Rome: Food and Agriculture Organization of the United Nations (FAO); Geneva: Global Alliance for Improved Nutrition (GAIN). <u>https://doi.org/10.36072/fsci2023</u>.

Schneider, K.R., Fanzo, J., Haddad, L. et al. (2023) The state of food systems worldwide in the countdown to 2030. Nat Food 4, 1090–1110 (2023). https://doi.org/10.1038/s43016-023-00885-9

Food Systems Countdown Initiative (2025) The food systems countdown report 2024: Tracking progress and managing interactions. New York: Columbia University; Ithaca: Cornell University; Rome: Food and Agriculture Organization of the United Nations (FAO); Geneva: Global Alliance for Improved Nutrition (GAIN). https://doi.org/10.36072/fsci2024.

Schneider, K.R., Remans, R., Bekele, T.H. et al. (2025) Governance and resilience as entry points for transforming food systems in the







COLUMBIA CLIMATE SCHOOL Climate, Earth, and Society







The Food Systems Dashboard

A source of national and subnational data: Africa regional focus

What is the tool and why is it needed?

In the wake of the UN Food Systems Summit and the lead up to the second stocktake, leaders worldwide are increasingly focused on food systems, and how they influence nutrition and health, livelihoods, the environment, and resilience. African leaders are at the forefront of this shift from a sectoral focus on agriculture and nutrition towards a more holistic view of food systems.

The Food Systems Dashboard

The global Food Systems Dashboard brings together food systems data for 300 indicators, spanning agricultural production, food availability and affordability, diets and nutrition, livelihoods, climate, environment, resilience, and governance; as well as external drivers influencing these factors. The indicators come from over 40 sources, covering all countries with up to 60 years of historical data. The Dashboard also houses the Food Systems Countdown Initiative indicators.

Country Dashboards

Recognizing that national-level data alone is insufficient to diagnose challenges and target effective interventions, country dashboards featuring subnational data are being developed in close partnership with governments, civil society, and academia to ensure alignment with local priorities and decision-making needs. In Africa, dashboards with subnational data are currently available in **Kenya**, **Mozambique**, and **Nigeria**, covering over 300 million people, and are in development in **Ethiopia** and **Rwanda**, increasing coverage to over 450 million.

The Dashboard supports food systems transformation through three steps:

- **Describe:** Data visualization with maps, graphs, and tables brings food systems into focus, making complex relationships visible and understandable.
- **Diagnose:** A traffic light system alerts stakeholders to likely, potential, and unlikely food systems challenge areas, categorized through scientifically validated diagnostics.
- **Decide:** Diagnostics are linked to evidence-based policies and actions, enabling decision makers to develop targeted interventions for more equitable, sustainable, and resilient food systems.

 Dashboard data can help policymakers and other food systems stakeholders to: Understand their food systems and critical subnational variations Highlight success areas where things are going well Diagnose challenge areas where more attention is needed 									
Find the full set of briefs	The Food Systems Countdown to 2030 Initiative	The Food Systems Dashboard	Diet Quality Questionnaire	Diagnosing Food Systems Policy Coherence	Initiative on Climate Action and Nutrition (I-CAN)	The Political Economy Decision Toolkit	Innovative Finance for Food Systems Transformation		

1 Co-led by GAIN, the Columbia Climate School, Cornell University's College of Agriculture and Life Sciences, and the Food and Agriculture Organization of the UN (FAO)

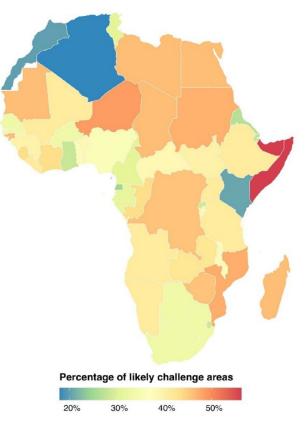
2 The Food Systems Countdown Initiative is a collaboration uniting over 60 food systems experts from dozens of institutions worldwide to bring together indicators and additional analysis to monitor food systems transformation. For more information see https://www.foodcountdown.org/

Using the tool to identify successes and challenges

Regional Food Systems Diagnostics

An examination of Dashboard diagnostics across Africa revealed that while large differences were observed across countries and regions, several shared areas of strength were observed, such as low environmental footprints for food consumption, low penetration of ultra-processed foods, and low relative costs of fruits, vegetables, legumes, nuts, and seeds. Shared food systems challenges also exist. These include food affordability, food insecurity, and child stunting. **Figure 1** shows the percent of diagnostic indicators that are likely challenge areas for countries across the continent, which ranges from 18 to 56%.

Looking at regional differences, Central Africa faced greater challenges of undernutrition among women and children, whereas countries in Northern Africa struggled more with diet-related noncommunicable diseases. Southern and Central African food systems tended to generate higher greenhouse gas emissions and placed significant pressure on biodiversity. Eastern Africa performed relatively well on adult diabetes and child wasting but showed signs of malnutrition's double burden in other indicators. In Western Africa, although crop species diversity was high and the food supply meets energy needs, affordable, healthy diets remained out of reach for most people. **Figure 1.** Number of likely challenge areas in each country, as percent of available data



Dashboard Diagnostics and Countdown Country Profiles

The Food Systems Dashboard diagnostics use a red, yellow, and green traffic light system to show country performance at a glance across 39 indicators. Spread across five domains – food supply chains, food environments, food security, nutrition, and environmental impacts – these indicators help to pinpoint key potential successes and challenges. The latest diagnostics for Kenya, for example, show successes in areas including low sales of ultra-processed foods; low wasting, overweight, and obesity in children under five; and sustainable food production. Challenges on the other hand include low dietary energy in the food supply, a high proportion of people unable to afford a healthy diet and who are undernourished, and a high proportion of children consuming no animal-source foods (**Figure 2**). Using this information from the diagnostics, policymakers in Kenya can focus efforts on reducing food losses, diversifying both production and consumption, promoting traditional foods, and reducing poverty.

Figure 2. Examples of successes and challenges from Nigeria's Countdown profile

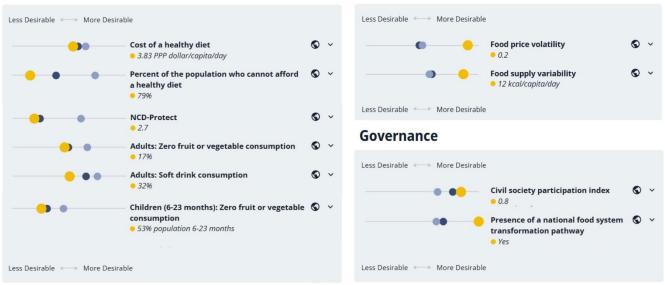


Similar to the Dashboard diagnostics, **Food Systems Countdown Initiative country profiles** help to identify where countries are doing well and where they are facing challenges compared to regional and incomegroup means. The Countdown country profile for Nigeria, for example, uses 59 indicators across five themes³ to show Nigeria's performance compared to Western Africa as a whole, and the world. Examples of areas where Nigeria is doing well include measures of resilience such as low food price volatility and food supply variability, and measures of governance including the presence of a national food systems transformation pathway and high civil society participation. Examples of challenges Nigeria is facing include food affordability (high cost of healthy diets and high proportion of people unable to afford them) and diet quality (low NCD-Protect score, high proportion of children and adults consuming zero fruits and vegetables, high consumption of soft drinks) (**Figure 3**).

Resilience

Figure 3. Examples of successes and challenges from Nigeria's Countdown profile

Diets, Nutrition, and Health



Country Dashboards

To understand crucial detail at the subnational-level, country dashboards are essential. In Kenya, Mozambique, and Nigeria (and in development in Ethiopia and Rwanda), country dashboards can now be used to diagnose subnational challenges and make key policy-decisions about how resources should be allocated.

In Mozambique – Share of women among owners or rights-bearers of agricultural land, which is tracked by both the Countdown and SDGs (5.a.1) – is a success area. Nationally, 68% of landowners are female compared to 56% in East Africa and only 31% globally.

The Mozambique Dashboard (**Figure 4**) shows subnational variation in Female share of landholdings at the province level, which is wide. While it is very high in some provinces (77% in Cabo Delgado), it is far lower in others (32% in Maputo and 34% in Gaza), showing a possible need for more attention in these areas.

A key strength of the country dashboards is the pathway to full government ownership. This is being realized in Kenya, where the Ministry of Agriculture and Livestock Development is incorporating the Kenya Dashboard into their KilimoSTAT database. Government ownership is also underway in Mozambique and Nigeria.

The country dashboards are already driving policy change. In Nigeria, civil society organizations used the data for Cost and Affordability of a healthy diet as shown on the Nigeria Food Systems Dashboard to advocate for increased wages, achieving a 134% increase in the minimum wage in 2024.

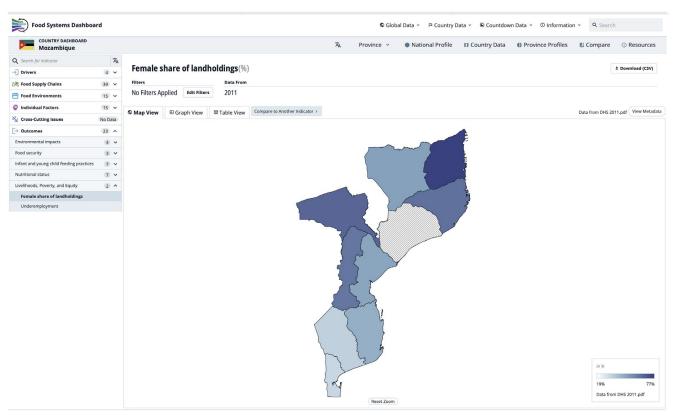


Figure 4. The Mozambique Dashboard

Summary

The Food Systems Dashboard allows investigating regional trends across Africa as well as unique country contexts. The Dashboard offers diagnostics and Countdown country profiles for all countries in Africa that highlight each country's successes while also pointing to potential challenge areas that may need more attention and resources. Where country dashboards are available, subnational data can provide additional details on variation across the country and where challenges may be felt most intensely.

The country dashboards – launched in Kenya, Mozambique, and Nigeria and in development in Ethiopia and Rwanda – cover over 450 million people across East and West Africa. They have been created in close partnership with governments to ensure alignment with local priorities and decision-making needs. Governments are already in the process of taking full ownership of these dashboards and they are being used by policymakers and civil society.

The Food Systems Dashboard resources make food systems data more accessible to support evidencebased policymaking and more effective food systems transformation.

References

The Food Systems Dashboard. The Global Alliance for Improved Nutrition (GAIN), The Columbia Climate School, Cornell University, and The Food and Agriculture Organization of the United Nations. 2025. Geneva, Switzerland. https://www.foodsystemsdashboard.org DOI: https://doi.org/10.36072/db

Herforth A, Bellows AL, Marshall Q, McLaren R, Beal T, Nordhagen S, Remans R, Estrada Carmona N, Fanzo J. Diagnosing the performance of food systems to increase accountability toward healthy diets and environmental sustainability. PloS one. 2022 Jul 29;17(7):e0270712.

Sokourenko, K, L Haddad, T Beal, V Mutyasira, B Keizire. African Food Systems: A Regional DataBased Snapshot. Global Alliance for Improved Nutrition (GAIN) and AGRA. Briefing Paper #9. Geneva, Switzerland, 2022. DOI: <u>https://doi.org/10.36072/bp.9</u>





Dietary Quality Questionnaire (DQQ)

Measuring What Africa Eats

What is the tool and why is it needed?

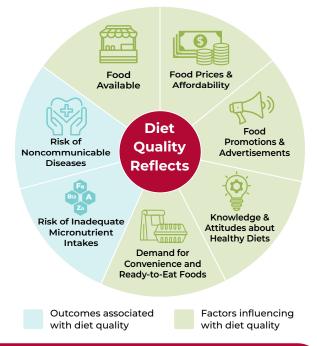
The foods that people consume affect their nutrition and health and are influenced by the foods available around them as they conduct their daily activities as well as the desirability, prices, and convenience of these foods.

Understanding what people eat (their diet), and whether their diets are healthy, is important for understanding the causes of malnutrition and disease and identifying challenges in the food environment that may be limiting access to and consumption of healthy diets.

Figure 1 shares key factors that influence an individual's diet quality, as well as outcomes associated with diet quality. The diet quality questionnaire (DQQ) is a standardized tool that was developed to facilitate the understanding of what people eat. The DQQ can be administered in five minutes and provides information about 1) whether people are adhering to healthy diet recommendations; 2) risks of inadequate micronutrient intakes; and 3) risks of noncommunicable diseases (NCDs) such as heart disease and diabetes.

A country-adapted DQQ is available for more than 140 countries globally, including 52 of the 55 Member States in the African Union (AU). Country tools are available for infants and young children (6 – 23 months old) and youth/adults (people \geq 15 years old).





	 Data collected using the DQQ can help policymakers and other food systems stakeholders to: Understand dietary challenges that contribute to micronutrient deficiencies, other forms of malnutrition, and risks of noncommunicable diseases. Observe differences in diet quality between men and women, with implications for gender equality. Track new Sustainable Development Goal (SDG) indicators – minimum dietary diversity for women and children. 									
Ď	• Assess p	 Assess progress towards the achievement of food systems transformation and global nutrition goals. 								
Find the full set of briefs	The Food Systems Countdown to 2030 Initiative	The Food Systems Dashboard	Diet Quality Questionnaire	Diagnosing Food Systems Policy Coherence	Initiative on Climate Action and Nutrition (I-CAN)	The Political Economy Decision Toolkit	Innovative Finance for Food System: Transformatio			

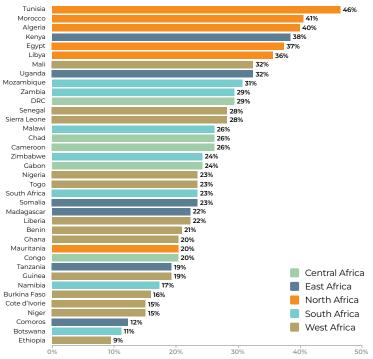
Africa's Diet Quality Measured by the DQQ

DQQ data was collected between 2021 and 2024 in 37 African countries, creating an opportunity to compare dietary patterns across the region. The findings highlight similarities in diets and common challenges, such as low dietary diversity and high consumption of unhealthy foods. The findings further provide entry points to improve nutrition through food system and policy interventions.

Adhering to Healthy Diet Recommendations

Healthy diet guidelines globally recommend that at least one food item from each of five food groups (fruits; vegetables; pulses, nuts or seeds; animal-source foods; and starchy staples) be consumed daily. People who achieve this recommendation are described as having met All-5. In Africa, the prevalence of people meeting All-5 was quite low across all countries assessed, ranging from 9% in Ethiopia to 46% in Tunisia (**Figure 2**).

Figure 2. Percent of adults who ate at least 1 item from each of five food groups

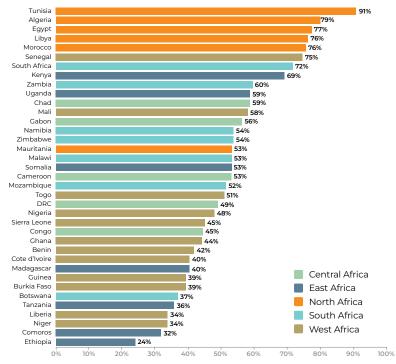


Dietary Diversity and Likelihood of Adequate Micronutrient Intakes

Achieving the minimum dietary diversity score for women (MDD-W) of five out of ten defined food groups¹ has been validated to reflect a likelihood of adequate micronutrient intakes among women. Earlier in 2025, MDD-W has been adopted as an SDG monitoring indicator, signalling a global recognition of the importance of assessing dietary diversity to track progress in food systems.

The percent of women who achieved MDD-W was less than 50% in nearly half of the countries surveyed, ranging from 24% in Ethiopia to 91% in Tunisia (**Figure 3**). These results indicate that many African women have inadequate micronutrient intakes, which could explain the high rates of micronutrient deficiencies and the attendant health consequences among African women.

Figure 3. Percent of women who achieved minimum dietary diversity score for women

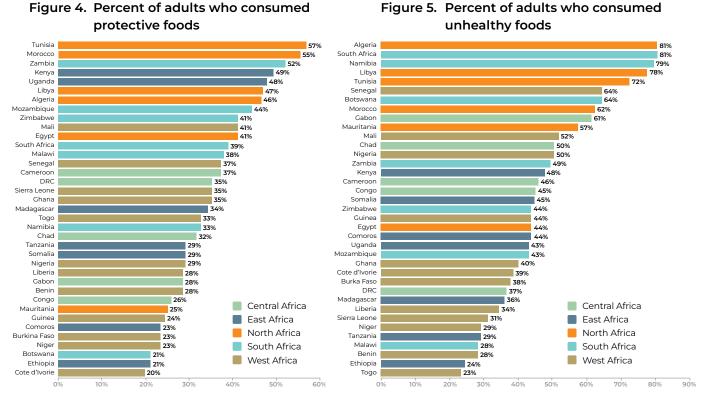


Although there were similarities in inadequately consumed foods groups, there were variations in the percent of women that consumed each food group across countries.

The ten food groups are (1) grains, white roots and tubers, and plantains; (2) pulses (beans, peas and lentils); (3) nuts and seeds; (4) dairy; (5) meat, poultry and fish; (6) eggs; (7) dark green leafy vegetables; (8) other vitamin A-rich fruits and vegetables; (9) other vegetables; (10) other fruits.

Risks of Noncommunicable Diseases

The DQQ assesses the risk of NCDs using two indicators – consumption of protective foods and unhealthy foods. Protective foods include a diversity of fruits and vegetables, whole grains, pulses, nuts, and seeds. The DQQ survey of African countries found that the consumption of protective foods was generally inadequate—less than 40% in 26 of the countries (**Figure 4**).



On the other hand, the consumption of unhealthy foods was considerable, greater than 40% in 24 of the 37 countries (Figure 5). Unhealthy foods include foods high in added sugar, salt, or saturated fat, ultraprocessed foods, as well as processed meat. The most commonly consumed unhealthy foods were fried snacks, sweet foods, soft drinks, and instant noodles.

Implications of Findings

Although some countries performed comparatively well for some indicators (for example 91% of women in Tunisia achieved MDD-W), all countries had challenges with diet quality that need to be addressed. There were no consistent subregional patterns (except for the prevalence of All-5 and MDD-W that was relatively high in 5 of 6 North Africa countries surveyed).

There were some similarities in dietary patterns across the 37 surveyed countries in Africa, reflected in inadequate consumption of fruits, vegetables, pulses, nuts, and seeds, and high consumption of unhealthy foods. The similarities in consumption patterns provide opportunities for regional and sub-regional action that will facilitate exchanges of resources across countries and synergize country level efforts.

Differences also existed in consumption patterns across countries, evidenced by differences in the particular fruit or vegetable food group that is inadequately consumed, or the unhealthy foods that are commonly consumed. These differences highlight a need for countries to carefully consider data about diet quality in the context of other food systems data, to ensure that interventions are contextually appropriate and have the greatest potential to transform food systems and improve diets.

Use of DQQ Data to Inform Food Systems Transformation

Some African countries are beginning to use the DQQ to collect subnational level data, to better understand dietary patterns and tailor solutions to decentralized levels.

In a multi-country study including cities in Kenya, Morocco, Tunisia, and Tanzania, findings from a DQQ survey and study of economic behavioural patterns were used to segment consumers to facilitate customized nutrition recommendations.

In Nigeria, the DQQ is being integrated in national surveys including other food systems indicators. In one assessment of three Nigerian states, DQQ data were collected with food environment data that explored physical access to food markets, fruits and vegetables, and vendors of unhealthy foods. Data was collected for men and women and in rural and urban areas. This Nigeria assessment found gender differences in interactions with food environments and associated differences in diet quality. The assessment also found that dietary patterns largely converged across rural and urban areas, and eating out of home was very prevalent, reframing perceptions about how people acquire their food and dietary patterns in rural areas. These findings are being used for further study and to inform policy actions to address food environments in a 2025 review of the National Policy on Food and Nutrition. DQQ data are also now being compared with production and diet cost data at subnational levels to identify food groups that are inadequately supplied in food systems and how food supply chains can be improved to increase physical and financial access to healthy diets.

Summary

DQQ data facilitate insights into food consumption patterns and health risks associated with diets. Such data can enable an understanding of food systems factors that contribute to unhealthy dietary patterns and can inform strategies that promote more diverse, healthier diets aligned with national nutrition priorities and regional development goals.

Country-adapted DQQ data collection tools for African countries as well as tools for analysing DQQ data can be found on the Global Diet Quality Project website (<u>https://www.dietquality.org/</u>) and can be integrated into national surveys to increase data availability for food systems decision making.

References

Global Diet Quality Project. 2022. *Measuring what the world eats: Insights from a new approach*. Geneva: Global Alliance for Improved Nutrition (GAIN); Boston, MA: Harvard T.H. Chan School of Public Health, Department of Global Health and Population. <u>https://doi.org/10.36072/dqq2022</u>

Adeyemi, O., Otunla, A., Nnabugwu, C.D., Ohaegbulam, A.F., Phorbee, O., Onabolu, A. and Beal, T. (2024). There are significant food environment interactions and gender differences but few urban-rural differences in diet quality in northern Nigeria. *Current Developments in Nutrition* 8(Suppl. 2): 102829. <u>https://doi.org/10.1016/j.cdnut.2024.102829</u>

Marini Govigli, V., Alboni, F., Mulazzani, L., Mwanri, A., Suleiman, R., Chimoita, E., Kogi-Makau, W. and Setti, M. (2025). From plate to policy: segmenting consumers' food behaviours to tailor nutritional recommendations in African cities. *Agricultural and Food Economics*, 13(1),8.







Diagnosing Food Systems Policy Coherence

How do food policies reinforce or conflict with food systems outcomes in Africa?

What is the tool and why is it needed?

Food systems policy coherence is the alignment of policies that affect the food system with the aim of achieving socio-economic and environmental goals. Coherence ensures that policies designed to improve one food system outcome do not undermine others and that synergies across policy areas are taken advantage of to achieve better outcomes for all.

Without coherent approaches, even well-intentioned policies may undermine one another, diluting their collective impact and squandering limited resources. Yet examples of incoherence are not uncommon. Governments often have health sector policies that promote increased consumption of healthy foods to reduce levels of diet-related diseases such as diabetes, while also subsidising the production of ingredients, such as sugar, edible oils, and refined grains often used to produce unhealthy foods.

But assessing the extent of coherence in a country's food policy landscape is challenging, with no standardised or easy-to-use empirical approaches. A Food Systems Policy Coherence Diagnostic Toolkit developed by the Global Alliance for Improved Nutrition, in collaboration with AKADEMIYA2063, addresses this gap. The toolkit, which has been tested in multiple countries in Africa and Asia, offers a practical methodology to assess food systems policy coherence and to provide actionable recommendations for enhancing it.

In this brief, we introduce the Toolkit and illustrate findings from its application in five African countries – Benin, Ethiopia, Kenya, Nigeria and Tanzania.

Insights from the application of the PCT can help policymakers and other food systems stakeholders to:
Understand the extent to which current governance structures and mechanisms are supportive of policy coherence and identify aspects that require strengthening
Assess the level of coherence between existing sectoral policies in support of food systems goals
Observe recommendations for strengthening policy coherence

How does the Toolkit work?

The Food Systems Policy Coherence Diagnostic Toolkit consists of two modules.

Module 1 examines whether there are structures and mechanisms in place that would increase the likelihood of achieving policy coherence, such as whether a country has a cross-sectoral food systems policy or pathway and ongoing mechanisms for cross-sectoral coordination on food related issues. It comprises a series of questions relating to each of the dimensions illustrated in **Figure 1** to assess the extent to which these structures and mechanisms are supportive of improved coherence.

Module 2 considers the actual conflicts and synergies between existing agriculture, health, environment, social, trade and industrial policies in relation to the achievement of ten key outcomes of food system transformation as set out in **Figure 2**. **Figure 1.** Structures and mechanisms examined in the tool



Figure 2. Food Systems goals



While achieving perfect coherence among all food-related policies across all goals is unlikely – and potentially undesirable given the costs associated with coordination and alignment – by identifying and managing critical synergies and trade-offs, governments can better align efforts towards achieving key goals.

Insights from African countries

To inform the development of the toolkit, the two modules were applied in five African countries – Benin, Ethiopia, Kenya, Nigeria and Tanzania. Noting that the Policy Coherence Diagnostic Toolkit is not designed to compare or to rank countries in terms of levels of coherence achieved, given the differences in both policy context and in socio-economic objectives across the countries, we identify a number of patterns that suggest where attention can be focused to improve the overall coherence of food systems policies¹.

Structures and mechanisms

Most countries were evaluated as having *framework documents* that are highly supportive of policy coherence, developed with broad stakeholder input and covering multiple sectors. In most cases clear priorities are identified, although generally these are not associated with specific targets. Although one country did not submit a formal pathway document to the UNFSS, the ongoing development of a national food systems transformation strategy in that country reflects many of the elements recommended in the Toolkit.

In the majority of countries, **political commitment** is moderately supportive of policy coherence, with greater attention needed to ensuring that sustained commitment is ensured beyond electoral cycles or government terms.

Although evaluated as highly supportive in two countries, **capacity and implementation** was found to be only somewhat supportive in other countries, with limitations including the absence of costed roadmaps and insufficient capacity development for government staff.

Coordination structures were evaluated as moderately supportive in all countries. While lead institutions to steer food systems transformation have largely been identified, weaknesses in both horizontal and vertical coordination mechanisms were noted. In some countries these weaknesses could potentially be overcome by establishing a cross-ministerial position within the Prime Minister's Office.

A much more mixed picture was observed in relation to *inclusivity and engagement*. In higher-scoring countries, mechanisms for expert consultation on food systems policies, and including the voices of non-technical, non-government stakeholders in policy decision-making have been established but these are lacking, or not cross sectoral, in less-well-performing countries.

A key distinction between countries with moderately supportive **monitoring and accountability** systems and those that have less supportive systems is the existence of key performance indicators, although even where they do exist, they tend not to be as comprehensive as they could be. In general, responsibilities for tracking are not clear – and very few countries have reported publicly on indicators showing progress towards target results.

Policy conflicts and synergies

The application of Module 2 reveals that although there is significant variability in the results across the five African countries, there are also some broad patterns that emerge as indicative of policy/goal associations that are likely to require greatest attention.

Table 1 provides a snapshot of areas where sectoral policies tend to be highly supportive of certain policy outcomes and areas where they are less supportive, or coherent. The table illustrates the average scaled scores by sectoral policy and goal across the five countries.

Areas where policy tends to be supportive of food systems outcomes

Reassuringly, *agriculture policies* tend to be highly supportive of the goals of increased food staples supply and of more affordable prices for staples, but also of adaptation to climate change. *Health policies* were found to be highly supportive of affordable prices for food staples, reductions in food loss and waste and effective nutrition sensitive social protection. *Environment policies* tend to be highly or somewhat supportive of a range of food systems outcomes including climate change adaptation, climate change mitigation and reduction in food loss and waste, but also encouragingly, effective nutrition sensitive social protection and empowerment of women and girls. *Social affairs policies* tend to be highly supportive of the goals of climate change adaptation, reduction of food loss and waste and empowerment of women and girls. *Industrial, Economic* and *Monetary policies* tend to be supportive of the goals of increased food staples supply, more affordable food staples, and food loss and waste reduction.



Table 1. Identifying Policy Incoherence Hotspots

Note: Based on average scaled scores across five African countries

tend to be neutral/mixed

Areas where policies tend to be incoherent with food systems goals

Several hotspots of potential incoherence are identified in Table 1.

The goals of climate change mitigation and reduction in unhealthy food consumption were found to be somewhat undermined by both current **agricultural policies** and **health policies**. For example, agricultural policies that promote increasing agricultural mechanisation without accompanying this with strong efforts to mitigate the resulting greenhouse gas emissions; or subsidies for producers of oilseeds and/or sugar crops that lead to overproduction and artificially low prices for consumers and processors. Similarly, many health policies do not actively promote demand-side dietary shifts towards lower-emissions foods. Health policies could do more to reduce unhealthy food consumption by including mandatory nutrition labels on foods, particularly 'front of pack' labels; regulating food advertising; and enacting mandatory standards for food served in schools

By contrast **environment policies** tended to be incoherent with the goals of more nutritious food consumption, for example by limiting access to fruits and vegetables due to limits on water use for their production. They could do more by banning single-use plastic packaging to help to reduce consumption of unhealthy foods, which tend to rely on these types of packaging.

Trade policies tended to demonstrate the highest level of incoherence with food systems goals, particularly undermining goals of affordable prices of food staples, for example through the imposition of tariffs and non-tariff barriers on imports of staple crops and agricultural inputs; this may hinder efforts to achieve Zero Hunger. Similarly, barriers to the import of highly nutritious foods could limit achievement of more nutritious food consumption. Adequate wages could be better supported through ratifying trade agreements that have provisions protecting worker's rights and that oblige ratifying countries to align with guidelines of the International Labour Organization.

Interestingly, **social affairs policies** were found to be incoherent with goals of more nutritious food and less unhealthy food. They could do more to support these goals if they required supplying highly nutritious foods, potentially including biofortified or fortified foods, though social protection programmes or included requirements for nutritious meals in workplace canteens.

Industrial policies were identified as incoherent with the goals of less unhealthy food and adequate wages for food systems workers and could do more by ensuring food system workers are compensated with living wages. Policy coherence with the goal of reducing unhealthy food consumption could be improved by introducing taxes on unhealthy foods or companies that produce them or providing incentives for companies producing nutritious foods.

Summary

The Policy Coherence Diagnostic Toolkit provides a relatively easy-to-use approach for identifying food systems policies and related structures and mechanisms that are likely to require attention if government objectives of improving policy coherence in support of food systems transformation are to be achieved. Often, adjustments to policies can be win-win in terms of boosting both the generation of improved outcomes under the mandate of the implementing sectoral ministry and improving other food systems outcomes. The Tool can also alert policymakers to key trade-offs, where there is a risk of undermining one food systems outcome in pursuit of another. The structures and mechanisms assessed in Module 1 are critically important for ensuring that such risks are mitigated.

There are, of course, some caveats to the analysis. First, the applications were conducted at the national level. Potentially relevant sub-national level policies and initiatives are not reflected, which may under- or overestimate the level of coherence. Second, policy is complex and dynamic, and the goals of food system transformation are numerous; this analysis considers only a limited number of food systems goals and policies at one point in time. In addition, is not necessarily the case that areas of incoherence in policies should be seen as 'bad'; there are some cases where incoherence may make sense due to prioritisation across goals or political economy necessities.

To discover more, explore the toolkit and results at www.gainhealth.org/policy-coherence-toolkit



Initiative





Initiative on Climate Action and Nutrition (I-CAN)

Integrating Climate and Nutrition Action for Stronger African Food Systems

What is the tool and why is it needed?

Africa's food systems face major challenges around rising climate risks, persistently high rates of malnutrition, and increasing food insecurity. Climate shocks drive food crises, and fragile food systems heighten vulnerability to climate impacts. The Initiative on Climate Action and Nutrition (I-CAN)¹ aims to catalyze climate actions for nutrition benefits, and vice versa. By ensuring climate-nutrition coherence in policies, financing, and programming, countries can build more resilient, equitable, and sustainable food systems.

S	The core v	alue of I-CA	AN lies in:							
TIP	 Providing an evidence base on climate-nutrition integration across policies and financing. 									
ά	 Identifying country-level best practices on climate-nutrition integration. 									
SE	 Highlighting opportunities for, and gaps and barriers towards, closer integration. 									
D	Recommendations to policymakers on action areas for improvement.									
	The Food	The Food	Dist	Disensation	Initiative	The				
Find the	The Food Systems	The Food Systems	Diet Quality	Diagnosing Food	on Climate	The Political	Innovative Finance for			
full set	Countdown	Dashboard	Questionnaire	Systems	Action and	Economy	Food Systems			
of briefs	to 2030			Policy	Nutrition	Decision	Transformation			

Key findings from the I-CAN baseline analysis

The I-CAN baseline report assesses how well climate and nutrition actions are integrated across policies, data and evidence, and financing. It serves as a mirror of where we currently stand, a beacon to where we want to be, and a spotlight for best practices and untapped opportunities. It finds that while climate change and malnutrition are two of humanity's most pressing challenges, opportunities to link action on both remain untapped. Key findings:

(I-CAN)

- Africa, Asia, and Latin America are leading in integrating nutrition into climate policies, with Africa showing the highest integration in Nationally Determined Contributions (NDCs).
- Integration between climate and nutrition is low overall, particularly in the private sector.
- Nutrition is also often conflated with food security while food security tends to be addressed in climate policies, explicit nutrition considerations are far less common.
- Significant barriers persist: a lack of shared definitions, concepts, and metrics.
- Nutrition financing lags well behind policy commitments.

1 Launched by the Government of Egypt at COP27, I-CAN is co-chaired by the Government of Egypt and GAIN alongside working group members WHO, FAO, SUN, and UNEP, sitting under the Alliance for Transformative Action on Climate and Health (ATACH). The aim is to help strengthen existing climate-nutrition efforts, fill gaps, and build a stronger evidence base for integrated climate and nutrition action.

Accelerating Climate-Nutrition Action in Africa: Where We Stand

Over half (58%) of African **NDCs** include some level of nutrition consideration (Levels 2–4), with 4% demonstrating full commitment through concrete actions and dedicated resources (Level 4). Although 42% of African NDCs still show no intentional connectedness (Level 1), Africa still leads in overall global integration levels (**Figure 1**). The region's progress reflects both high climate vulnerability and long-standing multisectoral nutrition work, particularly country-led efforts. Box A shares the example of Benin, whose NDC was submitted in Oct 2021 and published in Jun 2022.

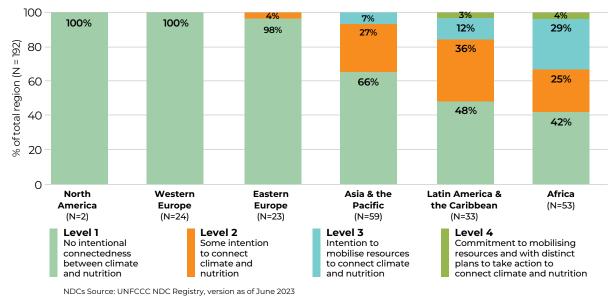


Figure 1. Nationally Determined Contributions Levels by Region

Box A. Benin's NDC exhibits high levels of integration between climate and nutrition

Benin NDC

Benin produced one of the NDCs which scored at the highest level of intergration (Level 4).

These are the key features:

Core National Plan: Climate and nutrition integrated in the National Plan for Agricultural Investment in Food & Nutrition Security (2017–2021)

Government Portfolio Policy and Programs: Multiple connections between climate mitigation with improved nutrition, such as:

- Valuation Support Project Hydro-Agricultural Perimeters (PAVPHA): A project aimed at imroving nutritional security and income for family farms, women and young people by contributing to hydro-agricultural development.
- Projet de securite alimentaire et de renforcement de la resilience (PROSAR): Aimed at improving the food situation of people vulnerable to malnutrition, particularly women of childbearing age and young children

Technology Transfer: Priority technologies identified likages to improved nutrition objectives, such as developing:

- Technology adapted to climatic constraints in agro-ecological zones to increase yields to ensure nutritional security
- Small watersheds constructed for water availablity and agricultural purposes to improve nutritional security of vulnerable populations

Climate Adaption Measures: Eight adaption measures had direct outcomes for improved nutrition, with associated costs and responsible institutions

Benin NDC Source: UNFCC NDC Registry

On levels of integration in National Nutrition Plans by region (Figure 2), Africa showed roughly the same levels of integration as Asia/Pacific and Latin America/Caribbean collectively, though bearing in mind they have a much larger sample size (31 NNPs out of 50 total). 75% of African NNPs considered climate overall (Levels 2-4). These results show that African nutrition policymakers are incorporating climate resilience into nutrition planning, though still with room for improvement. Box B shares the example of Ethiopia, whose NNP was published in May 2021.

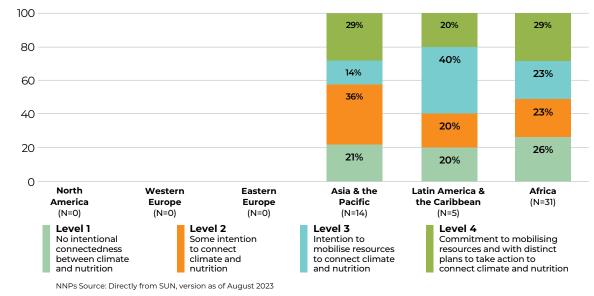


Figure 2: National Nutrition Plans Levels by Region

Box B. Ethiopia's NNP exhibits high levels of integration between climate and nutrition

Ethiopia NNP

Ethiopia produced one of the NNPs which scored at the highest level of integration (Level 4)

These are the key features:

Holistic Food System Approach: Comprehensive measures targeting a range of environments, including in agricultural production, at household level, policy environments, community settings, healthcare systems and with the private sector



Reducing Carbon Foodprint: Environmentally friendly agricultural practices listed as an objective, including in ecosystem management, irrigation, waste management and food loss

SMART Objectives: Clearly defined objectives and targets with specific commitments and expected results – for example, one of the strategic objectives listed is "Number of strategies and policies on environmental protection updated/developed in the nutrition lens" – There is context on the baseline, targets for the next 5–10 years, data source, data collection frequency and responsible ministries listed

Stakeholder Engagement: Environment and nutrition are both high on policy agenda and there are plans to engage key influencers and stakeholders across various sectors

Benin NDC Source: UNFCC NDC Registry

Other findings of note include:

- 87% of African National Adaptation Plans include some level of nutrition consideration (Levels 2–4), with a promising 25% of NAPs demonstrating full commitment (Level 4).
- 57% of African Food-Based Dietary Guidelines (FBDGs) show climate consideration (Levels 2-4), though the overall number of African FBDGs remains very low at only 7 out of 70 analyzed. Benin and Zambia achieve the highest level of integration (Level 4).
- Of the 93 public food procurement policies analyzed globally, only 7 were from Africa, with 5 showing no integration between climate and nutrition (Level 1), and only Cabo Verde and São Tomé and Príncipe showing some consideration (Level 2).
- Out of 166 NDCs globally, 27% of African NDCs mention food security compared to 46% from the rest of the world, which is comparatively lower.

The global baseline shone a light on the current state of integration and provided insights into global best practice. Now, the I-CAN methodology is being adapted and applied at national level in seven countries (Brazil, Cambodia, India, Kenya, Nigeria, Pakistan, Tanzania). Policy mapping and analysis exercises at national and subnational levels, complemented by stakeholder mapping and analyses, are highlighting positive examples of strong integration, as well as opportunities to enhance coherence and accelerate action.

Solutions and Opportunities for Action

To fully harness the potential of climate-nutrition integration, African policymakers should consider shifting from broad commitments to more specific, actionable measures. Priority actions include:

- Enhancing NDCs, NNPs, NAPs, and other action plans and strategies with concrete nutrition targets, implementation plans, and financing commitments.
- Strengthening cross-sectoral governance, particularly by linking agriculture, health, water, and social protection systems and better alignment across key ministries.
- Mobilizing private sector leadership, especially in sustainable food value chains, climate-smart nutrition interventions, driving consumer behaviour, and in financing.
- Filling data gaps by creating and maintaining centralized databases and collaborating with private sector, NGO, academia, government and other partners on data collection.
- Educating policymakers and key actors on the links between climate and nutrition, concrete actions which could lead to enhanced integration, and co-benefits.
- Electing core processes for reviewing and establishing FBDGs, including regular updates.
- Leveraging public procurement programmes and policies (school meals, hospitals) to drive demand for climate-smart, nutritious foods.

African leaders have a unique opportunity to drive global progress on integrated climate and nutrition action to deliver meaningful benefits for their people. Key reasons to act:

- Win-win outcomes: Joint climate and nutrition action strengthens resilience to external shocks, reduces long-term costs and public health burdens, and improves livelihoods.
- Leadership opportunity: Africa is already the world's leading region in NDCs and other key areas; further scaling up of integration can help to shape global standards, such as best practices of nutrition integration into climate policies, and drive increased investments into Africa, for instance in climate-smart, nutrition-sensitive investments for agriculture.
- Entry points abound: Food security strategies, NDCs/NNPs/NAPs and other key policy updates, school feeding programs, and R&D investments are immediate priorities.

Summary

The I-CAN baseline shows that African countries are leading global efforts to integrate climate and nutrition action, particularly in NDCs and NAPs, though falling short in public food procurement. While gaps and limited data coverage are an issue, African leadership remains critical for food systems transformation. By embedding climate-nutrition linkages across policies, governance, and financing, African policymakers can drive progress toward resilient, equitable, and sustainable food systems.

References

I-CAN Baseline Report (2023). Accelerating Action and Opening Opportunities: A Closer Integration of Climate and Nutrition. I-CAN/FAO/GAIN







Political Economy Decision Toolkit

Africa regional focus

What is the tool and why is it needed?

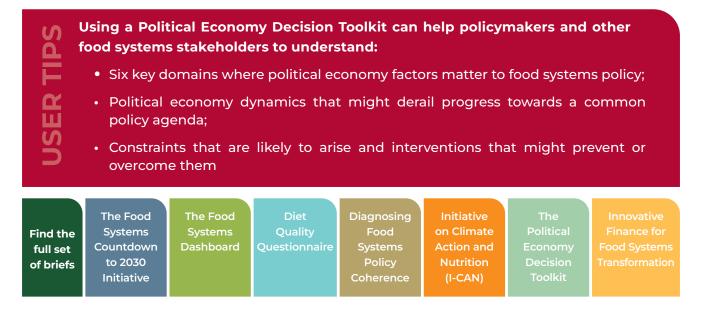
Political economy dynamics, namely the conflicts and trade-offs across different interest groups, permeate decisions about food systems policy design and implementation. Development practitioners and policymakers working to positively transform food systems – through changes to agriculture, nutrition, environment, and elsewhere – need to be alive to these dynamics in order to support policy advocacy, development, and implementation.

The Political Economy Decision Toolkit (PEDT) has been developed to help stakeholders to anticipate policy bottlenecks to food systems transformation. It encompasses six domains within national policy systems (**Figure 1**): policy stability and inclusionary decision-making, stakeholder preferences, multi-sectoral coordination, multi-level coordination, financing, and administrative capacities..

Figure 1. Six domains in the Political Economy Decision Toolkit



The toolkit includes components making up these domains and offers metrics that can help to assess them. It provides examples of how to aggregate the metrics, as well as examples of best practices for tackling political economy constraints uncovered using the toolkit.



How to find and use the Political Economy Decision Toolkit

() The PEDT (3) is a document available to download from the GAIN website¹.

Several metrics are covered under each of PEDT's six domains. **Figure 2** illustrates the 32 questions covered. Accessing these through the full toolkit highlights examples of best practices for tackling political economy constraints, offering guidance to practitioners on where and how to target their 'politically smart' engagement strategies with country partners.

Figure 2. Six domains in the Political Economy Decision Toolkit

	Stal	pility and Inclusion domain
	1A	Are there institutionalised constraints on the executive's decision-making powers?
	1B	What is the likelihood that the government will be destabilised?
ain 1	1C	How frequently have ministers in the relevant food system policy domain changed, on average, in the last 5 years?
Ĕ	1D	What is the likelihood of upcoming electoral turnover?
	1E	Are there restrictions on associational and organisational rights?
	1F	Are there restrictions on freedom of expression and belief?
	1G	Are there modalities for public participation in food system-related policies?

Stakeholder Preferences domain

2	2A	Who has decision-making power with respect to the relevant food systems policy?
ain	2B	Who has influential power with respect to the relevant food systems policy?
Dom	2C	What are the preferences of the stakeholders with decision making and influential powers?

Multi-sectoral Collaboration domain

	3A	Is there a coordinating body that has been established for the relevant food system policy?
	3B	Where is the coordinating body for implementation housed?
	3C	How many ministries belong to the coordinating body?
ain 3	3D	Have clear functions been delineated among coordinating members for information exchange and reporting with regards to the relevant food system policy?
omaii	3E	Have clear functions been delineated among coordinating members for accountability for performance, with regards to the relevant food system policy?
Õ	3F	Is the body sufficiently financed and staffed?
	3G	Are there well-recognised institutional hierarchies or conflicts across key agencies/ ministries?
	ЗН	Are there divergent policy mandates / goals across key ministries / agencies that impede coordination?



To what degree are staff insulated from political interference while performing their jobs?

Source: Compiled from (3)

For each of these diagnostic questions, the PEDT provides a way to measure and code responses with a score from 1 (less enabling environment) to 3 (more enabling environment). One advantage of this scoring approach is that it can highlight not only where bottlenecks are most pronounced across the six domains but also among the metrics within each domain.

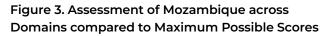
For a scoring example, consider question 1C about ministerial turnover. The PEDT suggests operatialising this by determining which ministries are relevant for the food system and how often they have collectively changed leadership on average in the previous five years. It suggests the use of secondary sources, such as WhoGovs dataset² on worldwide cabinet ministers since 1966. The expectation is that more turnovers lead to less continuity in policy decisions and uptake, while the scoring proposed is: 1 - for an average of 3 or higher ministers; 2 - for an average between 2-3 ministers; and 3 - for an average of less than 2 ministers.

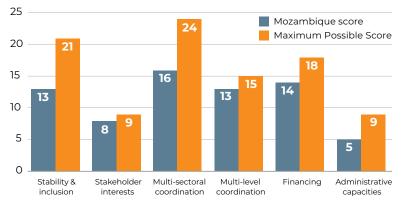
The full toolkit provides examples of how to aggregate the metrics, with an application to Mozambigue, determined in early 2024, provided. Mozambique offers a useful case study for providing a concrete application of how the different domains can be assessed. In the wake of the 2021 United Nations Food Systems Summit, the Government of Mozambique (GoM) has been more accepting of the need for greater integration in its approach to the three main food system priorities: sustainable food and nutrition security for all, improved value chains, and resilience to shocks and climate change. These priorities are addressed in different policies and programmes currently underway, including the third version of the National Strategy for Food and Nutrition Security (Estratégia de Segurança Alimentar e Nutricional, ESAN, 2023-2030). The ESAN III was the focus for the applied analysis of the PEDT. Detailed data is available in the full

toolkit, but the overall assessment for Mozamibique, combining the metrics in the six domains, highlights where technical partners supporting Mozambique's ESANIII, as well as other food policy initiatives, may encounter different types of political constraints and opportunities. Figure 3 captures the overall picture. The larger the gap between the two bars, the more that domain poses a binding constraint for ESANIII.

This indicates stakeholder interests and multi-level coordination are the least problematic; the latter is likely because Mozambique remains relatively deconcentrated, so subnational entities have minimal policy autonomy to forge their own food and nutrition security approaches.

By contrast, concerns about policy stability, especially in an election year, multi-sectoral coordination via SETSAN³ (which is embedded in the agricultural ministry and lacks authority), and insufficient





administrative capacities represent the most binding constraints. In some cases, such as regarding policy stability, technical partners may not be able to directly influence the domain but can at least strategize to anticipate its impact on programming. In other cases, such as multi-sectoral coordination, technical partners could identify what types of other institutional modalities might be more effective to address SETSAN's current weaknesses.

Conclusions

The six different modules and corresponding metrics of the PEDT can be used in combination to uncover the largest political economy constraints, or they can be used on their own if practitioners prefer to focus on a particular challenge.

Another advantage of the toolkit is that, for some of the metrics, the domains cannot be scored until a particular analytical component is completed, such as a circle of influence graphic of stakeholder preferences (diagnostic question 2C) or a landscape mapping of relevant donor initiatives (diagnostic question 5B). As such, this leads to the production of additional outputs that can be used for policy planning and engagement as well as for identifying valuable partnerships to advance food systems policy implementation.

The PEDT also shares examples of good practices for tackling political economy constraints – for example, on how to promote budget transparency for food systems. These examples allow practitioners to begin to proactively address some of the bottlenecks uncovered with the toolkit. The toolkit should offer users a practical way to understand and grapple with political economy dynamics as they work to further food systems transformation.

References

Resnick, D. Political Economy for Food Systems Pathways: A New Decision Toolkit. Global Alliance for Improved Nutrition (GAIN) and International Food Policy Research Institute. Working Paper #43. Geneva, Switzerland, 2024. DOI: https://doi.org/10.36072/wp.43

Resnick, D. Political economy decision toolkit for food systems pathways – in brief. Global Alliance for Improved Nutrition (GAIN). Briefing Paper #12. Geneva, Switzerland, 2024. DOI: <u>https://doi.org/10.36072/bp.12</u>

³ Mozambique's Technical Secretariat for Food Security and Nutrition







Innovative Finance for Food Systems Transformation

Investing for impact in Africa's Nutritious Food Businesses

What is the tool and why is it needed?

Experts agree that food systems must be transformed for the well-being of people and planet – a transformation that needs to be funded. While eventual economic, social, and environmental benefits of transformation will far outweigh short-term costs, finance must still be mobilised to drive positive food systems transformation. Finance must deliver better nutrition and enhanced socioeconomic impact.

The Nutritious Foods Financing Facility – or N3F – launched in December 2023 aims to do this through three components (**Figure 1**). The N3F Fund is an impact investment debt fund managed by Incofin Investment Management, applying a blended finance approach to provide debt financing to small and medium-sized enterprises (SMEs) in sub-Saharan Africa (SSA) who are providing safe and nutritious foods to local lower-income consumers.

Technical assistance is provided by GAIN to the Fund's investee SMEs in two main areas: 1) general business management practices to support improved efficiency and financial sustainability (e.g. through business planning and strategy development); and 2) impact enhancement and food safety, such as product formulation, labelling and supply chain strengthening, to ensure, improve and oversee SMEs' nutrition impact, as well as gender equity and environmental sustainability. Finally, monitoring, assessment, and learning – also managed by GAIN – focuses on knowledge dissemination

Figure 1. Components of the Nutritious Foods Financing Facility (N3F)



and the development and validation of metrics for targeting nutrition-sensitive investments.

N3F aims to finance up to 60 nutritious food SMEs across 15+ countries in SSA, reaching between 7 to 10 million end consumers with safe, nutritious foods by 2030.

USER TIPS	 Believe that food that is good for nutrition can also be good for business, as well as other socioeconomic and environmental goals. Showcase the role of innovative financing in food systems transformation 									
Find the full set of briefs	The Food Systems Countdown to 2030 Initiative	The Food Systems Dashboard	Diet Quality Questionnaire	Diagnosing Food Systems Policy Coherence	Initiative on Climate Action and Nutrition (I-CAN)	The Political Economy Decision Toolkit	Innovative Finance for Food Systems Transformation			

Providing Access to Finance for Local Enterprises

Investments in nutritious food producing and distributing SMEs began in 2024, and by early 2025, the fund had made five investments in four African countries. Each investee company is supported by tailored technical assistance managed by GAIN, aiming to build local capacity to enable sustainable and resilient value chains. The five investees are profiled below. **Figure 2** provides a location and brief description.



Figure 2. Five Nutritious Food Businesses working with N3F

Kenya – Shalem



Shalem is co-founded and co-owned by a female Kenyan entrepreneur. Based in Meru, central Kenya, Shalem works across grain aggregation, grain milling, fortified flours, and animal feed processing. Shalem provides local communities with affordable, high-quality fortified maize and wheat flour, crucial for staple foods like Ugali and porridge. They also produce a line of porridge dedicated to children under 5. Fortified flours can play an important role in addressing malnutrition, as they provide an affordable source

of micronutrients, especially in rural areas of low- and middle-income countries like Kenya, where access to diverse and nutritious foods may be limited. Shalem supports livelihoods by purchasing from over 30,000 Kenyan smallholder farmers.

Kenya – Camino Ruiz



Camino Ruiz distributes tilapia fish and partners with Global Tilapia and farmers' groups for production. Tilapia is a vital source of protein and essential nutrients, providing vitamins and minerals like B12 and selenium to low-income communities. Camino Ruiz also supports women's groups in Homabay County, providing training and economic opportunities, particularly for women and youth.

Rwanda – Truk Rwanda



This logistics company provides cold chain storage and transport for fresh fruits and vegetables. N3F's investment enables the purchase of refrigerated trucks and the setting up of hybrid cold rooms, which allow farmers to extend the shelf life of their produce, maximizing income and reducing food waste. Truk Rwanda also connects farmers in central Rwanda with vendors. It offers them informal training on post-harvest handling to effectively preserve the nutritional value of products. The environmentally friendly

cold rooms, powered by solar-backed grids (in place of diesel back-up power), contribute to reducing greenhouse gas emissions through this use of solar power as well as through their contribution to lowering food loss and waste. The company's services increase access to nutritious fruits and vegetables, which are important sources of micronutrients like Vitamins A and C for local communities.

Senegal – Couvoir Amar



Founded in 2020, this Senegalese family-owned poultry business focuses on producing hatching eggs, day-old chicks, and broiler chickens for consumption. Chicken consumption in Senegal remains among the lowest in the world (about 8kg per person annually). By increasing domestic production, Couvoir Amar aims to make poultry more affordable for lower-income groups. Poultry meat is a source of high-quality protein and

micronutrients like zinc. The company also helps to create jobs in rural communities, with a positive impact on groups including women and youth.

Zambia – Good Nature Agro



This innovative SME specializes in legumes and seeds, focusing on soybean, groundnuts, cowpeas and beans as seed for replanting as well as for local consumption. Not only does Good Nature Agro partner with a network of over 15,000 smallholder farmers across Zambia to purchase seeds, it also provides farmers with inputs and training to help improve seed and food-grade commodity production. Good Nature Agro has been recently ranked

among the fastest growing companies in Africa by the Financial Times, demonstrating its capacity to scale its impact in Zambia and beyond. N3F's investment in the company will contribute to increased access to quality beans and groundnuts by smallholder farmers and households in Zambia as either seed for replanting or food for consumption in their homes.

More about the facility and its aims

N3F is a relatively new and innovative facility, with ambitious impact targets. The N3F will publish its first impact report in the summer of 2025, profiling its first five investments.

The aim is that through demonstrating success, N3F will act as a pioneer proof of concept, ushering in further nutrition impact-investment mechanisms to unlock the potential in nutritious food value chains. In non-high-income and emerging economies, this potential is particularly concentrated in SMEs. While SMEs support and deliver the bulk of the food, particularly the food purchased by low-income and nutritionally vulnerable consumers, in these countries, they have been operating under a chronic and critical lack of access to financing.

Another aim of N3F is to demonstrate not only how investing in nutrition-focussed businesses can deliver tangible nutrition and business benefits, but also how additional benefits in further areas aligned with the UN Sustainable Development Goals (SDGs can accrue. These include gender equality (**Figure 3**), child welfare, livelihoods, environmental sustainability, and other aspects of human development.

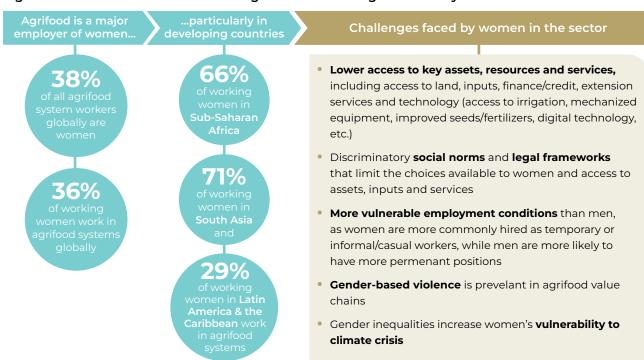


Figure 3. Role of women – and challenges faced – in the global food system

Summary

Small and medium-sized enterprises are the backbone of food systems in Africa and beyond. Unfortunately, the vast majority, even those which are involved in providing food that is good for people's nutrition, face severe funding and technical challenges preventing scale-up. This means local production of nutritious foods like fruits and vegetables, chicken, fish, and more, is being held back, right at a time when experts agree food systems must be accelerating their positive changes and holding back the negative ones. SMEs involved in nutritious food value chains must be supported as part of greater efforts to transform food systems. Public and private blended finance coupled with technical assistance and sound monitoring, is proving an effective instrument in the toolbox with which to bridge the funding gap faced by SMEs in the region.

References

Bove, R., Clary, A., Nordhagen, S., & O'Leary, M. (2024). (rep.). Putting Nutrition on the Plate. Criterion Institute.

Bove, R. Nordhagen, S., Alaniou, N., Kahn, E., Dwivedi, M., Machimbarrena, M., and Roberts-Robbins, K. (2024) The Case for Investment in Nutritious Foods Value Chains: An Opportunity for Gender Impact. Presentation. GAIN, SAGANA.









🖆 Columbia Climate School Climate, Earth, and Society



Food and Agriculture Organization of the **United Nations**



ANNEX: Further Exploring the Food Systems Dashboard

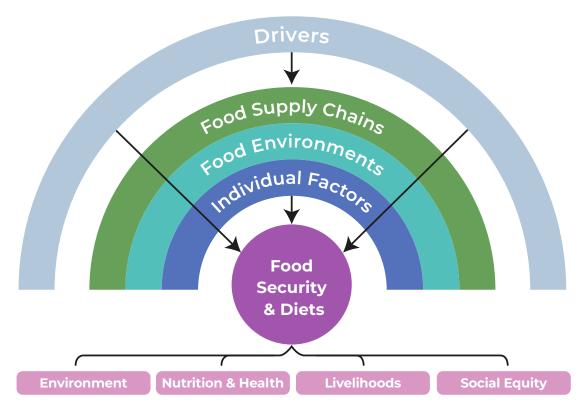
A visual introduction – Africa focus

The Food Systems Dashboard is available online at foodsystemsdashboard.org

The Food Systems Dashboard Framework

The Food Systems Dashboard is organized along a framework that includes the components of food systems - food supply chains, food environments, and individual factors - and the drivers that influence these. The framework also includes the outcomes of food systems - diets, food security, nutrition and health, livelihoods, the environment, and equity - as well as cross-cutting issues of governance and resilience. Food systems influence diets by determining which foods are produced, which foods are accessible, both physically and economically, and people's food preferences. They are also critical for ensuring food and nutrition security, people's livelihoods, and environmental sustainability.

Figure 1. The Food Systems Dashboard components



The Food Systems Dashboard Diagnostics

The **Food Systems Dashboard diagnostics** use a red, yellow, and green traffic light system to show country performance at a glance across 39 indicators for over 220 countries and territories in the world. Spread across five domains – food supply chains, food environments, food security, nutrition, and environmental impacts – these indicators help to pinpoint key potential successes and challenges. The latest diagnostics for Kenya, for example (**Figure 2**), show successes in areas including low sales of ultraprocessed foods; low wasting, overweight, and obesity in children under five; and sustainable food production. Challenges on the other hand include low dietary energy in the food supply, a high proportion of people unable to afford a healthy diet and who are undernourished, and a high proportion of children consuming no animal-source foods.

All Countries & Territories > Eastern Africa < Standard View Kenya **Country Diagnostics Countdown Indicators Country Dashboard** Diagnose ASSESSING FOOD SYSTEMS PERFORMANCE [→ Outcomes 🗟 Food Supply Chains Production systems and input supply Environmental impacts Average crop species richness Total ecological footprint of food production per person Total ecological footprint of food consumption per person Storage and distribution Greenhouse gas emissions of food consumption per person Cereal losses Fruit losses Biodiversity impact of food consumption per person Vegetable losses Water use linked to food consumption per person Pulse losses Eutrophication of food consumption per person Agricultural land change during the last 10 years Food Environments Average proportion of natural vegetation embedded in agricultural lands Food availability Soil biodiversity threats index Dietary energy in the food supply Food security Share of dietary energy from cereals, roots, and tubers Percent of the population who cannot afford a healthy diet Availability of fruits Prevalence of undernourishment (SDG 2.1.1) Availability of vegetables Availability of pulses Percent population experiencing moderate or severe food insecurity (SDG 2.1.2) Food affordability Infant and young child feeding practices Cost of an energy sufficient diet MDD (IYCF): Minimum dietary diversity for infants and young children Cost of a healthy diet relative to the cost of sufficient energy from starchy staples Children (6-23 months): Zero fruit or vegetable consumption Affordability of a healthy diet: ratio of cost to food expenditures Children (6-23 months): Zero meat, fish, or egg consumption Cost of legumes, nuts, and seeds relative to the starchy staples in a least-cost healthy diet Nutritional status Cost of fruits and vegetables relative to starchy staples in a least cost healthy diet Adult obesity **Product properties** Wasting in children under 5 years Retail value (total sales) of ultra-processed foods per capita Stunting in children under 5 years (SDG 2.2.1) Overweight and obesity in children under 5 years Underweight in women 15-49 years Anemia in women 15-49 years (SDG 2.2.3) Noncommunicable diseases Adult diabetes prevalence Adult raised blood pressure Unlikely Challenge Area Potential Challenge Area Likely Challenge Area Missing Data

Figure 2. The Food Systems Dashboard national diagnostics – Kenya example

The Food Systems Countdown Initiative Country Profiles

Similar to the Dashboard diagnostics, **Food Systems Countdown Initiative country profiles** help to identify where countries are doing well and where they are facing challenges compared to regional and incomegroup averages. The Countdown country profile for Nigeria, for example (**Figure 3**), uses 59 indicators across five themes to show Nigeria's performance compared to Western Africa as a whole, and the world. Looking at the Countdown country profile for Nigeria, we can see some of Nigeria's successes and challenges as compared to Western Africa and the world. Examples of areas where Nigeria is doing well include measures of resilience such as low food price volatility and food supply variability, and measures of governance including the presence of a national food systems transformation pathway and high civil society participation. Examples of challenges Nigeria is facing include food affordability (high cost of healthy diets and high proportion of people unable to afford them) and diet quality (low NCD-Protect score, high proportion of children and adults consuming zero fruits and vegetables, high consumption of soft drinks).

Figure 3. Example of a Countdown country profile

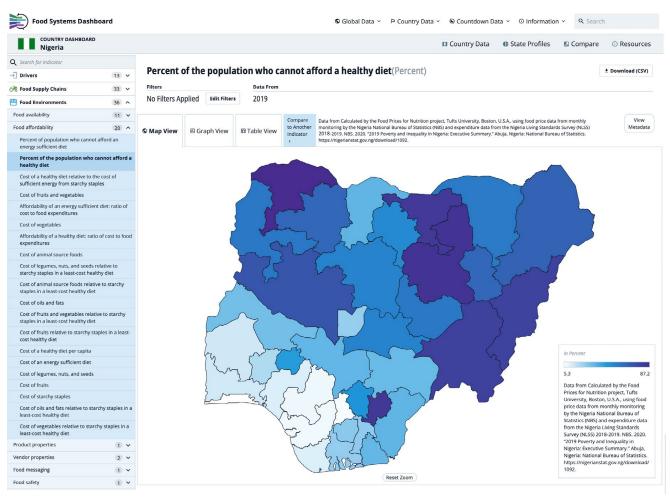


The Country Dashboards

The Food Systems Dashboard team has partnered with country governments and other stakeholders to launch country dashboards with the subnational data needed to support food systems transformation. These country dashboards have been developed for three countries in Africa – Kenya, Mozambique, and Nigeria, while country-level dashboards are also under development in two further African countries – Ethiopia and Rwanda.

Subnational data under many domains can be displayed on a map (as in **Figure 4** example), graphs, or tables. The Dashboard diagnostics are also available at the subnational level – by county, state, or province.

Figure 4. The Nigeria Dashboard



To discover more, visit the Food Systems Dashboard at www.foodsystemsdashboard.org

This work was produced in part through GAIN's Nourishing Food Pathways programme, which is jointly funded by:



The findings, ideas, and conclusions presented in this publication are those of the authors and do not necessarily reflect positions or policies of GAIN or any of the agencies mentioned above.





We must accelerate the transformation of food systems to deliver on their promise and put our resources behind work to shape a healthier, fairer future.





