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About FSEC
The Food System Economics Commission is an independent academic commission that equips political and economic decision makers with tools and evidence to shift food and land use systems.

POLICY BRIEF 1

Putting jobs at the heart of food system transformation in Sub-Saharan Africa

SUMMARY

Transforming food systems towards more inclusive, health-supportive and climate and nature positive outcomes is one of the most effective levers for building a more sustainable and just future. In Sub-Saharan Africa transformation could save 15 million lives until 2050, while contributing to reducing cumulative emissions from agriculture and food and land use by 54 GT CO_2e (equivalent to a 47% reduction with respect to current trends) and reversing biodiversity loss.

However, these health and environmental benefits need to be carefully balanced with people's livelihoods. Governments developing food system transformation strategies need to get a head start on labour issues and support the creation of new—and high-quality—employment opportunities particularly for small producers and traditionally marginalised groups, such as women and youth.

BACKGROUND

Transforming food systems is central to building a more just and sustainable future

The Food System Economics Commission (FSEC) has produced global scenarios which look at future realities if food system transformation takes place. Overall, the FSEC's innovative modelling estimates that in Sub-Saharan Africa (SSA) a feasible food systems transformation scenario could lead to a significant reduction of the food system's hidden costs with respect to current trends, amounting to 334 billion USD a year by 2050.

In order to realise the benefits projected by the FSEC modelling, food systems transformation strategies in SSA must focus on the following four key areas:

1. **Consumption:** Addressing hunger and undernutrition and reversing the trend towards increasing consumption of less-healthy foods towards healthier diets. Those include increased consumption of legumes or nuts, fruits, vegetables, and certain animal-source foods;
2. **Environment:** Environmental protection measures, especially the conservation of land and forest areas as well as afforestation;
3. **Jobs:** Measures to strengthen livelihoods and increase agricultural wages;
4. **Agriculture:** A move towards sustainable agricultural practices such as improved crop rotations to increase nitrogen-use efficiency, soil carbon storage, and water management.

Once all four focus areas are addressed, transformation as modelled would provide huge benefits for people and planet in SSA:

Protect people's health (health-supportive):

→ Saving nearly 15 million lives by eliminating malnutrition in the region, including eliminating the incidence of undernutrition (affecting 120 million people today). Current health-related societal costs from undernourishment, obesity, and noncommunicable disease associated with diets are expected to reach 190 billion USD (2020 PPP) a year by 2050 but could be halved through a shift to healthy diets.

→ These benefits are going to increase over time as new generations benefit from healthy diets.

Protect the environment (climate and nature positive):

→ Turning SSA's food systems into natural carbon sinks (i.e., environments that absorb carbon) rather than sources of emissions.

→ Together with more sustainable production practices, the transformation would eliminate the environmental hidden costs of food systems, currently projected to rise to 240 billion a year by 2050.

Protect people's livelihoods (inclusive):

→ Providing resources to improve the livelihoods of agricultural workers while freeing up human resources that could be deployed to support growth in other economic segments, both within and outside food systems.

To realise this transformation, implementing strategies must address a number of policy and political economy hurdles. This policy brief focuses on the job aspects of the transformation in SSA, which is typically overlooked in these discussions despite holding the key to addressing some of the biggest challenges of food systems transformation in SSA.

Hidden costs *refer to the unaccounted costs of food and land use systems in terms of productivity and welfare losses to present and future generations. The Food System Economics Commission estimates the hidden costs of greenhouse gas emissions, blue water use, land use conversion, nitrogen pollution, health impacts of not consuming healthy diets, and poverty.*

KEY FINDINGS

The landscape of job opportunities is expected to change dramatically in SSA over the next 30 years. There is a growing need for economic opportunities to support the livelihoods of those leaving agriculture.

Food systems are constantly being reshaped as economic development, rising productivity, urbanization, and dietary shifts drive the reallocation of labour from agriculture to other sectors. That change is a standard part of what is an established pattern of development associated with rising average incomes, the deepening of the non-agricultural economy, and increased efficiency in agriculture.

In the case of SSA this process is expected to continue apace over the coming decades. 28 million people are expected to leave jobs in agriculture. This represents 9 percent of the over 300 million jobs expected to disappear from agriculture globally by 2050 under current trends. It is likely that this process of "job loss" will manifest itself in a variety of ways, including a growing number of workers who need to diversify their livelihoods, combining the reliance on small plots or working as agricultural labourers with other types of activities.

The number of people living in rural areas in SSA is expected to remain high. This means that efforts to create new economic opportunities will need to include a strong focus on rural and semi-rural areas (Christiaensen et al, 2021).

Transforming food systems is likely to exacerbate changes in employment opportunities over the next 30 years. However, this will largely be balanced out by increases in food system jobs outside of primary production.

Under FSEC's transformation scenario, the number of jobs disappearing from agriculture in SSA would increase to 66 million in total, representing 17 percent of the global total. This will be mostly driven by changing consumption patterns.

In parallel with reductions in job opportunities in primary production, SSA can expect to see the downstream food economy (e.g., trade, processing, and storage and its finance and infrastructure) strengthen, leading to an increase in the proportion of workers in the non-agriculture food system segments (Davis et al, 2023; Christiaensen et al, 2021; Allen et al, 2018).

SSA's share of downstream food system jobs stands today at about 23 percent, compared to about 50 percent in middle-income countries such as Brazil.

Extrapolating from the proportion of downstream jobs seen in middle-income countries suggests that their number in SSA in 2050 could grow by between 27 million and 48 million.

Those could absorb the majority of jobs lost in agriculture under a food system transformation scenario.

These simple extrapolations appear plausible when considering a number of ongoing trends and the specific impacts of food system transformation.

- Urbanization, for example, increases the opportunities for value addition through expansion of cold chains and increases in the processing, packaging, and transportation of food products (Davis, 2023; Allen et al, 2018; Christiaensen et al, 2021; World Bank, 2017).
- The integration of African countries into a 2.5 trillion USD market of 1.3 billion people (WRI, 2023) further supports the development of a local food processing industry.
- Shifting towards healthier diets could reinforce this trend, by making diets more diverse and increasing the share of fresh produce versus staple crops.
- Nature restoration and protection interventions can provide significant job opportunities, particularly when large in scale. The 'Great Green Wall' initiative by the African Union for the Sahel and Sahara region has the potential to create 10 million jobs (GCA, 2021).

A big unknown in this context is technological progress and the extent to which artificial intelligence and digitization will disrupt existing employment creation trends. Investment in innovation is needed to address global and food system-specific adaptation and mitigation challenges—but it must focus on addressing the needs of smallholders and other groups likely to be most vulnerable to disruptive technological trends.

SOLUTIONS

A focus on jobs needs to be mainstreamed in the design of food system transformation strategies.

Transformation is not straightforward. Unlocking opportunities for new off-farm employment and improving working conditions in agriculture must play a central role in food systems transformation strategies. This is both to ensure a just transformation that delivers for everyone as well as to increase the political viability of the transformation: new opportunities for those who need them can help reduce their political opposition to change.

There exists a number of policy levers to support those efforts, though they are not typically included in food systems, health or climate strategies. These interventions need to complement the creation of broad-based social protection programs, which is essential to a just food systems transformation. Integrating job concerns into food systems transformation strategies will require deliberate efforts, policy coordination and the development of new forms of food systems governance.

There are five key areas of intervention:

1. **Inclusion: Fostering the development of inclusive supply chains, with special attention to women and other traditionally marginalized groups.** This includes linking farmers with buyers in contracting arrangements, which can increase their access to knowledge, credit, and inputs. Farmer organizations and cooperatives or other stakeholder platforms can play a pivotal role in these arrangements (Christiaensen et al, 2021). The creation of agroparks, and more generally incentives and infrastructure for food system firms located in 'secondary towns' can strengthen connections between different segments of food value chains (World Bank, 2017).
2. **Innovation: Fostering innovation and diffusion in food systems.** Supporting innovation requires bundles of interventions (Barrett et al, 2020) that help translate a technological solution into viable new ways of doing things, adapted to local circumstances and supported by measures that remove barriers to adoption. Beyond traditional downstream sectors, areas such as the bio-economy and circular economy approaches that include the profitable use of waste products could be the focus on innovation and entrepreneurship interventions (GIZ, 2021).
3. **Education: Upgrading rural education and skill-building, with a focus on women and youth.** A range of new skills can support new economic opportunities in the food system transformation, including in areas like food storage, grading, processing, and alternative energy (World Bank, 2017) and sustainable farming practices, such as adoption of new crops or agroforestry. Investment in quality rural education, increased accessibility to training in rural areas (e.g., through distance learning), non-traditional skill-building programs, and effective agricultural extension systems will be needed (Christiaensen et al, 2021). Improving access to education for women and youth, including through school meal programs, skills training for out-of-school rural youth, gender-sensitive vocational training, and gender-tailored communication strategies are needed to reach relevant groups (Njuki et al, 2023; Giner et al, 2022).
4. **Finance: Promoting access to finance,** especially for women and young people in all segments of food systems. Both groups often face barriers that prevent access to sufficient resources needed to develop activities in terms of ambitions and potential (Allen et al, 2018; Njuki et al, 2023; Christaensen et al, 2021).
5. **Infrastructure: Expanding infrastructure, particularly around secondary towns.** Basic infrastructure such as roads, energy, as well as digital infrastructure are needed to support the development of rural-based food processing activities and the diversification of local economic opportunities. Support for on-farm storage and the creation of warehousing infrastructure and the development of sustainable cold chains would support the shift towards greater local provision of fruits and vegetables (World Bank, 2017).

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