AFRICAN CENTRE FOR BIODIVERSITY

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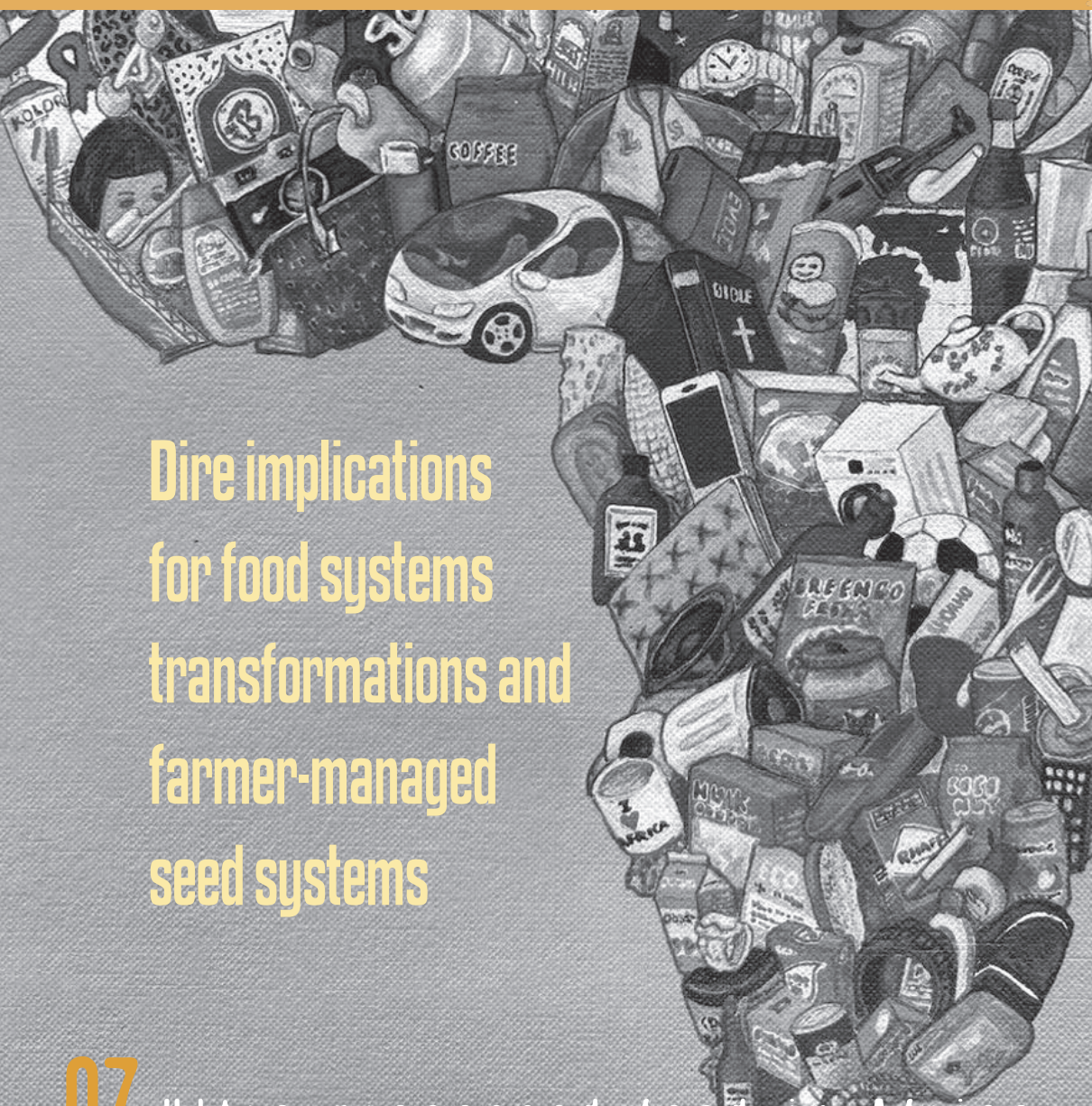
RISING UPF CONSUMPTION IN AFRICA WILL DRIVE AGRICULTURAL BIODIVERSITY LOSS FURTHER



Dire implications for food systems transformations and farmer-managed seed systems

The African Centre for Biodiversity (ACB) is committed to dismantling inequalities and resisting corporate industrial expansion in Africa's food and agriculture systems.

www.acbio.org.za
PO Box 29170, Melville 2109, Johannesburg, South Africa.
Tel: +27 (0)11 486-1156

Series conceptualised and edited by ACB executive director Mariam Mayet
Researched and written by Linzi Lewis, with editorial guidance and input from Mariam Mayet
Cover artwork by Isaac Zavale, @zacatwork
Design and layout: Adam Rumball, Sharkbuoys Designs, South Africa

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Agricultural and food systems erode biodiversity, PARTICULARLY AGRICULTURAL BIODIVERSITY

In this 7th factsheet in the series on ultra-processed food (UPF) in Africa, we dive into how UPF production and consumption are contributing to the decline in agricultural biodiversity, a crucial component of biodiversity. More research is urgently required to understand the detrimental impacts of UPFs on agricultural biodiversity along the entire UPF life cycle, including the impact of their linked industries, such as producing their components/ingredients and packaging materials, particularly in Africa.

Agricultural landscapes are becoming increasingly homogenous at a genetic and species level, due to the intensive use of cheap, standardised ingredients needed in industrial processing. This displaces and replaces the cultivation and consumption of diverse grains, pulses, fruits, vegetables and other foods used in traditional, agrobiodiverse production systems (Rist et al., 2020).

Manufactured UPF uses ingredients extracted from a few so-called high-yielding mono-crop plant species, including wheat, maize, soy and oil seed crops (Leite et al., 2022; Fardet and Rock, 2020). Ingredients of animal origin used in the production of ultra-processed reconstituted meat products usually come from confined animals/factory farming, mostly from a small number of livestock breeds, fed on concentrates largely made with ingredients from the same few high-yielding crops mentioned above. The extensive land cover change associated with the conversion of traditional agriculturally biodiverse systems to pastureland and monocultures has direct deleterious effects on agricultural biodiversity.[1] In Brazil, for example, staple food crops such as rice

1. The variety and variability of animals, plants and microorganisms used directly or indirectly for food and agriculture. Agriculturally biodiverse systems comprise the diversity of genetic resources and species used for food, fodder, fuel and pharmaceuticals. It includes the diversity of non-harvested species that support food production and those in the wider environment that support and diversify agroecosystems.

and beans have had their production areas reduced by around 43% and 30%, respectively, between 2008 and 2019. The area for soy production, largely used in livestock feed and as an ingredient in ultra-processed foods, increased by 69.9% in the same period (CONAB, 2020).

The production of UPF forms part of an agricultural and food system that is systematically eroding essential agricultural biodiversity necessary for a resilient and sustainable food supply and calls for the need for further research to be conducted on the effect of UPF on agricultural biodiversity (Leite et al., 2022). Due to an over-reliance on UPF, monocropping and industrialised agricultural systems, nutritional diversity, and agricultural biodiversity are increasingly being degraded at an alarming rate while at the same time destroying the environment and our health. Despite the significant biodiversity and agrobiodiversity loss, the impact of climate change and extensive pollution resulting from rising UPF consumption, as articulated in factsheet six of this series,[2] the problem of UPF has been mostly ignored in climate change conferences, biodiversity Conventions and global food systems summits (Leite et al., 2022).

2. | https://t2m.io/ultraprocessedfood_fin

UPF erodes diversity of PLANTS, CROPS AND DIETS

UPF consumption is increasingly forming the foundation of a globalised diet, dominant in the global food supply chain, and growing in every region of the world. Therefore, dietary patterns are becoming increasingly more processed and less diverse. The shifting dietary pattern towards greater UPF reliance, with emphasis on breeding and production of a relatively small number of so-called high-yielding, export-oriented industrial crops and animal breeds has and continues to displace fresh and minimally processed food that needs less packaging and is produced and sold by local food producers and traders (De Schutter, 2009; Lalljee et al., 2018; Fakhri, 2021).

UPF plays a huge contributing role in shifting, diminishing and consolidating diets around low-nutritional foods based on limited crops. An alarming 75% of plant genetic diversity has been lost from farmers' fields due to the introduction of genetically uniform commercial seeds (FAO, no date; De Schutter, 2009). This frightening decline in genetic and crop diversity, along with the decline in biodiversity more broadly is enabled by policies that support and uphold agro-industrialisation and corporate supply chains. We are therefore witnessing an erosion and erasure of dietary and agricultural diversity, livelihood and nutritional security, and the associated knowledge needed to maintain, develop and conserve this agricultural biodiversity (FAO, 2019; Khoury et al., 2021).

Agricultural biodiversity, agroecology and farmers' rights

Agricultural biodiversity is an integral part of agroecology, which offers pathways for sustainable transitions out of corporate-industrial food systems. In ACB's report, *Cultivating diversity for a just agroecological transition of Africa's food systems*,[3] the ACB outlines the linkages between the 13 principles of Agroecology developed by the High-Level Panel of Experts (HLPE) 2019 report, *Agroecological and Other Innovative Approaches*, and their relationship to agricultural biodiversity (ACB, 2023). Of particular relevance, agricultural biodiversity directly improves resource efficiency and strengthens agroecosystem resilience. Additionally, its linkage with farmer seed systems and farmers' rights is essential to securing social equity and is therefore a vital component of a just and sustainable agroecological transition in food systems.

It is long overdue for food and farming systems to integrate the in-situ/on-farm conservation and sustainable use of agricultural biodiversity, and in particular crop diversity. This rests on realising farmers' rights, as articulated under Article 9 of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), to ensure the maintenance of such adaptive seed systems. Yet negotiations on Article 9 of the Treaty have failed to meet its objective and remain in a stalemate due to industry preventing any meaningful translation of the mandatory legal obligations of Article 9 into regulatory practice.

Currently, we are rather witnessing policy reform serving as the architecture driving industrial agricultural expansion and undermining and criminalising age-old practices associated with local seed and food systems. The wave of reform to agricultural policies and seed laws across the continent at national, regional and continental levels are orientated and biased towards protecting intellectual property over seed (plant variety protection) and corporate seed value chains (ACB, 2022). This is taking place due to pressures from bilateral and other trade agreements to develop seed laws oriented exclusively towards private and corporate interests, often based on the International Convention for the Protection of New Varieties of Plants (UPOV) 1991. These neglect and undermine farmer-managed seed systems, which form the basis of seed used in African production systems, sustain a variety of livelihoods and indeed, genetic and crop diversity.

2. https://acbio.org.za/wp-content/uploads/2023/08/Cultivate-diversity-Africa-food-systems.pdf

REDUCING BIODIVERSITY LOSS
due to rising UPF consumption

The unprecedented rates of biodiversity loss highlight the need for a rapid return to dietary patterns that are rich in varieties of plant-sourced, fresh and minimally processed food (Leite et al., 2022). The very rapid rise of UPF in human diets will continue to place pressure on the diversity of plant species available for human consumption. Global food systems fora, biodiversity Conventions and climate change conferences need to highlight the destruction of agricultural biodiversity caused by UPF and to agree on policies and actions designed to slow and reverse these crises.

Ultimately, the main multilateral platforms to ensure the conservation and, sustainable use of agricultural biodiversity, the Convention on Biological Diversity and the ITPGRFA have, to date, failed in this regard. They have failed to ensure agricultural biodiversity, which is primarily embedded in farmers' fields and reliant on farmers' innovation and maintenance, is given the necessary policy attention and protection it deserves as the foundation for food production and therefore for human life. The inextricable link between farmers' seed, their seed systems and agricultural biodiversity has been neglected across the board, despite the urgency to protect it in the context of the poly-crisis we are facing, including biodiversity loss and climate change.

Thoughts on WAYS FORWARD

UPF must be addressed and prioritised in global and national policy platforms and action plans. The rapid erosion and endangerment of agricultural biodiversity poses a risk to the future of dietary diversity and nutrition, and is a potent barrier to ensuring a just, sustainable food system (Leite et al., 2022). The Brazilian dietary guidelines recognise this interdependence between diets, health and well-being, and safeguarding ecological integrity and biodiversity (Da Cruz et al., 2023).

Countries must urgently address rising dietary-related diseases linked to increased UPF consumption and national dietary guidelines, and related policies must recognise the relationship between diets, health and nutrition, and the social and environmental sustainability of the food system (Da Silva et al., 2021). These demands place local farmers and local traders at the centre, reflecting the interdependence between diets and agricultural biodiversity as part of ecological and human health.

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