60% of Africa's food is based on wheat, rice and maize—the continent's crop treasure trove is being neglected

January 15 2024, by Tafadzwanashe Mabhaudhi

Credit: Wikipedia

African countries have become reliant on a few food items. Just 20 plant species now provide 90% of our food, with three—wheat, maize, and rice—accounting for 60% of all calories consumed on the continent and globally. This deprives the continent of diverse food sources at the very time when research has found massive food and nutrition insecurity in Africa.

By 2020, about 20% of the continent's population (281.6 million) faced hunger. This figure is likely to have increased, given the impacts of successive droughts, floods, and COVID-19.

Yet historically, Africa had 30,000 edible plant species, and 7,000 were traditionally cultivated or foraged for food. The continent is a treasure trove of agrobiodiversity (a diversity of types of crops and animals), and its countries could easily feed themselves.

As society and agriculture evolved, many foods that defined diets and sense of self on the continent were lost. Many of these now occupy the status of neglected and underutilized crop species. Knowledge of their production is slowly fading away.

We reviewed studies and policies related to wild food plants, nutrition, and justice and found that many underutilized but nutritious and hardy crop species that could be grown to end hunger in Africa. These included Bambara groundnut, cowpea, pigeon pea, millet, sorghum and African leafy vegetables such as amaranth and wild mustard.

Our findings identify nutritious crops that can tolerate heat and drought and could be planted by smallholders on land that is unsuitable for mass monoculture.

But, for this to happen, policy changes are needed. Governments should encourage their production and consumption through incentives.

Campaigns are needed to build awareness and education about the health and environmental benefits of the crops and to dispel the social stigma that they are only eaten by poor people.

Resetting Africa's food systems

The current agrifood system has not delivered for Africa. Our research shows that Africa's food and nutrition insecurity is not, as often assumed, the result of low agricultural productivity, poverty, or the hot, harsh climate. Africa has millions of hectares of fertile soil, now threatened by degradation and made worse by climate change.

The Green Revolution of the 1950s and 1960s, in which mono-crops like maize, wheat, and rice were grown on a mass scale, with large amounts of fertilizers, heralded the industrial agrifood system. However, it did not translate into success in Africa, where monoculture led to ecological and environmental degradation. It undermined the livelihoods of millions of smallholder farmers and created a food and nutrition insecurity paradox—hunger amid plenty.

Neglecting agrobiodiversity in favor of monoculture left even these cash crops lacking resilience and vulnerable to external shocks. This made food production even more unsustainable, which led to hunger, vulnerability, poverty, and inequality.

Next steps

Climate change is already affecting yields through recurrent floods and droughts, worsening hunger on the continent. Mainstreaming neglected and underutilized crop species could boost agrobiodiversity on the continent and improve plant resilience in times of climate change. However, this requires giving these crop species equal status with major

crops by stimulating their production by smallholder farmers.

Governments also need to support and fund research into the development of the crops. Campaigns are needed to build awareness and education about their health and environmental benefits.

Research shows that smallholder agriculture in Africa is a vehicle through which poverty reduction and rural development can be achieved. Recent research into crop and dietary diversity, smallholder farming and malnutrition in South Africa found that smallholder farmers who grow a wider range of crops have a more diverse diet. They also make better sales in local markets and use the profits to buy a wider range of food.

The research also found that, if supported with training, market, and credit access, smallholder farmers could contribute to the dietary diversity of communities. This also translates to improved income for rural households and creates employment. Growing underutilized crops can promote pathways out of poverty.

Another potential positive outcome could be the empowerment of women. Women are mainly responsible for producing and conserving neglected and underutilized crop species. Switching to these crops could empower them if they were included in new value chains set up to get these crops into the market. But new government policies are imperative, such as offering women credit facilities, land, water rights, and viable markets.

Lastly, mainstreaming these crops could help achieve a more socially just agrifood system. Reverting to forgotten fruit and vegetables would also represent a locally driven solution that harnesses Africa's natural and social capital. It would empower African communities to achieve food sovereignty, sustainable livelihoods, social justice, and human and environmental well-being.

With support, neglected and underutilized crop species could be "opportunity crops" for achieving an Afrocentric agrifood system that celebrates Africa's heritage.

This article is republished from The Conversation under a Creative Commons license. Read the original article.

Provided by The Conversation

Citation: 60% of Africa's food is based on wheat, rice and maize—the continent's crop treasure trove is being neglected (2024, January 15) retrieved 28 April 2024 from https://phys.org/news/2024-01-africa-food-based-wheat-rice.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.