



Beans and Other Pulses as a Policy Intervention

Beans and other pulses are a simple, affordable solution to our global health, climate and cost of living challenges. The signatories of this memo recommend adding that the Post-Malabo Development Agenda reflects the significant importance of beans and other pulses as a cross-cutting solution aligning with broader goals of food security, economic empowerment, and sustainable development. We suggest it appears under VI: **“Commitment to Enhancing Resilience of Livelihoods and Production Systems to Climate Variability and other related risks”**:

“Beans and other pulses are recognized as a crucial crop and streamlined as a policy solution due to their nutritional benefits, ability to improve soil fertility, and potential to enhance food security and economic stability across African nations.”

This memo provides a comprehensive proposal based on in-depth analysis, best practices, and evidence to enforce strong policy to bolster bean production and consumption across African nations.

Submitted by



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The Case for Beans & Other Pulses

Pulse consumption is declining around the world, including in countries that are traditionally culturally rich with pulse diets, such as [Mexico](#), [India](#) and [Kenya](#). This is due to a myriad of factors, which vary due to the geographical location, culture and community but include:

- Lack of knowledge on preparation techniques or nutritional value
- Long cooking times
- Preference of meat, and perception as a “poor person’s food”, “old fashioned”, or “just for vegetarians”
- Gastrointestinal discomfort or flatulence.
- Shift to Western diets

PULSES ARE NUTRITIOUS

- They are rich in protein, dietary fibre and micronutrients including iron, potassium and B vitamins like folate, which is great for gut health. They have no cholesterol, and are low in fat.
- Beans are associated with numerous health benefits, such as the promotion of healthy weight maintenance and gut health and the reduction of the risk for several chronic diseases, including type 2 diabetes, cardiovascular disease, and cancers like colorectal cancer.

PULSES ARE GOOD FOR THE PLANET

- They are well suited to smallholder agriculture and low-input production systems. Like other legumes, they establish a mutually beneficial relationship with Rhizobium soil bacteria that leads to the conversion of Nitrogen from the air into a form that can be used by plants, improving soil fertility and structure.
- Incorporating them into agricultural practice can improve biodiversity and help reduce the need for synthetic fertilisers and thus threats to nature and biodiversity related to over application such as eutrophication, and soil and water degradation.
- They mature fast, their production results in much lower greenhouse gas emissions and they require less water than other sources of protein.
- They are shelf-stable and store for long periods of time dry, canned, jarred, in pouches, frozen and in flour form, which helps in fighting food waste.

PULSES ARE CULTURALLY RESPONSIVE & SUPPORT FARMER PROSPERITY

- They have been part of global cuisines for millennia, and many people depend on beans as a primary staple and important source of protein in their diets.
- They support the livelihoods of millions of smallholder farmers. The cultivation and sale provide income and improve the economic stability and food security of farming communities.

BEANS ARE VERSATILE & DELICIOUS

- They can be prepared and incorporated into a variety of foods including meals, desserts, snacks, sauces, spreads and even beverages.



Production/ Consumption Gaps in Africa

Enhancing Investment Finance in Agri-food system; Halving Poverty through Inclusive Agri-food Growth and Transformation; Enhancing Resilience of Livelihoods and Agri-food Systems to Shocks: Agriculture makes up 35% of Africa's GDP and employs about half of its people. In Sub-Saharan Africa, 82% of those living in extreme poverty live in rural areas, and 76% of working adults in extreme poverty are employed in agriculture. Soil degradation and erosion is now an immense challenge, with forty percent of degraded soils located in Africa in areas significantly affected by poverty and food insecurity. Geopolitics cause rising food and energy costs driving more people into poverty. Studies show that the COVID-19 pandemic and related government restrictions highly affected production, distribution and consumption of beans across Sub-Saharan Africa for instance.

The Common bean (*Phaseolus vulgaris*) is the most important legume crop, grown on nearly 8 million ha in Africa where it is consumed and traded by more than 100 million people. Beans are grown as a sole crop or intercropped with other crops that vary according to the farming system. In Eastern Africa, beans intercropped with maize account for 45% and bean sole crop accounts for 30% of the bean harvested area. In regions like sub-Saharan Africa, beans are cultivated primarily by women, which can help mitigate gender inequality and contribute to livelihoods. Beans can garner up to four times the price of wheat at the market. Rapid urbanisation and improved farmer access to markets have contributed to commercialisation of bean production in Africa.

Yet, across the world, a third of all food is wasted, particularly at harvest time, and a third of greenhouse gas emissions come from agriculture. In addition, the African continent is seen as the most vulnerable to climate change, with adaptation costs rising to \$50 billion USD per year by 2030 if global temperatures reach 2 °C or beyond. Up to 60% of areas that grow beans in sub-Saharan Africa might not be suitable by the end of this century. Current agricultural practices cause resource depletion, including 80% deforestation and 70% fresh water withdrawals. Across the African continent, soil health is declining, causing implications on agricultural productivity, food security, and environmental sustainability. As a result, economic growth and well-being has been hampered. Therefore, restoring soil health is an essential element of climate change mitigation and resilience.



Ending Hunger in Africa - food security, Nutrition, Health and Food Safety/Sanitary and Phyto-Sanitary (SPS): The 2023 SOFI reported a relative lack of change in hunger at the global level from 2021 to 2022. Progress was made towards reducing hunger in most subregions in Asia and in Latin America, but hunger is still on the rise in Western Asia, the Caribbean and all subregions of Africa.

The proportion of the population facing hunger is much larger in Africa compared with the other regions of the world – nearly 20 percent compared with 8.5 percent in Asia, 6.5 percent in Latin America and the Caribbean, and 7.0 percent in Oceania. The report further states that the people living with undernourishment in Africa rose from 19.4 percent in 2021 to 19.7 percent in 2022, driven mostly by increases in Northern and Southern Africa. The number of people facing hunger in Africa has increased by 11 million people since 2021 and by more than 57 million people since the outbreak of the pandemic.

Beans are a cornerstone of many African diets. Per capita bean consumption in Eastern Africa is the highest in the world – in western Kenya, Rwanda and Burundi people eat their body weight in beans every year (around 35kg or about 100 g per day). Beans are quickly gaining importance in countries such as Cameroon and Guinea in Central and West Africa. Improved bean varieties, such as those with higher iron and zinc can mitigate micronutrient deficiencies, particularly for women and children.



Pulse Policy Priorities in Africa

To drive increased production and consumption for beans and other pulses, several policy priorities need to be addressed:

1. INCENTIVES AND SUPPORT FOR FARMERS

With a particular focus on smallholders, women and youth:

- **Seed Subsidies:** Provide farmers with access to high-quality seeds at subsidised rates. This can increase the adoption of improved bean varieties.
- **Financial Support:** Offer low-interest loans and grants to smallholder farmers to invest in bean cultivation. Financial assistance can help farmers purchase necessary inputs and equipment, improving productivity and profitability.
- **Extension Services:** Expand agricultural extension services to provide farmers with training on best practices for bean cultivation, pest management, and post-harvest handling and farming as business/farm management.
- **Agricultural Technology:** Promote the use of technology in bean farming, including mobile apps for agricultural advice, remote sensing for crop monitoring, and mechanised farming equipment tailored for smallholder farmers.
- **Farmer Cooperatives:** Support the formation and strengthening of farmer cooperatives to facilitate collective bargaining, access to markets, and sharing of resources and knowledge.
- **Land Tenure Security:** Strengthen land tenure rights for smallholder farmers to encourage long-term investments in bean cultivation and sustainable farming practices.

2. RESEARCH AND INNOVATION

Increase investment in research and innovation to develop new bean varieties; complementary technologies & information and support tracking of bean consumption and production.

- **High-Yielding Varieties:** Invest in bean breeding and the dissemination of bean varieties that are adaptive to various needs, including: increased yield; improved taste; decreased cooking times; resistance to diseases and pests; and varieties that can withstand adverse climatic conditions such as drought, extreme temperatures, and unpredictable rainfall patterns.
- **Soil Health and carbon measurement:** Research and promote sustainable soil management practices, such as intercropping beans with other crops to improve soil fertility, measure soil productivity and reduce dependency on chemical fertilisers.
- **Invest in bean research,** improve tracking of production and consumption levels and the effectiveness of educational and behaviour change studies.



3. IMPROVED REGULATIONS, MARKET DEVELOPMENT AND SUPPLY CHAINS

Developing robust supply chains and market opportunities for beans is essential.

- **Improve infrastructure** for post-harvest processing, storage, and transportation to reduce losses and ensure that beans reach consumers efficiently.
- **Public - Private Partnerships:** Encourage partnerships between governments, private sector entities, and non-governmental organisations to create efficient and transparent supply chains that benefit all stakeholders.
- **Update market and trade regulations:** Streamline export procedures and reduce trade barriers for beans to enhance access to international markets. This includes simplifying customs processes and reducing tariffs on bean exports. Regulate the import of beans to protect local producers from unfair competition while ensuring a stable supply of beans to meet domestic demand during shortages.
- **Strategic national grain reserves:** Commit to including diverse crops of beans and other pulses prominently and in significant quantities.

4. PUBLIC PROCUREMENT AND DIETARY GUIDELINES

Governments should incorporate beans into public procurement policies, ensuring they are included in school meals, hospitals, and other government-funded institutions:

- **School Feeding Programs:** Mandate the inclusion of beans in school feeding programs to improve the nutritional quality of meals and create a stable market for local bean producers.

- **Healthcare Institutions:** Ensure beans are included in the dietary plans of hospitals, nursing homes, food banks, correctional facilities and other public institutions, supporting both health outcomes and local agriculture.
- **Food banking and emergency feeding:** Through strategic partnerships and food donation laws and policies, encourage and incentivize food producers, manufacturers, retailers, and distributors to donate surplus beans to be efficiently distributed to communities facing food and nutrition insecurity.
- **Update national dietary guidelines:** to recommend higher consumption of beans, highlighting their nutritional benefits and role in a balanced diet.

5. ADVOCACY AND AWARENESS CAMPAIGNS

Sustained advocacy efforts are necessary to raise awareness about the benefits of beans.

- **Public Awareness Campaigns:** Launch campaigns to educate the public about the health benefits of beans, encouraging their incorporation into daily meals.
- **Community Engagement:** Engage local leaders, chefs, and influencers to champion the benefits of beans and demonstrate their use in traditional and modern recipes.
- **Educational Programs:** Implement educational programs in schools and communities to teach the importance of beans in nutrition and sustainable agriculture.
- **Build critical partnerships** that can accelerate progress and goals.

By addressing these policy priorities, Africa can enhance the role of beans in achieving food security, improving health outcomes, and promoting sustainable agricultural practices.

Case Studies

Beans is How is an ambitious campaign mobilised by the SDG2 Advocacy Hub to double the global consumption of beans (as well as peas, lentils and other pulses) by 2028. The campaign is bolstered by a network of almost 100 partners from more than 50 countries. This Coalition of partners is raising awareness about the benefits of beans inviting chefs and food service managers to join them in getting more #beansonthemenu in key global cities and sharing recipe and cooking tips - making beans a more desirable, accessible food choice whilst fighting misperceptions. The Coalition is advocating for strong policy to promote pulse production and consumption while collaborating with the private sector and governments to support market transformation.

The Pan-Africa Bean Research Alliance (PABRA) (facilitated by the Alliance of Bioversity International and International Center for Tropical Agriculture (CIAT)) is a collaborative bean research and development network of more than 650 partners and members across 31 countries in Sub-Saharan Africa. Between 1996 and end of 2023 they developed 710 new climate resilient, farmer and consumer demanded bean varieties, reaching over 42 million farmers between 1996-2023 (about 59.8% being women). The Bean Corridor Approach is a private-led multi stakeholder platform (MSP) that exemplifies successful implementation of collaborative research and development between CGIAR centres, NARS, SMEs and civil societies. It upgrades bean value chains for higher trade volumes, better farmer incomes, and national and regional food security and nutrition revenue. Between 2019 and 2023, the number of HIB consumers across the PABRA bean corridors increased from a baseline of 720,000 to 22.14 million people in 18 countries where there has been an increase of 21.42 million consumers (of which 11,331,180 or 52.9% are women).

As a result of the impactful research and achievements, PABRA won the 2019 Al-Sumait Prize and 2023 Africa Food Prize. Each country sets its own goals, such as improving nutrition, incomes, or production: for instance:

- PABRA promotes the environmental and nutritional benefits of beans in Kenya while enabling greater production; closing the production gap via improved varieties and better agronomic practices. Key objectives: create a sustainable bean supply and production chain, paving the way for a bean-based food system that nourishes and empowers African communities.
- Between 2004 and 2022, the bean yield has more than tripled in Uganda and Ethiopia (from 0.5 ton to 1.6 t/ha) and Tanzania (0.5 tons to 1.5 t/ha). Key objectives: increasing production, commercialisation and consumption, including incorporating beans into school meals.
- By using the MSP approach, PABRA has promoted biofortified beans in school meals across Tanzania, Kenya, Uganda, Madagascar, Rwanda, Burundi, and Zimbabwe. Reports show that by 2023, this initiative reached 200-250 schools in Tanzania and benefited over 275,000 children (51% girls). PABRA's focus on High Iron Beans (HIBs) goes beyond schools to contribute greatly to the mainstay of most families in intervention countries.

AGRA + Rockefeller Foundation’s “Advancing Availability of Biofortified Foods for Institutional Markets” Program targets the delivery of iron-rich beans and Vitamin A maize to school feeding programs in Kenya, Malawi, and Tanzania, benefiting approximately 1.2 million school children. 6,000+ Kenyan farmers already embraced biofortification, planting high-iron beans in the 2023 season. Program is empowering Africa’s youth to reach their full potential, one bean-fuelled nutritious meal at a time.

One Acre Fund: A social enterprise that provides asset financing for fertiliser and seed, and resilience-focused services to 4 million smallholder farmers across Eastern and Southern Africa. For example, through two legume projects in Malawi and Rwanda, they are supporting farmers along the overall value chain to diversify their crops by providing access to seed, microfinancing, insurance, data, new technologies and education. They are also supporting the development of new pulse-based alternative protein products through development of manufacturing, storage, packaging and access to market.

Food for Education: 170,000 meals served daily countrywide in Kenya. Feeding 70,000 children per day in Nairobi since June 2023, creating employment opportunities and a market for farmers. Working towards solving the child nutrition crisis for over 200 million children in Africa. 31+ million meals served since 2016.

Tailored Food: A non-profit social enterprise that researches, develops, and scales nutritious, delicious, culturally-relevant low-cost food for families suffering from malnutrition. So far, 5.2 million plant-based, culturally relevant, nutritious, low-cost meals in the world’s most complex economies, generating \$633k value for small-scale farmers and community-level food processors in Liberia, Congo, Mozambique, Brazil, Ethiopia, and Cameroon. Partnered with UNICEF in 14 African countries to create sustainable food systems centred around ingredients like beans

