APHLIS has good data for loss mitigation at critical loss points…It is good for evidence-based policy advocacy.
Anne Mbaabu, AgConnectors

Reducing postharvest losses in Africa

APHLIS helps countries meet their postharvest loss goals.

Image by Hugh Rutherford/CIP

Background

In June 2014, the African Union Assembly adopted the *Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods*. Among other targets, signatory countries pledged to halve current levels of postharvest losses as part of their commitment to ending hunger in Africa by 2025. The African Union Commission requires its member states to report on progress made in reducing postharvest losses, as part of their biennial reporting on the Malabo commitments. Member states are expected to develop postharvest loss reduction strategies that are consistent with their Malabo Declaration reduction goals.

A year later, the United Nations adopted the *Sustainable Development Goals* (SDGs). Under SDG 12 (Responsible Consumption and Production), Target 3 calls for cutting per capita global food waste by half at the retail and consumer levels and reducing food losses along production and supply chains, including postharvest losses, by 2030.

APHLIS postharvest loss estimates are available at www.aphlis.net

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The postharvest loss goals adopted by the African Union and the United Nations reflect the significant impact that such losses can have on agricultural productivity, food and nutrition security, income and the environment. When over 800 million people on the planet face severe food insecurity, food systems with high levels of losses are neither sustainable nor ethical.

Challenges

Despite growing recognition of the importance of reducing postharvest losses, implementation has been slow, and few African countries are on track to meet their Malabo Declaration and SDG goals. According to the African Union (AU), several factors prevent countries from developing and implementing effective loss reduction strategies, including: i) a lack of awareness about the consequences of postharvest losses; ii) ineffective postharvest loss monitoring and measurement methodologies; iii) insufficient research and development; iv) inadequate institutional and organizational arrangements, including lack of support for disseminating best practices and knowledge; and v) a lack of targeted financing for postharvest loss activities. At a policy roundtable during the 3rd All Africa Postharvest Loss Conference and Exhibition (AAPHCE) in September 2021, countries identified the lack of comprehensive postharvest loss data as a major impediment to establishing effective postharvest loss policies.

The African Postharvest Losses Information System (APHLIS)

The African Postharvest Losses Information System, APHLIS, www.aphlis.net, is a source for rigorous science-based estimates of postharvest loss in African countries, including the nutritional and financial impact of these losses.

Backed by expertise in agricultural research, value chain development, postharvest management, commodity quality analysis, and policy development, APHLIS generates information on postharvest losses, which includes:

- The **percentage** of losses per commodity;
- the **quantity** of commodity losses at different stages along the value chain;

- the **nutritional implications** of the losses;
- the **financial values** of the losses, and what they represent in terms of **agricultural and national GDP**.

Some APHLIS findings

According to APHLIS, postharvest losses of maize in Ethiopia in 2019 were equivalent to the annual protein requirements of 25 million children under five years old, and the carbohydrate requirements of 7 million women of childbearing age. Over 1.2 million tonnes of maize were lost in Ethiopia in 2019, causing a financial loss of approximately USD 400 million.

APHLIS calculates postharvest loss estimates per crop and province on an annual basis, supporting countries in tracking changes in their loss levels over time as required in Malabo reporting. Using the downloadable APHLIS calculator, countries can include further data to fine-tune their loss estimates or to develop or compare loss reduction scenarios. This can assist policymakers in planning, monitoring and evaluating the effectiveness of their initiatives to reduce postharvest losses.

Working with African countries to reduce postharvest losses

APHLIS has made it a priority to help African countries develop and implement effective postharvest loss reduction policies and to measure and monitor their progress in achieving the Malabo Declaration targets on postharvest losses.

APHLIS currently provides postharvest loss data covering 43 of the 55 African Union member states and works on nine of the African Union's 12 priority commodities (rice, maize, sorghum, millet, wheat, oats, teff, barley and fonio).

APHLIS has identified six focal countries for initial priority support: Malawi, Rwanda, Tanzania, Uganda, Zambia and Zimbabwe. Each of the focal countries is in the process of updating or developing a national postharvest losses management strategy in line with the Malabo Declaration, has existing initiatives that complement

those of APHLIS, and has an active member of the APHLIS Network of Experts.

In July–August 2021, the African Union requested APHLIS support for the third Malabo biennium reporting review by member states of the East African Community, the Southern African Development Community and the Intergovernmental Authority on Development. APHLIS was able to highlight several serious challenges that countries face in accessing and providing the data requested for the report. The African Union's Comprehensive Africa Agriculture Development Programme (CAADP) Monitoring and Evaluation Programme has requested the assistance of APHLIS in supporting data collection and reporting. Around 60 CAADP focal persons have received training on postharvest losses, the use of APHLIS and postharvest losses measurement.

Training

APHLIS is carrying out a series of learning labs to engage African researchers and policy-makers in innovative learning, practice and discussion around postharvest losses. The chief objective is to assist public sector actors to report on progress in achieving their postharvest loss reduction goals and to support the development of policies and strategies. We also hope to encourage further use of the APHLIS platform – by donors, researchers, service providers and the private sector – to inform investment decisions at the enterprise and farm-level. Finally, we aim to encourage participants to share contextual data that can be used to update APHLIS information.

The learning labs take place online, with the support of APHLIS experts. Participants work together in break-out groups to extract APHLIS data for country case studies and to use the data to formulate advice on postharvest loss mitigation activities and policies. Feedback from the sessions has highlighted particular interest in APHLIS features that provide the US dollar value of losses, key loss activity stages along value chains, and technical and policy interventions, including subsidies and incentives, that could encourage private sector investment.

If you are interested in attending or arranging an APHLIS learning lab, please get in touch with us through info@aphlis.net.

Direct country support

APHLIS is providing technical support to the Government of Zimbabwe to refine their National Postharvest Loss Management Strategy, ensuring that it is aligned with the Malabo Declaration loss targets. The new strategy will include specific loss reduction actions, a clear monitoring and evaluation framework and funding and implementation plans. APHLIS is also providing support to train field staff to collect loss data for cereals, legumes and roots and tubers and working in Benin, Uganda, Nigeria and Rwanda to measure crop losses.

In Tanzania, APHLIS is helping scientists from the Tanzania Agriculture Research Institute (TARI) to collect robust postharvest loss data on key legume and root crops for these nutritionally crucial and understudied crops. This will provide a sound basis for policy actions and private sector investments to reduce postharvest losses as well as enable policy-makers to monitor and report on progress in achieving the country's Malabo Declaration loss reduction targets.