



Ministry of Agriculture



POSTHARVEST MANAGEMENT IN TANZANIA

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Management Conference**

**“Reducing Postharvest Losses for Food Security
and Industrialization”**

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Background

- Like many other developing countries, in Tanzania post harvest losses is still a challenge which not only affect food security status but also significantly compromise the livelihood of majorities.
- Post harvest losses in Tanzania is estimated to be **30 - 40%** for cereals and even higher for perishable.

PHL in Tanzania


- The study conducted by REPOA, 2003 shows that despite the increase in cereal crops production at national level estimated at **3,897,500 tons** on average per year, technologies used for harvesting and processing are poor and this has led to the PHL to be **1,559,000 tons** on average per year.
- This means that a total of **40%** of the annual national production of cereals is lost due to PHL.

Key causes of PHL in Tanzania

- ❑ Inadequate **awareness** on crop handling practices and available technologies by actors along the value chain
- ❑ Limited access of appropriate and cost effective **PHM technologies**
- ❑ Insufficient and **Poor marketing systems**, including **infrastructure**
- ❑ Inadequate **research** and innovation efforts on PHM

Key causes of PHL....

- ❑ Inadequate and poor enforcement of existing post-harvest management **regulations** and **guidelines**
- ❑ Limited institutional **capacity**, inadequate **coordination**, and little **involvement** of other stakeholders in post-harvest management
- ❑ Inadequate **financing** of PHLM



The Role of Different Actors in Reduction of PHL

Actions to reduce Post-Harvest losses needs a holistic approach whereby the participation of different stakeholders including the Private Sector, Civil Society Organizations, CBOs, Non State Actors and Development Partners is required to achieve the overall vision of ensuring food and nutrition security

Actors...

I. The Ministry of Agriculture (MoA)

- The Ministry is responsible for ensuring sufficient and quality food is produced and hence ensure food and nutrition security.
- In order to achieve this goal the Ministry through the National Food Security Department implements various interventions to reduce postharvest losses;

MoA Roles.....

- To prepare and maintain favourable **policies** for investment and implementation of improved post-harvest system
- To provide **supportive legislative** services for the stakeholders involved in the post-harvest improvement activities.
- To prepare **strategies and guidelines** for improved post-harvest system

MoA Roles...

- To provide **technical backstopping**
- To **strengthen capacity** of the government Institutions for post harvest technology improvement/development and delivery.
- To **monitor implementation** of improved post-harvest technologies and quality standards.

PHM Actors

2. Ministry of Industry Trade and Investment (MITI)

- MITI facilitates regional and international **trade**, and develops the **marketing** of agricultural commodities.
- It promotes the **investment** opportunities in **industrial development** and other key sectors by facilitating and maintaining trade relations with foreign countries and formulating a relevant policy framework.

Actors in PHM.....

3. Presidents Office- Regional Administration and Local Government (PO-RALG)

- To coordinate implementation of PHM intervention at Regional and District levels and liaises with MoA.
- coordination of key players (including private sector, Non state actors and others) implementing post-harvest initiatives

Actors in PHM.....

4. Technology Developers

TIRDO, SIDO, CAMATEC

- To providing technical expertise and support services to upgrade the technology base.
- To conduct R&D in postharvest technologies.

Actors in PHM

5. Regulatory authorities

i. **TFDA**

- Responsible for protecting and promoting public health by ensuring the quality and safety of food

ii. **The Weights and Measures Agency,**

- Responsible for consumer protection through ensuring that measuring systems result in fair trade transactions

Actors in PHM....

- iii. **Warehouse Receipts Regulatory Board**
 - To regulate and promote the Warehouse Receipts System
- iv. **TBS**
 - To formulate and publish standards, and undertakes quality control, testing, calibration and training.
- v. **REA**
 - To ensuring availability of reliable and affordable energy supplies, and to promote efficient energy use in order to support agro-processing industries.

Actors in PHM...

6. Academic and Research Institutions

- To conduct research and training on post-harvest management.
- These institutions include ARIs, MATIs, TIRDO, TEMDO, CAMARTECT, COSTECH and UNIVERSITIES

Actors in PHM

7. Development Partners (DPs)

- To provide technical support and financial resources for successful implementation of PHM

8. Private Sector

- These include PHT manufactures, distributors, processors, transporters, aggregators, farmers, agro-dealers, traders and service providers ;
- To implement PHM interventions at different levels.

Actors in PHM...

9. Non State Actors

- To implement PHM interventions and mobilisation of required resources.

10. Cooperatives

- Currently, the cooperative institutions are relatively weak but they are historically known to play a very significant role in PHM including:

Aggregation, sorting , grading, storage, transport, distribution and marketing.

Actors in PHM...

II. Financial Service Providers

(Banks, non-bank, insurance, micro-finance institutions e.g. SACCCOS, VICOBAAs)

- To address the financing (credit) and insurance challenges facing the PH value chain, including financing the cooperatives, and other risk management



Government Efforts to Reduce PHL

- In Tanzania, PHL became of considerable importance in 1980s, following the appearance of the **Larger Grain Borer (LGB)**
- High PHL of cereals, experienced, which endangered food security in the country.



I. Policy Reforms

- During that time policy reforms in the Agricultural sector, especially in relation to the reduction of post-harvest losses (PHL) were implemented
- Also led to the establishment of **Strategic Grain Reserve (SGR)** and National Milling Cooperation (NMC)

Government Efforts....

- The Government began to support farmers to reduce PHL
 - Building storage facilities through Larger Grain Borer (LGB) project in 1980s
 - The Ministry in collaboration with Sasakawa Global 2000 constructed 1,260 storage facilities.
 - Capacity building for Extension workers and farmers

2. Establishment of National Food Security Department (DNFS)

- In the year 2000, the Food Security Act of 1991 established the National Food Security Department and transferred several functions related to food crops from NMC to that Department, under the Ministry of Agriculture and Cooperatives.

National Food Security Dept.....

- During that time many programs and initiatives were implemented in the country and also policies and Acts to support food security were formulated
- Before this establishment, many efforts were directed towards ensuring food security with more emphasis in increasing production and productivity.

National Food Security Dept....

- The Department became operational in 2001, with two sections under it named;
 - Crop Monitoring and Early Warning (CMEW)
 - Post-harvest Management Services (PHM) were formulated and given their mandates.
- It is through this structure that the Post-harvest Management Section was given the mandate to oversee all the post-harvest issues of the agriculture sub sector in the country

3. PHM Technology Developers

- **TIRDO, TEMDO, CAMARTECT, COSTECH UNIVERSITIES**
- These institutions have been developing, training and transferring various postharvest machineries, which quite simplify postharvest processes focused to smallholder farmer.

4. Agricultural Sector Development Programme (ASDP I & II)

- PHM issues are integrated into the ASDP
Issues such as investments in Agro-processing, Improved storage structure, market and marketing systems
- Capacity building to extension workers and farmers on PHM
- Investment in warehouses is expected to have a positive externality effect on
 - The planned commodity exchange system

5. Marketing Infrastructure, Value Addition and Rural Finance Support Programme (MIVARF)

The programme support the establishment and sustainable maintenance of improved marketing infrastructure.

- support rehabilitation and equipping of regional Post-Harvest Management Training Centres,
- provided support to institutions and service providers of on-the-job training to farmers, processor groups, which are all geared towards reducing post-harvest losses

6. Collective Warehouse Based Marketing Schemes (COWABAMA)

- Through Big Results Now (BRN) Initiatives embarked on rehabilitation and equipping the warehouses through Collective Warehouse Based Marketing Schemes (COWABAMA) for maize and paddy.
- COWABAMA aimed at addressing smallholders' lack of access to warehousing facilities to reduce post-harvest losses.

COWABAMA.....

- The warehouses created a more robust buying and selling platform to enhance supply and pricing for smallholder crops as well as reducing post-harvest losses.
- Through COWABAMA **123 warehouses** were rehabilitated and equipped in Southern highlands.

Rehabilitation of storage structures (warehouses) under COWABAMA





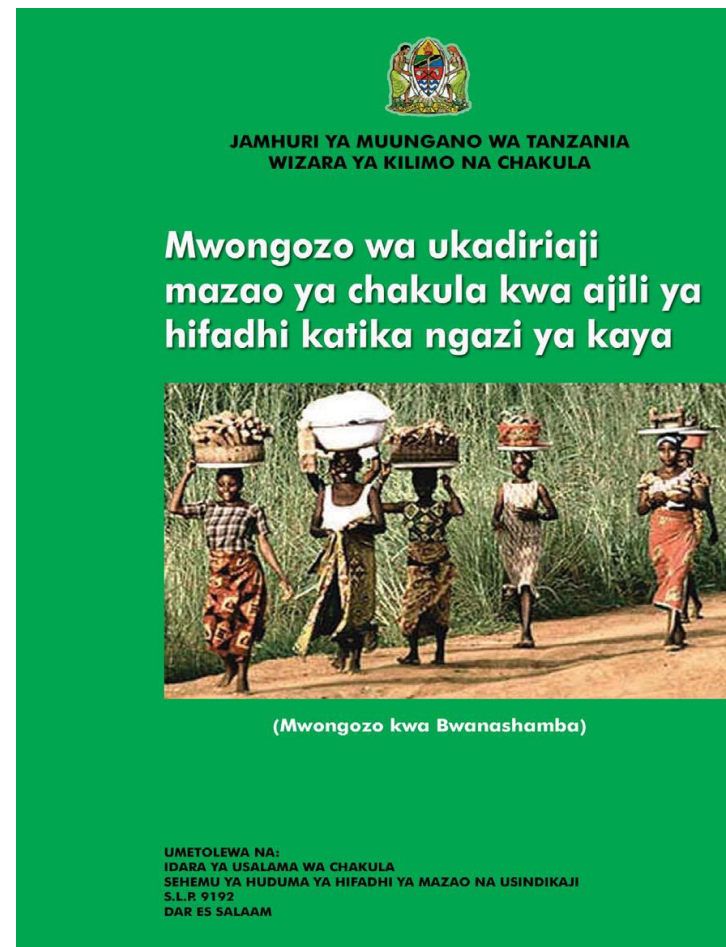
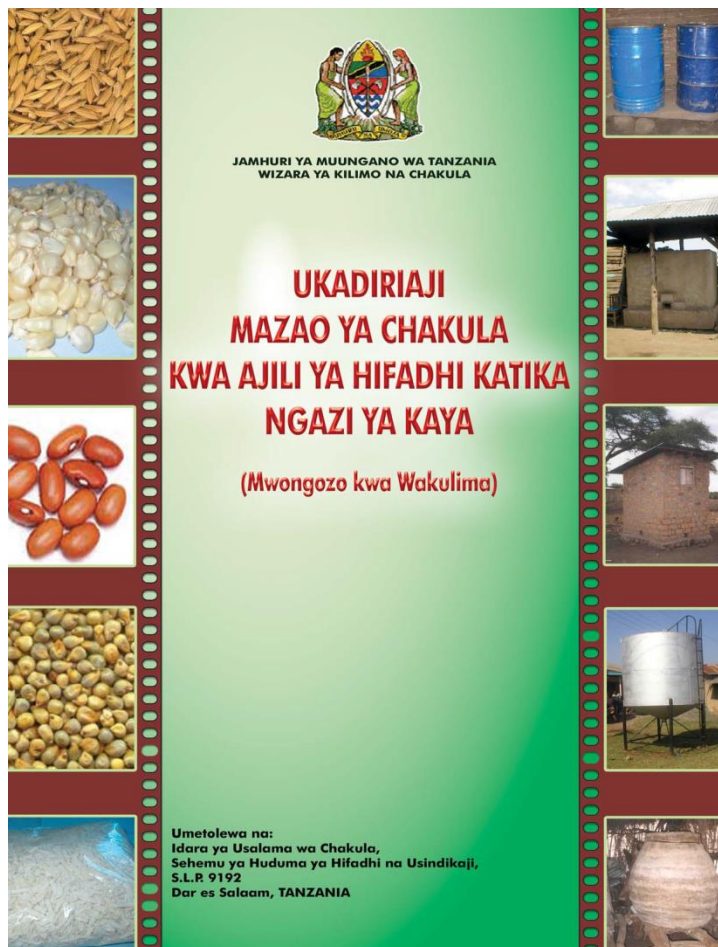
Other efforts Undertaken to Reduce postharvest losses

- Backstopping on postharvest management to Extension workers and farmers
- Preparation and dissemination of various guidelines and training manuals on postharvest management.
- Sensitization and support on value addition of various food crops.

Training of Artisans on construction of improved storage structure



Guideline for Farmers and Extension workers



Fruit & Veg Pack house with a cold room:



Capacity building for extension workers



Value addition to cassava





On going Initiative to Address PHL

- National Post-harvest Management Strategy (NPHMS)
- Implementation of Tanzania Initiative for Prevention of Aflatoxin Contaminations-TANIPAC
- EAC Food security and Nutrition strategy 2018 – 2022
- EAC Food Security Action Plan 2017 - 2021

Challenges in PHM

- Lack of current and comprehensive data on PHL
- High Postharvest losses....According to Malabo declaration, the current Postharvest losses have to be reduced by half by 2025
- The methodologies for assessment of PHL are not uniform
- Resources for the implementation of PHM interventions

PHM Interventions by Stakeholders

The Government recognizes the good work done by PHM stakeholders in reducing PHL;

- HELVETAS Swiss Intercooperation-Tanzania
- AGRA
- ANSAF
- WFP
- FAO
- EAGC
- RCT
- TechnoServe – Tanzania
- UNIVERSITIES

And many others...

