



# ON-FARM RICE STORAGE VERSUS COMMUNITY-OPERATED WAREHOUSES

CAPITALISING FROM KEY ACHIEVEMENTS AND EXPERIENCES MADE

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**Sound community-managed rice storage facilities can significantly contribute to reduced crop losses, improved rice quality and marketing, enhanced food security, increased household income as well as ensured access to finance**

## BACKGROUND

From July 2017 to July 2020 HELVETAS Swiss Intercooperation implemented the EU-funded initiative Empowering Smallholder Youth and Women Farmers on Rice Postharvest Management and Marketing (RIPOMA) in the two districts of Kilosa and Mvomero in Morogoro region, Tanzania. The project aimed at increasing competitiveness and improving postharvest management (PHM) of smallholder farmers, in particular women and youth, in the rice value chains in Morogoro region. RIPOMA was implemented by HELVETAS in partnership with CODERT, a local NGO specialized in micro-finance, i.e. savings & credit, and other key value chain actors. During its implementation, the project reached out to 3,338 smallholder rice farming households organized in 113 groups across 40 villages and involved 132 specific rice value chain actors such as farmer associations, cooperatives, rice millers, traders, agro-dealers and various service providers.

## CORE CHALLENGES IN STORAGE AND MARKETING OF RICE

After harvesting and drying the rice and before it is going to the mill, farmers need to store their crop. Proper on-farm storage reduces losses of paddy in terms of quality as well as quantity. When storing their rice crop, smallholder farmers in the Morogoro region faced the following main challenges:

- There was general poor knowledge on postharvest management (PHM) and on-farm storage; hence, transportation, drying, packaging and storing were not properly done
- Many farmers stored their paddy/rice in their farmyard, inside and outside their houses which resulted in rotting, decay, and high crop losses due to rodents, birds, insects and pest/fungi attacks
- Storage capacities in community warehouses were limited and facilities were poor; the few existing community warehouses were not properly managed as the people who managed them never had any kind of training; it resulted in losses of paddy/rice due to theft, weight loss, fungi, rodent and pest attacks, which ultimately led to conflicts among members
- Private warehouses faced similar challenges, though to a lesser extent, but farmers were confronted with high(er) storage costs
- Due to limited and inadequate storage facilities, most farmers were forced to sell their crop individually at the farmgate just after harvest when prices were low
- Difficult access to good market information and lack of reliable linkages between rice farmers and other value chain actors (buyers, millers, traders, financial service providers) hampered the farmers' marketing
- Due to lack of access to good financial products, smallholders were forced to sell their crops at low prices after harvest to write off their debts with money lenders, instead of storing rice on their farms

## HOW DID THE PROJECT ADDRESS THE CHALLENGES?

With its interventions the RIPOMA project focussed on improved rice storage in warehouses run by a community-based organisation such as a warehouse association, farmer group, cooperative, etc.

- Through farmer groups, cooperatives and warehouse management committees, farmers were sensitized on the benefits of storing their crop in a community-operated warehouse (reduced losses, better quality product, and possibility to benefit from better negotiation power and higher prices when selling the crop)
- A private service provider and a government farmers training centre trained the farmers and the warehouse management committees on proper handling, transportation, drying and storing of paddy/rice (use of moisture meters, use of wooden pallets, pest control, periodical fumigation, regular cleaning and maintenance)
- Concerning storing facilities, RIPOMA constructed one big warehouse and rehabilitated six community-owned and community-operated warehouses, whereby the work was awarded to carefully selected contractors; all the warehouses were equipped with wooden pallets and moisture meters; beside the warehouses, drying yards were set up
- The cooperatives/warehouse management committees were trained on safety and firefighting by the Fire Brigade, while the warehouses were insured and supported with fire extinguishers to comply with the required safety standards
- In collaboration with the Warehouse Receipt Regulatory Board (WRRB), the project trained the warehouse management committees and farmer cooperatives on operations, management and leadership with emphasis on a good warehouse receipt system (WRS) with proper recording of bags (incoming and outgoing), maintenance of the facilities, repair, and financial management, thereby RIPOMA made first steps towards a digitalized WRS

## CONCERNING MARKETING:

- Farmers through their groups and cooperatives were trained on business skills and financial matters, including savings and lending; ultimately, they were connected to financial service providers for better access to loans
- The project organized district rice value chain actors' platforms to facilitate business relation among the different value chain actors such as farmers, traders, processors/millers, transporters, agro input suppliers, warehouse owners, financial institutions, and local government officials
- The capacity of 50 millers was strengthened and good milling practices and technologies to fulfil standards and obtain certification for specialized markets were promoted

## KEY ACHIEVEMENTS

Through the supported community storage facilities (warehouses), the project was able to achieve the following results:

- 7 warehouses were constructed/rehabilitated which are functional and have the capacity of storing about 12'000 metric tons of paddy/rice; besides storing, the warehouses serve as collection and aggregation centres where traders come and directly buy paddy/rice in bulk
- Harvest and postharvest losses reduced significantly, from an estimated 30% to below 20% due to improved harvest and postharvest management as well as better storing and processing
- Storing of paddy in community storage facilities has increased because of assured better quality, safety, collective marketing, and easier access to loans; farmer groups, their associations and cooperatives stored about 24,500 tons of paddy
- Farmers through cooperatives/groups were able to access loans amounting to TZS 492,050,000/= (EUR 196,820) from the financial institutions/banks using the crop stored in the constructed or rehabilitated warehouses as collaterals which before was not practiced (see Table 1). The additional loans were used for increase in rice production and productivity.

**Table 1: Groups/cooperatives which received loans from financial institutions**

S/N	NAME	VILLAGE	WARD	DISTRICT	INSTITUTION	AMOUNT IN TZS
1	CHAWAHE GROUP	Hembeti	Hembeti	Mvomero	NMB	20,000,000/= (EUR 8,000)
2	JEMBE MKOMBOZI GROUP	Hembeti	Hembeti	Mvomero	NMB	15,900,000/= (EUR 6,360)
3	DIHOMBO WAREHOUSE	Hembeti	Hembeti	Mvomero	NMB	11,200,000/= (EUR 4,480)
4	MKINDO SCHEME	Mkindo	Mkindo	Mvomero	NMB	142,000,000/= (EUR 56,800)
5	DAKAWA AMCOS	Kwamuhuzi	Dakawa	Mvomero	NMB	292,450,000/= (EUR 116,980)
6	UYANJO GROUP	Mkindo	Mkindo	Mvomero	LGA Mvomero	1,500,000/= (EUR 600)
7	TUPENDANE GROUP	Kilangali	Kilangali	Kilosa	LGA Kilosa	9,000,000/= (EUR 3,600)

- Many farmers and buyers have been attracted and use the supported storage facilities which act as aggregation centres; there is easy access, and buyers find quality paddy
- A total of 113 farmer groups, 6 farmer cooperatives and 13 associations were linked with millers and traders to improve marketing of paddy and get better prices for their crop

## RECOMMENDATIONS

Storage of rice in community-managed warehouses has proven to be an effective way to reduce post-harvest losses, improve marketing and increase household income of smallholder farmers in Kilosa and Mvomero districts of Morogoro region. Based on these achievements and lessons learnt, important recommendations for successful community storage of rice are as follows:

- The Local Government Authorities (LGA), farmer groups, cooperatives and elected warehouse management committees should work together in monitoring the operations at community warehouses to ensure quality storage (and marketing) of rice.
- Government bodies (in Tanzania: WRRB and SIDO) should orient farmers and cooperatives on standards and regulations for warehouses (and processing and marketing) so that farmers will enjoy better prices for their paddy and rice.
- The Ministry of Agriculture, LGA and Tanzania Weight and Measurement Authority should properly follow up that paddy is sold by weight and not per bag.
- A rice value chain actors' platform at district level has proven to be an important tool of sharing information. LGA are advised to periodically convene meetings and strengthen the platform functioning.
- Financial institutions should approach farmers as potential clients and business partners and develop lending conditions that are equitable and accessible to all; financial fora between farmer representatives and finance providers is a recommended approach to share new developments and products within the financial sector aimed at the farming sector.
- Financial institutions should look into and better promote lending products for farmers there where crops are stored in a warehouse and can be used as collateral.
- Both, private and public sector actors should provide more support to marketing infrastructures, specifically to medium-size warehouses for reliable aggregation, quality storing and collective marketing.

