# VOICES FROM HE FIELD

**GRAIN POST HARVEST LOSS PREVENTION PROJECT** 





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Swiss Agency for Development and Cooperation SDC

### Introduction

HELVETAS Swiss Intercooperation Tanzania (HELVETAS) has been mandated by the Swiss Agency for Development and Cooperation (SDC) with the implementation of their Grain Postharvest Loss Prevention (GPLP) project, which started in September 2013 and is currently in the second phase which will run until March 2020.

GPLP aims to improve food security (food self-sufficiency & incomes) of smallholder men and women farmers in the Central Corridor of Tanzania through reduction of postharvest losses of grains by addressing major constraints in postharvest management (PHM), dissemination and adoption of appropriate postharvest technologies, policies related to PHM as well as knowledge management (capitalisation of experiences – CAPEX). Outcomes of GPLP Phase II are:

#### Outcome 1:

Targeted smallholder farmers have access and adopt effective postharvest management practices and technologies (Interventions - Promotion of a business model and communication campaigns that strengthen supply and demand of PHM practices and technologies)

#### Outcome 2:

Postharvest policies and framework conditions are improved in Tanzania through implementation of PHM strategy and by-laws (Interventions - Through advocacy ensure that supporting policies and frameworks for PHM are in place and implemented)

#### Outcome 3:

Postharvest management stakeholders have access to information that enables decision making towards reducing postharvest losses (Interventions - Information & knowledge sharing on PHM issues to enable relevant stakeholders to make informed decisions regarding PHM).

The project uses the "Market System Development (MSD) approach", strategically guided by four underlying principles which focus on

- Systemic action in market system
- Sustainable change by involving actors with incentives to contribute to long-term change
- Large-scale impact on the lives of poorer farmers, and
- Taking a facilitative role

### Note to the written stories

Please find below some compiled stories of beneficiaries and stakeholders of the Grain Postharvest Loss Prevention (GPLP) project that highlight perceptions, reflections and impact of the project as expressed by persons directly involved in the project. These stories cover different beneficiaries, business partners and stakeholders;

- The smallholder farmer who adopted good postharvest practices, improved storage technologies and accessed finance
- The government extension workers who conducted training and demonstration on postharvest management (PHM)
- The business stakeholders who conducted awareness and supplied improved postharvest technologies like tarpaulins, hermetic bags and metal silos
- The district forums and national platform who advocated and influenced changes in the business environment thus creating robust sustainable systems for PHM in Tanzania.

Enjoy the reading!

GPLP Project Team, February 2020

### Nassoro Athmani - Farmer

Nassoro is a farmer in the district of Kilosa in the Morogoro region. He farms three acres of maize, four acres of sesame, and five acres of rice. What Nassoro produces from his harvest is for his family and the rest is set apart for business. But Nassoro had more to learn about what was really hindering him from making a profit from his fields.

#### A Good Foundation

Throughout the implementation of Grain Postharvest Loss Prevention project (GPLP), post-harvest management has been greatly highlighted. And part of the project focused on planting methods, which is where Nassoro's real journey starts. According to Nassoro the methods used by local farmers were setting them up for failure. Nassoro explained how this decreased the availability of crops saying, "The rows of corn were not straight, we would leave gaps here and there."

Having already made losses during farm harvesting due to poor post-harvest management. "From one acre of rice you can get about two sacks of rice, which is an outcome that does not sustain the needs of the family," he shared. Nassoro also spoke about how farmers, like himself, were not mindful of how they treated the crops during harvest, which led to further loss. Throwing dehusked harvests into sacks was an open invitation to a lot of insects and pests. Nassoro incurred costs buying chemicals to prevent insects from eating away the crops. Because of the chemicals, the stored harvest was not suitable for food for a period of two months to give the chemicals time to fade.

#### **Practicing What You Preach**

It was clear that the methods farmers were practising were causing them to suffer in hard circumstances due to lack of knowledge. So, when the right information came around it changed everything for Nassoro, "We used to make a lot of loss from the way we practice harvesting," he said, "and now with the education we have received, the loss has decreased."

The GPLP project brought together professionals and extension officers who spent time educating and training farmers on more modern and safe methods of farming and post-harvest management. Nassoro shared about this experience saying "They taught us in groups and that is where we discovered that we were making losses during the post-harvest period." Nassoro said it felt great to have a change and learn something new, something better, "What attracted me to the program was the elimination of chemicals. With the hermetic bags and silos, you don't need to add any pesticides which are great for the crop." Nassoro said that by the time a farmer is ready to use the stored crop, the grains are safe for use, "You do not have to worry about insects or rats and the maize is safe for eating."

In the village training groups, Extension Officers and their team members trained the farmers on post-harvest management on a personal interactive level. Nassoro shared about the experience saying, "They would come all the way even to our farms and teach us how to plant and harvest our crops." Nassoro now uses all the methods he has been taught to better his farming practice. On the farm, Nassoro makes sure he plants appropriately and takes care of his field and harvest. He has also learned how to accurately divide his harvest into home consumption and business supply.

The project built a bridge between farmers and other stakeholders so that the farmers do not feel like they must struggle to profit on their own. Nassoro opens up about this saying, "In the past, we farmed the way we know and did not have much help and the outcome was not much." Even the relationship between the local agricultural officers and the farmers has improved which has built a highway for more training sessions and easier communication.

"With what we have learned we are able to harvest more than we ever have," Nasorro expresses as he talked about the benefits he has experienced. He has been able to take his children to school from the profit he now receives from selling and producing more sacks of grain. Nassoro and his family no longer worry about food out of season because they have stored crops in hermetic bags and silo. "I would encourage other farmers to follow the teachings of modern farming methods so that, like me, they can leave behind old practices and increase the yield." Nassoro has great hopes that what he has learnt can change the lives of those around him, he has taken the time to teach his own children. Nassoro can now plan for a better future and intends to improve the standard of living for him and his family.



### Erasto – Farmer Evolution in adoption of storage technologie

Erasto is a farmer, with one wife, four sons and three daughters, has managed to make a difference in the village of Matongolo in the Dodoma region.

#### Big, Bigger, Biggest

Most people imagine farmers to be underdeveloped and poor because of the nature of their work and where they choose to live. Erasto's lifestyle would beg to differ. In the village of Matongolo lies a big house with an inbuilt shop where Erasto and his family not only live in but make a living from. Through his work, Erasto has taken his sons to school, the youngest son being in nursery school.

The land in Matongolo is not just a business field for Erasto, it is a land that is a representation of promise. Erasto was a young boy when his father, who was a missionary, moved to Matongolo and eventually retired there. Matongolo has always been known for its abundant harvest, and a lot of people migrated to the village because of this. The migration was driven by the benefits of the life of farmers in this area and this appealed to Erasto's ambition.

The harvest in the fields looked promising, however most of the crop was lost or damaged when the farmers processed the grain and placed them in sacks. This meant that they were only able to sell a small percentage of what they harvested. Erasto explained that the initial practices of farming were very traditional, he said "In the past we placed ashes and leaves in the sacks with the harvest we reaped. We would layer up the ash and leaves then place the grain then layer over ash and leaves again and so on and so forth. We didn't really have a formula or measurement. It really depends on what your predecessor instructed you to do based on tradition."

But this tradition wasn't going to help Erasto achieve his goals. He mentioned that there was a catch to this method in that if you layered it up wrong then the crops would be infested. Sometimes it would get so bad you would have to throw the whole lot out because it was no longer good for food. Erasto knew he had to move on to something bigger to reduce the losses he was making.

Then came the second phase of farming--the chemical era. Though this method solved the problem on the surface, it also brought up problems of its own like side effects on a medication bottle. Erasto felt cheated. He shares, "We transitioned into a more modern method of preserving crops using chemicals. That method also had its cons to match its pros. Some chemicals were said to be found as cancer causing and gateways to other diseases. The worst part was that the crops would look good but at the end of the day the chemical would do more harm than good to the consumers."

It was clear that Erasto needed something better. "I heard



about metal silos from the HELVETAS group" Erasto said, "My wife is a member of a group but sometimes she was unable to attend the meetings so I would go on her behalf and that was my initial introduction. We joined a Village Community Bank group (VICOBA) and through it, we were able to buy a metal silo to help us achieve our goals."

Erasto and his wife stored their crop in October 2016 and came to sell it in January 2017. The silo has aided them to store up food for dry seasons, and the crop is still well and fresh when they need it. Moreover, farmers in the village received training on post-harvest management. This opened their eyes to how they were poorly handling the crop from the beginning of the process and throughout.

Now Erasto secures his harvest in a tarpaulin while transporting and during drying them out. He says that the simplicity of the process was the most attractive aspect of the project. "Firstly you would only have to invest once but the profit of that investment would be seen through the years. The metal silos have a long life span of about 20 years. This captivated me because when we would use sacks and chemicals we would have to keep buying them because they would tear or grow old over time" he happily explained. Another eye opener for Erasto was that loan repayments could be done from the sell of the stored grains sold at a time when prices were higher. Though the business opportunities are awesome for a man like Erasto, family and community still hold a place in his value system. When we spoke about the community, he mentioned how his family was in a better place to help those around them now more than ever. "We are now in a position to help our family and friends without putting them or ourselves at a shortage" He said.

Erasto is in favour of more promotion of such projects that share information. He believes this would increase the use of safe modern technologies such as metal silos which would in turn increase the produce throughout the country and ensure that more consumers are protected. He concludes by saying "My desire is that we will develop more and more VICOBA groups and projects like GPLP because people desire to have access to storage technologies like silo."

### Yegela Jikililo Mikembo - Farmer: Access to Metal silo through the TSS arrangement

Yegela is a family man who works hard to cater for the needs of his wife and seven children. Farming is how Yegela makes his money as he is the sole provider of his family.

#### A Family Man

In the village of Magamba in Msowero ward, Kilosa district, Yegela settled, got married and had children. His first born is currently in secondary school completing his A levels while the youngest is still too young to go to school. With the joy of a vast family comes the responsibility of making sure that everyone is taken care of. The responsibility for his family falls on Yegela. "I depend on myself and my family depends on me," he says.

With his traditional farming techniques, Yegela couldn't always count on a great produce from his harvest. Naturally, a farmer in this situation would take a loan to boost the farm. But even so Yegela said it was hard for farmers to get loans because they would not always meet the credit requirement for banks. For an individual who is the sole provider of a large family, this leaves your pockets in a tight place.

Then, in 2016, Yegela was introduced to something that changed his life for good. "I could have made serious

losses that year" Yegela recalled. "When the project first came to us, we did not accept it with open arms" Yegela explains, "we needed a lot of convincing." Part of the resistance from the village locals was their previous experience with different projects that Yegela describes as "incomplete". "When the last project came into the village, they collected information from the villagers and even had the locals sign forms filling in their personal information. But, unfortunately, those forms became the last thing the villagers ever saw from that project this incidence caused a loss of trust to projects in general".

### The Silo Access Experience through the (Transaction Security System (TSS) Model

HELVETAS arrived with the Grain Postharvest Loss Prevention project (GPLP) highlighting a technology that was new and different--the Metal Silo. Through the TSS model, a total of twenty farmers in Msowero were given the opportunity to test out this new technology. Because the practice was new to the village, HELVETAS covered the expenses of the demonstration of the metal silos. "I was among the twenty farmers who agreed to take part in this process" Yegela explains with pride. Though he thought it was risky, he explains that once he understood the aim of the project he was curious to see how the TSS model could work. Yegela received The metal silo with the capacity to store up to 7 sacks of grain (100 kg each), and he placed all his sacks in the silo awaiting the grand reveal that was months away. He was financed TSH 150,000/= by Tanzania Biashara Mapema (TBM) as a compensation fee just in case farmers get loss caused by low future prices.

Six months later, in February 2017, the prices of the crop had risen and it was time to reveal what was stored in the silo. During this time a single sack of maize was going for TSH 140,000/=. This was great for the farmers as the initial price months before was TSH 60,000/= for one sack. "From what I made in sales, I paid back the compensation fee and I had a grand profit of 550,000/- TSH!" Yegela explained with excitement.

Yegela mentioned the differences seen with this technology stating, "When we use the silo we don't have to add any form of chemical to preserve our crop. The chemicals we use harm our grain a lot. But with the silo, whatever I store today will be just as good in the long run." He explained that when you open the grain stored in a silo it was not dusty, withered or eaten by pests, "it is as though you just harvested yesterday," he said. Even buyers at the market could see the improvement "When I go to the market now, the grain I sell from the silo is sold faster than the ones I placed in the sack. People love them a lot!" Yegela exclaimed.

Yegela was beyond pleased with his new farming assistance. The demonstration caught the attention of many farmers in the area and they were introduced to the benefits of the silo. A lot of farmers lose most of their crops from the traditional harvesting process, this means that the output is less than expected from what they harvested initially. To add to this loss, sometimes they do not make much profit from what they do manage to sell during the season. Yegela, however, does not have to worry about all of that anymore. In fact, he has enhanced his farming experience. Yegela used to plough using an ox cart, but now he has been able to buy his own tractor to ease the process. This is a turning point for farmers across the nation as it was for Yegela.



### **Nelly Robert Chimeledya - VICOBA facilitator**

In the capital city of Tanzania, in a village called Matongolo in Kongwa district, you can find Nelly farming maize, sunflower, and nuts for her home and also to sell for business. Nelly has made such an impact in her farming that she is expanding her farm to livestock as well.

#### **Starting Alone**

Nelly is proud of her life, her three children and her income came from farming grain and keeping cows. When her marriage ended, it became a bit harder to handle all the responsibilities on her own, Nelly said "I had to let the cows go in order to focus on farming my grains." Nelly was in search of a support system to help her handle all her needs so that she would not be overwhelmed.

In Matongolo, Village Community Bank groups (VICOBA) did not really exist up until Nelly took a trip to Singida and was introduced to the Grain Postharvest Loss Prevention project (GPLP). During her time there, Nelly was trained on how to start a VICOBA group. She thought she was only learning about finance, but the training also introduced her to new post-harvest management methods and technology and filled her with much excitement.

#### **Coming Together**

Nelly couldn't wait to get back home and share the information she had received. She began to round people up and give seminars about VICOBA groups. Through this, Nelly gained supporters who then came together to form their group called Itika. In Kiswahili, Itika means respond. 2016 kicked off with Nelly and her 35 'first responders' of the Itika VICOBA group.

Large groups, however, tend to be hard to handle especially when money is involved. As the chairman of the group, Nelly had to make sure that all members followed the rules and respected the loan agreement. Although 5 members left the group, Nelly knew it was better to let them go than to have a dispute.

This worked out perfectly for what was to come next. The project supported 10 metal silos as seed money for Itika to try out, and true to their name, they responded. When the training and demonstrations were done, the group was ready to take the project head-on. Today, Itika celebrates its 16 members who have purchased their own silos. Nelly stays true to her motherly nature as she expresses how desperately she desires to see the last 4 members of the group getting their own silos. She says, "For the past three years the weather has not been favourable. Though we had made such great progress, we had to come to a pause because the prices of iron sheets went up." However, Nelly knows the benefits of these modern technologies and how they can secure families; that is the force that drives her.

#### **Community Mum**

Nelly's own farming has become a standard not only for the group but for the people of Matongolo. "I use my own produce as a testimony when I tell people about modern technologies. I have both a silo and hermetic bags, and the outcome of my grain is amazing and the people can see and taste it!" When Nelly makes the local ugali from her own maize she enjoys. "There is no need to poison our food with chemicals. It's not just the expenses you incur buying the chemicals over and over again but also the health side effects from the chemicals are fatal. People now prefer to use the silo and the hermetic bags more because they are secure."

Though Nelly may have started out on her own, she says, "The group has added on to who I am." Everyone knows that a mother's greatest joy is to nurture things and to make sure that all that passes through her hands grows into something more. The joy Nelly expressed in seeing to it that members of her group succeed and understand and respond to the training was heartfelt. Nelly went from being a single mum to a community mum, making sure everyone gets a seat at the table.

Nelly had a particular testimony that was close to her heart, "There was a widow who had a cargo truck but she couldn't afford to make simple repairs like buying a tyre to make it mobile. Now she has fixed the vehicle and uses it to transport things around her farm such as firewood, water, and even crops. She is so happy with the profit she is making but if she had never joined the group this may have just been a dream for her." The stories are endless as there are so many members who have taken loans and progressed their lives through this group.

Now Nelly doesn't just look after her own kids but also her 'first responders' from her Itika VICOBA group who now have a special kind of community bond.





Kudra Shamron, from Mnenia village in Kondoa district, is a mother of seven and is now the chairperson of the Subira Vicoba Group.

#### **Early Days**

Kudra recalls her humble beginnings by sharing "We used to live in a very poor home, with our seven children. Our mud house did not have electricity, so we would use kerosene lamps and firewood to get by with the house chores." Like others in the area, Kudra's family turned to farming in order to feed the family with hopes that whatever they did not use they could sell to cater other financial needs.

However, this did not turn out as planned. "Our produce was very low and were often attacked by termites. From one acre we would get between 3-4 sacks of maize." She explained. This meant that there was no excess crop to sell due to poor harvest and losses after harvest, making it harder to take the children to school, especially Kudra's daughters. "We live in a traditional family in which the education of women and girls is not seen as a priority" she explained with a heavy heart.

"My husband used to regard me as a burden," Kudra explained, "there was not much that I brought home other

than bearing children." She described the situation like a shadow over their home, "I did not have a say because I did not own anything."

Their life was very difficult, and Kudra was looking for a solution to ease the load. That is when Kudra approached the Subira group. To her great joy they accepted her and she became part of their community.

#### **SUBIRA Group**

Subira, which in Kiswahili means "patience", started off as a women's singing group. Companies and village officials would approach them to sing at their events as educational entertainment. In the year 2010 the group formed as a Village Community Bank group (VICOBA). VICOBA groups are made up of members that come together and develop a community loaning system. Kudra admits that their first attempts at VICOBA were amateur but after receiving training from HELVETAS on how to operate VICOBA model, they were able to effectively operate their VICOBA group. "We would sell tree seedlings and put the money in our VICOBA. We would loan the money to each other for a 3-month period." Often, especially for Kudra, the money was used to support farming needs.

The women in Subira decided to collaborate in farming maize and sunflowers for business. "Our craft is farming," Kudra explained, "we own individual fields but decided that in order for us to work together we should organise collective farming."

Members of the group received training on good postharvest methods that increased their produce. Through the loans they received, the women in Subira were able to access metal silos and hermetic bags to store their grain. Modern technologies such as silos come at a price that an independent farmer would not be able to pay off in one go. VICOBA groups dissolve the fear of the expense through the shared loaning system. "With the training I received I was able to increase my produce but with the loan I got from the VICOBA group enabled me to buy a metal silo which I now use to store my grain" Kudra shared and expressed this as the turning point of her personal life too.

"The condition at home has improved greatly, and all my children are now going to school," Kudra spoke with excitement, "especially the girls." Her eldest daughters were not lucky enough to go to school, but the younger ones are doing very well in school which makes their mother proud. She said, "I am very happy, thanks to all the assistance that the group has given me."

Where there was once a shadow of dependency over their home, a new light has been brought about. "Even the relationship with my husband has greatly improved," there was a smile on her face, "it's like we are newlyweds. He does not regard me as a burden anymore because I now bring something to support the family. We now help each other as a unit." The love in their home has been rekindled. She added, "I can now buy my husband better clothes that I am proud to see him in. Our youth has returned to us." Kudra and her family have accomplished a lot. "We have been able to build a wonderful house with a corrugated iron sheet roof, electricity and a gas cooking stove. I used to be red-eyed from excessive use of kerosene lamps and firewood, and now all of that is gone." She shared.

A life that seemed so far away is now a reality for this farmer and her family. "Where there is a will there's a way especially if you come together." Kudra said. Now as the chairperson of Subira, Kudra is an activist for VICOBA groups across the district of Kondoa. Subira group reaches out to farmers who, like Kudra, are just getting by and struggling to come out of the cycle of harvest that they are used to. The women of Subira group have become the founders of so many other groups in their district. Stories of transformed lives such as Kudra's become a beacon of hope to others.









Stella is an extension officer in the village of Mnenia, kondoa district who spends her time training farmers on good farming practices and general extension services, as well as Village Community Bank (VICOBA) groups on how to effectively use their finances and on post-harvest management.

#### **VICOBA Gone Viral**

Stella joined the Grain Postharvest Loss Prevention project (GPLP) in 2014 as an extension officer. Through the project, she learned the concept of post-harvest management and how the farmers' current practices were causing loss of grains. Stella was trained on how to share the information she received with others. After the training, extension officers, like Stella, were sent home to begin to work on training farmers in their respective villages.

Stella was the VICOBA trainer for her team, accompanied by an artisan, and an agricultural officer. The members of the team each chose a specific area to speak about when they met with farmers. As the VICOBA instructor, Stella talked about what Village Banking is and how it runs. There were already nascent forms of financial systems in the village where locals would loan each other money without any rules or regulations to referee the transactions. These are called 'Mchezo' which in Kiswahili means 'Game'.

When Stella and her team came around and ran proper training sessions, farmers were able to come together and form their own groups that then became registered as VICOBA's. These groups have rules and systems that they follow to make sure they run as smoothly as possible and that money is handled correctly.

Stella also began teaching about post-harvest management with a total of five groups. She says, "At first the response was there but it was little. She said, "In a group of 30 people, I would have responses from 15 to 17 people." But the more people understood the training, the more Stella's numbers increased. "I began to get approximately 28 to 30 people joining in the learning of post-harvest management." She shared. Stella's 5 groups grew into a total of 13 groups.

Stella's teaching spread so much that she had to delegate some of the tasks to a group she had taught. That group was Subira Group. Stella continued to spread the training as she passed by different groups, she also made it a point to visit as many village meetings as she could. Stella would talk about post-harvest management and Subira Group would assist her through educational entertainment such as singing.



As part of the post-harvest management training, modern technologies were introduced to the farmers. However, some of these technologies are quite expensive for a farmer to pay off in one go. The VICOBA group directly solved that problem with a rotational loaning system. All the members of the group contribute a certain amount and give that contribution to the bank. The rotation system allows the members of the group to know whose turn it is to take a loan from the bank and how they can pay it off. "The loaning system is for locals to help each other," Stella says. Stella mentioned how the groups formed their own systems in order to make sure that every individual was becoming more and more independent. "The goal for the groups is to have everyone in a position where they can obtain their own silo. Group members typically help someone who does not have a silo first, as a priority to move them from a dependency stage to an independent stage." There is an African proverb that says "If you want to go fast, go alone but if you want to go far go together". The members of the VICOBA groups had to make sure that they were all growing together.







As a mother, Angela seeks to give her children the best education she can afford. As a successful veterinarian and the proud business owner of Dongobesh Agrovent in Mbulu, Angela turns to the community to share her knowledge and insight.

#### **Education as a Seed**

After Angela got married, she decided to continue her education and pursue her passion. With the help of her husband, Angela got her veterinary diploma and by the year 2004 she began Dongobesh Agrovet where she supplies manure, seeds, pesticides, veterinary medicines and consultancy. This was a great win for the family as the living costs could now be shared between her profits and her husband's salary. "We were able to build a family home where we now live and take the kids to school. My first born is now starting an independent life, the second born just graduated University and the last born is still pursuing a degree." She shared.

Though she is a veterinarian by profession, Angela has always had a desire for educating and helping in the community. Through the Village Community Bank groups (VICOBA) and women's groups, Angela has taken part in educating the community on HIV/Aids as well as gender equality. Angela expresses how the power of education changes the lives of people no matter where they are or who they are "Some of the women have even been able to build houses because of the encouragement and education they have received." she said.

Angela's efforts and inspirational work caused her to be noticed. "My work was recognised by the Agricultural Officer of the district who approached me about an ongoing project by HELVETAS" Angela answered, "He described it as an educational project aimed at teaching citizens how to reduce loss of crops during and after harvest." While this sparked the teacher within, Angela was hesitant at first. Little did she know of the great journey that lay ahead.

#### Partnering with HELVETAS

Angela joined HELVETAS in the year 2017 where she was introduced to the Grain Post-Harvest Loss Prevention (GPLP) program and its stakeholders. HELVETAS identified Angela (Dongobesh Agrovet) as a market actor to implement specific interventions on awareness raising and training/demonstration on PHM to farmers and ensure supply of PHTs to the agreed wards. Several onboarding meetings with HELVETAS and other implementing partners such as Extension workers, Artisans and other agro dealers helped Angela to understand how to do the work and benefits she will reap in from this partnership. Angela described the process saying "When we all came together we collaborated and shared our challenges, opportunities and successes. There are times when we all sat together and got to know each other and all of this contributed to a better understanding of the vision of HELVETAS."

Angela's teaching experience came in handy when she had to organize outreach programs (awareness raising, PHM training and demonstration of storage PHT) to farmers and the community on PHM and promote the use of PHT to groups and stakeholders she would travel to villages and educate the farmers on post-harvest management and raise awareness on the inefficient and wasteful practices all the way to improved practices and modern storage technologies to assist with grain loss prevention. "Our language must be uniform," Angela affirmed, "as we took turns to answer questions, people understood us and the transformation was phenomenal from the Grain Postharvest Loss Prevention project (GPLP)." Angela expressed with joy "When you pass by the villages you see the effects of the education they received and how the farmers are managing loss and taking precautions." Angela encourages her community saying "What makes me happy is that in the areas where we have run the project the farmers now have an understanding of the meaning of post-harvest management. A lot of them have adopted different technologies, and even those who have not yet started still have the knowledge and choice to start. Hopefully they will come around and begin practicing what they have learned."

Through the project, Angela has also been able to expand her business network. "I was fortunate enough to be connected to potential clients from my district and other districts" Angela explains, "Now I am familiar with certain wards and people from those areas, I plan to continue with what I have learned. I will continue to sell technologies not just for the benefit of the project but for my own benefit." Through Angela we are able to see how a little knowledge can go a long way.







### Grace Enock Mpoli - Agro Dealer

Grace is an agro dealer in Babati who sells seeds and agricultural equipment in four different regions across Tanzania.

#### **Beginning of Business**

Grace opened a shop in 2008 where she operated through a grants system. Grace would get her seeds and manure by loaning from companies. The government gave subsidies to some farmers to cover some of the cost from the purchases and the farmers would cover the rest. By the time Grace would sell to the farmer, she would receive all the money upfront both from the government subsidy and from the farmer. That would cover the loan she had taken and help her grow her business.

Although the system seemed promising, there were some obstacles Grace faced as an agrodealer. Grace explained that it was hard to get farmers to accept new practices primarily because they did not know how to use them. "When we first tried to get farmers to use manure, it was hard to get them to change their perspective," she said, "It took a lot of meetings and convincing to get a response." There were also financial challenges that placed Grace's shop at risk. "The biggest challenge I faced was that despite the grants the government gave the farmers, the farmers still felt like the government was not helping. The farmers wanted the products completely free," Grace said openly.

#### **Booming Business**

The Grain Postharvest Loss Prevention project (GPLP) was Grace's first time to partake in any project. It is here where she learned how projects run and the benefits of it. What attracted Grace to agree to the project was being able to travel to different districts "I wanted to expand my reach of clients and this was the perfect opportunity to do so."

Through this project, Grace said she got to understand how to work with the community as well as to develop confidence in her own capacity in her business. "I used to just count the money coming in and out of my business but I did not know what financial accounting was, and so I did not know proper losses or profits I was making in my own business."

Grace explains the business skills she learned through the project, stating, "during the project I got to work alongside with an accountant who helped me understand how to take account of my stock. I also learned how to write a report to government offices. They used to be words I just hear but now I know what to do." Because of the great experience Grace has had, she says that she is now more willing to take part in other projects, "The nature of the project caused me to get into contact with a lot of farmers. Now my business has increased in profit and my sales are doing well." Grace was also introduced to financial institutions which helped her, "HELVETAS introduced me to banks where I can take loans for my business," she said. Getting capital was a huge concern for Grace initially but with her new relationship with the bank, she can now work on getting a loan without a worry. Even the nature of how Grace does her business has changed. "Before, I would wait in my shop for customers to come. Now I can go out and approach groups and farmers that we have worked with." Grace explains. "I also learned a lot from this training about post-harvest management." Grace spoke about the eye-opening experience, sharing "We found out that we actually used a lot of chemicals in our previous farming practices and those chemicals were not good at all." According to Grace, all the farmers who went through the training are now advocates against chemical use in food processing.

According to Grace, an indicator that the project was working well is that farmers are buying the technologies, "Even though the prices are high for some farmers, they are still looking for a way to get the silo or the hermetic bags, and that means there is an understanding of the benefits of the technologies and post-harvest management." Grace said that the practices amongst farmers are changing. "When you sit down with a farmer now, they are able to tell you what post-harvest management is." Grace explained.

Finances are still a bit of a challenge for farmers but Grace has come up with a solution. Because of the demand of the silo, Grace now offers silo on credit to farmers. All the farmer has to do is make a minimum down payment upfront then Grace will provide the silo on credit. The farmer then pays off the loan little by little until they gain complete ownership of their purchase. "I am thankful for the opportunity to reach out to farmers. Through the forums we have enabled farmers to understand and access modern technologies like the silo and the hermetic bags," Grace concludes.





A welder and carpenter with 20 years of experience under his belt, Gasper Shoo is a mentor and trainer living in Endasaki in the Manyara region.

#### Mentoring the Youth

Gasper is a proud father of three sons. His first son finished his diploma, the second finished his doctorate and the last son is currently in Dodoma in his second year at the Vocational Education and Training Authority (VETA). This may be where Gasper began his journey in mentoring the youth in his area. He says, "There are a lot of young men loitering around my workshop from time to time so I have opened up my doors to them and teach them."

As a carpenter and a welder, Gasper sees his job as fixing the broken items from people in the community. However, there are certain things in the community that also need to be fixed up, like the youth who find themselves idle. "I would like to help the young men in the streets, teach them what I know and help them prosper in their personal lives" Gasper shared.

This is exactly the kind of character HELVETAS needed for a trainer who would be taught to train others - Artisan Master Trainer. "Through this project I was assigned tutorship over artisans from different regions. Sometimes I would need to travel to those villages myself, but other times the trainees would come here for the trainings" Gasper explained.

#### **Training the Youth**

It all began when a member of HELVETAS found Gasper through their research and approached him at his workshop to assemble metal silos for storing grain. From there, Gasper underwent his TOT training that would assist him on the training process of the creation of metal silos.

The first two days of training began with learning how to take accurate measurements with the necessary tools. It was important to rehearse this in the beginning as day three was the day each trainee would learn how to assemble their own silo "it is important at this time to dedicate a whole day in order to prepare the metal sheets and make sure the measurements are accurate."

The total of the training would come to about six days after which the trainees would return to their own villages with a new assignment of assembling their own silo without any supervision. When Gasper visit each trainee the marks were given. He explained, "We would assess the trainee based on the quality of the silo they had assembled. If a trainee has developed and assembled a silo up to the standard of our training then we allow him to produce more." However, not all the trainees managed to assemble their own silo the first time around. He shared, "If the trainee's silo failed to meet the requirements of the standard then we would sit down with them for a one-onone session and assemble a new silo from scratch."

Though on paper the training schedule was laid out, sometimes a communication breakdown would become a speed bump for the traveling trainer. Sometimes when Gasper travels to the trainees a personal emergency would arise where the trainee would have to excuse themselves and the training would be postponed. Other times the lack of communication would cause Gasper to be at a village without a trainee because the trainee had travelled.

The performance of two individuals caught Gasper's attention and they continued to make progress when they returned to their home village. Gasper said with pride, "Even now they still send me pictures of their progress online and keep me updated with what they are doing. When a trainee assembles a quality silo, as a trainer I am overjoyed because it means that they are able to gain a new skill and perform it well." Though Gasper has made a profit during the course of this project, still he took on the role of a father figure in the community through his work. He shares, "I was able to reinvest in my workshop and buy enough equipment to hold training for young men here in the village." Gasper goes on to say, "There are agro dealers who approach my workshop and make orders for metal silos often. Every time I assemble a metal silo I am in dire need of an assistant or two." His desire is to see young men taking responsibility and doing an honest day's work. "My advice to those who are yet to take part in the project is that if you are young and have a heart to learn a new skill, there are jobs available, new skills to learn for your own benefit, and profit."



### Juvenal Anthony Munishi - DAICO

Juvenal Munishi is a District Agriculture, Irrigation and Cooperative Officer (DAICO) officer in Kondoa, Dodoma. Juvenal can personally relate to his job as he also takes part in farming both commercially and for his own home.

Agriculture plays an important role in Tanzania's economy, Juvenal highlights this perfectly saying "Farming is the backbone of our country, we produce for our own people but we also export food, and this increases our GDP." Most of the people living in rural areas in Tanzania have a hand in farming in one way or another. Agricultural officers are placed by the government in order to support and advise farmers in their respective locations "Our job is to make sure that farmers take the best possible option for the best possible outcome" Juvenal said, "The by-laws help us encourage farmers to do the right thing."

#### Food insecurity

Take a moment to imagine what would happen to a country if it could not produce enough food that was safe to eat for its own people. To add on to this, the country mostly relied on farming for economic, political and social development. Any country in that position would be heading towards a series of challenges that may be hard to recover from. For countries like Tanzania who rely heavily on farming, food security is not just important, it is vital.

This means that if the farmers in Tanzania are not farming correctly, taking into consideration post-harvest management or appropriate farming techniques, the country can move from a state of food security to food insecurity very quickly.

Juvenal takes us into the thought process of a local farmer saying, "Whenever a farmer is farming they have already set out goals. Some farm only for their own homes, others for their homes and for business. Most farmers fall into this second category."

According to Juvenal, both farmers and agricultural officers were not knowledgeable about how to practice post-harvest management. Juvenal explains, "Not knowing how to harvest, transport the crop and store it caused us to lose a lot of grain. We would lose up to 20% of the crop".

He explained that in the past, farmers incurred losses of about 20% of their harvest owing to issues such as poor transportation and storage. So, if a farmer produced 100 sacks of maize, he would lose about 20 which could have assisted with earning an income and/or providing food for his family.



At his point, education and awereness becomes a preventive tool to make sure farmers are not incurring so much loss. It becomes a priority to teach farmers how to plant and harvest correctly. Juvenal expressed that all efforts to teach and train farmers on different methods were provided but they did not seem to get through to the farmers "Farmers were used to leaving their crops on the bare groundbare" He said. Chickens and goats would pass by and scatter the crop as they ate, and even thieves would steal.

The worst outcome was when the grain was contaminated by fungus causing it to have Aflatoxin contamination. "Because it is warm during the day but cold at night, the damp soil would bring fungus that would eat away the crop. This caused what we call aflatoxin." Now, what the farmer thought was a personal choice would create a health crisis at a national level.

Juvenal explained that it is only when the farmers find themselves at rock bottom because the rains were bad they do not have food and they turn to the government. "Situations like these are caused when farmers don't regard the post-harvest management training they have been given." He said, A farmer does not farm just for themselves. If a farmer makes a loss of 100 sacks that cannot be used by humans or livestock then the loss isn't just for the farmer but also for the community at large." "I am sincerely grateful for the GPLP project by HELVETAS, and I can testify to the tangible changes we see," Juvenal said. Though the project covered a small area in the district, Juvenal says that the places the project did cover are experiencing major changes. "The methods used by professionals have now been given to the village farmers. The outcome is farmers are now understanding and practice the benefits of post-harvest management on their own farms."

Juvenal explains how he has adapted post harvest technologiesW for himself, confirming, "I have a metal silo and hermetic bags and that is what I use to store my grain. I have crops that I have stored for 3 years that we still use in the house. It is safe and fresh, without any preservatives or side effects."

Farming is as serious a business like any other and now there is a large market for organic farming. With modern technologies, farmers are able to sell in and out of season. When a farmer sells out of season they can get up to double the price they would sell during season. Tanzania is now in a position to head towards high food security, being an example and an agricultural pillar in Africa.

### Rose Fahamuel Makange: Focal Person/Agricultural Officer

As an agricultural officer, Rose is the bridge between the government and HELVETAS. When NGOs like HELVETAS want to run a project in a certain area they must get in touch with the local government offices in that area.

#### The Lost Crop

A large number of residents in Hanang are farmers who grow crops and keep cattle. It is what helps them build houses, take the kids to school and cater other important needs. Majority of the farmers are used to traditional methods of farming and harvesting their crops. Rose takes us to the beginning of the harvest process and describes how farmers used to handle their crops during the harvest "Farmers would throw their crop on the ground and leave them there for a long time. They do not calculate the loss they have just created."

The second stage of loss, she explained, would happen when the farmers would transport the crops from the field to their stores at home "They would fill their carts to the top and the crop would come out of the gaps of the cart. Because they did not use a tarpaulin so much of the crop would be scattered on the ground." When the farmers get home the crops went from bad to worse because the crop would be laid out on the ground to dry right in the path of cattle that would trample all over it.

The horrific journey the crops had to pass through increased the amount lost with every stage of the process both quantity and quality. "Someone could harvest 10 sacks in the field and lose 2 sacks from how they handled their crops after harvesting," Rose explained, "If such a farmer had planned to use some of the harvest for their homes they would not be able to effectively meet their goal because there would be a shortage of food."

#### Post-Harvest Management

Before the Grain Postharvest Loss Prevention project (GPLP) took place, people had not yet understood how post-harvest management affected them. The project began with an educational foundation. The first group to be trained were the extension officers. These extension officers then went out to conduct training to groups and individual farmers.

The project also carried out demonstrations of the modern technologies highlighted by the project such as the metal silo and hermetic bags. Rose explained that for the farmers seeing is believing "In order for the farmers to believe that what you've told them and trained them is true they need to see it in practice." Rose also explained how the project built credibility by involving the government officers of the districts to also bear witness to the demonstrations. "We would invite the District Commissioner and Honorable Councilors to reveal the crops that have been stored in the silo for a period of six months."

Rose mentions that the project brought out a lot of new learnings "The farmers have learned through practical demonstration of different post harvest practices. It's not just something they heard of, it is something they have exercised." Rose states that the solution brought by the GPLP project tackled the problem from the roots, "We have taken farmers through a journey of how they make losses from the field all the way to the storage rooms." Now farmers are able to harvest their crops without making losses, and when they store their grain they are able to use the silo or the hermetic bags.

Though the turnout of the training was good, some challenges still arose. "The materials to make the metal silos are quite expensive." Rose explained, "due to the economic circumstances our farmers are not able to afford it. Three hundred thousand Tanzanian shillings is a lot of money for a farmer who eats one meal a day." Even so, the GPLP project has come up with financial plans such as Village Community Bank (VICOBA) groups to help farmers with their financial needs. "The greatest success we have is that the community understands the benefits of post-harvest management." Rose has a lot of faith in the training held by the GPLP project through its extension officers in collaboration with agrodealers, "With people who are educated and willing to help others make a change, the rate of loss begins to go down."

The project started out with five wards, but now it has reached up to 24 wards where farmers are educated on post-harvest management methods. The project has been greatly embraced where it has reached. "We want farmers to get to a place of understanding," Rose said, "Once farmers understand the concept of post-harvest management and the by-laws are in place to sustain the improved methods of post-harvest handling we are able to improve the economic situation nationwide."



### **Gwalusajo Kapande -District Agriculture Extension Officer**

*Gwalusajo is an agriculture extension* officer in Kongwa district of Dodoma Region. During the implementation of Grain Postharvest Loss Prevention project (GPLP) project, Gwalusajo was the District Focal Person for PHM in the district. PHM undertook the validation of the loss and damage of grains.

#### Small Loss, Great Impact

As an agricultural extension officer ensuring food security at a district level was Gwalusajo's first obligation, "Our job is to make sure that our people have enough food for home consumption and for selling." Gwalusajo explains that selling grain is how farmers take care of their other financial needs such as school fees for their children. Gwalusajo mentions that when a farmer follows the regulations of modern farming practices they are able to produce a greater harvest than they would using traditional farming methods.

Gwalusajo illustrates the loss made during traditional farming saying "farmers used to throw their crops on the ground during harvest and they would store what they did manage to harvest poorly, all these factors accumulated the loss of grain." The example Gwalusajo gave was that a harvest that was supposed to give a farmer 10 sacks would now be reduced to 8 or 7 sacks because of poor postharvest techniques "Those 2 or 3 sacks could have made a difference in the farmer's home or they could have been sold to support financial needs."

#### The Gathering

The GPLP project focused on getting the knowledge of modern farming methods to farmers "One of the first methods we used was public meetings where we invite farmers to participate." As with every new movement resistance is almost guaranteed, "When we first started reaching out to locals about the post harvest management there was a lot of hesitation," Gwalusajo explained "they did not understand the modern farming practices, they were comfortable with traditional practices." Gwalusajo said it was only until the farmers understood the training that the information began to be practiced.

Meetings and established district forum were a great place to train farmers how to harvest and store grains accordingly "There were modern technologies for storage that were being supplied during the implementation of this project such as hermetic bags, Agro Z, green bags and Metal Silo." The greatest benefit of these storage technologies was that farmers could now avoid using harmful products to store their grain. This meant that the food they were producing was safe and did not have side effects because nothing was added to the grain. "This is a great assurance for the locals who enjoy eating ugali made from maize flour or mothers use maize porridge to feed their babies."

It was these meetings Gwalusajo believes made a difference, "Forums and meetings are important because they bring together different stakeholders who are all part of the same process." What brought stakeholders such as the government, farmers, marketers, agro dealers, consumers and the like was the common interest of the value of grain. Gwalusajo expressed that the communication between the stakeholders become more efficient during these forums "Everyone can come together and share their challenges according to the role they play. For example, if the price of oil goes up it directly impacts the Transporter. Therefore, the transportation cost increases which directly impacts the farmers."

The beauty of forums is that it is not just a place where challenges can be discussed but it is also a place where solutions can be developed. "These forums are open to anyone who would like to join and be a part of the movement." Gwalusajo is part of a forum that started off with only 12 members, now the forum has grown and operates on a membership basis, "We plan to continue our forum even after the GPLP project ends, that is why we operate through a membership system." In their forum there is a membership fee that enable the forum to be independent even after the project ends. The forums stand as a safeguard in the areas it is implemented because discussions will always be about solutions, as Gwalusajo said "the goal of the forum is to increase food security by defending the rights of farmers and enabling them to grow."



### Mashauri Msimu Vincent: By-laws and Policies

Mashauri Msimu Vincent is a District Attorney and the head of the legal unit in the district of Kondoa, Dodoma. He believes that the law should work for the community, and not against it.

#### An Eye for Justice

Upon finishing his form four exams and entering A level, Mashauri developed an interest in law. Growing up, he was able to see how the wrongdoing of a few could impact so many. For Mashauri, the only platform suitable to enable him to defend justice in the community was law. He shares "I saw that the community needed to have laws in different contexts. I wanted to defend the rights of the people and the community at large."

Mashauri enjoys his work and says one of the benefits of his work is that he is confident in his own affairs because he knows whatever he does is within the law. This confidence is not the case for the majority of farmers. In villages, most farmers either don't earn much or have not finished higher level education, and sometimes it's both. Though farmers carry the nation on their backs, not all of them are aware of the laws that confine them or benefit them.

This is where Mashauri steps in and uses his experience in

law to help those who don't know the mechanics of law. But it is not easy to change a law or policy, especially if the change only affects a specific area. Instead of changing the law, a by-law would be placed to cater to the needs in a specific place. The by-law fills in the gap.

#### District PHM By-Laws in the Making

During the Grain Postharvest Loss Prevention project (GPLP), Mashauri played an advisory role in the development of the by-law that would empower farmers to practice post-harvest management. The by-law covered how farmers should harvest and store their crops. Though the by-law was put in place to help at the village level, Mashauri's push to work on this project was the understanding of the national importance of food security. Illnesses generated by previous farming practices caused health hazards such as fungus poisoning crops (aflatoxin contamination) and infecting consumers. These are the circumstances that placed an urgency on the development of the by-law and the process of the project to ensure the population is protected.

Because the law is for the people, meetings are held at the village level so that all the locals could give their opinions and concerns regarding the by-law. However, when meetings are called to engage the locals, the turnout can be underwhelming. "A few citizens tend to get involved

with the processes of developing the by-law when they are invited to give their observations" Mashauri explains, "this becomes challenging when the by-law is passed and several citizen claim that they do not agree with it and imply that they were not involved in the process of its development."

For those with a desire to help the community like Mashauri, it is a real stretch. The environment in the village can also work against the ease of communication, as Mashauri shares "Sometimes the message really didn't get to the people because houses in the village can be over 500 meters apart. But even with the meeting in place, some individuals are just not interested in participating." When locals are detached it becomes harder for advocates like Mashauri to make a definite conclusion on the by-law. Mashauri believes that these individuals could have a more positive attitude to the process if they were educated on how the law is supposed to serve and benefit them. He believes if the citizens understand how important they are to law development the response would be different. It is a win for the agricultural sector when the by-law for post harvest management was initiated by the GPLP project becomes official. Mashauri emphasised that meeting the goal of practicing these laws can be challenging as most of the villages are remote and therefore there is no real authority to enforce the law. But through all this there is hope as Mashauri says, "When the law finds inspiration and leaders speak about it then the aim of the law will be fulfilled." Mashauri closes by saying that a law is only effective if it is implemented accordingly.



# Grace Malila: By-laws and Policies

Grace Malila is a farmer in Kibaigwa, Dodoma. Like other farmers in the country, she farms maize, sunflower, lentils, and different cereals. Grace found herself in a forum that changed her perspective forever.

#### A Friendly Nudge

Grace had originally practiced traditional methods of farming "Before the forum we would just scatter grain here and there and never cared about the loss we made but now that we've been educated we actually know better and for the most part do better than before." The forum introduced Grace to the Grain Postharvest Loss Prevention project (GPLP) where she received training on post-harvest management and storage technologies.

Grace explains that when moving people from one way of doing things to another, regardless of the benefits, there will undoubtedly be resistance. "I had that problem, I was also among the people who were harvesting poorly and getting poor results" Grace shared. She explained that for some villagers even when they are educated on new technologies or better practices and their benefits, they are still reluctant to change and choose to do things traditionally because it is within their comfort zone. This is where the law comes in to help. "A law is a nudge to direct people in the right way," Grace says. When a proposal came for a by-law to assist the farmers in Kibaigwa, farmers and officials gathered together to share their opinions. According to Grace, the hardest part was making sure the by-law being developed highlighted the post-harvest management methods they had learned. This was to make sure that what the GPLP project had taught farmers would be practiced.

Grace went on to say, "It doesn't take long for people to go back to old habits" for it is true that old habits die hard. Grace's favourite example was the national plastic bag ban. She says, "When the government first called for a ban on plastic bags no one really reacted until it became a law and there was a fine attached to the end of it, now we see the benefits of not using plastic bags even in the villages."

The by-law encourages more modern practices dealing with post-harvest management, now by law, farmers in Kibaigwa have to consider how they handle their crops. Grace mentions that this is a great way to encourage food security "When people threw their crops on the ground while harvesting, the crop would get mixed with sand and insects." Now because of the by-law farmers are required to use tarpaulin while harvesting and transporting their crops. Modern storage technologies such as the silo and hermetic bags were introduced by the GPLP project and have now been implemented in the by-laws. Grace is especially happy about this as she used to use chemicals to preserve her crops "I absolutely hate the poisons in the chemicals, I can't stand it. Our children are in school and they are fed food from our fields, if the food is contaminated then our children will get sick." Grace sees the by-law a preventative measure "No one wants to struggle to get emergency medical care from something they can actually avoid altogether." Grace uses the forum as a platform to share the information that she has learned through trainings and to advocate for the by-law and the changes that come with it. "Even though the GPLP project is coming to an end, the practices it has taught us will continue. Now that our forum is registered we shall continue to practice what we learned, we just need a little strength and creativity."



### Eliabu P. Ndosi - Focal Person

Eliabu is a senior agricultural officer who works in the department of agriculture and livestock. Eliabu is based in t Kondoa district in the capital city, Dodoma. His job involves data collection, overseeing projects such as the Grain Postharvest Loss Prevention project - (GPLP).

#### Friends With The Government

The GPLP project began in Kondoa in 2014, Eliabu became a key person as he bridged the gap between the government and the GPLP project by communicating and reporting on the project. Eliabu has engaged with Artisans, Agro Dealers and different groups involved in the project. To see the progress of the project, Eliabu would have to document the activities done in the village and create a progress report to inform others of the progress of the village he was in, "We would cover the challenges faced as well as the needs of the people based on the activities they were taking part in at that time."

Because of Eliabu's governmental position, all of the processes went through him, "I would have to be in great

contact with Agro Dealers who would communicate their timetable to me and I would spread it out to other agriculture extension officers in the district. The presence of the government arm was especially important as it handled when opening sessions though there was great trust between the stakeholders. "The artisan, the agro dealer and I work together. It was our connection that allowed the project to run smoothly from district to village level."

#### The Domino Effect

Eliabu explains that before the project came to pass, there was no prior knowledge of post-harvest management and modern storage technologies "The project introduced us to hermetic bags and metal silos which has helped us reduce the loss of grain," Eliabu said. He mentioned that 15 to 40% of grain was lost during the harvest management according to the data his office has collected. Eliabu explained that farmers would spend so much time and energy preparing the fields but this would be overshadowed by the serious loss they made during the harvesting period. Eliabu explains that the harvesting process was not treated with so much care "the crop was scattered on the ground all the time, you could follow a trail of maze on the ground from the field to someone's house when they transported their crop home." According to Eliabu there are 5 steps of post harvest management: 1. Harvesting from the field 2. Transporting 3. Importing the grain to the gallery 4. Sifting and 5. Storage. During the GPLP project there was a lot of focus on teaching the farmers how to prevent losses during each of these stages, this took part during the Awareness Creation and Demonstration sessions. "The farmers got to see for themselves a different method that could help them improve their farming," Eliabu said "they have been able to save a great percentage." Eliabu emphasised that it was the training and education provided that made the difference.

Eliabu explained that the project used every tool it had to educate the people and reach out to them according to how they would understand. "At first the response was uncertain because new things are always different which makes people uncomfortable, there are things people are used to do whether or not they are right" Eliabu explained that there was a lot of misunderstandings of the technologies at first and the questions never ended. But as the program kept progressing the community embraced the practices with open arms. In the 64 villages belonging to the district, the practices taught in the villages has been spread across the district. Eliabu gives his account saying "The practices and technologies brought by the project have been embraced. Now we don't just service the farmers where the project was held but the entire district!" It was also a great achievement for the trainings and program being showcased on the annual Nane Nane Agricultural Exhibition.





## Supply & Demand of Hermetic bags

Julius Nyabicha is the marketing manager of A to Z manufacturing, which is a company that produces, among other things, agricultural products and technologies.

#### The Community in the Corporate

A to Z is a manufacturing company that is over 50 years old, which started off as a textile company mainly producing garments. Now most people across the country relate to A to Z for their stellar mosquito nets which come with insect repellent. However, Julius would describe the company as well diverse.

Entering the agricultural arena, A to Z started to manufacture agricultural products and technologies about five years ago, including packages such as fertilizer bags, sugar packages and grain bags. This soon became a priority for the company when they began to see how it empowered their employees. "We have over 7,000 employees" Julius explained, "We need our employees to be healthy and well off in terms of what they eat and how they preserve food." The solution lies in the company's decision to manufacture hermetic bags for storage of grain. "Post-harvest management is a big challenge not only for farmers. On one hand it is a healthcare issue that impacts the nation and on the other hand when the farmers make a loss the GDP of the country feels the pinch" Julius highlighted. He stated it was a problem that touched the company.

"If over 30% of grains produced in Tanzania are lost due to poor post-harvest management, that means our employees, the community where we do our business and our customers are the ones who are impacted by this loss. When we assist farmers they are then in a better position to produce quality food at a greater quantity" he said. Julius expresses the ultimate goals is reducing the current percentage of post-harvest loss to the bare minimum, creating a better business environment for the farmers.

#### A sack for the journey

"Our partnership with HELVETAS through the Grain Postharvest Loss Prevention (GPLP) project brought us together in the sense that we are both looking out for the welfare of farmers, and making sure that the farmers produce and store grains effectively" Julius shared. He believes it is this like-minded nature that enabled the two entities to collaborate in the post-harvest grain loss prevention effectively. "We strongly believe that no matter how good the technology is, if it is not accessible to farmers then at the end of the day it serves no purpose." He continued to say that manufacturing companies are often viewed as hunters, presenting their products to farmers only for their own profit. Fortunately, partnering with NGOs such as HELVETAS built the confidence of the farmers in adopting the products they offer.

One of the greatest opportunities A to Z had was to train the Agro Dealers on how the technology worked. Julius also expressed how a new relationship was built between the company and Agro Dealers and how much impact this generated, stating "Working with Agro Dealers in multiple villages meant that the technology was able to interact with more farmers that the company would have been otherwise unable to reach." Julius spoke about how exciting it was to see the Agro Dealers train the farmers according to the training they received through the project. This came in line with the company's objective to empower the community. "The awareness creation process has been extremely useful especially on the farmers' end as they were able to understand the products and how to effectively use them. A prime example would be the benefits and uses of hermetic bags" Julius said. Now farmers are also able to access the hermetic bags with more ease through this project and the Agro Dealers.

The interaction with farmers has now improved greatly as the farmers have come to understand the concept of post-harvest management. Julius testifies to this saying "In the beginning, getting a large group of farmers to a place whereby they understand our products and technologies was a tall order. However, our partnership has enabled us to reach farmers from far and wide with more ease."



### Honest Mseri - Stakeholder

Honest Mseri is a project officer at ANSAF (Agriculture Non-State Actors Forum) which made him a direct link between ANSAF and the Grain Postharvest Loss Prevention (GPLP) project. "I have been operating as the project coordinator from ANSAF," Honest said giving us insight into his work, " I was also the Secretary General and the Task Force Secretary of the Tanzania Post-Harvest Management Platform, which has been involved in shaping the national process of postharvest management."

#### **Ideation Stage**

According to Honest, when the Grain Postharvest Loss Prevention project (GPLP) took off, it began as a concept to create a policy in order to reduce post-harvest loss. The first step was to carry out necessary research and analysis to see what needed to be added in order to improve the environment of business and reduce post-harvest loss.

From that research they discovered that the agricultural policy incorporating post-harvest management was formed in 2013. However it only mentioned that post-harvest management was needed but it did not say how it would be managed "This does not exactly make it a policy," Honest clarified saying "a policy needs to state the challenge, the goal and the solution." That is to say that the country technically did not have a policy or strategy to tackle post-harvest management.

#### **Coming Together**

In the year 2014, stakeholders congregated from the government sector, the private sector, researchers, educational institutions, business men and women as well as farmers in order to see how to fill in the policy gap. Honest said that it was this coming together that brought about the establishing of a platform that would deal with post-harvest loss throughout the nation known as Tanzania Post-Harvest Management Platform, "One of the goals of the platform is to encourage the development of policies that could directly deal with post-harvest management."

Because an agricultural policy already existed it was not possible to implement another policy. However, the stakeholders agreed on the need for a strategy that would stand to support the existing policy as well as address post-harvest management. This then gave birth to the GPLP project that tackled modern farming practices, storage technologies, access to finance and training.

Among many other goals the GPLP project had one specific goal; to create the demand and supply for modern technologies that are effective for post-harvest management. Honest explained the economic factor saying, "Farmers need to understand and be educated on the processes and benefits of these technologies. On the other hand the suppliers have to see the value in selling these technologies." The project also greatly focused on developing a friendly working environment based on the policies formed. This was to make sure that by the time the project had come full circle the systems placed would not collapse. Therefore future needs should be able to be serviced successfully and effectively through the system.

Through his explanation, Honest stated "There are a lot of stakeholders and middle men involved in postharvest management, from the harvesting process, storage, technology salesmen, and marketers. And every stakeholder is open to opportunities and challenges that are very subjective." He continued with the example that a farmer's opportunities and challenges are not relatable that that of Agro dealer. Honest voiced that the question then becomes how to bring all these people together to share their challenges in order to discuss solutions. "In order for the process to be productive" Honest continues, "the supply chain has to be effective." This statement highlights the mandate of The Tanzania Post-Harvest Management Platform and the GPLP project.

The platform's target is to be able to be independent by the year 2020. Honest elaborated saying "If you look at the Post-Harvest Strategy (which currently stands as a ten year strategy) it mentions the platform as a key role in bringing stakeholders together." This holds the platform accountable to achieve its mandate.

Among many other accomplishments the Tanzania Post-Harvest Management Platform has been registered and is legally recognised, and has been able to create a constitution with the help of the GPLP project. It has also established a board of directors and is now capable of requesting funds in order to develop. As it stands, the platform is practicing sustainability from within and projecting it to all it's stakeholders. Honest summarizes this achievement saying "Everyone has a part to play, and when you bring them together through a platform then the organisation yields in productivity which in turn benefits all stakeholders."





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