INSIDE: WFP Post-Harvest Knowledge & Operations Centre

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Training Workshop on Harvesting and Post-Harvest Mechanization to support Food Security in Asia and Africa
2013 - Targeted about 500 smallholder farmers, modified existing water tanks into airtight grain storage drums, made basic training manuals, trained the farmers, gave out the 250 ltr equipment for free with the donors on board for food security. (Maize, beans, sorghum, peas..) this was meant to improve quality and availability of grain for home consumption between harvests. Impressive success stories.

2014 - Targeted 8,000 small holder farmers, at least 50% women, in order to make the model more sustainable we engaged local artisans, vocational institutes trained them to make the silos (500 kg and 1000 kg) in the respective regions, added drying tarpaulins for better grain quality, hermetic bags, better training manuals, better training content + agronomy, moisture testing.. Improved training venue setup, better training timing, 70% subsidy (buy in,) involvement and promoting, implementing partners,, and private sector. On top of ensuring food security in the homes, this was also intended to help those farmers who want to sell some of their grain to meet the urgent needs like school fees to hold onto their grain until the prices go up usually after 2 months (300 to 800 UGX)
2015 TARGETED 40,000 SMALLHOLDER FARMERS, ON TOP OF THE LOCAL ARTISANS WE ENGAGED BIGGER MANUFACTURERS WITH TECHNOLOGY THAT INCREASE OUTPUT AND REDUCE THE COST OF PRODUCTION AND MAKE THE SILOS MORE AFFORDABLE TO THE FARMERS (PLASTIC AND METALIC SIL - MADE IMPROVED DESIGNED-EG NESTABLE TO REDUCE TRANSPORT COSTS, 50% SUBSIDY AND 0% ON HERMETIC BAGS - TRAINING INCLUDED THE BENEFITS OF FARMER GROUPS, HOW TO MANAGE THE GROUPS, WAREHOUSE SKILLS, SAVINGS...VSLA..WITH REFRESHER TRAININGS - CONSTRUCTION OF SATELITE COLLECTION POINTS (200-300MT) WHERE FARMERS CAN BULK THE WELL KEPT GRAIN AND SELL AS GROUP

2016-2017 TARGETED 65,000 SMALLHOLDER FARMERS, 50% SUBSIDY ON SILOS, 0% ON BAGS A TARPALINE SATELITE COLLECTION POINTS OPERATIONAL TO HELP FARMERS ACCESS MARKET INCLUDING BUT NOT LIMITED WFP, REFUGEES OVER 1M AND SCHOOL; FEEDING PROGRAMEES ON BORAD

GOVERNMENT OF UGANDA TAKING UP THE MODEL TARGETING 2,500,000 FARMERS TO START WITH AND WITH THE SUPPOERT TO FARMERS ALDREAY GOVT HAS TAKSED WFP TO USE THE SAME MODEL AND CONSTRUCT 10 SCP WORTH 2M USD directly supervised by WFP, on top of the over 20 already in existence by WFP

ALL THIS WASN’T HAPPENING WITHOUT THE TOUGHEST OF CHALLENGES AND WE LEARNT A LOT

More countries have since come on board Rwanda, Burundi, Zambia, Ghana. Sudan, Mozambique and Nigeria

Not mentioning the ministry of agriculture and other non-government orgs, international agencies...in postharvest loss.
WFP KNOC SET UP

ENGINEERING
TRAINING
COMMUNICATION
MONITORING AND EVALUATION
1. DESIGN DEVELOPMENT OF SPECIFICATIONS, HERMETIC, MAINTAINANCE FREE, FEMALE FARMER FRIENDLY, NESTABLE (PLASTIC), FOOD GRADE MATERIAL, AFFORDABLE, LOCALLY MANUFACTURED, EASY TO HANDLE AND TRANSPORT

2. PLANT CAPACITY, INNOVATION, QUALITY SYSTEMS IN PLACE, LOGISTICS STRENGTH, MATERIAL SOURCING AND ABILITY TO COMPLY TO SPECIFICATIONS AT ALL TIMES

3. QUALITY CONFORMITY TO SPECIFICATION THROUGH VERIFICATION AND INSPECTION-ELIMINATION OF DEFECTIVE EQUIPMENTS, HERMETIC TESTING USING CANDLES AND PRESSURE DECAY, PROPER HANDLING OF THE EQUIPMENT BY THE MANUFACTURER, WFP/THIRD PARTY, PRIVATE SECTOR DISTRIBUTOR AND FARMERS

4. TRACABLE VERSIONS OF SPECIFICATIONS, EQUIPMENT HANDLING/MAINTANANCE INSTRUCTIONS, INSPECTION CHECKLISTS, GRAIN CAPACITY CONVERSIONS, MATERIAL SAFETY DATA SHEETS

5. DOCUMENTATION AND CONTINUOUS IMPROVEMENT
TRAINING

REVIEW TRAINING CONTENT, ESTABLISH NEED FOR TRANSLATION, TRAINING MODELS AND UPDATE SHARE THROUGH ALL CHANNELS, EtablISH THE MOST SUITABLE MODE OF ROLL AFTER REVIEWING ALL THE AVAILABLE INFORMATION
COMMUNICATION

SHARE THE NECESSARY INFORMATION DURING ROLL OUT, EXECUTION, OR UPSCALING

RECEIVE FEEDBACK, CHANNEL THE FEEDBACK TO RELEVANT TEAMS, SHARE CHALLENGES AND SUCCES STORIES, LIASE WITH GOVERNMENT, DONORS AND PARTNERS INTERESTED IN PHL
MONITORING AND EVALUATION

MONITOR USED MODELS COMPARE SUCCESS FOR THE DIFFERENT COUNTRIES, TIMELY COMMUNICATE WHAT IS WORKING & WHAT IS NOT, CHANNEL INFORMATION TO THE RIGHT, PEOPLE ADVICE OTHERS ON BOARD BASICALLY ENSURE VALUE FOR MONEY FOR BOTH DONORS AND BENEFICIARIES. SHARE PERIODIC REPORTS.
WHAT IS NEXT

ON TOP OF SUPPORTING THE NEW COUNTRIES ON BOARD LIKE RWANDA, BURUNDI, SUDAN, ZAMBIA, GHANA, IVORYCOAST, NIGERIA AND USING THE FEEDBACK TO IMPROVE ON WHAT IS AVAILABLE

1. WE ARE SETTING UP DEMOSTRATION CENTRE WITH THE GOVERNEMENT - National Agriculture Research Organisation - WHERE ALL THE EQUIPMENT USED ARE TO BE CHARGED WITH ALL THE COMMON GRAINS AND WILL BE MONITORED FOR YEARS WHILE BY CARRYING VARIOUS TESTS ON THE CHARGED GRAIN FOR BETTER KNOWLEDGE ON HOW EACH OF THE EQUIPMENT PERFORMS FOR WHAT GRAIN OVER TIME- TOO CHECK GERMINATION, COOKABILITY, AFLOTOXINS, MOISTURE CONTENT, WASTAGE, MOULD.

2. WE HAVE STARTED WORKING WITH UNBS, NRI, PERDUE UNIVERSITY AMONG OTHER TO ESTABLISH STANDARDS FOR HERMETIC STORAGE EQUIPMENT IF - ALREADY IN ZAMBIA WE ARE AT STAKEHOLDER CONSULTATION LEVEL, AND IN UGANDA STARTING ON THE DESK RESEARCH - THE ROUTE ISO IS ALSO BEING REVIEWED.

3. OTHER THAN HERMETIC EQUIPMENT WE ARE SUPPORTING THE COUNTRY OFFICE REGARDING OTHER ACCESSORIES THAT COME ALONG AT THE SCPs BALANCES, SHELLERS, MOISTURE METERS,....
Can innovation improve post harvest handling in Uganda?

By Joshua Kata

Jane Nyaruguma, a mother of six, is a smallholder farmer in Iganga district. She mostly grows maize and beans, which she uses to feed her family and then sells the surplus. Like many farmers in the area, Nyaruguma has been losing a significant portion of her harvest through bad storage practices.

“We used to store our maize in a big mat. Pregnant pigs would enter the barn and the whole batch was lost. We also had losses due to pests. It is a sad situation. We thought that was the end of the season,” she lamented.

But things changed when Nyaruguma decided to use grain storage silos. The silo was provided by the government of Uganda and is part of an international initiative known as the World Bank’s cereal storage project.

“Before the silo, we used to store our maize in a big mat. We would lose a lot of our maize through pests and diseases. But now with the silo, we can store our maize for a long time without losing any of it,” she said.

The silo is designed to store up to 5000 kilograms of maize. It has airtight doors that prevent pests from entering. The silo also has a built-in ridge that helps to reduce moisture levels in the stored grain.

Nyaruguma is one of the many farmers in Iganga who have adopted this new technology. Other farmers have also reported increased harvests and reduced losses due to pests.

“Now, I can store my maize for a long time without losing any of it. I can sell my maize when I want, and at a good price. This has really improved my livelihood,” Nyaruguma said.

Positive results

“We are happy that these silos have been introduced to us,” Bushembe said.

“They reduce infestation and contamination, they can keep everything that we put and allow us to store a lot for a long time. Besides, the idea is that we have acquired a useful new skill as we have learnt how to dry our grains before they can spoil well in the silos,” he said.

Sophia Namugabo lives in Muhororo village, a few kilometers away from Bushembe’s house. Last year her maize harvest was 3,000 kilograms of which 60 percent was lost due to infestation and contamination.

After acquiring her new 10-tonne storage silo last year, the maize losses decreased to 10 percent. She now has a good maize harvest of 2,500 kilograms which she plans to sell.

“With the silo, I have reduced my maize losses significantly. I can store my maize for a long time without losing anything. This has really improved my livelihood,” Namugabo said.

The government of Uganda has provided similar storage silos to other farmers in the country as part of its efforts to increase agricultural productivity. The silos are designed to store up to 200,000 kilograms of maize and have airtight doors that prevent pests from entering.

“With the storage silos, we are able to store our maize for a long time without losing anything. This has really improved our livelihood,” Namugabo said.

The success of these storage silos is a testament to the importance of innovation in improving agricultural productivity. With the right technology and support, smallholder farmers can increase their yields and reduce their losses.

“A lot of smallholder farmers in our area are using these storage silos. It is a good initiative because it is helping us to increase our yields and reduce our losses. We are happy with the silos,” Nyaruguma said.

The government of Uganda has set a target of increasing its maize production by 50 percent by 2025. The storage silos are a vital part of this initiative, as they help to ensure that farmers can store their maize for a long time without losing anything.

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