

November 2017



Sustainable Intensification of Market Based Agriculture (SIMBA) #SIMBA_Impact

Improving livelihoods through market access |
Misheck Pepukai and Quality Protein Maize (QPM)



For a world without hunger



Background

Misheck Pepukai was born on 10 November 1951 in Chirumhanzu in Midlands Province. His family moved to Gokwe in 1964 in search of better and more spacious farmland. At that time, Gokwe was regarded as prime virgin land with a favourable climate. His family was one of several from Chirumhanzu who migrated to Gokwe; it was almost like there was a gold. They settled in the Gomoguru area in Njelele 3 and initially grew traditional crops such as maize, sorghum and groundnuts primarily to meet with household food requirements. Cotton was introduced into the area in the early 1970's and family started growing the crop in 1974.

Misheck adopted cotton as his main cash crop when he started his own family. It did well for him, enabling him to build a decent rural home, acquire farming implements and provide for his young family. Cotton farming remained profitable until the mid-2000s when viability started to wane, a result of declining international commodity prices. In the absence of alternative cash crops, Misheck continued to endure the sub-economic prices, hoping that things would change for the better.

"I used to make a comfortable living from growing cotton before prices began to fall. Although I still grow cotton, my focus is now on livestock and other crops. The main reason for growing cotton is the government input support programme," said Misheck.

In 2012 Misheck joined the 'Promote Intensification and Sustainability in Agricultural Production' (PISAP) programme which was being implemented by WHH. The programme promoted conservation agriculture (CA) which was considered the most effective way of mitigating the droughts that had become so common in Gokwe. Although the program focused on grains for food security, the principals could equally be applied to other crops. Misheck joined the CA programme because of recurring droughts in his area. The droughts impacted more on him because his fields have red soil, and are rocky. He was therefore willing to take any measures to mitigate against the rainfall shortfalls.

"We began to experience consecutive droughts in Gomoguru area and my situation was worsened by the kind of soils in my fields and their rocky nature. I had adequate draught power, having been a successful farmer for years. I therefore joined CA to mitigate against drought, not because zero tillage was more convenient," explained Misheck.



CA field ready for planting

Opportunity

In 2014, the SIMBA programme was introduced to Njelele 3 along with other wards in Gokwe South. The programme was riding on previous strides achieved by CA under the earlier PISAP programme. SIMBA sought to work with farmers who were practising CA and Misheck was one of the first people to join. He decided to grow Mama MQ623 – a quality protein maize (QPM) being promoted by Mukushi Seeds, after learning of the nutritional benefits that would improve the health of his family and livestock.

"I have always been very receptive to NGO programmes, knowing that I would benefit somehow. Although QPM is just like ordinary maize, I chose to grow it because I was told about its nutritional benefits for my family and livestock. I wanted to use QPM to feed my road-runner chickens and turkeys. I had always wanted to expand to a mixed farming system however was discouraged by food requirements of livestock," said Misheck.

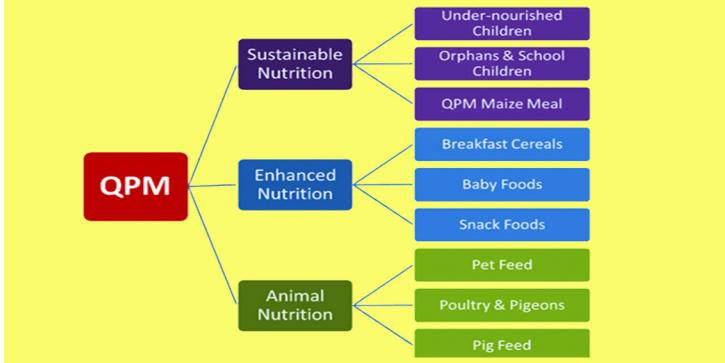
In the first year Misheck received a free seed pack from Mukushi. Subsequently, he bought his own seed. In 2016/17 he grew about 0.15 ha of QPM, applying 50 kg of Compound D and 100 kg of ammonium nitrate, managing to harvest 12 bags of QPM (600 kg) all of which was retained for own consumption - equivalent to a yield of 4 000 kg/ha.



Mukushi officer Norman (behind Mama sign) at a field day

What is QPM?

QPM is a conventionally bred maize variety that contains double the lysine and tryptophan protein compared to common maize. The quantity of protein is the same in both types – about 10%. It is the quality of protein that is enhanced in QPM. The biofortified variety looks and tastes like common or normal maize and can only be differentiated through laboratory tests. QPM has a protein quality equivalent to about 90 % of that of milk and is excellent for growing children, breastfeeding mothers and mono-gastric animals such as chickens and pigs.



Market development activities of Mukushi Seeds

As part of their marketing strategy, Mukushi Seeds developed demonstration plots in all 33 wards of Gokwe South District, training farmers four times during the season on the production of QPM through CA. The company works closely with Agritex in all the districts that it operates. These demonstration plots later formed hubs for the sale of Mukushi's biofortified and non-biofortified maize seeds. In addition to these trainings, Mukushi also contracted 15 farmers throughout Gokwe South (7 in SIMBA wards) to each produce QPM on 1.0 ha during the 2014/15 season.

Impact

Misheck has benefited from the maize variety in various ways:

- Household nutrition: Misheck's family eats QPM meal every day. Although there is no noticeable effect on their health (perhaps because they are all healthy!), Misheck is comforted that QPM is providing a more nutritious diet.
- Diversification: Misheck always struggled to set aside food for livestock. This has adversely affected his effort to practise mixed farming. The introduction of QPM has been the trigger for the establishment of his road-runner project. He is also rearing turkeys and goats. Livestock sales are now supplementing his cropping income.



In addition to the benefits derived from QPM, Misheck and his family have benefited from the SIMBA programme in other ways including training in hygiene, health, internal savings clubs, CA, compost making and nutrition gardens. Misheck is planning to expand his QPM farming activities in 2018.

Misheck is planning to expand his QPM farming activities in 2018.

"We now retain the QPM for household consumption, selling our normal maize to GMB, and using the money raised to buy household goods and farming inputs," said Misheck.

"My roadrunner and turkey projects have improved tremendously. The roadrunner chicks are growing faster, and mortality is lower. My turkey project has grown from two birds in 2016 to sixteen birds today."

Sustainability

Mukushi's marketing strategy has been successful in Gokwe South district. In 2016/17 the company sold 10 tonnes of seed, increasing to 21 tonnes in the 2016/17 season. Mukushi now has a strong foothold in Gokwe South, stocking its seed with small and large agrodealers. Farmers can rest assured that they will continue to access their biofortified seed, long after SIMBA has ended.



Mukushi Director, Graham Bowker, in a QPM maize demonstration plot.

About SIMBA

SIMBA was a four-year (2013-2017) EU-funded programme, co-implemented in Gokwe South District by WHH and APT. The overall objective of SIMBA was to enable smallholder farmers to diversify and upgrade their diets to recommended levels, and to run part of their farming as a family business in cooperation with other value chain stakeholders, generating income. To achieve the objective, five results areas were defined:

1. Production and storage sustainably intensified to increase the variety, quality and quantity of nutritious and marketable commodities building on previous EU and Protracted Relief Programme (PRP) initiatives.
2. An inclusive pro-poor business model established based on six principles for a robust cash crop value chain that links small scale farmer household groups with commodity specific open and closed markets.
3. Community Health Clubs (CHC) reached the highest level of the group maturity index and demonstrate sound hygiene, health and nutrition behaviour.
4. A demand-driven, sustainable government and private sector coordinated advisory and research service established using a broad range of communication tools.
5. Lessons and experiences from the project widely shared and disseminated.

This brochure is one of a series describing the market interventions being implemented under Result Area 2.

About WHH



Welthungerhilfe is one of the largest non-governmental organisations (NGO) in Germany, founded in 1962. WHH's focus is to fight hunger and poverty and we want to achieve #zerohunger wherever we work by 2030. The organisation provides integrated aid, from rapid disaster aid to long-term development cooperation projects. Help to self-help is the basic principle; it allows to strengthen structures from the bottom up together with national partner organizations and ensures the long-term success of project work.

The organisation is operating in Zimbabwe since 1980, implementing Food and Nutrition Security projects in various parts of the country. The WHH Vision in Zimbabwe, like elsewhere in the world, is that all people can exercise their right to lead a self-determined life with dignity and justice, free from hunger and poverty. www.welthungerhilfe.de and www.facebook.com/welthungerhilfezimbabwe/

Welthungerhilfe | Block 8 Arundel Office Park, 5 Norfolk Road, Mt. Pleasant, Harare, Zimbabwe | Tel: +263(4)369789

About APT



The Agricultural Partnerships Trust is a Zimbabwean registered trust that was formed in July 2010 out of concern for the development of rural communities in Zimbabwe, with focus on smallholder agriculture.

The Trust raises and disburses funds to assist in improving livelihoods in the rural areas of Zimbabwe by enhancing economic development through sustainable agricultural and business methods and facilitating partnerships between smallholder farmers and organisations in the private and public sectors.

Since 2010 APT has been involved in a number of programmes, either singly or in consortia but always focusing on smallholder output and service market linkages – in other words, Market Systems Development. More information can be viewed at our website www.apt.co.zw or follow us on Twitter (www.twitter.com/apt_zimbabwe) or Facebook (www.facebook.com/apt.zimbabwe/). Alternatively, contact APT directly:

Michael Dawes | Agricultural Partnerships Trust

11 Hodson Avenue, Alexandra Park, Harare, Zimbabwe
michael@apt.co.zw | Tel: +263(4)744559 or +263(77)2212201

APT's partnership approach

APT is essentially a facilitator, brokering partnerships between the private sector and farmers. Although the type and level of support vary from programme to programme, APT has a history of delivering value to partnerships in many ways:

- **Intervention design:** Context analyses help APT understand the needs of farmers and companies for the design of relevant, innovative, profitable and sustainable market based interventions.
- **Partnership support:** Supporting partners in navigating their partnering journey by helping them to create a map, plan their route, choose their mode of transport and change direction when necessary.
- **Stakeholder mapping and introductions:** APT has working knowledge of market and non-market based organisations – contacts that are part of the building blocks of market systems development. For example, linkages with local government authorities in the districts are important at the start of the programme.
- **Extension service support:** Programmes such as SIMBA rely on a network of field officers and lead farmers who develop close working relationships with company Field Extension Officers, and who help extend the reach, or reinforce the knowledge transfer of company agents.
- **Administration services:** Company field officers have access to office and communication resources at the project centre, making it easier to work in the operational area.
- **Farmer training and organisation:** Programmes are often well resourced, able to assist companies in mobilizing farmers, organising meetings, hosting meetings and providing training resources, thereby reducing budgetary pressure on companies.
- **Platforms for dialogue:** As a neutral facilitator, APT has assisted companies in various ways. For example:
 - Intercompany dialogue to increase value chain efficiencies by linking non-competing companies for shared services. APT organised a series of 'Networking Platform Meetings' under SIMBA which resulted in inter company linkages and increased transaction efficiencies.
 - Mediation between companies and farmers: APT organised post-harvest meetings in most value chains to provide a platform for dialogue between farmers and companies, reviewing past performances & planning for the next season.
 - Conflict resolution: Conflict between farmers & companies typically occur on several occasions during implementation of a programme. APT assists in conflict resolution through bilateral company and farmer meetings, & subsequent monitoring.
- **Budget support:** Depending on the nature of the programme, APT may be able to assist partners with cost sharing arrangements. This type of support might be necessary to
 - (1) reduce perceived and real risks associated with inclusive business models;
 - (2) reduce start-up costs that might otherwise prevent a company from engaging in this type of business model; &
 - (3) reducing the time taken to impact, an important consideration since donor-funded programmes are often short term.

- **Results measurement:** APT has considerable experience in the monitoring, evaluation and reporting of private sector development programmes. Reports are designed for quick turn-around, to ensure that companies and farmers have access to real time information concerning the market based intervention.