



## ZAGP News

### The Newsletter for the Zimbabwe Agricultural Growth Programme (ZAGP)

ISSUE 25: MAY 2021

#### EDITORIAL

Welcome to the 25<sup>th</sup> issue of ZAGP News, the newsletter for the European Union (EU) funded Zimbabwe Agricultural Growth Programme (ZAGP).

This month's issue brings updates from the projects under ZAGP as they continue to tackle the various bottlenecks within Zimbabwe's livestock sector.

We share how the **IPVC** project is piloting the first and final mile egg distribution approach, an intervention to reduce costs and improve market linkages for egg farmers. The project has also established a revolving fund to provide access to affordable point of lay chickens to egg producers across the project's five clusters.

The **ZAKIS** project is promoting practices that ensure improved livestock productivity through the District Agricultural Centres of Excellence (DACEs). This issue highlights some of the work being undertaken in Insiza and Matobo districts in Matabeleland South province.

Related to the **ZAKIS** project, we focus on the Matopos Research Institute's journey towards becoming a centre of excellence. The research institute is one of the Agricultural Centres of Excellence (ACEs) established by the project and is implementing research protocols covering crop and livestock production.

The month of May saw the **TranZDVC** project achieving a key milestone

in its quest to boost the national dairy herd through the distribution of in-calf heifers to smallholder farmers. A total of 300 in-calf heifers were distributed in April and May. Cumulatively, 500 in-calf heifers have been distributed and farmers matched with 500 heifers, bringing the total to 1,000. We share the proceedings of two events held to distribute the heifers as part of TranZDVC's heifer matching facility.

Under the **BEST** project, this issue provides an update on services on offer at the Lapache Cattle Business Centre in Mwenezi, Masvingo province.

The **VALUE** project is making headway within the goat and pork value chains to ensure access to top-quality genetics by farmers. We share the results of the work with goat and pork value chain integrators where producers now have access to improved breeds and will also be soon accessing Artificial Insemination services.

Finally, from **SAFE**, we cover progress made so far in the review of the curriculum for Environmental Health Technicians (EHTs) with the main objective of incorporating new approaches, international best practices on food safety and public health.

*(Cover photo: An aerial view of the Mhlanguleni Cattle Business Centre (CBC) in Chiredzi district, Masvingo province).*

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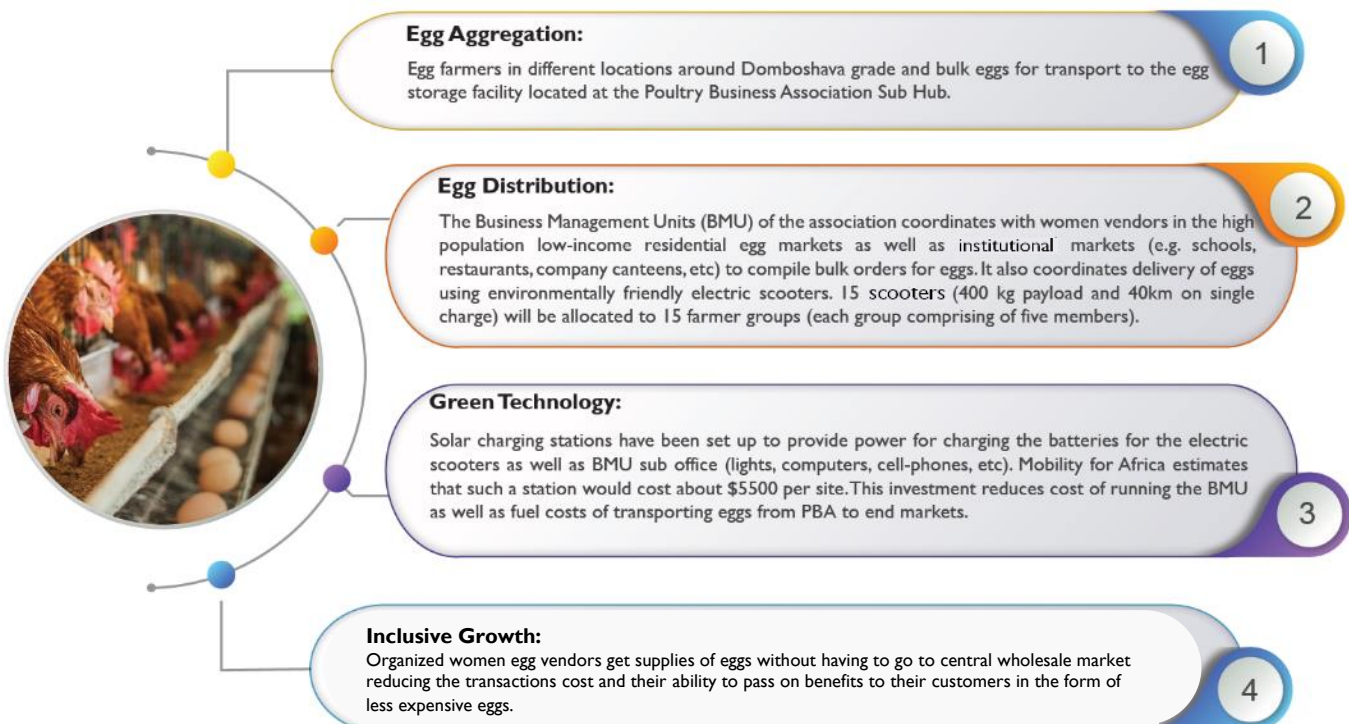


### Riding all the Way to the Market: First and Final Mile Egg Distribution

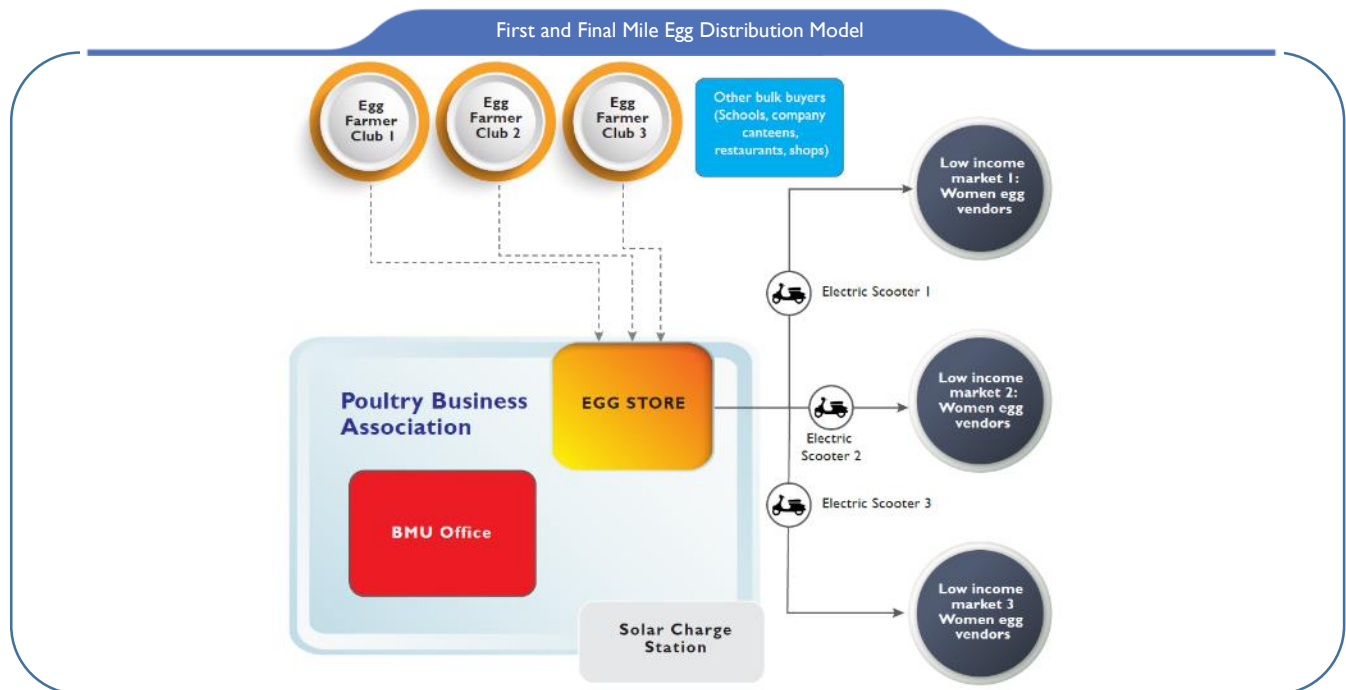


The [Inclusive Poultry Value Chain \(IPVC\)](#) project has piloted the first and final mile egg distribution intervention in Domboshava, Mashonaland East province. The project has provided 20 solar powered tricycles to the Harare Poultry Business Association (PBA) sub-hub in Domboshava. IPVC further collaborated with Mobility for Africa, to assist with charging ports for the tricycles for the farmers. This intervention is set to ease egg transportation and distribution challenges in the area and bridge the transportation gaps by assisting egg producers to transport their eggs from their farm to the centre on time. The producers will also be able to transport their feed and day-old chicks purchased from the PBA back to their farms. In total, twenty-six women egg producers from 13 groups have been trained to ride the tricycles.

The strategy below outlines the key components of the strategy to reduce costs and improve market linkages for egg farmers in the Domboshava area as a pilot.



### Riding all the Way to the Market: First and Final Mile Egg Distribution



### Point of Lay Chickens Revolving Fund



The first and final mile egg distribution intervention is also coming in as an extension to the revolving fund for access to point of lay birds, for members of the PBAs. With a reported shortage of point of lay chickens (POLs) on the market and the high prices averaging above USD9.00, IPVC introduced a POL revolving fund to address this high cost and the unavailability of POLs on the market. These POL birds will be sold to PBA members at USD\$6.00 per bird. Members are expected to save about USD3.00 per every point of lay bird purchased relative to prevailing market prices.

Due to the high demand, each association member is expected to buy a maximum of 400 point of birds, so that the project reach is wider. The first batch of 7,200 POLs will be available in mid-June, with the second batch of 5,000 POLs expected to be ready mid-September 2021.

How much is the farmer saving by buying as an association member? For 400 POLs, the PBA price is USD2,560 against a market price of USD3,600, resulting in USD1,040 saved. The proceeds from any sales under this model are used to secure the next batch of layer chicks and the revolving model is sustained. Farmers may then choose to stimulate egg demand through lower selling price of eggs, leveraging on the lowered costs of production, thus remain competitive on the market.



### Agricultural Centres of Excellence on Drive to Enhance Livestock Productivity

The livestock value chain plays a significant role in the agricultural production activities of farmers, particularly in the semi-arid regions of the country. In line with their mandate, the District Agricultural Centres of Excellence (DACEs) at Insiza and Matobo districts, with the support from the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and Matopos Agricultural Centre of Excellence (MACE), are promoting practices that ensure improved livestock productivity in the two districts.

#### Artificial Insemination in Matobo and Insiza Districts



The Matopos Agricultural Centre of Excellence in collaboration with the Department of Veterinary Services (DVS) and AGRITEX carried out artificial insemination of 462 cows which benefited 38 women and 200 men farmers in February and March this year.

This was a response to the [Zimbabwe Agricultural Knowledge and Innovation Services \(ZAKIS\)](#) project farmer needs assessment which revealed that farmers lacked technologies such as artificial insemination to enhance livestock productivity. Some of the activity's objectives include the following:

- Breed improvement using semen from pedigree bulls
- Improving communal farmers' understanding of artificial insemination technology and its potential for accelerating animal genetic improvement in communal areas
- Imparting artificial insemination knowledge and skills to livestock farmers based in the target districts
- Enhancing knowledge of breeding methods among farmers

#### Fodder Conservation Training for Extension Officers

At least 51 extension officers and 145 farmers in Insiza and Matobo districts in Matabeleland South province received fodder conservation training during the last quarter.

During the 2020/21 cropping season, the Agricultural Centres of Excellence in the two districts established demonstrations and encouraged farmers to grow fodder crops that include Bana grass, Velvet Bean, Lablab, Sun hemp and forage sorghum.

*"These crops are new in most of the wards and farmers had an opportunity to receive training on how to preserve them through silage and haymaking. Fodder conservation will increase productivity and lower the cost of supplementary feeds during the dry winter season," said ICRISAT Research and Evaluation Associate, Angeline Mujeyi.*



### Towards an Agricultural Centre of Excellence: Focus on the Matopos Research Institute

This month, we put the spotlight on the Matopos Research Institute Agricultural Centre of Excellence (Matopos ACE), following a visit by Technical Assistance to the Zimbabwe Agricultural Growth Programme (TA-ZAGP) team. The centre is one of the Agricultural Centres of Excellence (ACEs), in addition to the Chibero College of Agriculture ACE, established under the ZAKIS project. The ACEs are expected to spur investment in agricultural research and development, education, and extension systems, as well as in innovations; including climate and business-smart technology. The two ACEs are supported by the District Agricultural Centres of Excellence (DACEs) that have been set up at Insiza, Mhondoro-Ngezi, Matobo, and Chegutu districts.

The centres are the focal points for disseminating up-to-date farmer-centric knowledge and for promoting innovations. They are also important hubs for harmonizing the delivery of research, education, and extension services to farming communities.

The Matopos ACE is working on various research protocols focusing on crop and livestock production, capacity building activities and business models as outlined in the figure below:





### Towards an Agricultural Centre of Excellence: Focus on the Matopos Research Institute



Improved nutrition analysis. The Matopos ACE laboratory was refurbished, and new equipment was installed.

*“Previously, the laboratory had old equipment which would constantly break down and needed servicing, leading to delays in obtaining of results. We now have an automated Kjeldahl unit used for protein determination in animal feed. The safety and health in the laboratory was also compromised as the fume cupboard was no longer functioning and hazardous substances generated during laboratory experiments could not be captured. A new fume cupboard was installed to effectively capture and remove air-borne hazardous substances generated during laboratory experiments. The number of samples carried out per day has improved from 4 to 20 and the time of delivery of results has also been improved”, said Theresa Rukuni, the Bio-chemist at the Matopos Research Institute.*



The Matopos ACE is collaborating with the IPVC project to establish dual-purpose chicken breed trials.

*“The objective is to evaluate the feasibility of commercialising the dual purpose breeds by smallholder farmers in the country. Intensive and semi-intensive feeding systems are being tested against three strains of dual-purpose chicken breeds. The three strains are the Boschveld, black Astrolorp and Sasso. Lucerne pastures have been established to reinforce the protein need for the intensive feeding trial in a bid to lower the production cost of the chickens”, said Themba Mkhwananzi, the Matopos Research Institute Farm Manager.*



### Towards an Agricultural Centre of Excellence: Focus on the Matopos Research Institute



Effective control of FAW through use of synthetic chemical pesticides for maize faces challenges including improper use, unaffordability by smallholder farmers and development of resistance by the pest. The centre is promoting eco-friendly and sustainable push-pull techniques to control the spread of the Fall Armyworm (FAW) in Matobo and Insiza districts to allow farmers to sustainably control pest outbreaks and reduce the costs of production.

*“We are researching integrated pest management techniques using the push-pull technology which eliminates pesticide use, and deploys natural processes that are more suitable and cost-effective. This approach involves attracting insect pests with trap plants (pull) such as Bana grass, while driving them away from the main crop using a repellent intercrop (push) such as various legumes comprising of Lablab, Mucuna and Cowpeas. The experiments conducted have been successful and we plan to rollout the technology in Insiza and Matobo districts during the 2021 – 2022 agricultural season”, said Jephthah Dera the Crop Research Officer at Matopos ACE.*



Read more about the sustainable fall armyworm management research. The Herald – 4 May 2021



A Goat Holding Centre (GHC) has been established where the Matopos ACE is collaborating with the VALUE project.

The GHC is a strategic marketing infrastructure expected to play a pivotal role in linking farmers with buyers and ensuring they receive fair value for their goats.

According to Michael Musasira, the Livestock Research Office at Matopos ACE, the GHC has been completed with all of the key infrastructure now in place including a plunge pool dip tank, six goat holding pens, ablutions facilities, loading/offloading ramp and a guard room.

*“The development of strategic marketing infrastructure is key in addressing the market system constraints being faced by the small to medium producers. These producers will use the GHC to aggregate their goats and access the markets in Bulawayo urban. GHCs will be used as venues for conducting periodic goat auctions for all farmers and other interested value chain market actors”.*



### TranZDVC Hands Over 300 in-calf Heifers to Smallholder Dairy Farmers



The [Transforming Zimbabwe's Dairy Value Chain for the Future \(TranZDVC\)](#) project handed over the last batch of 300 in-calf heifers to 255 smallholder dairy farmers in April and May 2021 in two separate events at Zengeya Farm in Seke district, Mashonaland East province.

The in-calf heifers constitute the last batch of the 500 in-calf heifers imported from South Africa to boost the Zimbabwe's dairy herd and also improve genetics. Through the importation of the heifers, TranZDVC will increase the production of milk in Zimbabwe from 75 million litres (in 2018) to 120 million litres (by 2022) per year.

Speaking at the first handover ceremony on 23<sup>rd</sup> April 2021 which saw 121 farmers receiving 147 in-calf heifers, Timo Olkkonen, the Head of Delegation to the European Union (EU) in Zimbabwe, noted that increasing milk production through the right genetics is an important step towards milk self-sufficiency in Zimbabwe.

"In Zimbabwe, with the right business environment, the right incentivisation to farmers and where the farmers can invest into improved feed/improved animal husbandry practices, because they are sure that it will pay off in terms of milk price and revenues for them and their families; improved genetics will lead to increased milk production and improved national self-sufficiency, said Olkkonen.

In a speech to mark the second handover of 153 heifers to 134 farmers event on 14<sup>th</sup> May 2021, Lands, Agriculture, Fisheries, Water and Rural Settlement Deputy Minister Vangelis Haritatos said the development was a testament of the Government's commitment to revitalise the dairy sector.

"The dairy development project came at a time when the Government is promoting the revitalisation of the dairy sector through various growth initiatives as a strategy to improve milk quality and quantity in Zimbabwe.

"The heifers were distributed to 134 smallholder farmers in line with Government' objective of inclusive value chain development in the Agriculture and Food Systems Transforming Strategy."

Zimbabwe's dairy herd of 123,000 cows in 1990, at one point, produced more than 260 million litres of milk annually, but production declined over the years, with an estimated 39,000 dairy cows left. The annual demand for milk currently stands at 120 million litres and there is a deficit of 45 million litres.



Watch the full proceedings of the events held on [23 April](#) and [14 May](#)



### TranZDVC Hands Over 300 in-calf Heifers to Smallholder Dairy Farmers



One of the recipients of the heifers, Shongedzai Pfukwa, a young farmer from Zvimba district in Mashonaland West province could not hide his joy. He received two heifers and Nestle Zimbabwe matched with two other heifers.

"I would like to thank TranZDVC who have been assisting us in our dairy production activities and also giving us access to these improved heifer breeds. The four heifers I have received through this facility will be a welcome addition to our dairy herd. The farm currently has 15 milking cows out of a total herd of 31 dairy cattle. We are producing 200 – 250 litres of milk daily.

We are definite that this heifer facility will assist our dairy enterprise to increase milk production and also improve the quality", said Pfukwa.

#### Heifer Handover Ceremony in Pictures



**1 & 2:** The EU Ambassador Timo Olkkonen (left) and the Lands, Agriculture, Fisheries, Water and Rural Settlement Deputy Minister, Vangelis Haritatos (right) delivering their speeches.

**3 & 4:** Geared to boost milk production. Some of the farmers who received the in-calf heifers – Claudious Burira (left) from Makonde district in Mashonaland West province and Esther Marwa (right) from Chikomba district in Mashonaland East province.



### Beef Enterprise Strengthening and Transformation Project (BEST)

#### Lapache Cattle Business Centre Servicing Beef Cattle Producers

The Lapache Cattle Business Centre (CBC) was established at a central location accessible to cattle producers and key beef value chain actors from Mwenezi district, Masvingo province. It is commercially run by Sabie Meats on behalf of the local cattle business association. Farmers are now accessing critical services such as hay bale sales, stock feed, bulling services, on site grazing, cattle handling facilities and extension support. Sabie Meats is providing technical and extension services as well as output market.



**Pen Fattening:** Sabie Meats and the community are at an advanced stage in preparing for the 2021 feeder finance scheme. A total of 34 cattle have been inducted as a demonstration to the community on the benefits of pen fattening as part of the preparations.

Cattle from the community and the private sector partner are inducted and separated according to size and body condition. The cattle are fed on a high protein diet for 45 to 60 days.



The PSP charges US\$0.23 per animal per day for housing and US\$0.11 for feed per animal per day. A once off Induction costs of ZWL200 also charged per animal. Farmers can decide to sell the cattle to Sabie Meats or any other buyer offering high prices. Farmers can pull out their cattle any time during the feeding cycle but pay for the service in terms of feed and housing.



**Irrigated Pastures Expansion:** Land preparations are in progress to increase 17.5 hectares under centre pivot to 35 hectares. At least 17.5 hectares were prepared and fodder planted from June 2020. The Irrigation Department under the Ministry of Lands, Agriculture, Fisheries, Water and Rural Settlement was engaged to mobilize necessary equipment and personnel to undertake the land preparation. Cross ripping, cutting and filling is expected to be complete by the end of May 2021. Tongaat Hulett's has been reengaged to conduct other operations such as levelling and discing.



### Beef Enterprise Strengthening and Transformation Project

#### Outreach through Radio and ICT4D Programmes

BEST has worked on a number of interventions to ensure efficient and effective channelling of relevant cattle production information to farmers in and beyond districts of project implementation. The project targeted the Masvingo cluster through radio programs on Hevoi FM, a local commercial radio station reaching out to the whole of Masvingo province. The program entitled "Farmers' Forum" was aired for 5 consecutive weeks on the station for a maximum of 10 minutes per session. The project utilized the opportunity to reach out to farmers who would normally not attend training because of time, Covid 19 or distance related constraints. Topics that were covered included Financial Literacy, the Kurima Mari Beef mobile application, dry season preparedness, cattle diseases, beef production calendar and cattle feed preparation for the winter.

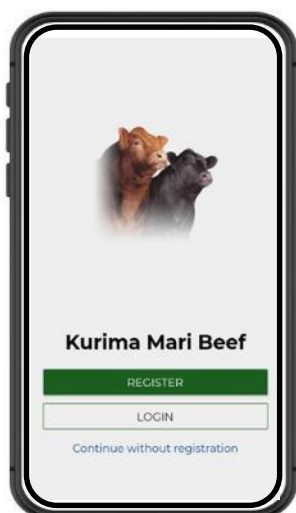


Download the audio recordings of the radio shows.

#### Hay Harvesting



The project procured tractors for hay harvesting in unutilised open fields and road sides in the districts of operation. The activity has already started with hay bales being harvested and stored at CBCs for onward selling to farmers. Hay or grass is the foundation of the diet for all grazing animals and can provide as much as 100% of the fodder required for an animal. Hay will be fed to cattle in place of allowing the animal to graze on grasses in a pasture, particularly in the winter or during times when drought or other conditions make pasture unavailable.



#### Kurima Mari Beef App

Have you downloaded the Kurima Mari Beef App yet? Get quick access to all matters related to beef farming. Features include tips on Marketing, Animal Health, Production, Access to Finance, Policy Matters and a Farmers' Chat Room.

Download on Google Play Store.



### Value Chain Alliance for Livestock Upgrading and Empowerment (VALUE)

#### Access to Improved Pig Breeds through Artificial Insemination



The **VALUE** project supported the Pig Industry Board's (PIB) efforts of breed improvement through the provision of five Grand Parent boars from the imported genetics. The PIB has been tapping semen from the boars and have since January supplied 2,754 doses of semen to pig producers from across the country.

During the first quarter of 2021, the project took delivery of the Artificial Insemination equipment imported from South Africa. Pig producers will soon be able to access top quality semen tapped from the grandparent boars stationed at the two private integrator farms in Mashonaland West and East provinces. The project is finalizing setting up of the equipment with the grandparent boars also being prepared and trained for the tapping.

"We are excited about the artificial insemination programme which will go a long way to improve access to the top-quality genetics by small and medium producers who in the past have had limited opportunities to access good breeds," said the VALUE Project Team Leader, Newton Chari.

#### Weaner to Finisher Model Trainings



Chigangaidze Precious from Makonde district, is one of the participants who benefitted from the training.

The implementation of the weaner to finisher business model has been initiated through training of young and women farmers at Pig Industry Board (PIB). To date, a cumulative total of 99 farmers drawn from Chegutu, Mhondoro Ngezi, Makonde for Mashonaland West and Murehwa and Goromonzi for Mashonaland East production corridors have received training.

The intensive one-week training imparted knowledge, understanding and skills that changed attitude and behaviour in operating a pig fattening business among other production practices (theory and practical).

Most farmers are starting and upscaling own pig enterprises after the training and a database is being update for all trained farmers for after training support and performance tracking.

*"Since I received the training at the PIB, I have started putting the new knowledge to work. I have been requested by other members of the Zvimba pig producers to conduct artificial insemination for them as well as transfer some of the skills and knowledge I have gained," said Dumisani Ndlovu a young pig producer from Ward 10 in Zvimba district, Mashonaland West province.*



### Value Chain Alliance for Livestock Upgrading and Empowerment (VALUE)

#### Genetics Improvement in the Goat and Pork Value Chains



In its efforts to increase production and genetic improvement in the goat value chain, the project supplied an average of two improved bucks at the Goat Improvement Centres in the twelve districts of operation. The respective goat producer business associations selected goats for mating with an average of 60 does per Goat Improvement centre.

The proceeds from the mating are being ploughed back into the goat improvement centres and will be used to procure more bucks, veterinary drugs and for the general upkeep of the centres.

Under the pork value chain, district Pork Producer Business Associations have begun breed improvement and propagation services. Breeding gilts and weaners are being procured by members of the Mashonaland West pork producers business syndicate from the integrator – Braford Farming.

Weaners are pegged at USD55 for members and USD65 for non-members. F2 gilts and F2 boars are being sold at USD180 for association members and USD230 for non-members, while F1 boars and gilts are available for USD250 and USD300 for members and non-members respectively.

### Transforming Zimbabwe's Animal Health and Food Safety Systems for the Future(SAFE)

#### Environmental Health Technicians Curriculum Review

The SAFE project supported the review of curriculum for Environmental Health Technicians (EHTs) with the main objective of incorporating new approaches, international best practices on food safety and public health and additional concepts that experts in the field identified as lacking in the current curriculum

A team of facilitators from HEXCO Curriculum Review Department (CRD) coordinated teams of environmental health experts drawn from different sectors going through the first three of four phases of curriculum review which are:

- **Phase 1:** Occupational Standards Development
- **Phase 2:** Skills Proficiency Schedule Development
- **Phase 3:** Regulations and Content Development

The Reviewed National Diploma Environmental Health curriculum was ratified and approved for adoption in June 2021. Major highlights of the curriculum review for EHTs were:

1. Changing National Certificate (NC) level to be first year for the National Diploma (ND) as the Environmental Health Assistant produced after the NC is not registrable by the Health Council of Zimbabwe and cannot be employed by the Ministry of Health and Child Care until they complete ND level.
2. The following courses or modules were introduced in response to gaps identified:
  - Ethics and Public Health Legislation
  - Project Monitoring and Evaluation
  - Quality Management Systems
  - Risk Analysis and Application