







EDITORIAL Taking Stock: ZAGP Success Stories

The ZAGP team welcomes you to the 30th issue of ZAGP News, the newsletter for the European Union (EU) funded Zimbabwe Agricultural Growth Programme (ZAGP).

As we draw closer to the end of 2021, in this bumper issue we share with you our valued readers, success stories from the implementation of various interventions under the programme. ZAGP has achieved a number of key milestones towards achieving the key project outcomes of increasing production and productivity, ensuring access to competitive markets and increasing investments in livestock value chains. Good progress has also been made in improving agricultural education systems, research and extension services and strengthening of institutions.

We share inspiring stories and the voices of the beneficiaries whose livestock production enterprises have been transformed by the programme's interventions. Under the BEST project, we highlight the benefits of supplementary feeding and pen fattening, which have been a game changer for beef cattle producers who are now enjoying significant improvements in incomes from sales of their animals.

The TranZDVC project's dairy graduation model is offering smallscale dairy producers a growth path from one level to the next, as the project seeks to increase milk production in Zimbabwe, in line with National Development Strategy I aspirations. We focus on dairy producers who have graduated from being small to mediumscale producers and have turned around their dairy enterprises.

Elsewhere in this issue, we highlight how the Agricultural Centres of Excellence (ACEs) established under the ZAKIS project have improved the delivery of education within agricultural colleges, covering progress made so far at Chibero College of Agriculture, one of the two ACEs established by the project.

The VALUE project's efforts towards improving goat and pig breeds are bearing fruit, with exotic breeds of breeding bucks delivered to the Goat Improvement Centres (GICs) and to farmer groups across the project's 12 target districts. Pig producers are also now accessing improved breeds in the form of weaners, breeding gilts and boars from the Integrators in the Mashonaland East and West production corridors. We carry stories from farmers who have benefited from the improved pig breeds and also how collective action by pig producers is addressing logistical challenges they face.

On the animal health side, we share progress made by the SAFE project towards building the capacity of the Department of Veterinary Services (DVS) structures to be better able to provide services for animal disease prevention, early detection, diagnosis and control.

Finally, under the IPVC project, we provide the story of a poultry producer who is reaping the benefits of membership to a Poultry Business Association (PBA), taking poultry production to a different level.

We hope you enjoy this issue and as usual, we value your feedback.

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ISSUE 30: October 2021

ZAGP POLICY MONITOR

The Role of Extension in Dairy Production and Marketing: Issues and Policy Implications

Background

Zimbabwe's dairy industry is faced with a number of challenges, including low productivity, high cost of production and low producer prices. Extension services, therefore, play a crucial role in resolving some of these constraints through provision of technical advice in production and marketing to help farmers eliminate inefficiencies along the value chain. However, agricultural extension services in Zimbabwe face a plethora of challenges such as limited resources to enable them to become more effective and responsive to needs of smallholder dairy farmers. A recent study commission by TranZDVC Project on the Role of Extension Services in the Dairy Value-Chain showed that extension has evolved from dominantly being provided by the government using a transfer of technology (ToT) model, then the training and visit system to participatory pluralistic and integrated extension approaches such as the agricultural innovation systems (AIS).

Despite the growing demand for specialized extension services, the calibre of extension workers available in proximity to the dairy farmers are not specialized in the field and tend to have biases towards general crop and livestock production aspects. The study also found that linkages between research, extension and the smallholder dairy farmers are either very weak or non-existent owing to lack of properly structured mechanisms for fostering the linkages.



According to the study, dairy farmers have traditionally relied on agricultural advice, support and information from specialized resident project officers at MCCs provided by the Dairy Development Programme (DDP) of the Agricultural and Rural Development Authority. However, due to diminishing of funding over the years, the DDP has failed to sustain the model resulting in most dairy farmers having to rely on short-term NGO project support for specialized dairy extension support services.

The farmers now rely on ward based government extension officers through various departments such as AGRITEX,

Department of Veterinary Services (DVS) and at one time the Division of Livestock Production and Development (LPD). Predominantly, it is AGRITEX, which provides general extension services and trains farmers in the use of new sustainable productivity enhancing technologies.

The current extension worker-tofarmer ratio for the government extension services system is estimated at between 200 and 1,000 farmers depending on the commodity of interest, geographical area and farming sector. As a result of this number of farmers per Extension Agent (EA) and poor mobility, the current situation of the agricultural extension system in the country has suffered with most smallholder farmers in remote areas lacking adequate coverage.

The new players integrate government offering extension service, through specialised information and advice about production, post-harvest, processing, marketing, management, finances, and strategy. business These non-public organisations play a role in influencing policy on research, pricing, extension, marketing, and financing.

ISSUE 30: October 2021

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Adequacy of national budget allocations for extension services.

The government of Zimbabwe allocated 19% and 12% to the agriculture sector for the 2020 and 2021 respectively (GoZ, 2021). This is commendable given that Zimbabwe is a signatory to the Maputo and Malabo declarations which advocate for at least 10% of the national budget to be allocated to agriculture.

However, a closer look at expenditure of the agriculture sector allocated budget shows that the proportion eventually allocated towards agricultural extension and advisory services has continued to significantly drop over the years, despite the large share of the national budget going towards agriculture.

The proportion of budget allocation towards extension services dropped from a peak of 15% in 2013 to 2% in 2017 of the total agriculture budget (World Bank, 2019).

The dwindling proportion of agriculture spending going to meet the needs of extension and advisory services, in an environment where the total budget allocation to the agricultural sector has continued to rise requires urgent attention. It is noteworthy that the greatest chunk of spending in agriculture (5 I - 85%) continues to be accounted for by policy and administrative components at the expense of technical and operational components like extension. Hence the real policy issue is the level of importance given to extension and advisory services in the total spending for agriculture.

Recommendations for the Dairy Sub-sector

The study on Extension in Dairy Production and Marketing puts forward the following specific recommendations on funding for and strengthening of agricultural extension in the dairy subsector:

- The Ministry of Lands, Agriculture, Fisheries, Water and Rural Development (MLAFWRD) should consider reviewing upwards, the allocation of agricultural spending on extension aimed at capacitating field-based extension personnel with mobility and other capacities for effective delivery of extension and advisory services. Increased expenditure on extension will have spill-over effects on the dairy sub-sector.
- AGRITEX Extension officers who provide advice to dairy farmers should regularly receive specialized refresher trainings and relevant resources so that their capacity is built to strengthen the farmers along the value chain.
- Department of Agricultural Education and Farmer Training needs to come up with training programmes and manuals for capacitating dairy farmers with relevant knowledge and skills competitive milk production and marketing.
- Department of Agricultural Engineering, Mechanization and Soil Conservation should come up with appropriate designs and
 prototypes for appropriate-scale mechanization equipment such as hay balers, mobile milking machines, cans, etc. for use in
 smallholder dairy production and marketing.
- Department of Agricultural Research, Innovation and Development needs to design and promote participatory R&D
 programmes for collaborative implementation with farmers e.g. on-farm demonstration of least-cost feed formulation,
 product development, value addition among others.
- Department of Strategic Policy Planning and Business Development should to roll out tailor-made business development programmes aimed at capacitating smallholder dairy farmers' entrepreneurial skills, particularly in business planning, financial literacy for inclusion and market linkages.
- Dairy Services and Aglabs need to increase efforts towards research-extension-farmer linkages in the dairy value chain through conducting research and supporting farmers and extension personnel with information on modern dairy production and marketing technologies.



ISSUE 30: October 2021

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Recommendations for the Dairy Sub-sector

- Institutions of higher learning in agriculture should design and offer specialized dairy programmes at certificate, diploma and degree levels to ensure availability of well-trained dairy development cadres
- There is huge scope for private sector-driven extension service delivery system aimed at ensuring increased and consistent milk supply in Zimbabwe. Private milk processing companies need to put in place extension programs that help the farmers to overcome the many challenges inherent in smallholder milk production.

Farmer unions and the Zimbabwe Association of Dairy Farmers (ZADF) need to:

- Consolidate efforts towards effective lobbying and advocacy for strengthening of dairy extension services as well as favourable milk and inputs (feeds) pricing policies on behalf of farmers.
- Farmer organizations should continue to engage Government through the relevant ministries for more funding to be allocated to the dairy sub-sector, particularly towards capacitation of dairy specialized extension service providers, and increasing the number of extension workers available to serve the subsector.
- Identify local facilitators for capacitating with specialized short-term trainings and certification as semi-skilled extension personnel. In terms of motivation, they can be provided with tokens of appreciation like bicycles, branded regalia, etc.
- Augment the study circle extension and learning approach with regular training and visits to ensure that farmers continue practicing
 the various knowledge and skills they would have learnt.
- There is need to ensure the presence of resident dairy extension personnel at each MCC for quick response to farmers' extension needs.
- Promote capacitation of selected members of MCCs and dairy associations as para-vets to bridge the current gap in extension advisory service delivery
- Further explore the socioeconomic factors that might be influencing low adoption of on-farm feed formulation for dairy production.

Download the full report on the ZAGP website

The Newsletter for the Zimbabwe Agricultural Growth Programme (ZAGP)

ISSUE 30: October 2021

Cattle Producers in Shurugwi Reaping the Rewards of Supplementary Feeding for their Animals





Urea Treated Stover (UTS) sites established for farmers' training.



UTS produced by farmers for livestock supplementary feeding to date.

Shurugwi smallholder farmers have adopted drought preparedness and response strategies to alleviate cattle poverty deaths through supplementary feeding of their animals using initiatives such as urea treated stover and silage.

Shurugwi district in the Midlands province, has over the years been characterised by poor rains and is perennially prone to droughts.

According to Government data, during 2019 and 2020, the nation lost an estimated 30,000 cattle, while Midlands recorded 2,040 cattle deaths. The main cause of the dwindling herd was recurrent drought which diminished water supplies and reduce grazing pastures nationwide.

Shurugwi Ward 20 Agritex extension officer, Vigilance Hungwe, said they were assisting farmers to eradicate cattle poverty deaths by producing supplementary feeds through urea treated stover, silage and dry feeds.

"There are programmes we are doing in conjunction with the <u>Beef Enterprise Strengthening and Transformation (BEST)</u> project which are helping to uplift the lives of farmers.

"To alleviate cattle poverty deaths, we are encouraging farmers to formulate their on-farm feeds through urea treatment of low quality roughages such as maize stover, silage and dry feeds", said Mr Hungwe during a tour of households where farmers were harvesting ensiled supplementary feed from the pits.

He said smallholder cattle herds were prone to poverty deaths during the dry season, as both feed quality and quantity are compromised in this period.

"Supplementary feeding becomes inevitable, yet the costs of commercial feeds are often a deterrent and farmers stick to traditional practices of collecting crop residues and preserving them for future use as animal feed".

Crop residues are a common feed supplement for smallholder farmers, yet they lack the basic nutritional composition (energy, protein, minerals) for maintenance and growth/production, usually falling below 3% crude protein content (P).



ISSUE 30: October 2021

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Alkali treatments based on urea or Mabiko K offer an opportunity to improve these low-quality roughages at reasonable costs yet building up to the required minimum crude protein levels of at least eight to 12% and increased digestible energy levels.

Hungwe said the process requires the residues to be ensiled for at least four weeks underground under anaerobic conditions, while in preparation, the forages are chopped around 15-20cm in length, then treated in layers on a pro-rata 1kg urea to 20kgs stover, 3kgs for 20kgs using Mabiko K.

When feeding farmers then give one to two kilogrammes per day, per adult animal and animals should be given a period of adaptation on minimal feed or access to salt blocks.

However, with urea based feed, animals could be subject to urea poisoning if animals are not given an adaptation period or they eat to excess.

"As such ensiled products need to be protected. In case of poisoning, farmers need to contact the extension officers for assistance in relieving the bloat, but may also use vinegar under guidance to dilute the rumen contents and increase acidity."



Farmers preparing ureat treated stover.

A farmer in Marishongwe Shurugwi Ward 20, Mrs Nomatter Mazheke said three tonnes of urea treated stover have assisted them save money as making the on-farm supplementary feed was cheaper.

"In a month we used to buy 15 bags of commercial feed at US\$12 each bag, with a total cost of US\$180. By making our own supplementary feed we are now saving a lot because with our urea treated stover from a three tonnes pit, we can manage to feed our 33 cattle 1kg per day for 100 days all at a cost of US\$60 for the concentrate and other things"

She said before starting supplementary feeding their cattle were not grazing enough in the ranges and they would lose two to four cattle in a year. Supplementary feeding has assisted their cattle to maintain their body condition and the cattle had adapted to the feed supplement.



ISSUE 30: October 2021

Pen Fattening: A collective enterprise model for improving rural livelihoods in Chiredzi District



"Before, the selling price for a fully grown cow ranged between USD180 to USD220. Farmers are now getting between USD600 and USD900, an increase of more than 130%".

Chiredzi district is generally a dry region, falling under Natural Region V. The rainfall patterns are sporadic and there is less crop farming practiced in the district, except for the large-scale sugar plantations. Despite such challenges, livestock-based agriculture remains the primary source of livelihood for communities in Chiredzi.

One such community is the Chanienga community in Ward II. After receiving training on good cattle production standards under the BEST project, a group of community members led by Wilson Kwinika, came together to create a cattle pen fattening enterprise. The group is made up of 41 members (24 men and 17 women).

Beef prices normally adapt to seasons; where the seasons are good, the price of beef is usually low for the good grades. The best and highest prices are realised during dry seasons where good grades fetch premium prices.

"The BEST project trained farmers on the primary benefits of pen fattening. This has resulted in increased mass of the animals and higher grades. We are enjoying good prices for our animals and we are taking advantage of the high seasonal prices associated with the dry season", said Kwinika, the group chairperson.

Added Kwinika, "The Chanienga community mobilised to reconstruct an improve a local feedlot which had not functioned for more than 10 years. Farmers had lost hope in beef enterprises due to the worsening economic situation and declining beef commodity prices".

BEST supported the community with materials to revive the feedlot, while the community also mobilised their own resources. In addition, the project constructed feeding troughs within the cattle pens. It has earmarked completing the storage house, rehabilitating the water system.

Through such an initiative, the Chanienga community has started realising improved income from selling their cattle after pen fattening.

"Before the intervention, the selling price for fully grown cattle ranged between USD180 to USD220. This was mostly realised through selling to middlemen who would then sell to off-takers for a premium price, in-turn short-changing the farmers. Farmers are now getting between US600 and US900 Dollars for the same quality cattle, an increase of more than 130%.



ISSUE 30: October 2021

Pen Fattening: A collective enterprise model for improving rural livelihoods in Chiredzi

In 2020, during their first pen fattening period, the group inducted 48 cattle for pen fattening, realising more than USD24,000. Riding on this success, they have mobilised 61 cattle from their membership for induction. A total of 37 people inducted cattle, among those who have inducted are 11 women.

Tripartite Financing Scheme

BEST linked with First Mutual Life to provide finance for feeding, which will be subtracted once the farmers have sold their cattle. This has made the pen fattening process easier. The farmers do not have to struggle with middlemen anymore as they have already secured the buyer for their cattle in MC Meats. The community has now realized that collective action will make them realize better profits as they no longer must individually source feed or pay excess costs in transporting the cattle to the market. Everything is now being done from one point.

"We are happy with the pen fattening programme. Farmers are now aware that they earn better incomes through utilising available resources to improve the quality of life", said Kwinika in conclusion.



Some of the members of the Chanienga community. In the background is the rehabilitated feedlot.

The Newsletter for the Zimbabwe Agricultural Growth Programme (ZAGP)

ISSUE 30: October 2021

From Smallholder to Medium-scale Dairy Farmers: Model Dairy Farmers Lead the Way



4,221

New dairy farmers mobilised in the 33 project districts (36% were females and 64% males)

500

In-calf heifers imported and distributed to 282 small scale dairy farmers (127 females; 155 males)

USD23,000

Worth of matching grants awarded to dairy producers to invest in productive assets and infrastructure

6, 425

Dairy farmers capacitated with knowledge and skills on: clean milk production; fodder planning, production and preservation; animal nutrition; climate smart dairy farming; animal health; heat detection and breeding and calf rearing.

Smallholder farmers participating in the Transforming Zimbabwe's Dairy Value Chain for the Future (TranZDVC) project have transitioned from smallholders to medium-scale dairy farmers as a result of the project's innovative commercialisation drive as farmers adopt good agricultural practices in dairy enterprises

The on-going dairy improvement project is targeting the country's dairy farmers to help improve feed farming and overall dairy production through increased agricultural incomes and employment development.

Access to finance for investments in dairy production through the Matching Grants Facility (MGF), capacity building on various aspects of dairy production and increased milk yield from providing better feeds at a lower cost are not only helping the participating farmers increase their incomes from dairy but also allowing them to expand into other areas of climate-smart agriculture.

TranZDVC efforts to boost milk production are bearing fruit with at least 4,221 new dairy farmers mobilised in the 33 project districts (36% females and 64% males) against a 2022 target of 4,000 new farmers. Under Window Four of MGF, eight grants have been awarded to small-scale farmers.

At least 6, 425 smallholder dairy farmers have been capacitated with knowledge and skills in areas such as clean milk production, fodder production and preservation, animal nutrition, climate smart dairy farming and good animal husbandry practices.

Rudo Sithole and Washington Sagonda are dairy farmers in Mutasa district in Manicaland province. Their journey so far, epitomises TranZDVC's graduation model, offering smallholders a growth path from one level to the next towards commercialisation. To date, at least nine small-scale dairy farmers have graduated to become medium-scale producers in the target districts. The farmers were visited by the ZAGP Technical Assistance team accompanied by Franck Porte, the European Union Delegation to Zimbabwe Head of Cooperation.



ISSUE 30: October 2021

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The TranZDVC project is working with farmers like 35 -year-old Washington Sagonda in Watsomba area of Mutasa district in Manicaland Province to engage themselves in more profitable ways of doing dairy farming, as a result of access to finance, feed production interventions and training and technical assistance.

TranZDVC has improved Sagonda family's fortunes. The project is helping him to take advantage of market opportunities to increase their dairy incomes.

The farm started as a small-scale dairy and grew into a medium-scale dairy, currently producing 205 litres of milk per day milking 12 cows.

Sagonda was one of 34 households at the local Tsonzo Milk Collection Centre (MCC) selected for a Matching Grant Facility (MGF) and was supported with a 70% contribution towards setting up of a solar powered irrigation system and construction of a reservoir dam. Sagonda paid 30% as contribution towards the

purchase of some components of the irrigation system. This was part of his match towards the Matching Grants Facility.

In addition, the farmers were trained to grow forages, produce hay to make homebased feeds through animal feeding demonstrations.

Before, Sagonda was involved in horticultural production supplying vegetables to the Mutare market, 43km from Watsomba business centre. He diversified into dairy farming with proceeds from the horticulture enterprise, starting with two cows. He has never regretted this move.

"I've now built my herd to 58 cows. Out of these, 19 are heifers and 13 are currently milking" says Sagonda.

In 2018, Washington won the Overall National Small-scale Dairy Farmer of the Year Award organised by the Zimbabwe Association of Dairy Farmers (ZADF), a TranZDVC partner.

From the 14 milking cows, Washington produces an average of 205 litres of milk per day, which he supplies to the Tsonzo Milk Collection Centre. Previously, he produced an average of 120 litres of milk per day, milking six cows.

Sagonda has stopped using a diesel powered generator where he spent close to US\$200 per month on diesel fuel drawing water from a nearby stream. Access to clean water has also reduced the number of times he needs to dose his herd, from twice a year to once a year.

On-farm feed production is at a high level. Sagonda benefitted from the project trainings on fodder production and feed processing. Additionally, his farm was used to run a trial on mixed crop silage production using maize (70%) and velvet beans (30%).

According to Sagonda, the mixed silage feed has a high protein content which has led to increased milk production at his farm.



ISSUE 30: October 2021

From Smallholder to Medium-scale Dairy Farmers: Model Dairy Farmers Lead the Way



The reservoir constructed at Sagonda's Farm through the matching grants facility

The enterprising dairy farmer has also ventured into breeding dairy cows, selling heifers for around US\$1,400 to US\$1,500 per animal.

"I never thought I'd ever reach this level of milk production to be one of the top dairy producers in Watsomba area. With the assistance I have received from TranZDVC, I am now aiming for commercial dairy farmer status," he says with a chuckle.

With access to the MGF, TranZDVC dairy farmers have entered into productive and sustainable investments. The project has assisted farmers in preparing for artificial insemination, including identifying suitable cows or heifers, proper feeding, and constructing sound cattle handling facilities.



According to Sagonda, the mixed silage feed has a high protein content which has led to increased milk production at his farm.

The Newsletter for the Zimbabwe Agricultural Growth Programme (ZAGP)

ISSUE 30: October 2021

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The late afternoon milking session is in progress with the state of the art six-station automated milking parlour machine slowly humming away and quantities of milk gradually filling the containers. It's a modern and efficient operation as the workers strictly observe all the high—quality handling procedures for clean milk production, and ensuring the environment in the milking parlour is clean and hygienic.

Rudo Sithole (54) is also at hand supervising the proceedings. She is the owner of 1684 Dairies, a dairy enterprise in the Bonda area of Mutasa district, in Manicaland Province. She is a typical example of a successful rural female dairy farmer who has defied all odds to succeed in this male-dominated sector.

Hers is one of the farms selected by TranZDVC to participate in a Matching Grant Facility, which has catapulted project farmers to greater heights.

With the improvements made on her farm, she can now be classified as a farmer who is on the rise, moving from a mere small-scale to medium-scale in less than two years.

During this period, Sithole has been improving her farm progressively. She started as a small-scale dairy farmer whose enterprise has grown into a medium-scale, and currently produces 308 litres of milk per day milking 14 cows, up from milking 120 litres of milk per day milking eight cows.

"My herd size is 45 and currently milking 12, averaging 20 litres per cow per day. Six cows are dry, another six are in-calf heifers, 12 are calves, six are bulls including one pure Simmentaler breed, and three are Tuli heifers to be experimentally crossed with the Simmentaler breed", said Sithole.

"I am grateful to the TranZDVC project for encouraging women like me to invest in dairy farming and realise the business opportunities in this farming enterprise," said Sithole.

She received two in- calf heifers sponsored by the Matching Grant Facility in 2021 and in turn, contributed two incalf heifers as her matching contribution. Sithole was also supported with a 70% contribution towards purchasing of pipes for gravity fed irrigation system, drawing water from a water source that is 4km away from the farm.

"I contributed US\$700 as my 30% match towards investing in the irrigation system and infrastructure. Previously, I struggled without an efficient water reticulation system. With improved water access, the cows now have adequate water and I am now able to grow fodder crops such as Rye Grass to feed the dairy cows" she



ISSUE 30: October 2021

From smallholder to medium-scale dairy farmers: Model dairy farmers lead the way



Milking in progress in Sithole's milking parlour.

The cost of feed is very expensive. Sithole is using only commercially purchased feed with no on-farm feed processing. The growing of fodder crops is expected to improve on-farm fodder production resulting in reduced cost of feed by about 25-30%. The irrigated fodder will also ensure that her dairy animals get adequate and nutritious feed for increased milk production.

She says she will continue growing forages because they provide feed for her dairy cows and improve the soil on the farm.

"With the combination of trainings I received from the project on fodder production, preservation, clean milk production, herd management, breeding and animal health, the path has been paved for my enterprise to grow bigger and better", Sithole adds.

TranZDVC's dairy farmer graduation model has resulted in at least three women dairy farmers transitioning from small to medium-scale production. The project integrates women inclusion in dairy production and equips them with prerequisite skills and knowledge to allow innovative women leadership in dairy value chains.

To achieve this, the project is using a holistic approach that includes herd rationalization, good animal husbandry practices (covering cattle nutrition, animal health, cattle breeding, linking farmers to input and output markets, as well as linking them to sources of credit to improve investments in dairy herds. Additionally, farmers also learn essential business development skills such as marketing intelligence, negotiation skills, and record-keeping to improve efficiencies when transacting with value chain players.



ISSUE 30: October 2021

Chibero Agricultural Centre of Excellence Enhances Learning Experience for Students



The Zimbabwe Agricultural Knowledge and Innovation Systems (ZAKIS) project also established the Chibero Agricultural Centre of Excellence (ChACE) to demonstrate best practice in crop and livestock production. Farmers can learn and adopt transformative agricultural methods to enhance production. The centre is also providing practical training for students at the college.

ChACE Coordinator and lecturer Clemence Tarubona said, "This college was established to teach practical agriculture, so most of the training that is given to students must be hands-on. However, the institution had for some time been unable to provide adequate practical training because our facilities were old, and the infrastructure was dilapidated. We did not have the necessary tools and facilities to teach effective practical lessons and so we would teach theory most of the time."

He said that with the help of the ZAKIS project, the college has managed to establish a centre of excellence, that boasts of refurbished infrastructure that includes fishponds, animal housing and solar-driven boreholes.

"The project also developed new facilities like the drip irrigation system and the five-hectare demonstration plot. This has had a big impact on the quality of education that we are now providing. It has made training and learning easier for both students and lecturers. Therefore, since its establishment, the centre of excellence has allowed us to deliver on our original mandate of hands-on practical training.

"In the past, we struggled to make students understand what we were trying to teach. But the centre of excellence allows us to deliver lectures in a practical way; we demonstrate to the students how things are done, and they learn by observing and following the example. This makes teaching more effective and the students' understanding of the subject matter and the concepts much easier," Tarubona said.

He added that since 2019, the college has used the centre's facilities to train three intakes, making 195 students drawn from across the country.



Rumbidzai Bodo (36), a final year student at Chibero Agricultural College said, "When I enrolled here in 2018 the college's training facilities were not in a good working condition, learning was difficult, we used to water the horticulture garden using buckets and we could not take practical lessons for most of the subjects.

"We now have practical lessons in most subjects and in horticulture we learned how to set up a drip irrigation system. We also had hands-on training in crop management, that is, the spraying, irrigation and fertilizer application for peas, tomatoes, beetroot, carrots, cabbages, and spinach. In the past, we could not do this because of water shortages.

"I want to venture into farming after graduating because I am confident that I will be good at it. I do not have land, but I will try to get a small piece of land and apply exactly what I learned at the Chibero Agricultural Centre of Excellence."

ISSUE 30: October 2021

Facilitating Access to Improved Pig Breed to Young Farmers



Based at Impofu farm in Ward II of Chegutu district, Mashonaland West province, Reward Mazorodze is a man on a mission, driven by a palpable passion for pig production. Reward is one of the youth farmers registered under the VALUE project to participate in the weaner to finisher scheme, an initiative to catapult youths and women into pig production through mentorship in production and marketing.

"I learnt about the project from our local Agritex officer who informed me about the project's thrust of youth and women inclusion in pig production through affordable access to weaners for finishing," said Reward.

Reward was part of the 102 youth and women farmers trained at the Pig Industry Board under the weeklong weaner to finisher business model training. The training encompassed other aspects of pig production such as pig breeds, artificial insemination, feed formulation, health checks and profit tracking.

Armed with the new knowledge, Reward booked through the provincial syndicate to purchase weaners from Braford farming.

"I joined forces with one of my neighbours and we purchased eight female piglets from the integrator with the intention of going into production.

The new genetics are very good and very responsive to feed, I am very impressed by their growth and am looking forward to start production using artificial insemination," said Reward.

In the near future, Reward hopes to expand his housing structures to accommodate a 20-sow unit and ventures into fish farming, set up a biogas digester and start horticulture projects.

"I am grateful for the support I am receiving from some of the more established farmers especially the women leaders who have taken me under their wings and are supporting me to grow my enterprise through capacity building and involving me in collective action to purchase vital inputs such as vaccines and feed components," added Reward.

Ensuring access to the improved breeds by small and medium producers is at the forefront of the project's efforts to improve production and is being done through sale of breeding stock and semen.

To date a total of 2,758 semen doses, 89 weaners and 68 FI and F2 gilts and boars have been sold to pig producers in Mashonaland East and West production corridors.



ISSUE 30: October 2021

Leveraging On Collective Action to Tackle Pig Production Challenges – The Story of Nyengeterai Rwenyu



Nyengeterai Rwenyu is a woman pig farmer based in Ward 23 Chegutu district, in Mashonaland West province working with other farmers under the Mashonaland West Pig Production Business Syndicate, a business organisation formed under the VALUE project.

Buffeted by several viability challenges such as unviable markets, low productivity of breeding stock, and high cost of purchasing critical inputs such as feed and drugs, Nyengeterai considered quitting pig production as solutions to these challenges seemed farfetched.

The coming in of the project brought new wind to the sails of her enterprise, the prospect of reducing cost of production through collective action, though new to Nyengeterai is one she quickly embraced and is beginning to bear fruits.

"Over the years, we had been accustomed to working individually and struggling to overcome the numerous challenges we were facing with limited success in that regard. That has now changed, working in groups we are now able to purchase inputs in bulk and enjoy discounts as a result," said Nyengeterai Rwenyu.

Access to Breeding Stock

In April 2020, the ZAGP VALUE project imported 244 pig breeding stock for propagation at the breeding centres to facilitate access to superior genetics by pig producers like Nyengeterai through sale of semen, breeding stock and weaners.

Together with other members of her group, Nyengeterai bought 20 pigs in the form of gilts, boars, and weaners to undertake fattening for markets and select breeding stock for revitalizing her waning genetics.

"I registered interest to purchase breeding stock though our district group with the intention of replacing my old genetics with the new imported breeds. I had initially bought weaners for finishing but having noticed their impressive growth rate I selected some for breeding and they are performing well."

Collective Action

To address logistical challenges faced by farmers, the project imported two ten-ton trucks for the two provincial business syndicates for input procurement and bulk marketing. Farmers like Nyengeterai who are registered into associations established by the project, are hiring the trucks at subsidized rates to procure bulk inputs at discounted rates.

"Working as a collective has been a game changer for us, for instance, we are procuring feed base mixes as a group, which means that the quantities are big thus ensuring that we get up to 5% discount on purchases," said Nyengeterai.

One of the challenges that small and medium scale farmers face relates to procurement of veterinary drugs which are available in high quantities, as such most farmers were no longer administering the drugs. Most of the drugs are available in fifty dose packages and therefore inappropriate for small and medium producers who have small herd sizes. To overcome this, farmers are coming together to purchase the drugs collectively.

Nyengeterai said "we are now vaccinating our pigs having started joint procurement of drugs, so instead of buying the whole 50-doses and throwing away what I don't use, I now pay for the doses I need, and we share the 50 doses as per farmer needs."



ISSUE 30: October 2021

Transforming Poultry Production Through Poultry Business Associations



The incubator has greatly changed my story. On the same 500 eggs, if I sell them as table eggs I get USD66.66 at USD4.00 per crate. If I sell as fertilised eggs, I earn USD99.99 at USD6.00 per crate. Finally, if incubated at a hatch rate of 60%, I get USD195 at USD0.65 per chick.

Pauline Tauro is a lead farmer in Seke district, Mashonaland East and the beneficiary of input supplies for on-farm feed formulation and a solar powered incubator under the Inclusive Poultry Value Chain (IPVC) project.

Pauline joined the Harare Poultry Business Association in 2019 when her batches at that time averaged 150 broilers.

Through training and sharing information with other poultry farmers in association, Pauline was inspired to grow her project realise more profit. At this time, her fowl run capacity was 400 birds, therefore, to increase her poultry capacity she had to invest in more poultry units. Currently, her poultry units have a carrying capacity of 2,000 birds.

In March 2020 Pauline decided to expand to dual purpose breeds (Sasso c431). Her first batch was on the 12th of April 2020 during COVID-19 lock down. She started with 200-day old chicks of Sasso c431 and after a month, purchased 500 more chicks of the same breed.

At 12 weeks her first flock was ready and sold to local farmers for meat and egg production. She then started selling table eggs and later realised she could get more money through selling fertilized eggs. Table eggs were selling at USD3.00 at that time, whilst fertilised eggs ranged from USD6.00 to USD10.00 per crate.

Through the project intervention, in November 2020 Pauline received a 500-egg incubator, enabling her to produce her own day-old chicks as well as hatch and sell to other farmers.

"The incubator has greatly changed my story. On the same 500 eggs, if I sell them as table eggs I get USD66.66 at USD4.00 per crate. If I sell as fertilised eggs, I realise USD99.99 at USD6.00 per crate. Finally, if incubated at a hatch rate of 60%, I get USD195 at USD0.65 per chick." Said Pauline Tauro

Pauline is one of the project's lead farmers who received inputs for own-feed formulation. The inputs included maize, and soya bean seed, pesticides, and other chemicals. To date, she has formulated a total of 5 tonnes of finisher and grower feed.

Pauline says she is saving a total of USD \$140 per every tonne of feed formulated, as compared to buying straight feed from the retailers. Now, she has managed to reach out to 64 farmers in her area and has trained them on own-feed formulation.



ISSUE 30: October 2021

SAFE Strengthening Animal Health Services



Tick Borne Disease Vaccine Production Unit Gets a Major Boost

Tick borne diseases and of recent, Theileria have been raging havoc in the country decimating the cattle herd and affecting the livelihoods of farmers. In response to this and as a pathway to start implementation of one of the strategic interventions in tick borne disease control, the <u>Transforming Zimbabwe's Animal Health and Food Safety Systems for the Future (SAFE)</u> project is supporting the resuscitation of the Theileria vaccine production at the Department of Veterinary Services (DVS). Support is in the form of equipment such as humidifiers, tick dissection kits and rehabilitation of tick production unit to ensure proper biosecurity features has been rendered through the project.



Listen to Dr Emily Waniwa, the Head of the Tick Borne Disease Vaccine Production unit talking about this development.

Countrywide Epidemiological Units Maps for Disease Management Established

The SAFE project supported DVS with training on epidemiological unit mapping in the country. Whilst all critical epidemiological units across the country have been mapped, other provinces such as Manicaland have further extended the skills gained in their line of work. The province has created electronic forms for disease reporting and, overall, this training has improved efficiency in their line of work. Compilation of animal disease data that would take at least six hours in the past, can now be done in 30 minutes.



Listen to Dr Innocent Chabanga, the Manicaland provincial Epidemiologist talking about the importance of epi-unit maps to DVS.

Capacity for Animal Health and Food Safety Frontline Staff is Enhanced through Curriculum Review

In collaboration with ZAKIS, the SAFE project focused on review of the Mazowe Veterinary College curriculum. The revised curriculum for animal health extension staff was successfully launched. On the other hand, the SAFE project worked closely with the Department of Environmental Health (DEH) for the review of curriculum for food safety frontline staff. The revised curriculum has been adopted for use starting in January 2022. The revisions seek to align training of frontline staff with international best practices adapted to the local context.

The Newsletter for the Zimbabwe Agricultural Growth Programme (ZAGP)

ISSUE 30: October 2021

PROJECT NEWS









- 1. The official opening of the Masvingo live bird and egg market at Chitima market under the IPVC project. The facility has a capacity of 1,584 birds and stainless tables for egg trays. It is expected that with monthly trading volumes of 2000 birds at the live bird market, there entity should be able to operate viably through levying user fee to poultry traders.
- 2. The launch of the Mathambo Cattle Business Centre (CBC) in Lupane district, Matabeleland South Province. The BEST project has established CBCs as beef value chain services hubs for production, extension and marketing activities. <u>Read more.</u>
- 3. Hon. Vangelis Haritatos, Deputy Minister in the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development and Hon. Mary Mliswa, Minister of State for Mashonaland West Provincial Affairs and Devolution on a tour of Braford Farm in Chegutu district, Mashonaland West province during the launch of the pig Artificial Insemination Station under the VALUE project. The AI station is one of two established by the project in Mashonaland East and West pig production corridors. The AI stations will facilitate easy and localised access to top quality pig genetics by small and medium pig producers in the production corridors. Read more.
- 4. Hon. Vangelis Haritatos officially opening the Agriculture Ward Information Centres in Matabeleland South Province. The ward information centres established by the ZAKIS project will reach over 100,000 farmers in four districts, sharing agricultural knowledge and innovations. Watch video of the proceedings.