



ZAGP News

The Newsletter for the Zimbabwe Agricultural Growth Programme (ZAGP)

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EDITORIAL

We welcome you to the 19th issue of ZAGP News, the newsletter for the Zimbabwe Agricultural Growth Programme (ZAGP).

Information and Communications Technologies (ICTs) are playing a critical role driving development across different economic sectors. ICTs applied in the agriculture sector are offering opportunities for efficiency, improved productivity and profitability. Across the African continent, the use of ICTs is having positive impacts and transforming the lives of millions of farmers and entrepreneurs.

This month, we focus on the ICT innovations being implemented across the six projects under ZAGP. Realising that ICTs can be a game changer in tackling some of the bottlenecks affecting Zimbabwe's livestock sector, the projects are implementing innovative ICT solutions targeting all players across the different livestock value chains. These include farmers, private sector players, government, extension services and research and academic institutions among others.

ICTs that include mobile applications and information systems have been embedded in ZAGP's interventions to address key areas such as bridging knowledge gaps, optimising production, access to markets and awareness of up-to-date market information and strengthening capacities.

Zimbabwe's mobile and internet penetration rates are providing a fertile ground for the deployment of the ICT solutions. According to the Postal and Telecommunications Regulatory Authority of Zimbabwe (POTRAZ), the mobile penetration rate is at 87.8% (12,798,298 active mobile subscriptions). The Internet penetration rate is at 56.7% (8,267,268 active internet and data subscriptions).

We also feature success stories from the TranZDVC and VALUE projects.

Cover Photo: Juwanyira Ruramai- Insiza extension officer going through the Kurima Mari mobile application.

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Livestock Identification and Traceability System (LITS) to Enhance Disease Surveillance and Reporting

The Transforming Zimbabwe's Animal Health and Food Safety Systems for the Future (SAFE) project is developing an integrated information management system to enable value chains and stakeholders to receive up-to-date information on disease outbreaks, rangeland monitoring, market regulations, prices, supply and demand, weather, advisory tips, credit risk management, financial management, etc.

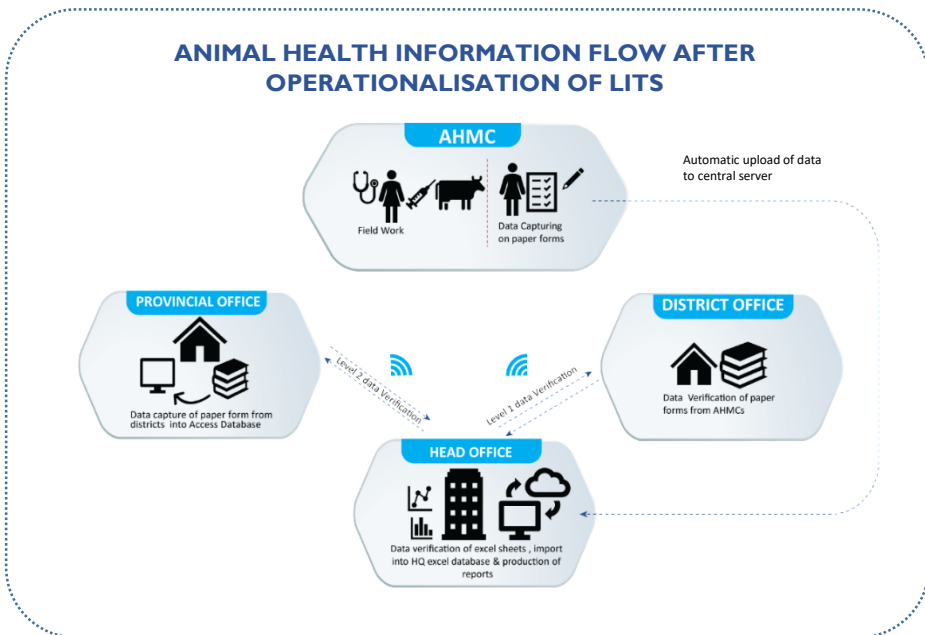
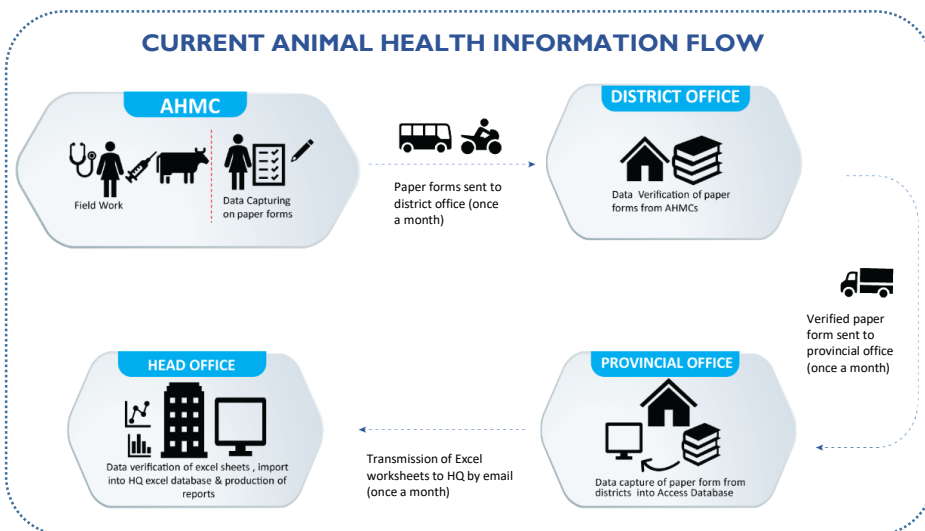
This will enhance disease surveillance and reporting as well as serving as the basis for the establishment of a comprehensive Livestock Identification and Traceability system (LITS).

CHALLENGES

- Current paper-based system is costly and labour intensive
- Too many mistakes at data entry makes data validation cumbersome and labour intensive
- Delays in data transmission from the field to province for data entry into database
- HQ has to manually import excel data from provinces into central database
- Reports are generated manually

SYSTEM FEATURES

- Web based system managed from central server that is accessible on computer or smart phone with provision for offline data capture
- Electronic data capturing on a mobile app
- Inbuilt validation to minimise mistakes
- Real time data transmission to server
- Inbuilt prompts for data validation
- Automatic generation of pre-formatted reports



*AHMC – Animal Health Management Centre

LITS TIMELINE

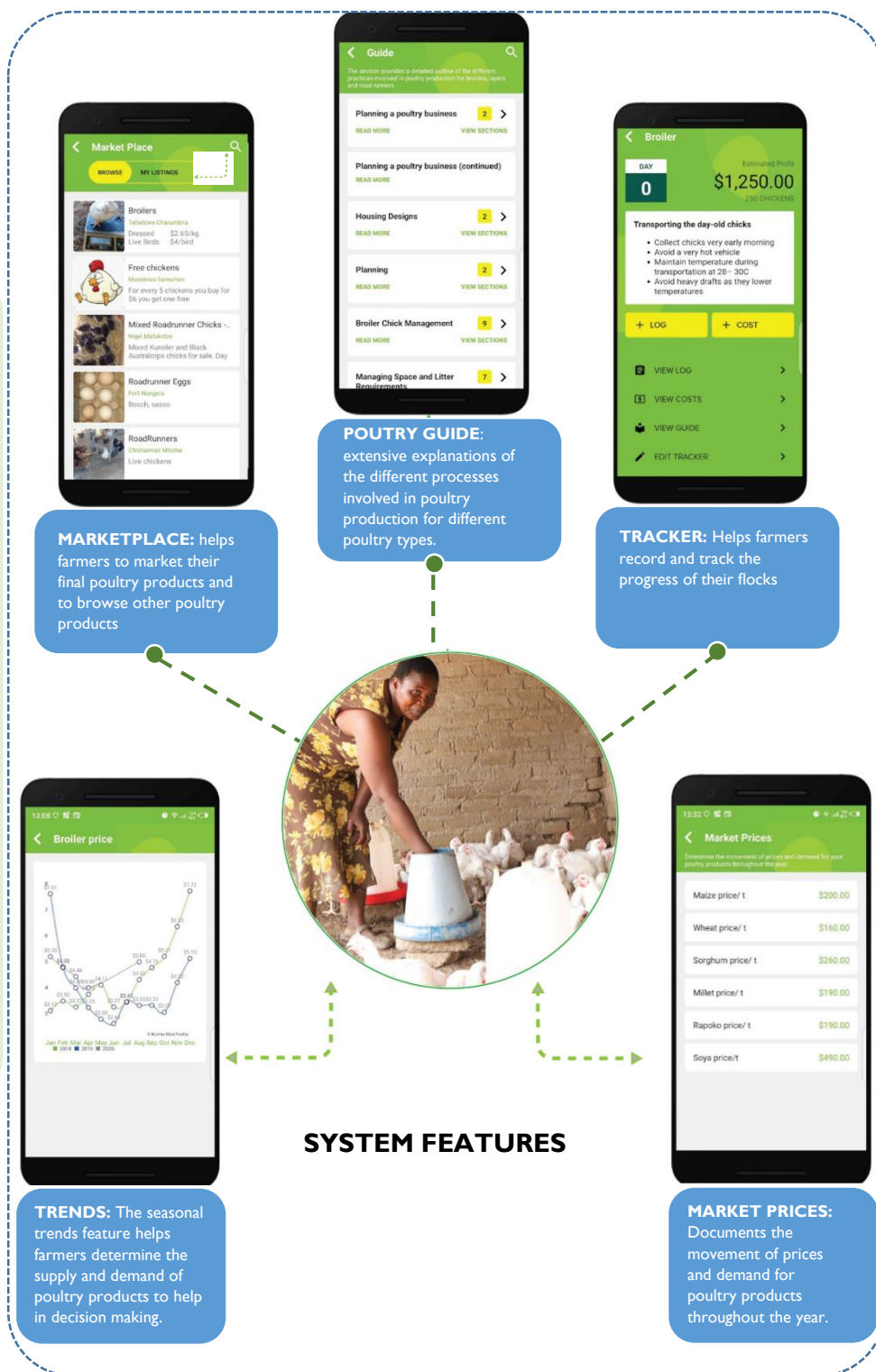


Kurima Mari Poultry App: Digital Extension for Poultry Producers

The Inclusive Poultry Value Chain (IPVC) project has developed and deployed the Kurima Mari Poultry Application (App). Farmers are able to download the app which educates and trains them on broiler and layer production.

The app includes information on genetics, disease prevention, feed, good husbandry practices and marketing. The app will include videos, podcasts and manuals and a tracker to guide farmers in real time on a day to day basis to track the weight their chickens have achieved and thereby trigger early warning of any problem with food conversion ratios.

The roll-out of the app will be done in the five IPVC clusters in Gweru, Harare, Mutare, Bulawayo and Masvingo reaching 10,000 poultry



Pig Vision System to Boost Pig Production Levels

The Value Chain Alliance for Livestock Upgrading and Empowerment (VALUE) project is implementing Pig Vision, a software application targeted at players across the Pork Value Chain.

The system which has been rolled-out at the two integrator sites in Mashonaland East and West provinces, records and manages every element of herd performance.

REACH

- Two Project integrators,
- 18 champion farmers
- 40 anchor farmers
- 1000 Pig Producer Business Syndicate members in Mashonaland East and West provinces



SYSTEM FEATURES

- A practical tool for quick and accurate insight into a farmer's current farm production levels.
- All pig information can be combined in a handy dashboard with clear overviews and diagrams.
- User friendly functions. For example, production report, calculations behind formulas, medications, manuals, filter and sorting, window setting up to match individual needs, action list and benchmarking.



CHALLENGES

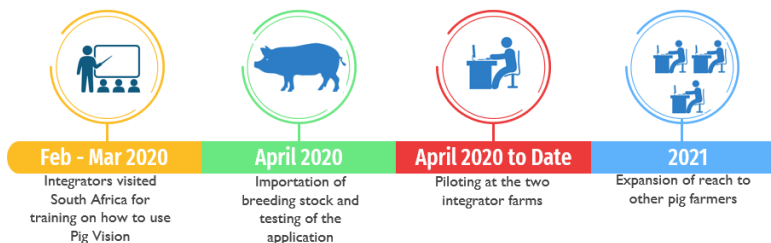


- Most small and medium pig producers have challenges in keeping up to date and accurate records
- Challenges in calculating drug dosages to be administered to pigs
- Lack of appropriate technological intervention in local pig breeders

BUSINESS MODEL/ SUSTAINABILITY

- VALUE integrators were trained on how to lay out the software to suit type of data to be entered (e.g. servicing, farrowing, weaning, vaccinations, marketing). Training also focused on how data can be entered (daily or weekly depending on farm production policy), data validation, data processing and reporting.
- For sustainability, the developer who is also the supplier of the 245 improved pig breeding stock, Danbred shared user rights for Pig Industry Board and the two integrators to practice and utilize the application in Zimbabwe for free. Danbred promised to offer technical support where necessary
- The business model is such that other project participating farmers can also use the application at a fee range of Euro1 to Euro 1.5 per sow per year.

Pig Vision Timeline



Braford Farm Production Manager (centre) and Pork Industry Board (PIB) Director (right) at Danbred in February 2020 where they received training on how to use the Pig Vision Application.

“For producers, Pig Vision is an excellent application to help manage your breeding and production herds, lessening the amount of time spent on physical record keeping and time taken to record information. Using the Pig Vision application is a good way to safeguard information, as manual record keeping methods such as recording in books can lead to information being easy misplaced, or destroyed.”

Munyaradzi Chauruka Production Manager at Shamiso Farm (Mashonaland East Pork Value Chain Integrator).

Kurima Mari Beef App for Cattle Producers



Information and Communication Technologies for Development (ICT4D) is an important component of under the Beef Enterprise Strengthening and Transformation Enterprise (BEST) project.

The project is developing and rolling out the Kurima Mari Beef mobile application roll out the Kurima Mari Beef Enterprise Strengthening and Transformation App, targeting at least 20,000 users across the 10 districts where BEST is operating.



Livestock Information Management System (LIMS)

BEST is also establishing an online Livestock Information Management System (LIMS). This will be an immense support to the beef subsector. Currently a lack of information and data restricts its development.

Challenges

Data transmission: The lengthy process of transmission of data from the farming communities to the national office results in the data being out of date before reaching the national office. The lack of real time data limits the capacity of the government or private sector to respond to any livestock related challenges in time.

- The system will address the challenges listed below:
 - Need for rapid response to prevent spread of diseases
 - Need for a system to monitor and curb illegal cattle movement (Movement permits)



System Features

The livestock information management system will have smartphone friendly data input platforms that capture:

- Animal movement
- Animal weight
- Animal diseases
- Market share data
- The system will firstly be piloted in the 10 districts that BEST is operating and later implemented at national level
- The functionality of the system will be supported by government as well as private sector players subscribing for key information

LIMS Operational Model



Dairy Sector Performance Monitoring Database

To improve enabling environment for a sustainable and inclusive dairy value chain, the Transforming Zimbabwe's Dairy Value Chain for the Future (TranZDVC) project is establishing the performance monitoring and evaluation framework for the dairy sector. Under this activity, TranZDVC is setting up a digital data gathering system to facilitate the development or improvement of a dairy sector performance database.

The objective is to strengthen existing information platforms whereby various actors within the dairy value chain are, at the same time, providers as well as users of information to advance their respective and collective interests.

TranZDVC has developed the electronic platform to capture relevant information on the dairy industry. The information would include performance statistics on core value chain actors (medium and large-scale dairy farmers, small and large-scale processors and dairy service providers).

CHALLENGES

- Availability of dairy sector information.
- The flow of information in the sector through bulk email system and automated notifications and reminders.
- No dairy data on the Ministry of agriculture's performance monitoring framework.
- High costs and effort required to collect, collate and process dairy sector data.

SYSTEM FEATURES

- Increases the availability of dairy sector information and reports through an online database.
- Increase the flow of information in the sector through bulk email system and automated notifications and reminders.
- System will feed into the ministry of agriculture's performance monitoring framework to allow to real time performance monitoring.
- The system reduces total costs required to collect, collate and process dairy sector data through electronic data collection, submission and storage system.

BUSINESS MODEL/ SUSTAINABILITY

OPTION 1: The system will be hosted at the Ministry of agriculture's servers and will use available resources which are;

- Human resources: 2 systems support officers, 2 database Administrators, 3 senior systems officers, and 3 ICT technicians.
- Computing resources: two 64-core processor, 128Gigabyte RAM, and 32 Terabyte SSD hard drives servers.
- Financial resources: The ministry's ICT department has financial budget allocation on the Ministry of Agriculture's allocation from the Ministry of Finance.

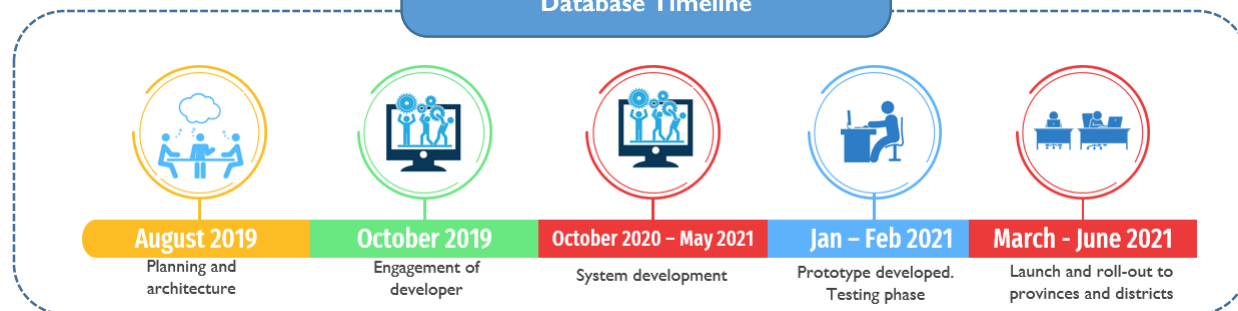
OPTION 2: If the ministry should fail to cater for the running and maintenance costs, Zimbabwe Dairy Industry Trust (ZDIT) has committed to meet all the arising system related needs. ZDIT itself receives 0.25% of total milk sales as a levy for its fund (estimated at USD 8450 per month).



REACH

- Small, medium and large scale farmers.
- Processors
- Retailers
- 38 Government extension staff nation-wide.
- Farmer organisations (ZADF, ZFU).
- Ministry of Agriculture National M&E framework

Database Timeline

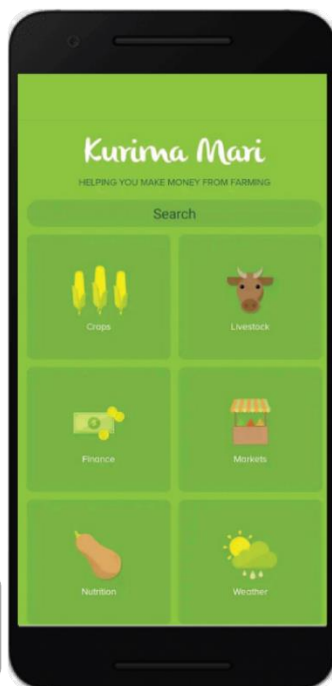


Kurima Mari Connecting Farmers and Extension Staff

The Kurima Mari application is an agriculture-based digital extension tool for smart phones designed to assist farmers and extension field officers. The Zimbabwe Agriculture Knowledge and Innovation Systems (ZAKIS) project has deployed Kurima Mari as a value chain focused and market oriented app to connect farmers and extension staff to local market actors.

The app includes downloadable production guides in English and vernacular languages; finance and market information, including price trend analysis and gross margin calculator for specific crops and livestock.

The app also features a 'Market Place' component, facilitating advertising for farmers and paid priority advertising for the private sector.



CHALLENGES

- Farmers do not have sufficient contact time with agricultural extension workers
- Extension workers do not have simple farmer referral material. They depend on donations from the private sector and NGOs for referral material
- Extension worker to farmer ratio is on average 1:800, making it impossible for the extension worker to adequately cover farmers
- As a result, farmers' production, productivity and viability is lower than their potential

SYSTEM FEATURES

- The application helps farmers to enhance their production, productivity and marketing capabilities
- Contains crops and livestock value chain information, market place, library, videos and podcasts. It also has a gross margin calculator, market and input contacts, nutrition advisory and other advisory information
- Works through farmers and extension workers having an Android application which is accessible on an offline basis and has a library which users can tap into when they want information on a particular value chain

BUSINESS MODEL/ SUSTAINABILITY

Zimbabwe Farmers Union (ZFU) have agreed to be the initial partner of the application's management. The long term plan gradually handover of the system to ZFU to ensure sustainability. The maintenance costs will be absorbed under the ZFU's subscription model.



“As an extension officer, I have always struggled with getting sufficient hand out material to give to farmers,” says Juwanyira Ruramai an extension officer from Insiza. “Even if I did have pamphlets from the private sector, their shelf life was very short. Thanks to the Kurima Mari application though, I can now give farmers the application and they can search for the information they that need even in my absence.

This is very helpful as I have to serve more than 400 households. So with the application, the farmers are never stranded for information. I can quickly refer to the app and get the insights I need to go and train my farmers.



PROJECT NEWS

Small-scale Dairy Farmers taking Dairying as a Business



Taona Rusere, of Tadence Farming Private Limited, in Marirangwe area in Chikomba district, in Mashonaland East Province, has won the ZADF's top award of Small-scale Dairy Farmer of the Year for 2019, just three years after venturing into commercial dairying.

He is milking 19 cows and producing 400-450 litres a day. Plans are underway to increase production to 500 litres of milk per day, especially during the wet season. Rusere is continuously learning from TranZDVC's approach of demonstrating effective, efficient, and profitable ways to feed dairy cows.

Read more about how Rusere has transformed his dairy production enterprise: <https://bit.ly/32Y85Nb>

Increased Incomes and Attractive Market for Chitomborwizi Dairy Farming Network



Claudius Burira, of Chitomborwizi small-scale farming area in Makonde district in Mashonaland West Province, received six heifers this year from the Matching Grant Facility. He had already started attending project trainings. In just a few months, he had learnt how to better take care of cows to increase milk production at his farm.

TranZDVC is assisting dairy farmers to overcome production obstacles through matching grants to offer assistance to purchase dairy cows in project-supported communities.

Follow the link below to learn more about Burira's dramatic improvements in milk production: <https://bit.ly/35KnjXW>

Young Couple's Dream of Renovating Pig Sties Realised through the Livestock Matching Grant Programme



Tucked away at the base of a small hill and surrounded by several species of indigenous trees lie modest housing structures a stone throw from which are located old pig sties being spruced up by a joyful bunch of builders. This is Junior Gwata's house – an energetic young woman from Murehwa district's ward 9, she has run this pig enterprise since 2005 with her husband.

"We started this project in 2005 with a two-sow unit and have gradually grown it to the current 14-sow unit that you can see. In our journey we have been faced with several challenges include high feed costs, erratic water supply and an aging infrastructure," says Junior.

Having been selected to participate in VALUE project, Junior underwent comprehensive training on how to run a commercially viable pig enterprise, animal health, biosecurity, appropriate animal housing, among others.

Read more about the Gwatas' journey to improved pig production: <https://bit.ly/3nD2qUn>

ONLINE RESOURCES

PROJECT NEWSLETTERS



[Download BEST Newsletter](#)



[Download VALUE News](#)



[Download TranZDVC Bulletin](#)

ZAGP IN THE NEWS

[ZAKIS Project strengthens agricultural education, extension, and research](#)

[Agritex officers receive horticulture training](#)

[Private sector roped in to rebuild national herd](#)

SOCIAL MEDIA



- [Zimbabwe Agricultural Growth Programme \(ZAGP\)](#)
- [Beef Enterprise Strengthening and Transformation \(BEST\)](#)
- [Inclusive Poultry Value Chain \(IPVC\)](#)
- [Transforming Zimbabwe's Dairy Value Chain for the Future \(TranZDVC\)](#)
- [Value Chain Alliance for Livestock Upgrading and Empowerment \(VALUE\)](#)
- [Zimbabwe Agricultural Knowledge and Innovation Services \(ZAKIS\)](#)



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