

Zimbabwe Farmers Union's Position on the Role of Extension in Dairy Production and Marketing

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About Zimbabwe Farmers Union

The Union is registered under the Farmers Licencing and Levies Act [Chapter 18:10]. Its mandate is to promote and advance farmers' interests and welfare through; representation, networking, information dissemination, capacity building, formation of commercially viable agricultural enterprises, environmental awareness, Gender, HIV and AIDS mainstreaming, and Farmer mobilization and organization.

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Introduction

This paper derives from a study (hereinafter referred to as “the study”) commissioned by the Zimbabwe Farmers Union (ZFU) under the European Union funded project “Transforming Zimbabwe’s Dairy Value Chain (TranZDVC)” under the Zimbabwe Agriculture Growth Programme (ZAGP). A consortium consisting of We Effect, the lead agency, ZFU, ZIDT and ZADF, is implementing the Dairy project. The overall aim of the project is to contribute to the development of a diversified and efficient agriculture sector that promotes inclusive green economic growth which will strengthen understanding and regular measurement of Dairy Value Chain (DVC) performance while also enabling actors in the DVC to improve their performance through upgrading and/or scaling up activities.

The study focused on the role of extension in dairy production and marketing in Zimbabwe.

The growing milk market and demand of its related products has been an inducement for smallholder farmers to participate in the dairy value chain. However, milk intake from smallholder farmers is still elusive at 5% of the annual milk intake (TranZDVC, 2019). Washaya and Chifamba (2018) identified several factors that limit optimum milk production in smallholder dairy farming, among which, weak extension support and lack of farmer involvement in production planning are key. The degree to which these challenges affect smallholder dairy farmers is not clear. Notwithstanding that several reasons have been identified to limit optimum milk production among smallholder farmers, weak extension support has been singled out as among the main drivers of the challenges smallholder dairy farmers are facing. University of Greenwich (2012) indicated that agricultural extension economic impact studies have also revealed that specialized extension service is key in improving farm productivity and profits. Farmers and other actors in the dairy value chain need specialized information and advice about production, post-harvest, processing, marketing, management, finances and business strategy. Thus, value chain approach for modern extension is key as it can be used for inclusion of vulnerable farmers who are seeking basic market linkages with a local informal buyer up to sophisticated value chain players seeking penetration into export markets.

Key Issues

1.1 Extension service providers in the Zimbabwe dairy value chain.

According to information obtained from key informants, both the public and private extension service providers play a critical role in the dairy value chain as they play a complementary role. The main public extension providers include Dairy Development Programme (DDP), Department of Agricultural, Technical and Extension Services (AGRITEX), Department of Research and Specialist Services (DR&SS), Department of Veterinary Services, Rural district councils, University of Zimbabwe, Zimbabwe Dairy Services Agency (ZDSA).

The main non-public extension service providers in the dairy value chain are the Commercial Farmers' Union (CFU), ZFU, ZADF, Zimbabwe Fertilizer Company Private Limited (ZFC), Zimbabwe Livestock Development program-USAID, and Heifer Project International. These organizations cooperate with other stakeholders in the dairy value chain and have a role in influencing policy on research, pricing, extension, marketing, and financing.

Thus, adopting a value chain approach to modern extension service provision is key since it can be used for inclusion of vulnerable farmers who are seeking basic market linkages with local buyers up to sophisticated large-scale producers seeking linkages with export markets.

1.2 Demand for and supply of specialised dairy extension services in Zimbabwe

Some key informants indicated that there might be growing demand for specialized dairy production and marketing given the continued low milk productivity from farmers and in particular the small-scale farmers (old resettlement communal, A1) but there is however inadequate provision of dairy specialized extension both from government and private sector. Some farmers indicated during FGDs that they are now relying on researching on internet about dairy production and marketing from world renowned countries such as New Zealand and Canada. The problem is that the farmers then fail to customize and contextualize the knowledge to their local circumstances. Farmers indicated during FGDs that the current extension officers are mainly from AGRITEX, who lack specialized dairy extension as the current AGRITEX (formerly LPD officers) were mainly knowledgeable in general aspects of crop and livestock production. Very few tertiary institutions like Blackforby and Kushinga Phekelela are offering short course trainings on dairy production and marketing to farmers.

ZFU recommends that extension officers are given additional trainings in marketing and business development skills to assist farmers with capacities for improved productivity and viability of dairy farming. It would be very beneficial also if all agriculture colleges given offer dairy short courses to farmers or lead farmers at an affordable cost.

1.3 Appropriateness of extension training curriculum

In terms of adequacy, relevance, appropriateness and effectiveness of the college and in-service extension training curriculum for specialised dairy production and marketing, key informants at institutions of higher learning such as agriculture colleges have indicated that they have teaching and learning modules that cover dairy production and marketing issues. However, they concur that there is general lack of specialized dairy extension training programmes in these tertiary institutions of higher learning. Some level of specialization begins at postgraduate level. For example, at the University of Zimbabwe, full degree programme specialization is only offered at Masters level (i.e. MSc in Dairy Production and Technology) and has some component on dairy production and marketing. However, qualified postgraduate degree holders may not be willing to work at MCCs in communal areas, where viability is a huge challenge. As a result, key informants consulted contend that such kind of specialization should have been ideally introduced at certificate and at

diploma levels, whose graduates might be amenable to working with rural-based MCCs.

Also noted during the study is that the Government of Zimbabwe, through support from the EU funded Zimbabwe Agriculture Knowledge and Information Services (ZAKIS) project, has undertaken a comprehensive curriculum review for agriculture colleges to make it more appropriate in responding to the needs of the evolving agricultural sector. A Dairy Science and Technology module will be piloted at Gwebi Agricultural College (MLAFWRR, 2021a) covering topics on the whole dairy value chain from the production of inputs such as silage and pasture grasses, milk production and ultimately, value addition.

ZFU recommends that the Ministry of Higher and Tertiary Education together with the department of AGRITEX develop the dairy departments of the colleges in terms of infrastructure to ensure effective training of the extension officers with adequate exposure to current technologies.

1.4 Research-extension-farmer linkages in smallholder dairy value chain

Adoption of scale-appropriate dairy technologies has remained low due to limited involvement of the smallholder dairy farmers in research prioritization, implementation, and evaluation. According to key informants, there are no well pronounced research-extension-farmer linkages in support of the dairy value chain. For instance, it was highlighted that while the DR&SS does good research in pastures and farm feeds through its dairy section, there is very little initiatives aimed at dissemination and replication of the research demonstrations at the MCC and farmer levels mainly due to limited funding and weak research-extension linkages. Farmers consulted during the FGDs also could not confirm knowledge of existence of any of the livestock-oriented public agricultural research stations such as Henderson, Grasslands and Matopos institutions' outreach programmes on the ground. Only a few initiatives on fodder demonstration plots and feed formulation trials that are being championed by donor-funded projects like the ZAGP TranZDVC project are visible. The recommendation by these key informants is for the dairy farmers to make concerted efforts through their farmer representative organizations and extension agents to reach out to research DRSS institutions for vital knowledge and technologies, particularly on low-cost feed formulation and processing options as well as accessing improved dairy genetics.

ZFU is advocating that dairy-focused research units within the MLAFWRD should incorporate farmers' concerns and prioritize dairy marketing, value addition and product development. Thus, the Government of Zimbabwe should also adequately support and fully equip these units like the Dairy Services with relevant laboratory and processing equipment to enable them to generate demanded appropriate technologies.

1.5 Adequacy of national budget allocations for extension services.

The government of Zimbabwe allocated 19% and 12% of the National Budgets 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 extension, advisory

services has continued to significantly drop over the years from a peak of 15% in 2013 to 2% in 2017 of the total agriculture budgets (World Bank, 2019).

ZFU is advocating for an increase in the budget allocation towards enhancing access to extension service especially for dairy farmers.

1.6 Review of Dairy Value Chain Policies and Programs

The Zimbabwe dairy sector has undergone significant transformation post-independence owing to several macro and microeconomic policy changes. The period 1980 to 1989 was characterised by a single marketing system where the Dairy Marketing Board (DMB) had monopoly in purchase, processing, distribution, and trading of dairy products. Prices were determined pan seasonally and pan territorially. The DMB was subsidised as there were price controls to achieve growth with equity. The Agricultural and Rural Development Authority (ARDA) was mandated to spearhead commercialization of this project. At inception, the program was funded by the Norwegian Agency for Development (NORAD), Africa Now (UK), the Danish International Development Agency (DANIDA), Heifer Project International (HP) and the Government of Zimbabwe through the Public Sector Investment Program (PSIP). The growth with equity objective adopted at independence sought to bring on board these disadvantaged subsectors into the mainstream economy with the view to improve productivity and participation in formal markets. In 1983, the government established Dairy Development Programme (DDP) whose mandate was to set up smallholder dairy schemes with participation from communal, small-scale and resettled farmers (Chamboko, 2019). The DDP started as a branch of the then DMB established to spearhead the development of organized smallholder schemes and milk processing centers. Since its inception to date, the DDP has managed to set up 24 smallholder dairy schemes (17 of which embarked on processing and marketing various milk products) with membership of 1,750 smallholder farmers (SNV, 2012). Though, some schemes later became dysfunctional during the hyperinflationary period that ensued between 2007 and 2008. The Economic Structural Adjustment Programme (ESAP) a prescribed policy package inspired by World Bank (WB) and the International Monetary Fund (IMF), launched in the 1990s resulted in the market liberalization of agricultural commodities including dairy (Kawewe & Dibie, 2000). DMB, which had a monopoly in domestic and external markets of all dairy products was then at first commercialized in 1993 and then fully privatized in 1996. The liberalization of the dairy sector created the opportunity for smallholders to partake in the emerging dairy value chain dominated previously by large-scale commercial farmers (Jansen & Koech, 2016). The government was to support the smallholder farmers in the liberalized dairy sector with extension services as well. However, the drastic cuts in national budgets and belt-tightening for government agencies during that period has been argued that several government services, including the agricultural extension, were supposed to be commercialized. In line with privatization ethics and efforts to improve efficiency, it was argued further that government can reduce its service provision to allow the NGOs and private companies to provide extension services. Enhancing participation by NGOs and private players were expected to avail alternative extension services to smallholder farmers (Hanyani-Mlambo, 2000). Collaborations in the last two decades, where partner organizations shared skills, technical knowledge, information and resources, experiences, and best practices resulted in saving of resources due to elimination of duplications. This was achieved through participation of several NGOs

and donors (e.g. Technoserve, Land O'Lakes, EU-STABEX, USAID-ZimACP and -Fintrac, EU-ZAGP)

Thus, the smallholder dairy sector started to be developed as a poverty alleviation tool and a method to raise farm incomes, improved nutrition and employment in rural areas. Numerous “schemes” were set up in the 1990s often with subsidies to cover running costs, and administered by government departments and parastatals. During this period, a total of 35 sites were set up nationally. Whilst only a few currently remain operational, the majority of them never opened owing to lack of buy in from all stakeholders. The private sector saw such projects as a corporate social responsibility rather than viable business that could supply quality products. Many of the site selection criteria did not take into account markets, or location of dairy farmers leading to substantial subsidies being required to cover transport and running costs of the MCCs. With the hyperinflation of the 2000s, nearly all the MCCs stopped functioning as the subsidies could no longer be provided and markets imploded. The introduction of the multi-currency system in 2009 saw seven DDP centres reopening courtesy of funding from the European Union (EU) under the Stabex Project, which was administered by the National Association of Dairy Farmers (NADF). The project approach has been criticized by some analysts for focusing more on trying to increase production of milk than on aspects of market linkages and financial management and inclusion of the MCCs and farmers.

Recently, the private sector in particular milk processing companies such as Nestle Zimbabwe, Dairibord Zimbabwe Holdings, and Dendairy, has embarked on significant development of small, medium, and large-scale farmers across the country through heifer importation and distribution programs to boost milk production. For instance, Dairibord Zimbabwe Holdings reported an 8% increase in milk supply in 2015 as a result of implementation of the heifer program.

From June 2015 to October 2020, Fintrac implemented the USAID funded Feed the Future Zimbabwe Livestock Development program in collaboration with local private companies, non-governmental organizations (NGOs), the LPD, AGRITEX, DVS, and other government departments involved in the dairy value chains in agroecological regions (NRs) III, IV, and V. Local NGOs and commercial companies worked with the program as development partners to co-fund purchases of essential inputs and new technologies for demonstration purposes on a cost-recovery basis. In summary, the Feed the Future Zimbabwe Livestock Development Program was a market-driven program that worked closely with SME and large-scale buyers to stimulate demand and increase competition for smallholder dairy products in Chirumhanzu, Gokwe South, Gweru, Kwekwe, and Umzingwane districts. In terms of extension, the dairy farmers have been receiving extension support through a locally based extension officer who provides technical support to MCCs.

Currently, the Zimbabwean dairy subsector principally consists of large-scale commercial, small-scale commercial and communal smallholder dairy producers. The principal dairy farmers are large-scale commercial farmers who contribute over 95% of the national formally marketed milk while small holder dairy farmers contribute as low as 5% to the formal market (TranZDVC, 2019). Smallholder producers usually deliver their milk through MCCs. Over the recent years, the dairy sub-sector has witnessed massive decline in production, with the country's milk production, which once peaked at about 260 million litres of milk per year in 1998, slumping to 39 million litres in 2009 (SNV, 2012). Production has gradually risen to 54 million litres in 2014 and reaching almost 80 million litres in 2019 and 77 million litres in 2020 against a national target of 150 million litres and a local processing capacity of 300

million litres per annum (MLAFWRR, 2021b). The gap implies that the dairy sub sector has an opportunity for import substitution through improved competitiveness and increased production (Chari and Sibongiseni, 2019). Causes of low productivity in the dairy value chain over all these years have been identified as the harsh economic environment, poor performance of the extension and advisory services, lack of financial support, lack of access to good quality breeding cows and heifers, poor marketing channels, poor disease control methods, inadequate infrastructure, limited technical knowhow, recurrent droughts, which have led to inadequate feed supply and reduced demand due to COVID 19 restrictions (MLAFWRR, 2021a; Chamboko, 2019; Washaya and Chifamba (2018). Nationally, the dairy herd has declined by 83% since 2000 and the current herd stands at 16,000 (GoZ, 2020). An effective extension delivery system can play a very crucial role in addressing most of these constraints through building the capacity of farmers to adequately respond to these challenges and ensure that milk production and marketing needs are adequately met.

Policy Recommendations

The following specific recommendations can be drawn from the findings:

- The MLAFWRR 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 need to come up with training programs 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 need to design and promote participatory R&D programs for collaborative implementation with farmers e.g., on-farm demonstration of least-cost feed formulation, product development, value addition, etc.
- Department of Strategic Policy Planning and Business Development should roll out tailor-made business development programs 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.
- Institutions of higher learning in agriculture should design and offer specialized dairy programs at certificate, diploma, and degree levels coupled with installation of infrastructure 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.

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Note: The detailed policy study report on the role of extension in dairy production and marketing is available [Here](#)