



**Smallholder irrigation
schemes and the
potential the Lowveld
offers to the
Agriculture sector in
Zimbabwe**

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The adoption of irrigation schemes is an essential policy to eradicate poverty and improve food security for many governments across Africa. The Zimbabwean government in partnership with other stakeholders under private and non-governmental organizations, has made great strides to fund the development of irrigation schemes in semi-arid regions which often face recurring dry spells. It can be noted that agricultural communities globally, regionally and locally are facing the devastating effects of climate change, and the only way to sustain food systems in these environments is by supplementing irrigation water. These irrigation schemes largely complement in the production of food during the dry and off seasons, thus contributing to enhanced food systems. Efficient irrigation schemes have been employed for years in Zimbabwe. This article will dwell more on the potential success of irrigation schemes in the lowveld in Zimbabwe, a semi-arid region, which has had immense improvement on food and nutritional security as well as improving the livelihoods of these communities.

Zimbabwe's lowveld is in the South-Eastern part of the country. It is a hot, arid type of area and the vegetation is low scrub or grass, and the major towns in the lowveld are Chiredzi and Triangle¹. Rainfall in the arid and semi-arid regions is too erratic and unreliable for dryland farming, making supplementary irrigation necessary for successful agriculture. Irrigation, therefore, acts as a mitigating measure against droughts and mid-season dry spells, which enables irrigators to grow crops throughout the year and intensify sustainable production. The government of Zimbabwe's objective for irrigation development is to guarantee food security through increased crop production. The irrigation schemes have enabled smallholder farmers to concentrate on growing a wide range of crops namely, Maize, Chillie, Beans, Water melon, Winter Wheat, Tomatoes and Leaf Vegetables.

In this article we also take note that the challenges to raising agricultural productivity under smallholder setup are well known: limited access to improved seeds and quality planting materials, low soil fertility and inadequate access to fertilizers (both organic and inorganic), poor access to extension and advisory services, dysfunctional markets, and droughts and floods that may be associated with climate change, among others. In addition, demographic pressures in Zimbabwe are rendering subsistence farming an unviable livelihood strategy for smallholder farmers. However, urbanization and economic growth are creating new markets for fresh and processed foods in the country and region. Smallholder farmers therefore need to adopt new production strategies that will increase household and community income in the end making farming more appealing to the next generation.

Raising smallholder productivity starts with strengthening the production and delivery efficiency of agricultural input and service systems.

¹ <https://www.zimbabwetourism.net/listing/south-eastern-lowveld/>

“ I believe its high time we move away from just focusing on enhancing production and ensuring food and nutritional security within households. We need as a country to ensure our farmers look at farming as a business from which they can make money, improve their livelihoods as well as reduce unemployment by creating opportunities in their communities. With climate change which farmers are battling with for years and the recent emergence of the COVID-19 pandemic which had national lockdowns gazetted by the government in Zimbabwe as a way of reducing the spread of the virus, at one point we had local markets closed. This saw many farmers losing out on their produce mainly horticultural produce. If the farmers had knowledge and capacity to make use of good post harvest handling of produce as well as value addition concepts, we would have seen them thrive regardless of the pandemic outcomes. ”

Value addition or agribusiness one can take advantage of

As aforementioned, smallholder irrigation has been lauded as key to building climate resilience by the Zimbabwean government, yet it has often failed in the past. The challenge today is to link rural smallholder farmers to growing markets through urbanization as a means of improving smallholder farmers' resilience and livelihoods. This will in turn contribute towards making farming appealing to the next generation of young entrepreneurs. So the question we need to ask is what can be done looking back and going forward?

Smallholder farmers are only able to succeed when they can manage their farming systems efficiently. In addition, overcoming the challenges of poverty and vulnerability in the lowveld requires transforming smallholder farms in Chiredzi and Mwenezi from subsistence operations into profitable, commercial-oriented businesses, as well as strengthening their links to growing food markets. For years, this can also be noted in other agro-ecological zones that lack of a robust agroprocessing sector, has been identified as an important “missing link” in connecting smallholder producers to high-value markets, both in the context of international trade as well as within Zimbabwean borders. It is therefore necessary to support farmers in these areas directly to enable them to take advantage of new market opportunities, especially to produce high-quality inputs for the agroprocessing sector.

“ This is owing to the fact that most food processors are small-scale, family-based enterprises that are not competitive in processed food markets, while large-scale agroprocessing enterprises are “not based in the rural, communal areas like the AI farmers in the lowveld”. Communities on their own can not invest in building these as they are capital-intensive. Thus, policy and interventions are needed to upgrade lowveld food processing enterprises so that they can be more competitive in food markets while retaining their capacity for the Chiredzi and Trinagle employment. We also note that many smallholder farmers still need support to become established in value-added food markets. ”

“ To integrate smallholder farmers into value-added food markets in Lowveld region, numerous current experiences from market-oriented agriculture interventions for small-scale farmers all over the region are tremendously useful. There might be also be need for smallholder farmers to develop community working groups which incorporates other lead farmers who might be practising the same value chain initiative. This will ensure participation of fellow farmers in the community as they learn from each other. This model has proved to work efficiently with the assistance of vibrant government/private extension services. ”

To be successful actors in globalized food value chains, smallholder farmers need to make decisions directly in response to market opportunities and uncertainties with respect to the climate. In addition, these farmers need to be innovative and look at possibilities and opportunities that were brought about by the COVID-19 pandemic in relation to market identification and delivery of produce. We cannot overlook the opportunities that were brought about by the pandemic, as we saw many social media sites being used for marketing of produce and providing efficient and reliable information. The reason why our smallholder farmers need to actively participate in the whole value chain system is that farmers with more accurate and direct information about markets are more involved in marketing. This encompasses efficient business negotiations with all middlemen in response to market demands. The mitigation of information asymmetries improves allocative efficiency in crop production, since farmers that are better informed on price variations and movements are able to optimize crop choice, planting timing, and crop marketing.

As much as we talk about the development of agroprocessing systems for smallholder farmers, investments from government must continue to be made in strategic infrastructure to connect farmers in the lowveld to markets. We need not forget that the improvement of roads is necessary to reduce the burden of transport costs within the value chain. In addition, agroprocessors need stable power supplies in order to run milling machines and other equipment, thus the continued extension of power networks maybe using models like “Green Fuel and Tongaat Hullets - Sugarcane straw” and the upgrading of power supply is imperative.

Transformation of Smallholder farming into Enterprise Agriculture

Towards improving productivity, smallholder farmers need to adopt enterprise agriculture. To make this transition, smallholder farmers need to be supported with modern technology and logistics for wider market integration. This requires interventions for supply chain efficiency to integrate the smallholder with large scale commercial farmers and market linkages with local and national market intermediaries as well as agroprocessing enterprises. A public-private institutional arrangement is also needed so that smallholder farmers get easy access to input and output markets. Most irrigated land remains unused, and marketing of produce is uncoordinated. Mobile technologies also provide opportunities for market information dissemination.

Conclusion

Small-scale irrigation schemes in Zimbabwe have for years been premised on the cycle of build–operate–rehabilitate. This kind of operation is heavily dependent on donor funding and support for sustenance. Thus, where there is lack of donor support, several irrigation schemes in the country would probably cease to function properly. We can note the rehabilitation of the moribund Chilonga irrigation scheme which is on course as people in the area had been left without reliable food sources and reliable income. Thus, small-scale irrigation schemes have a great impact on the livelihoods of smallholder communities across Zimbabwe, where agriculture is considered the bedrock of people’s lives.

The underperformance of smallholder irrigation schemes, in Zimbabwe, is largely a result of complex interrelated factors, such as low technical capacity, poor institutional arrangements and uncoordinated market linkages.

Last but not least, as a country we need to look at the “Leaving No One Behind” policy closely. In all the irrigation developments as well as value chain projects, let us incorporate gender lens, let us also support social groups that are particularly exposed and vulnerable to economic risk and pressures. These groups include women, youths and people living with disabilities. If we can incorporate all this, agriculture will be inclusive. We need to also take a look at how we move forward with COVID-19 and beyond for improved livelihoods of smallholder farmers.