

Irrigation

Irrigation farming: a lifeline for budding 'agripreneurs'



In South Africa, unemployment and poverty are closely associated. Rural areas are nodes of both unemployment and chronic poverty. A study conducted in two districts of Limpopo Province indicates that irrigation farming is strongly associated with significantly better livelihoods. Irrigators were revealed to be clearly better off in terms of food availability and household income than other groups. While caution is needed in celebrating causal linkages, the strong association provides a robust case for irrigation as a core rural development strategy, as set out in the National Development Plan (NDP) of 2011.

Article by Kim Trollip.

Rural poverty is the most severe, with rural people more than twice as likely to be poor; and the severity of rural poverty is nearly three times that of urban dwellers. Women and youth suffer the most. The challenges in tackling poverty are compounded by high unemployment, most visibly reflected in youth unemployment, which in 2015 was estimated at 45.3%. This is a crisis indeed.

In rural areas, agriculture makes an important contribution to food security at a household level, particularly for the poorest households. Agriculture is also seen as one of the key strategic opportunities for employment and rural development, but smallholder farmers face formidable challenges.

The general aim of the study, funded by the Water Research Commission, was 'to review and evaluate appropriate development paths for expansion from homestead food gardening to smallholder irrigation farming, increased water use productivity of crop production and improved livelihoods on selected smallholder irrigation schemes in South Africa.'

Enhancement of entrepreneurship is seen as key to growth in a free-market economic system including in the agricultural sector. The study findings show that irrigation is strongly associated with improved livelihood outcomes and a strengthened human, physical and financial capital base. The incomes of irrigator households were significantly higher, with all irrigator households above the upper-bound poverty line, while home gardeners were on or below this line. Irrigator households were also more food secure with greater food diversity. Entrepreneurial farmers with varied characteristics, but sharing a business outlook, were identified in similar numbers to classical peasant-farming categories, with true capitalist farmers a rarity.

The research effort in this study pivoted on three dominant themes: irrigated agriculture, rural livelihoods and entrepreneurship. The project identified three main populations of irrigators that were the focus of the study. The first population was home-food gardeners comprising individuals engaged in agricultural production within their homestead. The second population comprised farmers active on smallholder irrigation

schemes, where a scheme is defined as the hydraulic system which is shared by a group of farmers. The third population comprised independent irrigators who are solely responsible for their own irrigation system and typically pump from adjacent rivers or boreholes.

The research was conducted using a multiple-case study approach, conducted at two research sites aiming for symmetrical analysis, covering the three populations. Thulamela Local Municipality, located in Vhembe District, was the first site and Greater Tzaneen Local Municipality, located in Mopani District, was the second. Both are located in Limpopo Province.

The key proposition in the project was that increased local, regional and national benefits from smallholder irrigated crop production will be driven by entrepreneurs who identify opportunities, develop strategies to exploit these and turn these into viable and profitable irrigated crop production (and perhaps processing) enterprises.

Comparison of the livelihoods of three groups provided compelling evidence that irrigated smallholder agriculture and improved livelihoods were closely associated. Smallholder irrigation is considered to be a successful poverty alleviation tool when it paved the way for increased consumption, asset accumulation, nutritional improvements and reduced persistent poverty among users. Over time these gains lead to institutional feedbacks that support sustained economic development and the evidence collected at the two study sites indicates that most if not all these criteria had been met.

The study found that people arrive at irrigation farming via many experiential routes; from starting points as diverse as desperation and hunger, to planned early retirement with savings and a business outlook. It was found that regardless of their historical experiences (pathway), it was the physical location of farming – in the home garden, on a scheme, or as an independent irrigator – that defined the current farming challenges that they faced. This was because the institutional uncertainties were a dominant challenge limiting their growth and land and water issues were quite different in the different physical locations. This is said noting that wider agricultural production challenges such as finance, knowledge and marketing were shared by all groups.

“Another important finding was more a confirmation of our own and other published work,” explains project leader Jonathan Dennison of Umhlaba Consulting Group, “Smallholder irrigators are not homogenous and different types of smallholder farmers need different kinds of support interventions to meet their priority needs. Modelling responses for smallholders only on successful approaches from the large-scale highly commercialised agricultural sector will serve some, but not most smallholder farmers. A suite of interventions which can be tailored to be responsive to smallholder diversity is essential if the opportunities for smallholder agricultural entrepreneurial development are to be more fully exploited.”

Key messages for policy-makers

Obstacles to successful farming are severe and dominated by institutional disincentives in the acquisition of secure land and in obtaining secure water supply. The wholly inadequate



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communal land-tenure arrangements, combined with high risks related to inadequate irrigation water supply turn development pathways into somewhat treacherous endeavours. Relocation of promising farmers onto well-established (previously white-owned) schemes, fundamental reforms in communal land-tenure systems on smallholder schemes, investment in water management institutions, marketing support, and water management interventions are all strategies that would have to be pursued in parallel to achieve results. Irrigation can, it seems, provide the much sought after development outcomes, but this requires a new political will to re-set the development direction, drive profitability initiatives and re-institutionalise the smallholder irrigation sector from a land and water perspective.

“We found that smallholder irrigators are heavily constrained by a reality of institutional ‘chaos’ on the ground due to widespread uncertainties in regard to land-leasing arrangements and water-use rights, says Dennison. “Land-tenure arrangements are quasi-legal in most situations and practices on the ground show diverse interpretation of the law, with high transaction and financial costs for farmers. While smallholder irrigators face serious hurdles in regard to production knowledge, financing and marketing in particular, bringing institutional order to tenure, both land and water, would greatly reduce farming risks and increase smallholders’ resilience to other livelihoods shocks.

“If decision-makers want to achieve ‘bang-for-buck’, local-level institutional and organisational interventions should be pursued as a priority. The methods to address these institutional issues are well-established and the costs are relatively small compared with

capital investment in bulk-water supply and in-field irrigation infrastructure. A triple thrust in organisational development comprising secondary cooperatives with an emphasis on knowledge and market linkages, water management organisations (WUAs) with support for registrations/licensing, and skilled support interventions in local land-leasing, would initiate a significant reduction in risk exposure and our evidence shows this would trigger a quantum leap in local investment and profitability. Entrepreneurs, particularly those on the margins in this high risk agricultural production context, will respond to the increased certainty. In the present, seriously-constrained fiscal context, these relatively-low-cost facilitative interventions will lead to marked growth for existing irrigators who are currently surviving and remain active despite the odds which are stacked against them."

In summary, Dennison's message to policy-makers is, "We know what to do and how to do it – just do it!"

Strategies to overcome the many identified challenges:

- Land tenure interventions
- Market and knowledge interventions
- Water infrastructure investment
- Water regulations and irrigation management

The so-called 'good life' can be enjoyed in rural areas too

Smallholder farming in South Africa was historically geared for food provisioning, which is fundamentally different from farming as a business. The typical 1.5 ha scheme plot size is evidence of this, resulting from the early apartheid Tomlinson Commission

recommendations for maize self-sufficiency of a typical 'Bantu' family. It is understandable that the image of old or so-called 'uneducated' people farming maize and pumpkins does not resonate with trendy western-dominated ideals of the youth, but there is a change in perceptions that comes from the reality of the ever failing 'urban dream'.

Some of the successful younger agri-business entrepreneurs, or 'agripreneurs', who were documented in the study had tried their hand in cities and returned disillusioned and desperate, and took up farming, because there was nothing else left to try. Their vision of agriculture is now very different from that of a parochial agrarian existence. It is one where irrigation means business and production; where crops are planted with money and markets in mind; and where farming is seen as the means to achieve success – in their eyes and in the eyes of others. It is the view of the research team that the reality is one where perceptions of irrigated farming are in transition. While some of course stick to an aged view of agriculture, the new entrepreneurs are fully aware that agriculture is a way out of poverty and a pathway to a better life. But these post-millennial young farmers need more than market forces to get established. Much like the successful mid-century approaches to settle and establish unemployed workers and soldiers, a medium term view and state support is unavoidable.

Agricultural transformation demands a ten-year plan as a minimum. If nothing else, the youth have time on their hands, smartphones at their ears and their eyes on possibilities – pathways to a better life. The challenge is not to change perceptions, but to support those already keen and that will change the wider perspective of irrigation farming: from a dominant picture of gumboots-and-mud to one about making money.



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