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The WRC operates in terms of the Water Research Act (Act 34 of 1971) and its mandate is to support water research and development as well as the building of a sustainable water research capacity in South Africa.

Assessing the efficacy of policies and strategies for governance of smallholder irrigation farming

A recently completed Water Research Commission (WRC) project investigated the assessment of the effectiveness of policies and strategies for governance of smallholder irrigation farming in KwaZulu-Natal Province, South Africa.

Background

The South African government has invested financially and in terms of policies and programmes towards improving the performance of smallholder irrigation schemes (SIS). However, the performance of SIS remains low, dampening the prospects of lifting wellbeing in communal areas.

Policies favourable to smallholder farmers include the Integrated Food Security and Nutrition Programme and the National Development Plan.



At the same time water is becoming scarce and solutions that go beyond technical efficiency are needed. Institutional aspects of land and water management are possible opportunities for enhancing irrigation performance.

Institutional capacities can be improved through the participation of various decision-makers, whether formal or informal. Customs and traditional practices interact with national Acts to affect land and water rights in SISs. Gender and land tenure underpinned by traditional systems determine incentives for irrigation farmers.

The failure of SISs to fully perform was studied through a research project whose aim was to assess the effectiveness of policies and strategies, rules and regulations and governance of programmes that provide support to smallholder irrigation farmers on irrigation schemes. The

research was conducted at four irrigation schemes in KwaZulu-Natal Province, namely Tugela Ferry, Mooi River, Makhathini Flats, and Ndumo. The schemes were selected on the basis of their unique and contrasting characteristics, which allow for a comparative study on the effects of the policies, strategies, rules and regulations.

Main outcomes

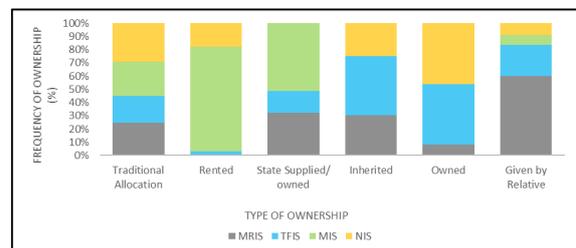


Figure 1. The distribution of land ownership across irrigation schemes

The study revealed the coexistence of formal and informal rules and regulations in the respective irrigation schemes. The formal acts, policies, rules, and regulations include the Irrigation Strategy (2015), National Water Resources Strategy (2013), Water Allocation Reform (2006), and the National Water Act (1998). The latter has provision for the establishment of Catchment Management Agency and Water Users Association (WUA)). Informal rules and regulations are area specific and emanate from the traditional authorities.

Irrigation farmers lack awareness of formal policies, making them, for the most part, inconsequential in SISs. Only 4% of the irrigation farmers had knowledge about WUAs, and only 0.3% claimed to be WUA members. The irrigation farmers across the irrigation schemes, do not know government policies. Instead, locally developed rules and regulations not linked to the objectives of national policies prevail.

Government policies are only implemented through direct intervention.

Informal institutional arrangements tend to be more visible, valuable, influential and powerful at scheme level while formal institutions have low relevance at this level. Irrigation farmers' perceptions of the effectiveness of traditional rules differ according to the scheme's commercial or food security orientation.

More food security-oriented irrigation schemes see informal rules as more effective compared to those in commercially-oriented schemes. Irrigation farmers in food security-focussed schemes were satisfied with land allocation of traditional authorities while irrigation farmers in more commercially-oriented schemes were not satisfied with their security of land tenure.

Observed needs from the project

- Dissatisfaction with scheme rules exists in specific localities in irrigation schemes where water is not readily available. In Mooi River Irrigation Scheme water shortages in some blocks led some irrigation farmers to abandon their plots. This was largely attributed to non-compliance to schedules by the irrigation farmers in the upper blocks. Regarding land allocations, gender inequity was evident and was unfavourable to women. Women are highly dependent on men as the latter have control over more resources. Traditional norms often prevent women from participating in public organisations and in decision-making processes.
- The co-existence of formal and informal institutions partly causes dysfunction in the implementation of strategies, rules, and regulations. This dysfunction can be attributed to the contrasting nature of the two systems. Government-instituted systems are changed from time-to-time. Such dynamic policies and rules interact with traditional institutions and rules that are largely static across generations. In view of rural dynamics, the transmission of the government rules or programmes takes time and at times are not fully implemented during the set life-span and locally concocted rules, regulations, and institutions prevail.
- The fact that different government departments use varying approaches to interact with irrigation schemes leads to formal policies, rules, and regulations being ineffective. For example, the departments of agriculture work through cooperatives. In contrast, the department of water has adopted the WUAs as the

vehicle for conducting its work. As a result, policies, rules, regulations, training come from different government are not the same, resulting in different levels of understanding of rules among irrigation farmers.

Conclusions

The dysfunction of irrigation schemes management has serious consequences for the irrigation farmers. It leads to badly dilapidated infrastructure, especially canals. Stakeholders (extension workers and irrigation designers) had no operation and maintenance programmes to address the damages. Government officials failed to articulate policy, as a result, schemes had no WUAs. Most irrigation farmers across the four irrigation schemes had no formal training on irrigation and water management and lacked understanding of the need for Irrigation Management Transfer (IMT). Irrigation farmers' expectation of traditional type of support, including bailiffs, is hindering the effectiveness of local institutions.

Gender, land ownership, and level of education were found to be key determinants of the performance of SIS. Nevertheless, the performance of smallholder irrigation depends on a variety of factors. No single intervention whether of policy, strategy, rules can singularly determine irrigation performance. A holistic approach is required in order to determine how such interventions can be employed to improve irrigation schemes.

Other factors determining scheme performance are irrigation farmers' participation in irrigation management, awareness of the national water policies, membership to cooperatives, training received, extension support, and membership to irrigation committees. Besides, policy, other related interventions are required to change performance of irrigation schemes. The various factors operate in combinations and synergistically to each other. The relationship between rules and regulations in governance and the factors determining their effectiveness is not linear but is a cyclical and complex system.

Recommendations

Based on the research findings, the following recommendations were made:

- Traditional and formal rules and regulations need to be harmonized.
- Effort to achieve gender equity needs to be prioritized.
- A participatory way of developing policies, rules and regulations is needed. The use of a participatory approach for developing policies, rules and regulations

- could be a medium to a long-term goal.
- Training needs to be conducted urgently on irrigation and water management. Training in water management will allow irrigation farmers to understand water availability at the catchment level and how that translates to water availability in the scheme.
 - SIS stakeholders need to be sensitized about government initiatives and existing policies, rules and regulations, and the need for coordinated execution of interventions.
 - Customary laws need to be adjusted to give men and women, youth and elderly equality, for instance, with regards to land.
 - The IMT needs to be re-configured to make it functional across all smallholder irrigation schemes.
- Informal institutions on water resource management need to be recognized so that they can be appropriately incorporated into irrigation water governance.
 - Irrigation farmers' institutions need to be granted greater autonomy so that they can deal with scheme matters without government support.
 - The configuration or appropriateness of WUA needs to be reconsidered.
 - A holistic approach is required in the implementation of irrigation policies rules, and regulations and or the rolling out of programmes.
 - Government departments need to synchronize their messages and approaches before taking them to the SIS level.

Related report:

Assessment of policies and strategies for the governance of smallholder irrigation farming in KwaZulu-Natal Province, South Africa (**WRC Report no. 2556/1/20**). For more information, contact WRC Executive Manager, Dr Sylvester Mpandeli at Email: sylvesterm@wrc.org.za