

Research Application Summary

From researching about farmers to researching with farmers: Experiences of the University of Limpopo's Centre for Rural Community Empowerment (CRCE) in Limpopo Province, South Africa

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Abstract

Through the Centre for Rural Community Empowerment (CRCE), students, academics and community members at the University of Limpopo interact in shaping and improving the training of students, impact of university knowledge on community members and continuous improvement of the university curricular in an action oriented way. CRCE recruits postgraduate students from the various disciplines of the School of Agricultural and Environmental Sciences to do internship in the centre. Postgraduate students develop their proposals in line with the real problems faced by small scale farmers while academics provide supervisory support to the students. The centre places students in rural villages for a period of three months to identify problems and opportunities for action research. Action research and various participatory methodologies are used to solve complex challenges of rural communities. Through these interactions two CRCE sub-centres known as development centres and farmer platforms have been established to allow a bottom up approach towards solving relevant community agricultural problems, challenges and needs.

Key words: Action research, Limpopo, outreach, participatory methodologies, postgraduate training, rural communities, South Africa

Résumé

Grâce au Centre pour l'Autonomisation des Communautés Rurales (CACR), des étudiants, des universitaires et des membres de la communauté de l'Université de Limpopo interagissent pour améliorer la formation des étudiants, l'impact des connaissances universitaires et l'amélioration continue du cursus universitaire d'une manière orientée vers les résultats. Le CACR recrute des étudiants de troisième cycle issus des différentes disciplines de l'École des sciences de l'agriculture et de l'environnement pour effectuer des stages dans le centre. Les étudiants de troisième cycle développent leurs projets de recherche en fonction des problèmes réels rencontrés par les agriculteurs et petits exploitants, tandis que les universitaires apportent un appui en termes de supervision aux étudiants. Le centre place les étudiants dans des villages ruraux pour une période de trois mois afin d'identifier les problèmes et les opportunités de recherche-action. La recherche-

action et diverses méthodologies participatives sont utilisées pour résoudre les problèmes complexes des communautés rurales. Grâce à ces interactions, deux sous-centres du CACR (centres de développement et de plates-formes paysannes) ont été créés pour permettre une approche ascendante de résolution des problèmes, défis et besoins agricoles pertinents de la communauté.

Mots clés: Recherche-action, Limpopo, sensibilisation, méthodologies participatives, formation universitaire, communautés rurales, Afrique du Sud

Background

The Centre for Rural Community Empowerment (CRCE) was established as an outreach arm of the School of Agricultural and Environmental Sciences (SAES) at the University of Limpopo (UL) in 2004. At time of its establishment, the university gave less attention to outreach or community engagement but on teaching and research. With the call for higher education institutions to respond to challenges and problems of neighbouring communities, the University of Limpopo (UL) has now developed and established a University Community Engagement Policy. Community Engagement committees have been established in the various faculties of the university to facilitate and support this under-emphasised third pillar.

With the vision of “bringing together Limpopo Province development actors and the UL academic community”, the centre uses three strategies i) action research with small scale farmers in the Limpopo Province; ii) documenting processes and events through audio visuals and printed media, and iii) networking at local, provincial and international level. The CRCE is regarded as one of the centres of excellence in the School of Agricultural and Environmental Sciences (SAES). The CRCE’s main focus in the SAES is to actively integrate teaching, learning and research with community engagement.

The CRCE focusses on supporting family farming in the Limpopo province of South Africa. It promotes participatory development processes in strengthening the capacity of small scale farming communities to lead their own development. The CRCE engages UL students and academics with rural communities to exchange experiences and knowledge. The centre’s main objectives are 1) to build capacity of extension officers of the Provincial Department of Agriculture, 2) to serve the needs of farmers and rural households through training, advice and technical support, and 3) to strengthen the competencies of students in rural development by integrating teaching, learning and research with community engagement. To fulfil all these three purposes, CRCE recruits postgraduate students to facilitate development process while identifying community challenges, problems, training needs and opportunities for research. The starting point for CRCE engagement with rural communities is identification of an active local field assistant to represent CRCE in all community meetings and to help CRCE to develop a common understanding with community members.

This paper reports on CRCE experiences and specific examples at selected research sites over the last decade and presents lessons learnt. The paper outlines the functioning of CRCE within the University, action research and integration at the Ga-Mampa pilot site,

and integration in and contribution of the CRCE to formal and informal professional networks.

Structure of the CRCE and its operations

Currently the centre has three academic staff; two lecturers (co-ordinator and assistant co-ordinator) and one senior lecturer who is also the Head of Department (HOD). The academic staff members are agricultural extension professionals responsible for community engagement and who also provide lectures in undergraduate and postgraduate extension courses. The head of CRCE is directly accountable to the Director of the SAES. The CRCE is expected to link various departments of the SAES with rural communities. Further, CRCE facilitates undergraduates students' practicals in rural communities in collaboration with various departments of the SAES and provides two years internship contracts to postgraduate students.

The CRCE has adopted a pilot site approach to community engagement. The pilot size approach enables optimal use of limited available funding for community engagement activities and engagement of postgraduate students for impact. Funding proposals are drawn with more focus on postgraduate student bursaries and field work support. Some of the achievements of the centre are that after completion of the studies in rural communities interns show a great enthusiasm and commitment to the work of the centre, interns love what they do and they also enjoy interacting with farmers and rural households. The good relationship established with the extension officers in the pilot sites contributes to the networking strategy of the centre.

Linking internships with community engagement activities. According to Salomon and Mattee (2004) interns express a sense of achievement when they make a difference in farming communities. The centre nurtures this sense of achievement in each new group of interns by giving interns a leading role in the development process at the pilot sites. Students supervisors are involved in ensuring that internships respond to needs of communities. However, these come with challenges. Some of the key challenges for the students and CRCE staff include: 1) while interns have been facilitated to spend time in the community, staff themselves do not always take the time to go out and spend time with the community hence limiting their supervisory capacity, and 2) interns are sought after by the development agencies including government and many may not finish their studies due to early recruitment by such agencies.

In an attempt to address failure of supervisors to visit interns on the pilot sites SAES through the Agricultural Research for Development (ARD) in collaboration with the Agricultural Research Council training division introduced SAES academic staff into the idea of conducting research that will contribute to the improvement of people livelihoods. It has been realised that researchers' achievements have traditionally been publication-focused, and this has to change. One of the CRCE academic staff plays a leading role in facilitating this new initiative that aims to contribute to curriculum change. Through ARD, SAES academic staff members are continuously exposed to international workshops and trainings that promote integration of theory and practice into the curriculum.

CRCE methodology and approach. The CRCE has strategically chosen two pilot sites which provide students with opportunities to improve learning about dryland farming and irrigation agriculture. Ga-Mothiba pilot site is characterised by dry-land farming with majority of farmers and projects depending on rainfall while on the other site, Ga-Mampa pilot site irrigation agriculture is the main activity of the farmers in an irrigation scheme with river water flowing all year round. On these pilot sites CRCE focusses on facilitating small-scale farmers access to resources and services. The centre emphasizes the importance of supporting and promoting local innovations and supporting the innovative capacity of smallholder farmers. Farmers and community members' initiatives and leadership is encouraged in all projects. The CRCE staff and interns emphasize the importance of instilling confidence and pride in farmers, and not imposing external expert solutions in the projects and farmers activities. Action research conducted on the pilot sites have contributed significantly to the improvement of villagers' wellbeing. A number of masters dissertation have been produced as a result of action research in the two sites. This paper focuses on lessons from the two sites Mafefe and Ga-Mampa pilot sites.

Mafefe, Ga-Mampa pilot site: *A university lecture room in a rural community*

The CRCE entry point in Ga-Mampa was specifically focussed on irrigation water management in the Mohlapitsi Irrigation Scheme. According to Motaung (2009), a former CRCE intern, there are three gravity irrigation schemes in Ga-Mampa village; Fertilis (92 hectares for 88 farmers), Mashushu (42 hectares for 45 farmers) and Manthlane (30 hectares for 35 farmers). The irrigation schemes are small in size, operated and maintained by water users themselves. The river stream is permanent but its flow fluctuates according to seasons. All three schemes receive water from Mohlapitsi river through diversion weirs. However, there have been challenges. During the year 2000 floods, the riverbed became deeper and as a consequence, the river level was too low and farmers could not access water. To add to that, Mohlapitsi Irrigation Scheme was managed by water committees in the three schemes but they were ineffective and poorly managed. Due to these challenges, water sharing was inequitable. As such CRCE together with the water users developed a common understanding about the identified problems and that because of these problems water users downstream could not get access to water. Interns were part of the whole process. Interns have been tasked to engage around these challenges and provide options for solutions.

An action research process: *Collaborative teaching, learning and practice*

To address some of the challenges, a postgraduate student in the discipline of agricultural extension was identified in 2006 to develop a masters' proposal and initiate an action research. With the support from the International Water Management Institute (IWMI) in South Africa a scholarship was attached to this action research process titled 'From water committees to emergence of Water Users Association'. This action research was facilitated by CRCE intern who resided on site, in collaboration with the area extension officer supervised by SAES academic supervisor and co-supervised by IWMI senior researcher. As a CRCE norm all interns represented CRCE and the University in all formal and informal meetings on pilot sites. The intern represented CRCE and her participation in all events was instrumental in the emergence of the Water Users Association (WUA).



Emergence of a Water Users Association. A three step process for the action research towards establishment of the WUA was followed. Firstly, an institutional introduction with sensitization meetings with local leaders and organizing mass meetings for all scheme members to identify the institutional challenge was done. Secondly, the identification of existing water committees and practices was done through visits and interviews. Water committees selected representatives to drive up emerging process and report back to committees. Water committees also discussed and drafted by-laws based on concrete operational rules that were validated by representatives at the association level. Lastly, the WUA was a process to support a core team of representatives through drafting of a constitution and holding public meetings with all water users for feedback.

According to Phaladi (2007) there has been a strong willingness of the local organisation to form a Water Users Association. She is of the opinion that the willingness to form a WUA could be seen by the respect given to the new rules and changes that were introduced during the process. Although the action research process proved to be imparting some significant changes in management of the irrigation scheme under the established WUA, the Association could not be registered under the new government interventions. There was no clear government procedure to register the association. Phaladi (2007) recommends that government must allow clear registration process to take place regardless of its own new intervention programmes. She further recommended that extension officers facilitating irrigation schemes need to be trained on how to support such groups to draft bye-laws and be familiarised with various models of the constitution. Government through relevant programmes must identify the role played by water committees in the irrigation schemes and assist them to transform current practices into an institutionalised body. In the following year (2008) after the completion of the study, the government through the Revitalisation of Smallholder Irrigation Schemes (RESIS) programme supplied the WUA committee with fencing material and hired local people through WUA to rehabilitate the fencing and canals in the irrigation scheme.

Economic Viability of the Water Users Association. After the establishment of WUA and the rehabilitation process, the next question was ‘Is this informal Water Users Association able to profitably run the irrigation scheme?’ To answer this question CRCE identified a student from Agricultural economics discipline to collaborate with farmers in an action research process to see if the rules set were followed and to document the processes under this new body. An action research process was initiated titled “Economic viability of a Water Users Association in running a small scale irrigation scheme”. The main purpose of the study was to analyse the economic viability of WUA in running a small scale irrigation

scheme. The study concluded that maize was profitable even though cultivation was done in one season annually. It was also discovered that farmers showed willingness to pay for water management and related charges. The study also revealed that there was little diversification in the farming system.

Diversification of the farming system. The community members approached CRCE for advice on how to diversify their farming system and the idea of dairy goat keeping was introduced. Majority of the community members kept goats but they were given little or no care, they were not milked, and they were left to roam around the community (Mosoma, 2009). To sensitize them, CRCE had three areas of concern; i) to ensure that dairy goats become part of the farming system, ii) to ensure that goat milk is consumed locally, and iii) to ensure that there is a goat keepers association within the community to drive the process. To implement the project, an action research process within the dairy goat keepers' group agenda was developed following four major steps; i) sensitization using video films, farmers' exchanges and commercial farm tours, ii) organizing farmers to make sure that dairy goats can be kept by individual farmers but key support services facilitated at a group level, iii) introducing a leasing agreement to encourage the goat keepers to milk the animals and the group to disseminate animals to other members. The video film was effective in changing the perceptions of farmers and community members regarding management of dairy goats. The video taught about different types of goat house structures and the advantages of building such structures. Mphahlele (2007), former CRCE intern, asserts that video films touch the audience's feelings, evokes emotions and provokes inner reactions beyond a simple transfer of technical innovations. He further recommends that video films should be part of the facilitation process complimenting other extension tools.



Photo. Family receiving a dairy goat, Mafefe

During the inception meeting of the dairy goat project, six community members received goats. The agreement was that, they had to pass on a female offspring to other interested

community members after the goat had given birth. After 15 members of the project received goats an intern from agricultural economics discipline was attached to the project to train members on record keeping and management of the leasing system and to assess the other methods that keepers were using in record keeping. A master proposal was developed titled “An economic analysis of the leasing system to develop dairy goat production”.

The purpose of the study was to find ways to transform the current subsistence system of producing indigenous goats by households into a viable system of producing, processing and marketing dairy goats and by-products through formal markets. The objectives of the study were to find out how commodity groups manage capital through a leasing system to ensure that members can access technical innovations. The study also looked at how leasing contributes to the development of the dairy goat project and the development of the individual members of the project. The training and experience that the dairy goat keepers received through CRCE stimulated their interest on local goats and enabled them to provide services (vaccinations, ear tagging, castration, and breeding) at a fee to other local goat keepers. Farmers also used the goat manure to fertilize their plots in the irrigation schemes and backyard gardens. The payments for goat management service go into the account of goat keepers’ group and contribute to goat keepers’ income. According to Mosoma (2009) beyond this transfer of technology by CRCE, findings revealed that the project is considered to be economically viable and sustainable. The findings also revealed that production of dairy goats through leasing system would be profitable and has benefits from an economic point of view as well as for the environment.

These findings led the community and CRCE to explore various ways that could contribute to the improvement of livelihood of individual households in Ga-Mampa area. Since the community depended on farming for most of their livelihood, the management of available natural resources, the wetland and rehabilitation of the irrigation scheme are important for sustainable livelihoods.

Rehabilitation of Wetland and irrigation scheme. According to Ferrand (2004), Chiron (2005) and Masilela (2013), Ga-Mampa farmers have access and depend on both the irrigation schemes and wetland for agricultural and other livelihood activities. Subsequent to 2003, Ga-Mampa village had three conflicts around the use of the irrigation scheme and wetlands. Ferrand (2004) observed that there are three sources of conflicts between the community and different stakeholders operating in the village; the first one was related to the new weirs introduced by the Limpopo Department of Agriculture. The second one was related to the use and protection of the wetland located at the downstream of the village by Mondi Wetlands Project and Limpopo Department of Environmental Affairs. The last one was a confrontation of the traditional authorities by these three institutions. Surprisingly, the three institutions which were confronting the traditional authority on the use and protection of the wetland and irrigation scheme had different points of views and ways on how to improve the situation. The Limpopo Department of Environmental Affairs wanted to destroy the weirs made by local community members and fence the wetland but the traditional authority was against this idea. At the same time, the Limpopo Department

of Agriculture wanted to improve the state of agriculture and support the building of weirs by local community members and rehabilitation of the irrigation schemes. The Mondli Wetland Project on the other side wanted to rehabilitate the irrigation scheme in order to improve the efficiency of the irrigation and decrease the impact on wetlands. It also wanted to develop community based management of wetlands, developing ecotourism activities which traditional authorities agreed to as a way of job creation and generation of sources of income. To address the problem of having different views and misunderstandings as stakeholders, CRCE/UL exploited the experiences and knowledge of an existing local civic organization and changed it into a community development forum and this structure was named Mampa Development Forum (MDF). In this forum all various projects, interest groups and various institutions collaborating with the community were represented. Mampa Development Forum operates as a mouthpiece of the community in all issues in the community (Letsoalo and Lassalle, 2007). Community Development Forums could be used as entry points for a successful community mobilization and development process.



Photo. Collaborating institution for the Rehabilitation of Mohlapitsi Wetland

The CRCE/UL in collaboration with Mampa Development Forum held workshops on awareness creation and planning on the rehabilitation of the wetland and the irrigation scheme. Various government departments, for example; Department of Agriculture, Department of Environmental affairs and NGOs (including United Nation Development Programme Small grants division in Pretoria and South African National Biodiversity Institute (SANBI) and International French NGO (IRSTEA) formed part of these workshops. To facilitate and document this process a postgraduate student from the agricultural economics discipline was identified to pursue action research along this area. A proposal titled “Assessing the economic and livelihood impacts of various management options for the wetland and irrigation schemes on Ga-mampa households of Limpopo Province, South Africa” was developed. The objectives of the study were to i) identify the existing types of household-farming systems in Ga-Mampa valley, ii) assess the productivity of resource-use of the various household-farming systems of Ga-Mampa, and

iii) assess the impacts of some proposed management options on the different household-farming systems of Ga-Mampa - in terms of income, food production and resource-use. According to Masilela (2013) the results indicate that there are five types of household-farming systems. They differ in the age of household head, family size, income and income sources, assets, agricultural land and livestock ownership. Currently, these households are operating at a loss mainly because of high costs associated with maize production and milling. Simulation of management options indicate that farmers will have increased income if management options are implemented, especially the installation of a drip irrigation system since it yields the best returns. Other impacts of the management options include increased production costs, food production and resources-use efficiency.

CRCE informal and formal professional networks. From the CRCE engagement experiences with Ga-Mampa village, Mampa Development Forum (MDF) could be viewed in two different ways. From a systems perspective MDF can be described as a living creature consisting of different parts with specialized functions, activities and interests each operating within specific boundaries geared towards meeting community needs.



Picture: Mampa Development Centre

From a social perspective MDF can be described as a social and political network that link individuals, community interest groups and leaders to plan and engage in Ga-Mampa community development process. Various institutions were attracted to Ga-Mampa village through the MDF and the CRCE/UL. For example; PROLINNOVA South Africa supported CRCE/UL intern to pursue a study on “local diet for dairy goats” in the area. Unfortunately the student could not complete his study after being recruited by Land Affairs Department.

UNDP Small grant in South Africa is currently supporting the rehabilitation of Wetland and irrigation scheme, CRCE/UL and Mampa Wetland project are members of the Limpopo Wetland Forum (LWF) and a proposal for the rehabilitation of the canals and gabions in the irrigation scheme has been prepared by the LWF. CRCE/UL is following all the developments closely with postgraduate interns' facilitating the networks.

From all the action research process outcomes, farmers' knowledge and experiences are documented as master dissertation for interested students to do further research and to share the hidden knowledge of these farmers and also as video films for sharing.

Lessons learned. Postgraduate student exposure to rural communities opens opportunities for them to network with various stakeholders. This exposure also provides them with opportunities to test and change the knowledge they gained in class, attitudes, skills and aspirations. A combination of approaches and tools are crucial during interaction with rural community members on pilot sites.

Development forums serve as a dialogue platform for stakeholders and community members and they set the rules of the game. They also provide easy access for new initiatives to community members. By bringing all the interest groups and projects together they allow community members to share knowledge and experiences and learn from each other.

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