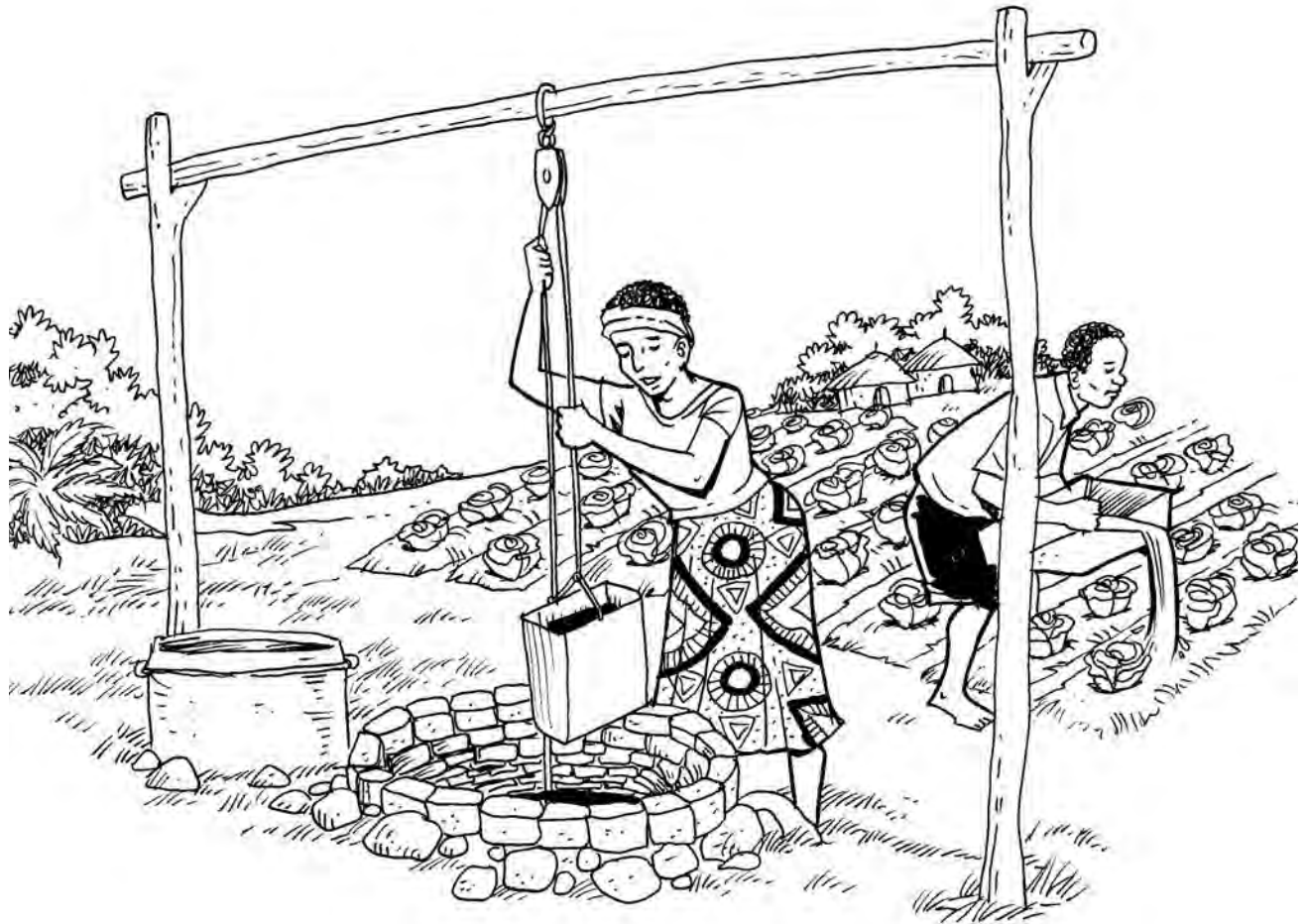


Addressing Water Access Problems in Dera District through the Learning and Practice Alliance Approach



The Learning and Practice Alliance (LPA) is a learning approach whereby groups of stakeholders come together to innovate, share experiences, and scale up good practices using a common platform. The groups are usually composed of different stakeholders: implementers, policy and decisionmakers, researchers, and private sector actors operating at various levels, who would normally be working in isolation from one another but have joined hands through a joint platform to address common sector challenges. The premise of

the LPA approach is that addressing complex sector problems in a sustainable manner requires involving all the stakeholders in the problem-solving process and focusing on development of local knowledge to support local solutions. It assumes that conventional research fails to make impact on policy and practice because of its academic, nonparticipatory nature and underlines the fact that sustaining innovations requires involving those responsible for scaling it up in the process from the initial stage (Moriarty *et al.*, 2005).

Experience in Ethiopia

In Ethiopia, a recent experience in testing the LPA approach came from the RiPPLE project, an action research project on water and sanitation (<http://www.odi.org/projects/466-research-inspired-policy-practice-learning-ethiopia-nile-region>). Within the RiPPLE program, LPAs were set up in SNNPR, East Hararghe, and Benishangul regions. The work undertaken through the LPA has achieved important results at the local level as well as provided an evidence base that has informed sector policy discussions nationally, through a national platform set up in collaboration with the Ministry of Water.

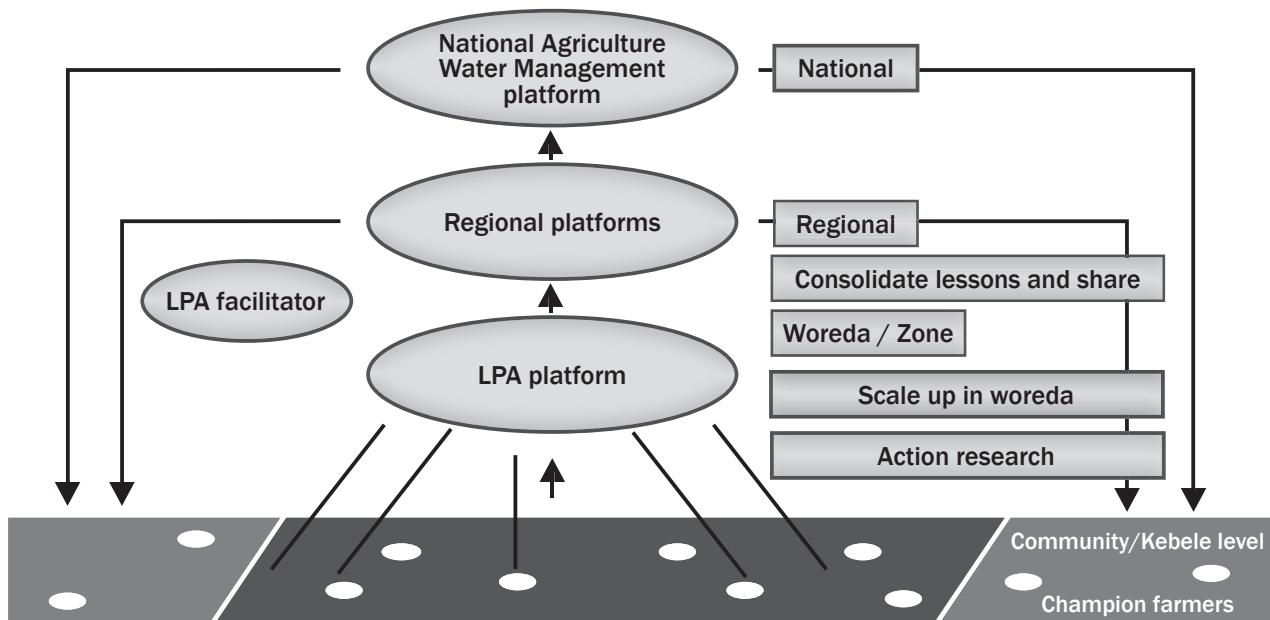
As an example of the impact of the approach, RiPPLE undertook a study on water supply scheme functionality conducted through the LPA in Alaba woreda and identified much higher non-functionality rates than those reported by government (regionally reported as 25% or less, whereas the research found non-functionality of 62% for water points and 42% for water supply systems, based on an inventory of water supply schemes in Alaba woreda) (Israel and Habtamu, 2008). The findings were acknowledged by the government and led to an increased budget allocation to the water supply sector by the woreda government, as well as a revisit of the implementation strategy by Water Action, an NGO engaged in water supply provision in Alaba,

whose schemes showed very low functionality rates in the study. The findings of very high levels of non-functionality and lower than reported water supply coverage contributed to the initiation of a regional WaSH inventory by the SNNPR Bureau of Water Resources to improve data on water supply service coverage (Butterworth, et al., 2009).

Establishment of the LPA

Through the Global Water Initiative (GWI) East Africa program (<http://www.gwieastafrica.org/>), CARE aims to promote water-smart agriculture¹ addressing the challenges that smallholder farmers face because of variable rainfall and barriers to water capture, storage, and distribution for agricultural production. Given the complex nature of water management challenges for smallholder farmers, the program selected the LPA approach as a vehicle for action research. The approach aimed to provide a breadth of experience and depth of knowledge that can help achieve sustainable solutions for smallholder farmers, which are also embedded in and derived from the local social and institutional environment.

The establishment of the LPA platform in Dera District was preceded by stakeholder mapping to identify the key actors working in the agriculture water management sector. The LPA was established



¹ Water-smart agriculture is defined by CARE as investment in cost-effective and sustainable water management systems that optimize the use of rainfed and irrigated farming to generate food security and ensure resource sustainability.

in September 2013 at a launching meeting held in Debre Tabor. Representatives of government offices from woreda, zone, and region levels, research organizations, NGOs, and community-based associations attended the meeting. CARE's GWI-EA staff introduced the LPA concept to participants who discussed problems affecting smallholder farmers' access and use of water for agriculture and came up with a list of problems to be addressed in the first cycle of action research. The participants then identified action research members who would work on the first action research cycle. In addition, they set the criteria for the selection of intervention kebeles and champion farmers who would be demonstrating the technologies and agronomic practices identified through the research.

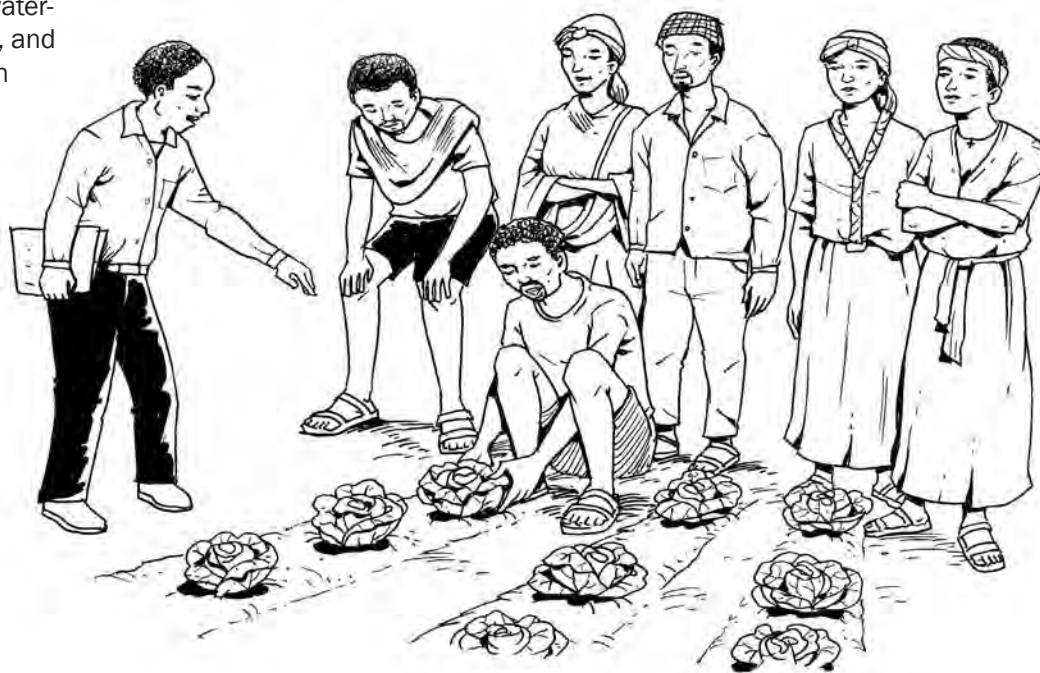
Ultimately, 63 champion farmers, more than half women, were selected from six kebeles in discussion with the woreda agriculture office. Action research groups, composed of research institutions and agriculture and water experts from government, were formed around issues of household irrigation technology and improved agronomic practices. These action research groups were led by the Agriculture College of Bahirdar University and the Amhara Regional Agriculture Research Institute, respectively.

Potential sites for different irrigation technologies were assessed by the action research group and challenges with existing household irrigation technologies and farmers' preference and technology choice were assessed. Based on the findings, trainings on how to develop hand-dug wells for irrigation, construct water-harvesting structures, and use different irrigation technologies such as motor pumps, pulleys, rope and washer pumps, wing pumps, and drip irrigation systems were given to champion farmers. The household irrigation components were provided on loan.

Demonstration plots were then set up by the champion farmers, and following an assessment of gaps in knowledge and skills on irrigation agronomy, training was provided for them on irrigation agronomy systems; water management techniques; seed multiplication and handling; and planting, harvesting, and marketing. High-value crops suitable to the agroclimate were identified and the champion farmers were given improved seeds.

Results of the intervention

Although it has only been a year since the intervention started, a number of achievements are evident in terms of changes of attitude, knowledge, and skills of the champion farmers and improvements in their livelihood. All the 63 champion farmers, using their set of skills and inputs, have started growing horticultural crops: potato, tomato, onion, and green pepper. Using improved seeds and agronomic practices, coupled with the irrigation techniques, farmers were able to harvest their produce with increased yields. The crops were sold at higher prices, increasing their overall incomes. Non-champion farmers living near the champion farmers have also been influenced and have started adopting the new techniques. For example, other farmers have started using the improved seed varieties of potato and tomato used by the champion farmers.



Making farmers' voices heard

Champion farmers report that their engagement in the public sphere has increased as the LPA gave them a platform through which they can voice their needs. They said that they have gained recognition both within and outside of their communities. Several stated that they are now viewed by the public as 'people who have knowledge,' 'people who support the community,' and 'people who can contribute to the local economy' (Biruh *et al.*, 2014).

Female champion farmers in Dera were happy with their increased engagement. Initially, the female champion farmers were quieter and did not express their opinions and concerns as strongly as did the male champion farmers. LPA members have noticed that the women were beginning to feel more comfortable speaking up during meetings because of their exposure to training and interactions with different actors through the LPA. The visibility and success of female champion farmers had helped improve the perception of women within households and communities. One LPA member stated that, due to the LPA, "we now know that there are serious women farmers" (Biruh *et al.*, 2014).

Ownership of the LPA process

An assessment carried out on the LPA process indicates that LPA members feel that the LPA process has met or exceeded their expectations (Biruh *et al.*, 2014). Initially, members were skeptical about the feasibility of the approach, warning that facilitating this multistakeholder platform in practice would be challenging, and that program activities may not be implemented, unless clearly defined roles were assigned (GWI, 2013). However, one year on, they had changed their minds. The LPA members were also pleased that research was followed by action. One LPA member expressed his initial concern that, like many research projects, the LPA would be theoretical, but was glad that the research has led to tangible interventions. Others were surprised by the scope of the program and appreciated its wide-scale application from the household through the zonal level (Biruh *et al.*, 2014).

Yeshume Chekole, a 20-year-old farmer from Korata Kebele, was selected as a champion farmer and underwent training on improved irrigation agronomic practices and received improved seed varieties. With her newly acquired knowledge and inputs, she planted potato, tomato, hot pepper, and maize on her 1.2-acre land. Additionally, she rented half an acre of land. The yield was high from the sale of vegetables and she was able to pay 3,000 birr (US\$150) rent to the landlord. Together with her other savings, she was, for the first time in many years, able to buy three sheep and was able to improve and furnish her house (Agiro, 2014).

Dassashe Bekoyegne, a 45-year-old single mother of six, became a champion farmer and received training on soil and water conservation methods, such as mulching and construction of ridges to help retain soil moisture and supplementary irrigation techniques. With her newly acquired skills, Dassashe prepared her land for cultivation, enriching the soil with compost manure. She planted rice, maize, potato, sugar beet, pepper, and tomato. From a 10 x 10 m² plot of land, she reaped 500 birr (\$25) worth of tomato compared with 300 birr (\$15) the year before. She also obtained 400 birr (\$20) worth of pepper as opposed to last year's 200 birr (\$10). Her onions did best and fetched her 2,200 birr (\$111), more than double the previous year's harvest of 900 birr (\$45).

Cultivating vegetables and using irrigation techniques have enabled her to become more-food secure and to earn a better income. Her two youngest children, who dropped out of school previously, have also resumed schooling. (Agiro, 2014).

In addition, in Ethiopia, the government has given greater attention to issues linked to water-smart agriculture through various national programs targeted at improving agricultural water management. The similarities of these national program goals to those of CARE's GWI-EA initiative have captured the attention of government officials and motivated their participation within the LPA. Also, because government officials have participated directly in the LPA process, from defining selection criteria to participating in the action research, they have a feeling of ownership in the LPA and the research results. This is evidenced, for example,

by the incorporation of technologies recommended from the assessment on household irrigation technologies by the woreda's agriculture growth program (AGP) in their annual plan for funding.

Capacity building

As members of the action research groups, government sector staff developed research questions and tools and engaged in data collection and discussion of results. The process helped the sector staff build their capacity to do research techniques, develop a deeper understanding of the challenges farmers face on the ground, and learn about new ideas and approaches through working closely with research institutions. Getahun Tiruneh, the Dera District agriculture officer and a member of the irrigation agronomy action research group, noted,

I'm the crop agronomist and I'm the focal person for the program. My participation in the action research group has led to an interaction with different experts like the staff of the Agriculture Research Institute. This has given me exposure to new ways of working and new technologies, such as varieties of improved seeds etc, which is useful for my work. The short-term training I received on how to identify high-value crops for irrigation suitable for the woreda was also very useful. It can help build the capacity of extension agents, who in turn can cascade the training to farmers.

Connecting local research with national platforms

Lessons from local action research of the LPA shall be disseminated to other platforms. For example, a national learning platform on agriculture water management is jointly being developed with the Ministry of Agriculture. The platform has evolved out of a small-scale irrigation task force within the ministry, following discussions, as the ministry realized the benefits of a more holistic and integrated approach to addressing agriculture water management. In addition, a source book that documents good practices and lessons from the East Africa Region is being jointly developed with the International Water Management Institute and the Water, Land and Ecosystem Program as another method of linking local level lessons with wider platforms. Finally, a national radio program is

also used to open a dialogue between smallholder farmers and government decisionmakers by providing the farmers access to a wider national platform on which they can raise their concerns and share their experiences and lessons.

Challenges

One of the main challenges in LPA implementation was the huge effort required around coordination and scheduling of action research meetings. Participation of government staff, while high during LPA meetings, was low in the actual research undertaking due to workload and unanticipated meetings or campaigns organized by higher level government structures. Conversely, government officials expressed frustration with the research institutions for scheduling research meetings at times that were sometimes inconvenient for government officials, especially as the action research was conducted during one of the busiest times of the year for the agriculture offices.

Another challenge has been the turnover of participants, especially from government offices. For various scheduling and compensation reasons, government offices alternate on who is sent for LPA meetings and action research. The high turnover of local government participants resulted in a loss of institutional knowledge and orienting replacement members posed its own set of challenges.

Lessons learned

One of the main lessons is that while the LPA approach is very useful in ensuring ownership of research results by government, the extent of time the process takes to effectively coordinate research activities, monitor implementation, and document change should not be underestimated. The process works best when schedules for particular tasks have some flexibility. Tangible results from the implementation of the approach are very exciting because of the multiple benefits generated at the different levels, but the approach requires a significant level of engagement and time.

Conclusion

Although at its early stage of development, the LPA framework implemented by CARE through GWI

in Dera has shown considerable achievements. The relationship between local government and champion farmers has strengthened noticeably, and new relationships have been established among LPA members who previously did not interact. The platform has helped link researchers with endusers of the research both on the ground in terms of individual farmers and at the government level in terms of policymakers, and it has ensured ownership of the research results by all. The process has shown that the LPA framework is a promising approach for bringing together stakeholders from different sectors and levels of society to increase awareness, investment, and collaboration.

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