



## Hunger • Nutrition • Climate Justice • 2013

*A New Dialogue : Putting People  
at the Heart of Global Development*

15-16 April 2013 - Dublin, Ireland

# Lessons from Lesotho: how a ‘joined-up’ approach, centred on keyhole gardens, is tackling linked issues of hunger, nutrition and poverty

In Lesotho, communities, organisations and agencies are taking a joint and complementary approach to promoting household gardens that grow year-round food and cash crops despite a harsh mountainous climate.

## Overview

Lesotho, locally called ‘the mountain kingdom’, is a small landlocked country completely surrounded by its much larger neighbour, South Africa. A high percentage of Lesotho’s men work in South Africa as migrant mine workers. HIV is prevalent in the country (23 per cent across ages 15-49, and 60 per cent of those with HIV are women and children). This leaves many elderly women heading households, and often caring for several orphaned grandchildren.

The country experiences hard winters, bringing frost and snow. During the past decade drought has also become increasingly common, undermining rural agricultural production and eroding rural households’ livelihoods (60 per cent depend directly on agriculture as their primary income source). Staple crop production has consistently declined since 2004-2005. There was a slight reprieve in 2009-2010 but 2010-2011 brought floods, followed by a severe drought in 2012. In August that year the prime minister declared a food security emergency.

These growing challenges have led to the inclusion of Lesotho in the Consortium for Southern Africa Food Security Emergency (C-Safe) project, led by international NGOs Care, the Catholic Relief Service (CRS) and World Vision.

Initially set up to tackle food insecurity in Malawi,

Zambia and Zimbabwe, C-Safe started work in Lesotho in the mid 2000s in collaboration with local NGOs (including the Lesotho Catholic Bishops’ Conference, Good Shepherd Sisters, Sisters of Charity, the Rural Self-Help Development Association, and the Serumula Development Association), and with the government (particularly the Ministry of Agriculture and Food Security).

The project, which uses ‘keyhole gardens’ (see Box 1) as a strategy to integrate ‘joined-up’ support for food security, nutrition, education, income generation, savings and community, has since expanded to include UN agencies (FAO and WFP) and other government ministries.

The approach focuses on helping the most vulnerable households affected by HIV and AIDS, in particular households with elderly or chronically ill people and with orphaned children. The project has multiple aims:

**Better nutrition.** Household gardens in Lesotho are generally small and grow one or two crops, often maize or potatoes. The keyhole gardens aim to help households grow more varied produce such as spinach, onions, carrots, rape and beetroot to support family nutrition and health.

**Food security.** Keyhole gardens improve household food security year-round, producing vegetables even in

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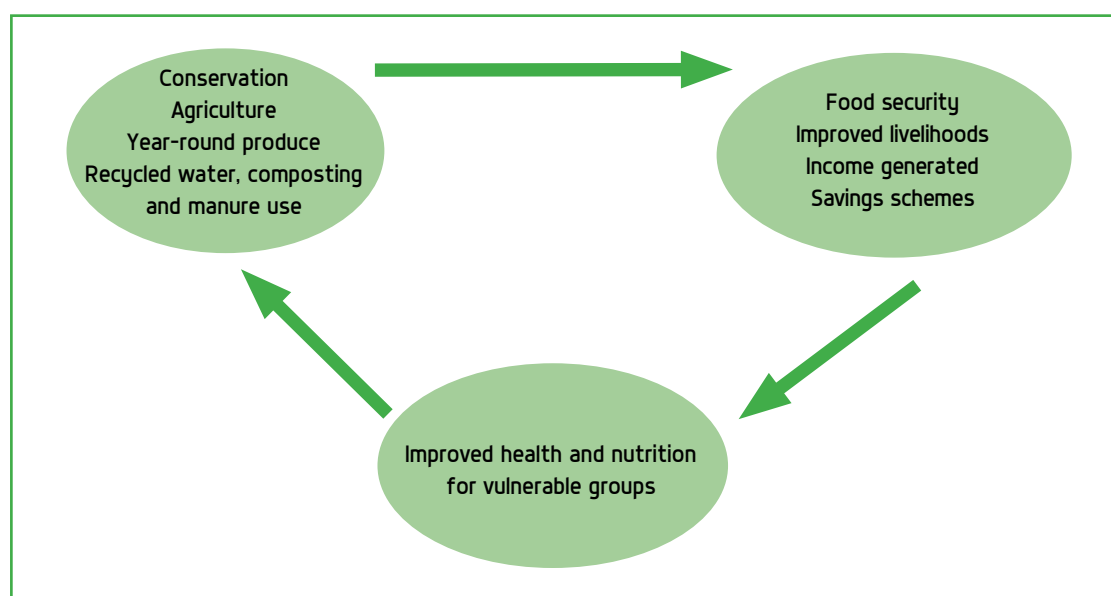
## JOINED-UP APPROACHES

**Box 1. Keyhole gardens**

The basic keyhole garden is a circular, raised-bed made up of layers of soil, ash, manure and other organic material that retains moisture and nourishes the soil, making it more productive than a conventional garden, even during dry or cold months. The gardens can produce vegetables for a family of five year round. In Lesotho, the garden is usually walled with local stone or brick that retains daytime heat, alleviating low night time temperatures. The raised structure also makes access easier for the chronically ill or elderly. Size can vary, but the basic garden measures 1m high and 2m in diameter.

A keyhole-like 'cut out' or walkway design gives growers 'arms-length access' across the garden. 'Grey' water from household washing is added through a central composting basket, watering the garden and continuously infusing the soil with nutrients.

Once built, the garden requires little maintenance and, if cared for appropriately, can produce food for up to five years.



*Figure 1. Keyhole gardens provide a simple and easily replicated route to better food security and improved health that 'catches on' among communities*

winter. In Lesotho, night-time frosts are common, but the gardens' stone-walled design helps retain heat.

**Climate resilience.** Watering through a compost container using household 'grey' water from washing helps plants cope with drought.

**Income and savings.** Gardeners save money from their food bill and also generate income by selling surplus produce, so supporting other household needs.

**Education.** These savings often pay for children's school fees.

**Community development.** Creating the gardens has helped reinstate and sometimes form Matsema (social cohesion) groups based on local cultural norms of unity and cooperation. These are helping vulnerable households work with neighbours to build keyhole gardens throughout the community.

## Interventions and impacts

Since the project began in 2006 the partnership has built 23,150 gardens across the country in eight districts reaching an estimated total of 111,590 people.

**Joining up issues.** Approaches to addressing food security for families should be comprehensive and multi-layered to ensure the best outcomes. To achieve this, training modules have been added to the garden building scheme to help communities preserve vegetables, so saving food for periods of flood, drought and snow. This 'joined up' approach now offers nutrition and food preparation training to young mothers and families with children under five years old. Basic marketing training has also been incorporated, helping communities see keyhole gardens from a business perspective and encouraging households to sell surplus vegetables to increase their income.



*Mothunyane Motsoteng demonstrating how the keyhole gardens work*

S McLean

Gender roles are quite clearly defined in Lesotho, so that while men are involved in building the gardens, women are responsible for maintaining them, and the gardens have empowered women to form stronger community structures. Savings groups are helping community members learn basic money management and planning skills, for example collective savings to buy inputs such as seeds.

**Joining up agencies and organisations.** The keyhole gardens take an integrated development approach, working closely with Ministry of Agriculture and Food Security extension workers and community and district stakeholders, including local authorities, traditional leaders, faith-based organisations, teachers and health workers. This 'joined-up' approach has allowed training and technical support to be introduced at district level community centres, schools and small rural clinics. The overall aim is to ensure longer-term sustainability of keyhole gardens within communities.

The approach is popular and self-supporting. Data collected by CRS suggests as many as 15 per cent of 'non-project' households in intervention areas replicate the technology for themselves with the help of project participants. One assessment study of 13,000 C-Safe project beneficiaries found that 91 per cent were still maintaining and caring for their gardens two years into the project.

Field monitoring consistently demonstrates that more than 80 per cent of gardens meet the project's initial construction and maintenance standards.

Beneficiaries say that children 'are fatter' and ask for carrots to snack on because they understand the health benefits of eating fresh vegetables.

But information does not flow only one way. Local knowledge and participants' accumulated experience has led to adaptations over the years, improving the garden's productive capacity – for example by using manure and manure 'tea', and using chilli peppers, garlic and intercropping with marigolds to help pest control. Participants also share their experiences with other community groups at agricultural demonstration days.

## Main achievements and challenges

The keyhole garden project's wide-ranging and 'joined-up' approach has led to its inclusion into official food security policy in Lesotho. Close collaboration with government officials and advocacy to members of parliament has ensured a place for homestead gardening in the strategic plans of the Ministry of Agriculture and Food Security, the Food and Nutrition Coordinating Office, and the Ministry of Health.

The collaboration has also led to conservation agriculture being included in curricula at the Lesotho College of Education and the Lesotho Agriculture College, and CRS staff have joined the National Conservation Agriculture Task Force, a group of NGOs and government officials led by the Ministry of Agriculture and Food Security.

## JOINED UP APPROACHES

But the approach has reached much further than just Lesotho. In 2011 CRS led a four-day 'Home Grown Keyhole Gardens for Disaster Risk Reduction Learning Initiative' that brought participants from universities, government offices, and research institutes in 18 countries together with international NGOs, and UN agencies. The workshop covered the high-level impacts of keyhole gardens, research on best practices, and practical examples of implementation. Having learned the garden's concepts and principles, participants then returned home to build, study and adapt the ideas to their own countries. Fifteen of the 18 countries have integrated keyhole gardens in their disaster risk reduction or development initiatives.

Naturally, this success has not come without challenges. Some were opportunities to adapt the approach. Keyhole gardening began at the height of HIV/AIDS in 2006 and initially aimed mainly to address food deficiency in households affected by AIDS. However, the project found fear of the stigma associated with HIV infection reduced uptake, so criteria for participation were dropped, and all households within a target village became eligible. There were also difficulties in ensuring maintenance or renovation for retaining walls and the central compost and watering basket, so more education and training was incorporated. Further, not all communities had access to the same materials and so the strategy was adapted to use suitable local alternatives – for example turf 'blocks' where stone is not available.

And there were also challenges in working with many different agencies and stakeholders. Sometimes, initial technical support and training was insufficient, so that communities were not convinced that the new technique was effective, and did not continue with the gardens.

In some of those communities, CRS and the Ministry of Agriculture and Food Security extension workers have now retrained people and have also worked to include or form Matsema (social cohesion) groups, based upon the Basotho cultural norms of unity and cooperation. Several successful Matsema groups have gone on to develop a 'Community Fundraising Mechanism (CFM)'. This helps communities to pool resources and buy seeds in bulk for sharing.

## Lessons

**Demonstrable success and 'joined-up' involvement from a wide-range of expertise can give a project a large ripple effect**, in this case acting both at the local level, where community groups have spread the technology, and at international level where the keyhole garden approach has spread to many other countries.

**A joined-up or integrated approach should incorporate both issues and organisations/agencies.** In Lesotho, keyhole gardens link the issues of food security, nutrition, health, education, income generation, savings and community development; drawing support and action from NGOs, community groups, faith leaders, government officials and academics.

**A major benefit of the joined-up approach is the strong 'outbound' links it builds**, for example the firm integration of homestead gardens within national food security policy and inclusion of conservation agriculture techniques in the curricula of agriculture training colleges in Lesotho.

**A joined-up approach also benefits from 'joining up' to traditional knowledge and thinking**, for example incorporating local pest control techniques and building on traditional values and institutions (through Matsema).