Strengthening the resilience of dryland communities: Towards a new paradigm

Desertification and land degradation are not just natural phenomena. They are the outcomes of long-term over-exploitation and mismanagement of fragile ecosystems. To address these problems, we cannot pursue the same ways of thinking that have led to this situation. We need to take a different perspective - one which is already presenting itself.

AgriCultures Network and Groundswell International

In February 2013, the United Nations will organise a major conference on desertification, sustainable land management and resilience. This is now more relevant than ever. The UN itself estimates that 1.5 billion people around the world are directly affected by land degradation, while every year 12 million hectares of land become unproductive through desertification. The effects are worsened by climate change. Pastures are scorched, crops and livestock often do not survive.

The impact can be devastating. For example, impoverished dryland communities in the Sahel and the Horn of Africa are experiencing high levels of chronic malnutrition, hunger, child mortality and migration, in an environment that is at risk of being degraded beyond repair. Humanitarian aid to cope with each new crisis costs over a billion dollars each time, and leaves many new problems in its wake.

Land degradation is not just the result of natural disasters. It is also the outcome of long-term over exploitation of natural resources and ecosystems, generated by the dominating approach to agricultural development. However, promising initiatives demonstrate that a new paradigm is emerging.

The old model

The dominant model of agricultural development leads to conflict and controversy. Policies and practices continue to be biased towards export oriented, commercial production in areas that have access to more reliable rainfall, inputs, roads and markets. But tens of millions of small-scale farmers who live in fragile drought prone areas cannot afford industrial inputs, such as hybrid or genetically engineered seeds, chemical fertilizers, pesticides, or irrigation.

The current neo-liberal development paradigm, focused on rapid growth, does not see investment in ecologically fragile, drought prone areas as being economically feasible. It foresees (and often drives) many small-scale farmers and pastoralist communities living in such areas to leave and work in towns and cities or large scale commercial plantations or farms. Food aid is dispensed during periodic droughts and shocks while this "inevitable" transition goes on.

A variety of experiences of farmers, NGOs and scientists over past decades has laid the basis for a new agricultural paradigm. A small selection of these experiences is presented in this issue of *Farming Matters*. A central concept in this new paradigm is the *resilience* of farming communities and their ecosystems. This concept has two aspects: ecological resilience, coping with drought and climate change, and socio-political resilience, the ability of farmers to develop their skills and voices to choose their own development path.

The path forward

In this new paradigm, farming systems are seen as a whole, with healthy, active

soils at the basis. The aim of this paradigm is not just increased productivity, but also resilience to climate change and sustaining the natural resource base. For all three aims, it is essential to increase the organic matter in the soil. This improves water retention and fertility, and prevents erosion. Agro-ecological practices range from recycling nutrients and energy, integrating crops and livestock, using low external inputs and diversifying crops. In an agro-ecological approach, these practices go hand in hand with the empowerment of small-scale farmers, both men and women. As farmers gain greater control over their lives, they decrease the risk of crop failure or livestock deaths due to drought and degradation. Farmers reap multiple benefits at once: increased productivity and food security, higher incomes, adaptation to a changing climate, regeneration of their natural resource base and more autonomy.

Many civil society organisations have worked closely with local communities and interested scientists, to develop and document holistic approaches to dryland management. These approaches are powerful because the technical, social and governance dimensions are closely integrated.

Day by day, these experiences are accumulating. Some initiatives have already been massively scaled up as can be seen in the Sahel (see page 14). Other successful examples include the experiences of community groups for watershed development in Indian dryland regions and in the Peruvian Andes (see pages 18 and 34). Such experiences demonstrate that agro-ecological farming is an appropriate and cost-effective approach to increase resilience in drought prone, ecologically fragile areas. There is abundant evidence to support this. Yet, there are challenges preventing a more comprehensive upscaling of this approach.

Change is in the air

Governments and donors still have a long way to go in mainstreaming the agro-ecological paradigm. This involves enabling small-scale farmers to develop their skills, expertise and voice, while supporting their use of agro-ecological farming practices. It requires a truly integrated perspective on dryland management, breaking down institutional barriers and improving collaboration between stakeholders.

Building agro-ecological resilience requires a fundamental change in agricultural investment patterns. For example, the UNCCD argues that it is important to build production systems based on the intensification of locally available and adapted biodiversity, using local knowledge, while its finance mechanism explicitly encourages a large role for the private sector. We would strongly suggest the UNCCD to prioritise investments in strengthening small-scale farmers' capacities.

Social movements and NGOs have a role to play in supporting the upscaling of agro-ecological practices and fundamental policy change. There is urgent need to improve the documentation, analysis and communication of successful experiences. It is also important to understand the strategies and dynamics that exist in, highly politicised, decision making arenas. Civil society organisations need to take a broad perspective and build strong alliances, truly exchanging knowledge with farmers and scientists.

The call for change is getting louder. Farmers are becoming more powerful in voicing their concerns and proposals. We are also witnessing a growing movement of consumer organisations that have become conscious of the need for ecologically responsible and socially just food systems.

Policy makers are facing the huge and mounting costs of disasters caused by climate change, land degradation and desertification. If they listen well, and open their minds towards a new way of understanding a multi-functional approach to agriculture, they may well discover that part of the solution is within reach.

The AgriCultures Network and Groundswell International will organise an official workshop during the upcoming conference of the UNCCD in February 2013 in Fortaleza, Brazil. For more information, please write to **Janneke Bruil** (j.bruil@ileia.org) or to **Peter Gubbels** (pgubbels@groundswellinternational.org).

"Leaves falling from these trees are very beneficial to our fields. They serve as fertilizer and enrich the soil. We also use these leaves to cover our roofs. We use the trees' roots to treat diseases and its fruits are edible. Our herd comes to rest in the trees' shade." The Meraidjonga Women Farmers Association in Mali.
Photo: Macinafilm