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Scaling up an integrated watershed management approach through social protection programmes in Ethiopia: the MERET and PSNP schemes

In Ethiopia, a local-level participatory planning approach has ensured success for social protection schemes that provide payment in exchange for work to build public assets. The successful MERET (Managing Environmental Resources to Enable Transitions to more sustainable livelihoods) programme, which concentrated on integrated watershed management, has informed the broader Productive Safety Net Programme (PSNP), heralded as a leading example in the fight for food security and inclusive development.

Overview

In Ethiopia, land degradation is a major cause of the chronic food insecurity widely experienced by the country's largely rural population. In rural (mainly highland) areas, around 50 per cent of land is classed as degraded. In Tigray region, one estimate suggests 30-50 per cent of soil productive capacity has been lost in the past 500 years. Recent studies report soil losses of 10-80 tonnes per hectare per year (well above the normal regeneration rates of 5-7 tonnes per hectare per year).¹

Ethiopia is ranked the ninth most susceptible country in the world to natural disasters and weather-related shocks² and climate change is likely to exacerbate this situation, making extreme weather events more frequent and intense, increasing water stress and further reducing agricultural productivity. And Ethiopia's population is growing, further increasing the difficulty of improving the food and nutritional security of the poor. At current rates, 270 people will need to gain a living from each square kilometre of arable land by 2050, compared with 125 per square kilometre now.

After the droughts and food shortages of the 1970s

and 1980s, the Ethiopian Ministry of Agriculture (MoA) and the World Food Programme began to exchange relief food aid for 'work' in drought-affected areas, focusing on rural land rehabilitation (for example terracing hillsides). Early successes included afforestation, increased livestock feed, soil and water conservation efforts, and restored agricultural productivity. However, the adopted watersheds proved too large to monitor and manage, while the top-down planning methodology lacked community input and the restoration was less effective than had been hoped. Food shortages and out migration remained a feature of rural areas.

Interventions and impacts

In the late 1990s the Tigray Bureau of Agriculture and Natural Resources piloted an integrated community-based watershed management approach (with support from Irish Aid) that drew training and experience from successful participatory watershed management in India. A key insight was the economic benefits that arose for communities once the upper catchment areas of a watershed were rehabilitated. Rehabilitation led to a recharge of groundwater in the lower catchment. Areas that previously depended

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on unreliable rain-fed production were transformed by a rapid and substantial growth of micro-irrigation as farmers sunk their own wells, in some cases investing in small motor pumps or treadle pumps. Other contemporaneous water harvesting approaches that did not build on this community-orientated and integrated approach (such as microdams covering up to 100 hectares and farm-level lined ponds to collect water) were generally unsuccessful.

Complementary government investments also played a part. In Tigray there has been a move towards land certification, providing tenure security that serves as an incentive for investments both in irrigation and in tree crops. Extension support for irrigated vegetable and fruit tree production as well as for cereals, and supplying improved beehives and providing improved breeds of chickens, has also helped create a 'virtuous cycle' of increased incomes and increased investment.³

Building on the initial pilot, the government of Ethiopia and the WFP merged farmers' priorities with technical specifications for watershed and soil management. The result was a Local Level Participatory Planning Approach that, in 2003, developed into the MERET programme (Managing Environmental Resources to Enable Transitions to more sustainable livelihoods). The programme now covers over 450 watersheds in 72 chronically food-insecure woredas (districts) across five regions (Amhara, Oromiya, SNNP, Tigray, Somali) and Dire Dawa Administration, reaching approximately 640,000 beneficiaries per year.

Over the years, more than 400,000 hectares of degraded land have been rehabilitated under MERET, helping households raise their incomes in absolute and relative terms, as well as increasing agricultural production.

A recent impact evaluation⁴ found that two-thirds of all MERET households (compared to less than half of the control site households) have escaped from poverty during the past ten years, that is MERET has delivered a 20 per cent reduction in poverty in its project areas. MERET has similarly reduced participating communities' dependence on emergency relief.

The interventions have also improved food security. MERET households consume a more diverse diet, and significantly more MERET households consume 'acceptable' diets compared to control site households.

In 2005, the government of Ethiopia, with funding from nine development partners, expanded the

approach further, introducing a new way of helping chronically food insecure households while building assets through public works schemes. This Productive Safety Net Programme (PSNP) covers several thousand watersheds in 319 chronically food insecure woredas (districts) in six regions (Afar, Amhara, Oromiya, SNNP, Tigray and Somali) as well as in Dire Dawa and Harari urban administrative areas. It includes, but goes beyond, MERET's successful projects, taking chronic food insecurity as its focus rather than watershed management. With an annual budget of approximately \$US450 million, the programme targets around 7.8 million people in a normal year (and that rose to around 11.6 million during the regional drought of 2011). The PSNP

Box I. Benefits from PSNP's public works⁵

A recent impact assessment showed the PSNP public works:

- reduced sediment in streams by 40-53 per cent in areas closed to grazing and cultivation (Closed Areas);
- increased woody biomass and forage production three to four-fold;
- increased water availability and quality;
- increased ground water recharge and improved downstream base flow of streams;
- lessened damage from seasonal floods (by soaking up rain water through Closed Areas);
- enhanced down-stream crop production through soil and water conservation interventions;
- stored carbon (estimates from just two of several thousand watersheds calculated over a million tonnes of CO₂ equivalent had been sequestered);
- increased biodiversity;
- increased social cohesion by improving livelihoods; and
- improved access to social services (for example 3,900 schools and 450 health posts have been constructed or refurbished).



*Cash payments
can help tackle
food insecurity*

Sujwla Pecio/World Bank 2011

delivers 46,000 public works 'projects' every year, as well as providing the poorest and most vulnerable households with regular, predictable support (typically cash transfers). PSNP restores local environments degraded by years of overuse and poor management, and builds social infrastructure such as education and health facilities for the local community.

The principles and approaches developed for the MERET community-based and participatory watershed management projects are now embedded in both programmes, and form a core part of the government of Ethiopia's approach to natural resource management.

Main achievements and challenges

The PSNP has developed a global reputation for delivering transformative improvements to Ethiopia's natural resource base as well as comprehensive social protection. It has successfully scaled up MERET's local 'watershed community' approach to soil and water conservation into a national safety net programme tackling hunger and reducing vulnerabilities to climate change.

The principles and approaches of community-based participatory watershed development and commitment to community capacity building are now viewed as a model that truly changes livelihoods in severely degraded environments. While MERET leads on physical and biological, soil and water conservation measures, the PSNP scales out natural resource

management activities, for example including more afforestation and area closures. Both approaches are of sound technical quality and have contributed to environmental improvement. And both the PSNP and MERET have a strong emphasis on national capacity development, national and regional technical training, and community-based participatory planning.

Communities are now more resilient to climate-related shocks and employ a wider variety of preparation and adaptive strategies. When they experience shocks they can generally meet their household food needs and are better able to cope because they have a wider array of income sources and soil and water conservation skills.

This approach to tackling land degradation and food insecurity has evolved with strong government of Ethiopia leadership, through the Ministry of Agriculture, and is well integrated in local and national policy and implementation practice. The Government has extended these principles and approaches to other flagship natural resource management programmes, such as the Sustainable Land Management (SLM) programme. With support from various donors⁶ and leadership from within the Ministry of Agriculture, the Government has developed and published national community-based participatory watershed development planning guidelines.

The main challenge facing MERET and the PSNP has been finding sufficient capacity at all levels of government (federal, regional and district) to scale out

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the programmes to the full extent needed. Technical, administrative and financial capacity have all been built substantially, but there is much work still to be done, given the scale and variety within the country. The Government of Ethiopia is rightly heralded as a leader in the fight against food insecurity, and is championed for putting in place a comprehensive social protection system that leads to inclusive growth. Yet ensuring that the social protection system remains effective and efficient remains an ongoing challenge. Unless this challenge is met, the gains of the past decade could be lost, together with the institutional capacity to respond adequately to potential threats. The government has made significant progress in developing both a disaster risk management policy, and a social protection policy, both of which conceptualise the continuation (and in some areas the expansion) of a safety net such as the PSNP, and now is the time to consolidate that work.

Lessons

Delivering a national-scale social protection instrument that addresses widespread but local underlying causes of food insecurity and poverty is possible. Ethiopia's much championed and large-scale PSNP has been built on the success of the smaller (but still substantial) MERET programme, as well as experiences from other programmes on social protection, disaster risk management and food security.

It is essential to root such an approach in a good contextual understanding of vulnerability and to use a local 'unit of community' as the basis for planning. Ethiopia's success with MERET and PSNP is in contrast to earlier less effective large-

scale programmes to rehabilitate degraded land, and this success has depended on the programmes' local level participatory planning approach, which sees smallholder associations and community leaders as key stakeholders.

Continuous engagement at multiple levels (donor, government, institutional, community and household) is necessary and requires dedicated resources. Expecting coordination and sustained engagement to simply materialise is unrealistic. Dedicated and ongoing resources (such as time and personnel) are essential to maintain effective engagement among local people, programme workers and staff in relevant government institutions and departments.

The technical capacity development needed for a large-scale programme requires dedicated resources and will not develop without such support. Requirements should be realistically appraised and anticipated, and should not be 'bolted on' to existing interventions.

Long-term success will depend on continued government and donor commitment, and ongoing policy goals. Despite MERET and PSNP's undoubted success, the scale of the problem, and the exacerbating effects of climate change, mean that planning for long-term continuation of such programmes is essential.

Donors can play a catalytic role by supporting innovative pilot projects. Irish Aid's support for the Tigray Bureau of Agriculture and Natural Resources in the late 1990s was a 'seed' that grew into the much larger MERET and PSNP programmes.

Notes

■ ¹ Figure from USAID and the Government of Ethiopia, Livelihoods Integration Unit, 2009. ■ ² Sida, L., Gray, B. Asmare, E. 2012. *Real time evaluation of the humanitarian response to the horn of Africa drought crisis*. Interagency Standing Committee (IASC), Ethiopia. ■ ³ Chisholm, N., Woldehanna, T. 2012. *Managing watersheds for resilient livelihoods in Ethiopia*. Development Cooperation Report. OECD DAC ■ ⁴ Sutter P. et al. 2012. *MERET Impact Evaluation Report*. Technical Assistance to NGOs. TANGO ■ ⁵ Report commissioned from Peter Sutcliffe et al. 2011. PSNP. ■ ⁶ Donors include the Canadian International Development Agency, the German Agency for Technical Cooperation (GIZ), ILRI, USAID, the World Bank and the World Food Programme.



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