

# Backgrounder

Food and agriculture

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## Growing sustainable agriculture in Mozambique

*Stronger evidence, advocacy and policy can transform agriculture by spreading sustainable farming practices among smallholders*

In Mozambique there is strong support for sustainable agriculture from different actors, with approaches including agroforestry and conservation agriculture increasingly promoted throughout the country by the Ministry of Agriculture, civil society, farmers' groups and development agencies. Research trials and anecdotal evidence suggest that these practices increase yields, are more resilient and are economically accessible for small-scale farmers. Despite this, uptake among smallholders remains low.

A recent scoping study and a stakeholder survey by IIED shows that the scaling-up of sustainable agriculture is limited by a number of financial, technical and institutional constraints. Scarce policy support is another major limitation: while

agricultural policies advocate environmental stewardship and social inclusion, political commitment and funding towards these objectives are negligible when compared with the support given to agricultural growth and large-scale investments.

Here, we look at the actions needed to scale-up the adoption of sustainable farming practices among smallholders in Mozambique, and describe our related work.

### Grow stakeholder understanding of benefits and costs

Additional resources must be allocated to fill knowledge gaps about the barriers to, and benefits of, sustainable practices. Agricultural research should address specific technical constraints, taking into

### KEY TERMS

- **Sustainable agriculture** is economically viable, environmentally sustainable, climate resilient, culturally sound and socially just. While generally accepted as 'virtuous', this holistic perspective remains contested: different actors emphasise different dimensions and there are tensions between equally desirable objectives.
- **Agricultural intensification** enables farmers to achieve higher yields through more efficient use of resources, inputs and technologies. Production is usually intensified in response to rising demand, but can also be a result of resource shortages, for example in land or labour.
- **Conservation agriculture** is based on three principles that, applied simultaneously, enhance biological processes: minimum or no mechanical soil disturbance; permanent organic soil cover; and crop mixing and crop rotation.

### WHY IT IS IMPORTANT

Mozambique is often regarded as having great potential for greater commercial agricultural production. Large-scale investments are considered a major driver of transformation, but these can promote monocultures and technological packages that damage the environment. In addition, there is a great deal of uncertainty about their impacts on smallholders' access to markets, land and employment.

At the other end of the spectrum, low yields, labour-intensive technologies and vulnerability to climate shocks make small-scale agriculture unattractive (especially to young

account the country's diverse agro-ecologies and seeking solutions that make the most of local farmers' skills and resources. In the socio-economic arena, the profitability and risks of sustainable practices should be systematically assessed once the dissemination activities end in order to determine what deters or encourages the new practices to be embedded in the long term.

More training on sustainable practices should be available in agricultural colleges to develop the research and extension staff of the future. Their learning should include more participatory ways to develop and adapt innovation in order to solve problems with local-tailored solutions. To achieve this, links between farmers, researchers and extension staff also need to be strengthened, with farmers' traditional knowledge both valued and documented.

### Create the right incentives for farmers today...

Sustainable practices should not only be appropriate but also attractive to farmers. Sustainable approaches are often promoted as an option solely for subsistence producers, making them less attractive to investors and also to some commercial farmers. As a result, even if producers are aware of the importance of preserving the natural resource base, becoming more sustainable may not be a priority: the poorest households see farming as a risky and unprofitable activity they are not willing to invest in; whereas market-oriented farmers prioritise overcoming structural constraints such as lack of irrigation and poor access to credit.

Creating marketing opportunities for sustainably farmed products through a 'value chain' approach can encourage growers to invest time and resources in practices that may involve extra labour and risk in the early stages of adoption.

### ...and for farmers tomorrow

Market-based incentives for the adoption of sustainable approaches should be tailored to different types of farmers. In the longer term, assuming that more successful farmers may consolidate land into larger farms while progressively more people abandon the sector, the promotion of agro-ecology and other sustainable practices must address the need to intensify production at different scales.

### Influence and improve relevant policies

Addressing the technical and financial constraints to scaling-up the adoption of sustainable agriculture is important. But policy coherence comes first. Mozambique's agricultural and environmental policies support sustainable agriculture but a consistent programme of work backed by adequate funds is not in place. In contrast, the national agricultural development strategy (PEDSA) and the governmental commitment to the New Alliance for Food Security and Nutrition demonstrate a strong focus on growth and investment.

There is wide support for sustainable approaches across directorates of the Ministry of Agriculture, civil society, farmers' groups and development agencies. Strengthening these actors' capacity to advocate sustainable small-scale farming as a viable option for the transformation of the sector would help policymakers to address sustainability issues more consistently.

One way to reinforce these actors' role in policy advocacy is by improving understanding and consolidating evidence of the benefits and the costs associated with sustainable practices. Creating exchange and learning opportunities is also important in order to foster synergies and avoid duplication of efforts.

### Exploring roads to adoption

Our new research project seeks to help farmers and other local stakeholders arrive at a common definition of 'sustainable agriculture', consider how this is reflected in policy and practice, and recognise major constraints.

A workshop organised by IIED, the Mozambique Institute of Agricultural Research (IIAM), CARE International and University Eduardo Mondlane will be held in Maputo in May 2015. It will enable representatives of key agricultural institutions to discuss what type of policies, investments and incentives are needed to overcome constraints to scaling-up sustainable practices, and what different actors can do to achieve the necessary changes.

Workshop proceedings will be distributed through local networks and forums to stimulate discussion, particularly among research and development organisations and policymakers, and to help create a consistent policy space for sustainable agriculture.

people) and unsustainable in the long term. And, despite a negligible use of chemical inputs, family farming is not environmentally sound; many households use unsustainable practices such as 'slash-and-burn' land clearance, burning of crop residues and deforestation.

In addition, where competition for land is high, farmers are forced to cultivate the same plots for longer, reducing following periods. If not accompanied by practices that conserve and replenish the soil, intensification in the use of land leads to rapid degradation and declining fertility.

### FURTHER READING

Silici, L et al. (2015) Sustainable agriculture for small-scale farmers in Mozambique: A scoping report. IIED, London. <http://pubs.iied.org/14654IIED>

Silici, L (2014) Agroecology: What it is and what it has to offer. Issue Paper. IIED, London. <http://pubs.iied.org/14629IIED>

Cook S, Silici, L, Adolph, B and Walker, S (2015) Sustainable intensification revisited. Issue Paper. IIED, London. <http://pubs.iied.org/14651IIED>



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### Knowledge Products

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### FIND OUT MORE

Our work on agriculture and rural livelihoods is being undertaken as part of the project "Exploring Sustainable Intensification", run by IIED's Natural Resources Group. This group drives our efforts to shape fairer and more sustainable governance of natural resources. Find out more about our work on agriculture at [www.iied.org/food-agriculture](http://www.iied.org/food-agriculture)