

Position Paper | 2011



Small, competitive and resilient

How small-scale producers contribute
to food security

Hivos
people unlimited

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Introduction

Food insecurity threatens almost one billion people. At least 70 percent of these very poor live in rural areas in developing countries. Most of them are engaged with farming activities.¹ Scientists estimate that the world's population will grow to 9.1 billion by 2050. Since natural resources are already dangerously degraded, fossil fuels are becoming scarce, and climate change has become an impending reality, this poses a serious challenge. To nourish the growing population and meet the challenges of climate change, it is necessary that the unused potential of small-scale producers – who already today provide an impressive 70 percent of the world's food – is unleashed. They have the right and capability to be part of the solution. Hivos calls for a serious reorientation of government, research and civil society policies towards focusing on small-scale producers, thereby proposing to drastically increase investment – funds, research, and time – in their organisation, competitiveness and resilience.

Our vision of food security

For Hivos, food security has special significance. Our mission is to contribute to a fair, free, and sustainable world, where all people – male and female – have equal opportunities. Hivos supports initiatives and partners working to improve the position of the rural poor while advocating for sustainable use of natural resources. Hivos stimulates market-driven development in agriculture that also triggers broad economic development, with increased employment opportunities and incomes both inside and outside the agricultural sector. Environmental sustainability and resilience of agricultural production systems remain central to our approach. Hivos sees small-scale, resilient agriculture – which recognizes the limits of natural resources – as critical to solving the global problem of food insecurity and poverty. Only by looking at long-term, sustainable solutions will it be possible to nourish 9 billion people.

Hivos believes that women are gatekeepers of food security. Yet, women struggle with limited access to productive resources and opportunities. The FAO estimates that with the same access to resources as men, women could increase yields by approximately one third; agricultural output in developing countries could increase by around four percent; and the number of hungry people in the world could be reduced by 12 to 17 percent.² Hivos believes that smallholdings managed by women can be as successful as those managed by men, and therefore gives special attention to female producers and entrepreneurs, who form the majority of agricultural producers and are critical for improving food security.

¹ IFAD Rural Poverty Report 2011, <http://www.ifad.org/rpr2011/report/e/overview.pdf>.

² FAO, 2010. The state of food and agriculture. Women in Agriculture: Closing the gender gap for development.

³ Murphy, S. 2008. The Global Food Price Crisis. IATP Fact Sheet.

Causes of food insecurity

Food insecurity – especially in rural areas – has complex causes. These include the following:

- Rural poor often spend up to 80 percent of their earnings on food because they do not produce enough or are forced to sell their produce at low prices. Additionally, many rural poor do not own sufficient land and lack alternative income opportunities, such as possibilities to add value to their agricultural produce.
- While staple crop prices skyrocketed in recent years – the result of poor harvests, a growing global demand, speculation on commodity markets that adds to price volatility, the rising price of oil, and competition for land to produce animal feed or fuel crops³ – small-scale producers hardly benefited, pointing to a serious imbalance in the global food system.
- Climate change increases the frequency of devastating weather events, causes permanent changes to local climates, and creates erratic weather patterns. These all have a negative effect on agricultural productivity and increase pest and disease occurrence.
- Augmented environmental degradation of agricultural lands – mainly triggered by mono-cropping and over-reliance on fossil fuel-based inputs – destroys ecosystems that provide for example food, water, carbon sequestration, and climate regulation. Fossil fuel-based agricultural systems will become increasingly unsustainable as energy prices increase and fossil fuels grow scarce.
- Limited availability of food in many developing countries is caused also by poor marketing and post-harvest losses: more than one third of food in the poorest countries is lost through spoilage, poor storage, and inadequate transportation.
- Forced trade liberalisation and economic restructuring in developing countries exposes small-scale producers to extreme competition from low-priced imports.
- Over the last two decades, governments and donors have neglected investments in agricultural development, causing cuts in public services and subsidies, thereby weakening in particular small-scale production.

Why has there been so little investment in small-scale, resilient agriculture?

Investments in agriculture from national governments and international donors have fallen significantly over the past two decades. In the period from 1980 to 2002, agricultural spending as a share of total government expenditures decreased from 11 percent to 7 percent.⁴ Reasons for this can be found in the changing role of the state, caused mainly by structural adjustment programs. These have put considerable pressure on the governments of developing countries to cut subsidies and direct-service delivery, especially in the agricultural sector. It wasn't until 2003 that the Maputo Declaration on Agriculture and Food Security⁵ aimed to reverse this trend. African heads of state decided that 10 percent of national budgets should be spent on agriculture and rural development within five years. Eight years on, few countries have achieved this.

In addition, official development assistance to the agricultural sector almost halved between 1980 and 2005.⁶ At the same time, civil society organisations reoriented their priorities and increased expenditure on the social sectors in keeping with the Poverty Reduction Strategies and the Millennium Development Goals. It appeared that agricultural problems could be addressed more effectively by investing in communication or transport infrastructure; rural

³ Murphy, S. 2008. The Global Food Price Crisis. IATP Fact Sheet.

⁴ Cabral, L. (2007). Funding agriculture: Not 'how much?' but ,what for? Overseas Development Institute. www.odi.org.uk/resources/download/530.pdf.

⁵ NEPAD, 2011. AU Maputo Declaration on Agriculture and food security. www.nepad.org/nepad/knowledge/doc/1787/maputo-declaration.

⁶ Cabral, L. (2007).



development and investment in agriculture were not seen as a priority once it became clear that increased agricultural production does not automatically improve access to food. It was only with the publication of the World Development Report 2008 on “Agriculture for Development” that many organisations and national governments decided to reorient their efforts towards the agricultural sector in developing countries. It is now increasingly recognised that agriculture plays a key role in many national economies, and that investments in the agricultural sector boost broader economic development.

An outstanding recent example of a successful national government intervention on food security is the ‘Zero Hunger’ programme, implemented by World Food Prize Laureate Luiz Inácio Lula da Silva, the former Brazilian president. This became one of the most successful food security policies in the world through its broad network of programmes, including the school feeding and food purchase programmes. The latter contributed to rural development by acquiring food for schools, hospitals, and community restaurants directly from smallholder farmers. ‘Zero hunger’ halved the number of hungry people in Brazil long before the MDG’s 2015 deadline.⁷

Small-scale, resilient agriculture offers a long-term solution

Small-scale family farming dominates agricultural production in developing regions, where more than 500 million farms of 2 hectares or less employ more than 2 billion people.⁸ Although productivity is still low, and they get little or no support from governments or research institutions, more than 70 percent of the world’s food is currently supplied by smallholders. Experience shows that with adequate service provision, smallholders’ productivity and profitability can be increased tremendously. Yet, this is not true for all small-scale producers. Hivos therefore targets (potentially) entrepreneurial producers with at least a limited number of productive assets, for example land. Using OECD’s five rural and agricultural systems as a framework, these can be considered a) traditional agricultural households and enterprises that are generally not internationally competitive and b) subsistence agricultural households and micro-enterprises.⁹

Small-scale producers preserve and breed a wealth of agricultural biodiversity: they nurture over 5,000 domesticated crops and have donated more than 1.9 million plant varieties to the world’s gene banks.¹⁰ This diversity in crops provides insurance for small-scale producers – increasingly important in changing climatic conditions. As smallholders mainly use multi-cropping techniques, rely on rain-fed agriculture, traditional practices, and indigenous and local plant and crop varieties,¹¹ they already apply a range of agro-ecological practices. A serious reorientation towards small-scale producers and greener agriculture should be a part of any solution addressing global food insecurity and poverty.

⁷ World Food Prize (2011). The World Food Prize Laureates. <http://www.worldfoodprize.org/index.cfm?nodeID=33367&audienceID=1>

⁸ IFAD, 2010. Food Prices: Smallholder Farmers can be part of the solution. www.ifad.org/operations/food/farmer.htm.

⁹ OECD. 2006. Promoting Pro-Poor Growth: agriculture. OECD, Paris.

¹⁰ ETC Group. 2009. Who Will Feed Us? Questions for the Food and Climate Crises. ETC Group, Ottawa.

¹¹ Zelaya, S.A., (date not available). How do small-scale farmers in drylands may survive in a climate changed world? Some ideas. UNCCD Secretariat. http://unfccc.int/files/meetings/cop_16/media/application/pdf/101202_mw_unccd.pdf.

¹² International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD). 2008. Report findings.

A business-as-usual scenario of increasing agricultural intensification to nourish the future population – using agribusiness seeds and energy-intensive inputs such as oil and phosphates – seems untenable. The 2008 IAASTD report,¹² the most comprehensive agriculture assessment to date, concludes that biologically diverse farming makes agriculture more adaptive and capable of eliminating hunger. It is also more resilient to climate variation and change, as it uses water more efficiently and reduces the risk of crop failure. There is also growing evidence that resilient agriculture can produce enough food. In Ethiopia and Egypt, land regenerated through organic methods is feeding thousands.¹³

The High Level Panel of Experts on Food Security and Nutrition's recent report "Land tenure and international investments in agriculture" reaches similar conclusions: "the huge number of smallholders in many middle and low income countries and the role they play in generating food, employment and livelihoods for more than 2 billion people should put them at the heart of agricultural development strategies".¹⁴ The panel advocates a focus on public investment in smallholder agriculture and alternative production systems that are socially inclusive and environmentally sustainable. They find sufficient evidence that most crops can be grown just as productively by smallholders as by large commercial estates.

A study by Pretty et al.¹⁵ provides further evidence that sustainable, resource-conserving agriculture can meet future food needs without adverse environmental effects. Their research in 57 low-income countries showed that resource-conserving agriculture increased average crop yields by almost 80 percent; all crops gained in water-use efficiency, with the largest improvement in rain-fed crops. The potential carbon sequestered was so high that it offers income opportunities through carbon trading schemes. The authors conclude that widespread adoption of resource-conserving techniques and crop innovation can contribute to productivity. Institutional reforms at all levels should aim at improving access to resource-conserving technologies to guarantee food security and income growth for small producers.

Based on these findings and on our experience in the field, Hivos advocates for innovative investment in small-scale, resilient production systems that use natural resources efficiently, increase soil fertility, maintain and improve biodiversity, and renounce energy-intensive inputs. Investment in small-scale producers and their systems offers long-term, sustainable solutions to food insecurity!

¹³ English, A., Powered by Nature. In 'Food Security News Insert'. Financial Times, 2010.

¹⁴ The High Level Panel of Experts on Food Security and Nutrition (2011). Land tenure and international investments in agriculture. http://www.fao.org/fileadmin/user_upload/hlpe/hlpe_documents/HLPE-Land-tenure-and-international-investments-in-agriculture-2011.pdf.

¹⁵ Pretty, J. et al. 2006. Resource-Conserving Agriculture Increases Yields in Developing Countries. *Environmental Science & Technology*, 40(4) pp. 1114–1119.



What do small-scale producers need to contribute to food security?

Hivos aims to help small-scale producers organise themselves, become more competitive, and pursue resilient agriculture so that they can contribute to long-term food security. To do this, **small-scale producers need...**

...to be organised!

Small-scale producers are not only linked with markets as sellers of food produce, they also buy food, agricultural inputs and other consumer durables. These linkages with markets are often volatile and erratic. If producers organise, they can improve access to reliable market information, adequate agricultural inputs such as (organic) seeds and fertilizers, and government support in the form of extension services for both cash and food crop production. Additionally, organisations of producers are better able to negotiate with buyers, and get better and more reliable prices for their produce. Also, organisations guarantee a more reliable product supply than individual farmers, meeting a key requirement for many markets. Finally, organisation leads to better-informed producers that use inputs in an efficient and sustainable manner and are able to advocate more strongly for support from banks, government, or research institutes. Nonetheless, a challenge remains: ensuring that more women become members of producers' organisations is difficult as they generally have a subordinate role regarding decisions on cash crops.

Evidence for the crucial role of representative organisations in increased food security comes from Hivos' East Africa Organic Agriculture Programme,¹⁶ running in Tanzania, Uganda, and Kenya for more than 10 years. The programme shows that increased social organisation and collective selling improves marketing opportunities. Organisation can also lead to improved product quality through collective post-harvest handling and processing. Group trainings provided by Hivos' partners provide incentives to undertake collective activities and build mutual trust among producers. Training in collective marketing, basic administration, and other business skills encourages and helps small-scale producers to organise with the objective of engaging collectively with national, regional, and international markets.

Other practices – such as bulking – enable producers to reduce transaction and transport costs. After bulking, produce can be sold collectively in larger volumes, which leads to brokers paying higher prices. Additionally, it opens new markets: brokers will pick up large volumes of produce, but are not willing to collect from multiple individual farmers. Hivos partner NOGAMU, the National Organic Agricultural Movement of Uganda, has witnessed that bulking and direct export can make the difference. Its member organisation, Bufumbo Organic Farmers Association, hires processing and grading services for the cooperative and then exports coffee directly to a Danish importer. The producers now have 80 percent more profit. Another benefit for producers: “the more volume, the more bargaining power!” states Muwanga, CEO of NOGAMU. The Indonesian farmers' organisation SPPQT (Serikat Peguyuban Petani Qoryah Thoyibah) – a union of district-level farmer associations with more than 15,000 members, of which 30 percent are female – reports similar results. SPPQT members also bulk their products to get better prices. Horticultural products from SPPQT farmers' groups have now entered high-value chains such as hotels, healthy food channels, and supermarkets.

¹⁶ Guijt, J. & Woodhill, J. (2008). Missing Links: Growing Organic Chains between Farmers and Market. An evaluation of Hivos' Organic Agriculture Programme in East Africa.

...to become more competitive!

Since their ties with markets are often unstable, small-scale producers cannot reap sufficient benefits. Improved market links can help small-scale producers increase their own supply of food and seeds, while they become more profitable through produce sales. Small-scale producers, once organised, must learn what the market wants (required quality and quantity, traceability, certification, food safety) if they are to become competitive and reliable supply chain actors.

Hivos typically engages with markets and private-sector parties that reward sustainable practices. These markets encourage producers to improve their production systems. Evidence from Kenya shows that private sector involvement can make the difference when linking producers to markets. Coffee trader ECOM decided in 2006 to set up Sustainable Management Services Ltd. (SMS) in Kenya to help small-scale coffee producers enter the high-quality coffee market. Together with Hivos, SMS developed a quality management system that enables producers to identify major production and marketing risks. With technical assistance from SMS, more than 10,000 organised producers were able to increase the quality of their coffee – including a substantial increase in the share of premium-grade coffee – and to boost their incomes by more than 50 percent. The number of organised producers is envisaged to grow to more than 25,000 in 2011. Women constitute an important group within these organised producers. Additionally, Hivos also helps to improve access to financial services for men and women in rural areas.

The demand for sustainable, high-quality products, including those certified as organic, climate-neutral, or bio-diverse, is increasing in both the global North and South. This lets producers sell their sustainable products to national, regional, and international markets, encouraging agricultural practices that are better adapted to climate change and are more resource-conserving.

...to become more resilient!

Hivos helps small-scale producers pursue a resilient form of agriculture. Resilient agricultural systems can better adapt to external and internal disturbances, and recover quickly from shocks – crucial in times of climate change and volatile markets. This adaptive capacity is based on increased agricultural biodiversity (both in seeds and crops); soil fertility maintenance; and the regulation of soil water retention. These systems – referred to as agro-ecological production – are generally less dependent on external inputs and are highly resistant to pests and diseases. Recent developments in agricultural production – particularly the promotion of homogeneous crop varieties – threaten this diversity of seeds. Farmers' access to plant genetic resources (PGRs) and their role in conserving and developing these has been reduced, and seed diversity declined due to massive promotion of technologies that favour homogenous varieties.

Hivos not only researches the link between biodiversity, sustainable agriculture, and climate change, but also works with partners – non-profit, public, and private actors – who promote and implement community-based conservation and the sustainable use of PGRs. One of these partners is Agriseeds, a Zimbabwean company that demonstrates the contribution of small grains to household and national food security. Their “Smallholder and National Food Security Programme” contracts small-scale producers to grow cowpea, sorghum, and groundnut seeds – all important local foods. Agriseeds is now the main producer of these seeds in Zimbabwe.

Evidence of the crucial role of resilient agriculture for food security also comes from India, where Hivos has long supported sustainable rice production. India has a higher percentage of hungry people than any other country, and a rural population highly dependent on agriculture.

Mono-cropping is wide-spread. The intensive use of inputs such as chemical fertilizers and pesticides, as well as low net returns and the use of multiple loans, has left many farmers in severe debt. One approach to increase food security is the System of Rice Intensification (SRI). This increases rice field productivity by adapting the management of plants, soil, water, and nutrients. With SRI, producers use up to 50 percent less water than with conventional methods, and only 10 percent of the seeds. They plant several varieties for increased protection against pests. Returns are as much as 50 percent higher than with conventional methods due to reduced fertilizer, seed costs and increased productivity. Hivos works with local organisations in India to expand the use of these new practices.

The International Federation of Organic Agriculture Movements (IFOAM) is a global, multi-sector organisation that brings together many stakeholders in the field of agriculture. IFOAM is a strategic Hivos partner and actively promotes resilient agriculture. IFOAM and its member organisations have shown that an agricultural system focused on increasing soil quality through organic practices is viable. High soil fertility – resulting in healthy crops – is the key to a resilient and robust production system that serves as the basis for food security. Evidence for this comes – in very different, context-specific ways – from all parts of the world: yields are good, adapted to changing climatic conditions, and the products are of a quality that is attractive to consumers. Using this and other experience, Hivos engages in bringing together initiatives and projects that promote resilient agriculture in order to turn islands of success into seas of change.

Improved soil fertility is also an important additional effect of the Africa Biogas Partnership Programme, which Hivos initiated in partnership with SNV and the Dutch Ministry of Foreign Affairs to improve small-scale farmers' access to renewable energy. This initiative aims to equip more than 70,000 households in 6 African countries (Ethiopia, Kenya, Uganda, Tanzania, Burkina Faso, and Senegal) with domestic biogas installations over the next 4 years. Using waste products such as manure to produce biogas and compost improves the agricultural production cycle. Bio-slurry, for example, the product of digestion, is a good fertilizer often used by producers. The waste from agricultural processing, such as coffee pulp, can also be used to generate energy, creating energy-efficient agriculture production systems. This is crucial, given climate change and the increasing scarcity of fossil fuels.

Hivos partner CEDECO (Educational Corporation for Costa Rican Development) focuses on climate-resilient and energy-efficient agriculture. The Costa Rican organisation strengthens smallholders' technical and organisational skills in sustainable farming and entrepreneurship in four Central American countries. CEDECO has also developed a scientifically robust and affordable methodology called Cambio2, which quantifies the ecosystem services (carbon emissions, energy use) of agricultural production systems. Working with Hivos and three other organisations in Central America, CEDECO is developing the Latin American Climate Smart Agriculture Initiative (LACSAI), which facilitates environmental services trading, encouraging producers to switch to resilient agriculture. LACSAI seeks to increase food security, rural economic growth and climate-smart agricultural practices while creating economic opportunities for citizens in rural areas. Hivos plans to increase its investment in opportunities for smallholders to be paid for their ecosystem services, thereby linking different parties to the LACSAI initiative.

Hivos' proposition for a long-term solution to food insecurity

In order to guarantee that small-scale producers become an integral part of the solution to food insecurity and to ensure the sustainability of local and global food systems,

Hivos will contribute by

...bringing together initiatives and projects – such as those mentioned above – to expand these activities together with partners, governments, and donors.

...further investing in the organisation, competitiveness, and resilience of small-scale producers and their production systems.

...increasing the knowledge available on the links between sustainable agriculture, climate change, and biodiversity.

...expanding the availability of financial services to rural men and women.

...increasing access to renewable energy that makes agriculture more energy-efficient.

...investing in development opportunities for smallholders to be paid for the ecosystem services of their agricultural production systems.

...ensuring that women are recognized as producers and gatekeepers of food security.

Hivos also calls for

...governments to support and invest in resilient and smallholder production models, improving smallholders' access to markets and increasing their control over resources (land, seeds, and water).

...governments of low-income countries to protect smallholder staple production as an infant industry and to protect domestic markets against dumping, speculation, and low-price imports in order to ensure fair prices for small-scale producers.

...civil society organisations investigating and broadcasting best practices, and raising awareness of the problems facing small-scale producers.

...more private sector actors engaged in sustainable production and inclusive business relations with smallholders, increasing the incentive for smallholders to produce in a sustainable manner.

...financial institutions to increase their outreach to rural men and women.

...more research to delineate a more comprehensive business model for small-scale and resilient agriculture.

Together, governments, civil society organisations, research institutions, and private actors can induce a radical shift to focusing on small-scale producers in the world food system, ultimately offering a long-term strategy to nourish 9 billion people in a sustainable way in 2050.

Colophon

Authors: Lena Katzmarski (Hivos), with inputs from Tim Woods (Green Ink)

Hivos is a Dutch non-governmental organisation, guided by humanist values, that wants to contribute to a free, fair and sustainable world where citizens, women and men, have equal access to resources, opportunities and markets and can participate actively and equally in decision-making processes that determine their lives, society and their future.

The Hivos-IIED Knowledge Programme **Small Producer Agency in a Globalised Market** has set out to map, elicit and integrate knowledge on the dilemmas confronting small-scale producers in global, regional and national markets. It works with different actors to bring new voices, concepts and insights into the global debate. It thereby seeks to support the development community, policy makers, producer organizations and businesses in their search for better informed policies and practices.

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