

## Biodiversity, Livelihoods and Poverty

### 8 years of development aid through the Biodiversity Fund

#### Connecting agro-biodiversity conservation and livelihoods

Despite broad recognition of the value of biodiversity – the natural variety of life on earth – the current rate of global biodiversity loss is unprecedented. The first to witness this process are those who depend on it directly: small-scale farmers and traditional forest and coastal communities in largely marginal areas (referred to here as small-scale producers).

The lives of small-scale producers are often closely interwoven with the use of agro-biodiversity in their local habitats. Access to a broad spectrum of different 'wild' (non-farmed) species, both terrestrial and aquatic, provides them with diverse food resources, medicines, building materials, natural pest control, clean water and air. In their livelihoods, the management of agro-biodiversity enables small-scale producers to increase their choices through a variety of livelihood strategies. In other words, free access to a wide variety of species provides a safety net, allowing producers to manage risk by having different sources of income and reducing their vulnerability to shocks like crop failures. Not surprisingly, small-scale producers often have a longstanding tradition of maintaining and increasing agro-biodiversity.

Small-scale producers also provide products and services of global significance, such as seeds and plants with special characteristics, in situ conservation of species and, more indirectly, CO<sub>2</sub> reduction. As agro-biodiversity is recognised as essential for the health, livelihoods and resilience of all human beings, the equitable and sustainable management of biodiversity at the local level is paramount. Realising this role provides challenges, particularly in the context of climate change and changing food and energy markets.

#### Coping with climate change and the food crisis

Global warming is predicted to have adverse effects on the livelihoods of small-scale producers, including those based on forest, arid and marine ecosystems. If agricultural practices do not change to cope with climate change, agricultural production could fall by about 30 percent in sub-Saharan Africa alone. Climate change will also affect biodiversity, putting more and more plant and animal species at risk of extinction.



#### About the Biodiversity Fund

The Biodiversity Fund works with the most prominent international civil society organisations to link the sustainable management of agro-biodiversity with the livelihoods of small-scale producers and low-income groups. The Fund was established by the Netherlands Ministry of Foreign Affairs and is managed by Hivos and Oxfam Novib with an annual budget of around €2 million. Its lessons learned have helped to shape worldwide policies and practices.

At the same time, reduced genetic diversity means fewer opportunities for adaptation and innovation. Because small-scale producers depend on biodiversity, their livelihoods are particularly threatened by climate change. Ensuring they retain access to and use of biodiversity (both domesticated and non-domesticated) will pay off both in terms of biodiversity conservation, and more indirectly, in terms of mitigating and adapting to climate change.

In addition, the current food crisis vividly illustrates the need to examine and confront the obstacles that hinder small-scale producers' ability to produce or obtain food. Modern agricultural sciences have, so far, largely benefited large-scale agriculture. The increasing dominance of large-scale mono-cropping systems and related agribusinesses out-competes, displaces and marginalises small-scale producers to the detriment of their food security and available biodiversity. This process has been aggravated by an increasing demand for biofuels, which puts additional pressure on land and natural resources and leads to competition for food, fodder, fuel, biodiversity and environmental services. Finally, the extension of large-scale agriculture not only decreases the number of small-scale production systems, but also diminishes diversity among these systems, which in turn decreases the resilience of the global food system as a whole.

### **An integrated approach**

The complexities of the new food and ecological crises call for new approaches to development assistance, those that go beyond traditional technical or financial help. Assistance to small-scale producers should address social, ecological and socio-economic issues and look at both rights and skills, preferably in an integrated, holistic approach. Policy interventions based on this approach would involve grass-roots civil society organisations (CSOs) – notably farmers', small-scale producers' and women's organisations – acting

### **Farmers act as plant breeders**

The Community Biodiversity Development and Conservation (CBDC) and Participatory Enhancement and Development of Genetic Resources in Asia (PEDIGREA) programmes use the 'farmer field school' concept to help farmers enhance and apply their knowledge, while ensuring availability of inputs from governmental genebanks and public extension services. These programmes help local farmers to use their own experiences to develop new varieties of rice and other staple crops with higher yields, better resistance and reduced chemical inputs. CBDC is active in six African and five Asian countries and PEDIGREA in three Southeast Asian countries.

### **Farmers in international fora**

About 82,000 farmers in the Southeast Asia Regional Initiatives for Community Empowerment (SEARICE) programme in the Mekong Delta of Vietnam are now using farmer-bred varieties. In an effort to increase the scale of results on the ground, the organisation has focused its activities on both community mobilisation and policy reform on the highest political level. SEARICE enabled farmers to have a voice at the 9th meeting of the Conference of the Parties to the Convention on Biological Diversity in 2008. By linking formal and informal institutions (e.g. government and academia with farmers' groups), SEARICE helped to legitimise the voice of farmers as breeders and researchers, and recognise their role in promoting sustainable agriculture.

as change agents on the issues of: a) empowerment; and b) new standards and markets for biodiversity-friendly produce.

### **Empowerment**

Despite their important role in biodiversity management, small-scale producers – particularly women – seldom have a voice in decision-making on this issue and their needs are often overshadowed by those of more powerful groups in national and international fora. Practical experience shows that efforts to support people's access to genetic materials for sustainable, biodiverse production systems must pay attention to empowering those who manage the systems.

At the local level, empowerment focuses on harnessing knowledge of seeds and other agricultural resources and on increasing awareness and actions to change power relations. Policy interventions to support empowerment should create an enabling environment for civil society. The result should be that small-scale producers have more opportunities to engage successfully with a broad set of actors through strategic alliances, networks and coalitions involving private sector parties, governments and international bodies. Other policy instruments at this level (besides institutional engagements) include field-based trials, training, community-based activities and technical advice such as help to improve germplasm through participatory plant breeding.

On a 'higher' policy level, the issue of empowerment embraces many different aspects. Here, policy interventions should: a) concentrate on increasing political involvement of CSOs in national and international fora on the issues of food security and climate change; b) challenge the unsustainable practices of large-scale agriculture while meeting the technological needs of viable small-scale agriculture; and c) promote and scale up systems that

## Setting standards for biodiversity at work

Standards developed by the International Federation of Organic Agriculture Movements (IFOAM) are adopted in regulatory legislation in many countries around the world. Founded in 1972, the organisation now has over 750 members. In recent years IFOAM has increased its focus on developing and promoting group certification methods. The programme offers a complementary, low-cost, local-based system of quality assurance, with a heavy emphasis on social control and knowledge building. It accepts inspection of a percentage of a group of farmers if a functioning internal control system is in place, thereby reducing the cost of inspection. Larger markets like the European Union and USA have accepted this system, which is basically the only one that allows small-scale farmers to enter quality markets in a competitive way.

enable small-scale producers, particularly women, to have sustained access to large gene pools so they can select the best-suited crop varieties and/or livestock breeds. Policy interventions at this level cover lobby work in areas such as governmental sustainable production policies, Access and Benefit Sharing issues (within the context of the Convention on Biological Diversity), and international decision-making on the use of toxic pesticides.

An important crosscutting empowerment issue is the implementation of Farmers' Rights by national governments. Farmers' Rights (as formulated in the International Treaty on Plant Genetic Resources for Food and Agriculture, ITPGRFA) aim to enable farmers to continue their work as custodians and innovators of agricultural biodiversity, and to recognise and reward them for their contribution to the global pool of genetic resources. Integrating Farmers' Rights in national seed laws and providing space for Farmers' Rights in Intellectual Property Rights and Access and Benefit-Sharing regimes would clear the way for on-farm conservation and use of landraces and wild relatives on equitable terms.

## New standards and markets for biodiversity-friendly produce

An important strategy to secure the sustainable management of biodiversity over time is to set clear and internationally accepted social and environmental standards. Standard-setting organisations such as the Marine Stewardship Council (MSC), Forest Stewardship Council (FSC) and International Federation of Organic Agriculture Movements (IFOAM) have successfully brought products produced under fair labour requirements to a rapidly growing world market. Certificates provided by these organisations can help to provide clarity on the source of the product and social and environmental aspects of the production process. They can also help to increase local producers' incomes and create control mechanisms that promote biodiversity conservation and use. Organic

agriculture is now the world's fastest growing food sector with an annual growth of 15–20 percent and an annual turnover of about €31 billion.

Establishing value chains in which conservation and use of biodiversity are secured is another strategy to promote sustainable and equitable management of biodiversity. Lack of access to national and international markets often prevents small-scale producers from reaping the benefits of bio-diverse produce, even when they comply with certain quality standards. Organised approaches that scale up access to markets benefit both producers (who gain a more secure market, better prices and access to credit) and buyers (who can reduce their transaction costs as they gain a more constant and reliable supply). The organisation and strengthening of value chains requires organisation of local, national and international stakeholders.

## The value chain approach

PhytoTrade is a membership-based, non-profit trade association that links and coordinates indigenous southern African producers of baobab fruit pulp, devil's claw and various seed oils like marula, all of which are raw materials for the cosmetics industry. PhytoTrade develops the volumes required to sustain market demand and achieve economies of scale in terms of production, processing, transport and quality control. In 2008, PhytoTrade members included over 18,000 rural poor, 86 percent of them women. The members' income has grown steadily, from €121,000 in 2004 to over €520,000 in 2008. Over time, PhytoTrade has realised that rural producers would not benefit from the natural products industry unless the entire chain, from primary production to market, functioned as viable whole.

# LESSONS LEARNED

Civil society organisations (CSOs) supported by the Biodiversity Fund have contributed significantly to evidence suggesting that 'conservation through use' is a viable strategy for the management of biodiversity. However, experiences also show that weaving biodiversity management into social change is a long-term process. It depends on a balanced combination of policy interventions and the development of political space and capacities of individuals and organisations through which CSOs and local and indigenous communities can gradually gain strength within international and national fora. Evidence from CSOs also suggests that women play a key role in the management of biodiversity.

Lessons learned indicate that programmes aiming at biodiversity conservation and poverty alleviation would require at least the following ingredients:

**Empowerment:** the voice of farmers needs further strengthening so they can express their needs. This includes: a) the use of (agro-)biodiversity as an entry point to build and strengthen community organisations and civil society at large; b) implementation of Farmers' Rights on a national level; c) support for international discussion on Farmers' Rights in conjunction with Access and Benefit Sharing issues designed to compensate farmers for their contributions to crop improvement; d) the design of future national and international agricultural research agendas that recognise the diversity of farming systems and the need to develop new knowledge and insights through and with farmers and their communities; and e) the integration of gender justice in intervention strategies.

**Standard setting:** long-term management of biodiverse produce requires a solid standardisation system. Future work on standards needs to: a) address the need for policy and guidance to deal with the question of standardisation and associated certification schemes and build on the experiences of standard systems such as those developed and implemented by IFOAM, FSC and MSC; b) address difficulties arising from existing standard-setting systems designed in industrialised countries for small-scale producers that wish to enter new markets; and c) further explore and scale up standardisation possibilities involving new players,

such as governments and businesses. Attention should be paid to the fact that quality systems are complex and expensive and need to become better adapted to the needs of small-scale producers.

**Market opportunities:** There are strong signals that standard setting increases market opportunities for biodiversity, but that access to the market should be secured through market chain approaches (e.g. those developed by PhytoTrade, see box). Here there is a need to give producers a voice in high-level trade negotiations and policy making so that recommendations are based on local realities. And there is a need to bring in more business-oriented partners that are aware of the long-term interests attached to sustainable and equitable biodiversity management. New, bio-based economies may provide interesting new market opportunities. However, their development is still at an early stage and there is a need to overcome many hurdles. Scaling up sustainable production activities and creating more sustainable market-driven systems will benefit from smart cooperation between CSOs and the private sector. And these need to take into account future changes in demand due to population growth, changing consumption patterns and the impact of climate change.

CSOs need to have the organisational capacity to deal with the three areas above but further efforts are needed. With a shift in focus from international to national and even local policymaking processes – a natural progression as international policies become established – continuous improvement of their capacities is required.

## Final note

The focus on empowerment, standard setting and market opportunities is likely to grow in the coming years, in both national and international fora, and these lessons are likely to become increasingly relevant. During this process, the challenge for donors like those of the Biodiversity Fund will be to strike a balance between national and international market opportunities and regulations on the one hand, and the local environmental, cultural and social realities of small-scale producers on the other.

NOTE: This policy brief is based on a fuller lessons learned document: 'Biodiversity, Livelihoods and Poverty', available at [www.hivos.nl/english/bdf](http://www.hivos.nl/english/bdf)

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, their society and their future.

Hivos, Raamweg 16, Postbus 85565, 2508 CG  
The Hague, The Netherlands  
T +31 (0)70 376 55 00 F +31 (0)70 362 46 00  
E [info@hivos.nl](mailto:info@hivos.nl) I [www.hivos.nl](http://www.hivos.nl)

Oxfam Novib, a Dutch NGO for development cooperation, is fighting for a just world without poverty. Oxfam Novib works together with people, organisations, businesses and governments, locally and internationally, in projects and lobby. Because poverty and injustice are global problems, related to unjust economic and political relationships.

Oxfam Novib, Mauritskade 9, Postbus 30919, 2500 GX  
The Hague, The Netherlands  
T +31-70 3421621 F +31 70 361 4461  
E [info@oxfamnovib.nl](mailto:info@oxfamnovib.nl) I [www.oxfamnovib.nl](http://www.oxfamnovib.nl)