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# Smallholder Agriculture and the Environment in a Changing Global Context

BY  
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## Paradigm problems

In the overall context of global development, support for agriculture has declined sharply in the past three decades. Developing-country governments continued to tout its economic and cultural importance even as they slashed its relative contribution as a component of public expenditures (Akroyd and Smith 2007). Donor support for the agriculture sector fell significantly as a percentage of overall overseas development assistance (ODA) – from 17 percent in 1982 to 3.7 percent in 2002 (Concern Worldwide UK 2007). With some exceptions, agriculture came to be treated by governments and donors alike largely as an impediment to structural transformation rather than an important engine of economic growth and poverty reduction in countries that are still, after all, largely rural and agricultural.



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Smallholder agriculture and food production both fared especially poorly. There are about 450 million small farms in the world, directly supporting nearly 2 billion people (Bage 2008),<sup>1</sup> including more than 500 million in India. In Africa, more than half the workforce is involved in agriculture. Yet despite the obvious importance of small farmers in terms of rural livelihoods and food provision, donors and policymakers have not supported them adequately in recent decades. When actually funding agriculture, donors increasingly favored larger farms that could exploit economies of scale; and the commercial production of export-oriented, high-input crops such as cut flowers, coffee, and aquaculture products (De La Torre Ugarte and Murphy 2008). The emergence of integrated global agro-food value chains, linked to supermarkets with rigorous standards for quality, consistency, and timeliness, also favored this particular approach to agricultural development (Brown and Sander 2007; Vorley, Fearn and Ray 2007).

Such export-oriented commercial agriculture was seen as the next step in achieving economic growth

and modernizing the ‘backwards’ agricultural sectors of developing countries (Polaski 2008). This ideology was largely enshrined in the Poverty Reduction Strategy Papers (PRSPs) introduced by the World Bank in the 1990s as a way to ostensibly create more ‘country-owned’ development strategies under the lead of national governments (Tharakan and MacDonald 2004). Donor support for small producers and staple food crops largely lost favor in this wave of export-oriented development; and the negative effects of this trend on small producers were compounded by some additional factors.

These included trade policies in the developed countries which led to the dumping of surplus food crops on the developing countries (Murphy, Lilliston and Lake 2005); and structural adjustment programs supported by the World Bank and IMF which led to the dismantling of policies and institutions that had previously supported smallholder agriculture across the developing world, from marketing boards to agricultural extension services (see Bello 2008 for one example). The private sector was expected to fill much of the resulting void, but in a classic instance of market failure it tended to avoid smallholders in favor of larger producers who already enjoyed some access to capital, technology, and inputs.

Donors and policymakers failed to understand two significant effects of these policy and lending preferences, which would come back to haunt them. First, the bias towards export-oriented commercial agriculture reduced the availability of financial and technical support for food production, and this undercut domestic food security. Second, the bias towards larger actors often exacerbated existing conflicts and tensions (over land and natural resources, as well as funding and support) between different agricultural actors. Ironically, by marginalizing and increasing pressure on smaller producers, these purported ‘development’ programs may have increased rather than alleviated rural poverty.

There were also significant consequences for the environment. Agriculture is among the leading causes of deforestation and many other ecological problems, yet it can also contribute to the maintenance of biodiversity and ecosystem services. And while they are frequently associated with destructive methods of ‘slash-and-burn’ agriculture, small farmers often play an important role in maintaining ecological systems and processes depending on their specific practices (McNeely and Scherr 2002). They manage productive landscapes that are often near areas of high biodiversity or importance for water provision; and their activities are highly relevant for both climate change mitigation and adaptation.

## A changing context

In 2008, several new factors reinvigorated the debate around agricultural development. One was the so-called **food price crisis**. By early 2008, global food prices had increased by 83 percent compared to 2005 (Oxfam International 2008b); in terms of staple food crops, rice prices hit a 19-year high and wheat prices reached a 28-year high by April (Beaumont 2008). These increases were ascribed to a complex interplay of factors including increasing overall demand for food, changing consumption patterns, market speculation, higher fossil fuel prices, and the expansion of biofuel production which was driving up competition for arable land (Evans 2008; von Braun et al. 2008; De La Torre Ugarte and Murphy 2008). Prices declined later in the year due to the global recession as well as a significant expansion in crop production – 2008 ended as a record-breaking year for world cereal production (FAO 2008). But prices remain higher than one year ago in sub-Saharan Africa, Central America, and some of Asia (Blas 2009); and most observers agree that the underlying factors behind rising prices are not going away, and volatility will be a characteristic of the global food market for years to come (FAO 2008).

A much-neglected discussion about **food security** reemerged during the height of the crisis. As prices soared, many developing countries realized that their capacity to produce their own food had eroded significantly due to a combination of factors that included trade liberalization, declining support for the agricultural sector, and a transition towards the production of export-oriented cash crops. Countries with a surplus of arable land had become net food importers (Polaski 2008); productive land had increasingly been allocated away from food crops; and agricultural funding, policies, and technical assistance were not being directed towards millions of small farmers who could be making an important contribution to overall food production. In short, as UNCTAD noted, “soaring food prices and their impact raise serious questions as to the advisability of the current development model being pursued in most LDCs” (2008: 84). But this model, it must be added, was also purveyed and reinforced (through structural adjustment programs and trade policies) by development partners in the previous decades.

The recent phenomenon of large-scale **land acquisitions** for export-oriented food production is also related to the food security issue. Food-insecure countries like China, South Korea, Qatar, and Kuwait have sought to directly or indirectly secure the means of food production in developing countries like Madagascar, Kenya, and Cambodia (GRAIN 2008;

Montero 2008; Borger 2008). Some cases involve direct foreign investments or land concessions for agricultural production; there are also contract farming schemes in which local farmers are paid to grow food for export markets. In recent years, for instance, Chinese firms have signed more than 30 deals with other developing countries for the production and export of various cereal and bioenergy crops (GRAIN 2008).

## Countries with a surplus of arable land had become net food importers

The resulting influx of foreign investment and (potential) technical support to the agricultural sector can bring benefits to developing countries (von Braun and Meinzen-Dick 2009). But everything depends on the institutional arrangements of such agreements, and many of these plans are being designed without transparency or the involvement of communities whose land and livelihoods stand to be affected; and without sufficient consideration of the implications for national food security. In Cambodia, for instance, the government discussed a potential \$3 billion deal to lease rice paddies to Qatar and Kuwait even as land disputes accelerated in the countryside (Montero 2008) and the World Food Program increased the delivery of food aid to hungry Cambodians. In Madagascar, the South Korean company Daewoo negotiated a deal to develop 1.3 million hectares of corn and palm oil for export, again from a country where the WFP feeds nearly 600,000 people (Oliver 2008). Both deals were eventually scrapped due to public outcry, but these kinds of announcements prompted no less than the director general of the UN’s Food and Agriculture Organization, Jacques Diouf, to warn against the dangers of ‘neocolonialism’ as rich countries increasingly sought to feed themselves at the expense of poor ones.

In addition to potential impacts on food security and poverty, these ‘land grabs’ can lead to increased competition and conflict over land in a political economic context already skewed against small producers and the rural poor. This increases pressure for migration and land conversion on the forest frontier, as well as the exploitation of other natural resources for food and livelihoods, and worsens a vicious circle of poverty and environmental degradation.

Increased demand for **bioenergy crops** has been another factor. Much of the so-called ‘food/fuel debate’ has focused on land allocation for large-

scale agricultural production in the Northern countries, such as the controversial decision to devote a significant percentage of US corn to the production of bio-ethanol. But this issue has also emerged across the developing world. From sub-Saharan Africa to Southeast Asia, countries are witnessing – and often promoting – surging interest in bioenergy production, which is sometimes outcompeting alternative land uses, particularly those related to food production (Cotula, Dyer, and Vermuelen 2007). It has also led to what Oxfam (2008: 21) calls a “scramble to supply” in which foreign and local investors are buying up or staking claim to valuable arable land, leading to conflict with local communities whose land tenure may be uncertain or whose use of these areas for swidden agriculture or the collection of non-timber forest products may not be officially recognized.

This ‘scramble’ is driven by a combination of market and policy forces. In some cases, governments have instituted national target programs to mobilize agricultural land for bioenergy production. For instance, India announced plans to grow jatropha on more than 10 million hectares of idle or marginal land as part of its national biodiesel strategy (Hind 2007), though this has been scaled back. In other cases, local people are themselves taking advantage of short-term market opportunities in the absence of secure land tenure and adequate legal protections. In Cambodia, for instance, indigenous communities have been selling land to companies interested in the production of various crops (some of which, like jatropha and oil palm, are bioenergy-related) as a way to preempt the designation of future land concessions for which they might not be compensated.

As bioenergy production takes over arable lands, this is likely to have further impacts on food security and rural livelihoods.<sup>2</sup> The actual quantitative contribution of biofuels to increasing food prices has been hotly debated (the US government claims less than 5 percent, while, on the other end of the spectrum, Mitchell 2008 ascribes 80 percent of price increases to biofuels), but there is little doubt that it has become significant in more land-scarce regions of the world, like parts of Asia. There are also considerable indirect risks for the environment, through the displacement of smallholder food production into forests, wetlands, and other biodiverse areas that may lack formal and effective protection.

Finally, 2008 was the year in which **climate change** emerged as an issue of true global concern. Developing countries worried increasingly about how to adapt to the disproportionate impacts they are likely to face in coming decades – one of which is how climate change will affect agricultural production. In tropical and subtropical countries, these effects are likely to be largely negative and include decreasing yields, shorter growing seasons, water scarcity, and more frequent extreme weather events such as floods and droughts (Cline 2007; Stern 2007). The rural poor in these countries are already vulnerable due to other political, economic, social, and ecological factors. For instance, many African farmers depend on rainwater for their crops, yet scientists have estimated that yields from rain-fed agriculture could fall by as much as 50 percent in some areas of Africa by 2020, which “would further adversely affect food security and exacerbate malnutrition” (IPCC 2007: 13).



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## Smallholders and the environment

Global food demand is expected to double by 2030 (Evans 2009), and the FAO has warned that food production will need to roughly double by 2050 to meet this growing demand (Agence-France Presse 2009). Unless significant increases in productivity per unit of area are achieved, further expansion of agricultural activity into natural ecosystems is a very significant risk (Nellemann et al. 2009).<sup>3</sup> In addition, food production will be competing for land with a variety of commodities, from biofuels to pulp and paper (Roberts, White, and Nilsson 2008), in a context where the supply of available land suitable for cultivation is already shrinking due to desertification and degradation, climate change, population growth, urbanization, etc.

Small farmers still occupy a significant percentage of the world's agricultural lands and are found along the 'agricultural frontier' in many countries where forest conversion is still occurring, such as Brazil and Indonesia. These farmers will be on the frontline in terms of how agricultural expansion could affect biodiversity and ecosystem services in coming years; and thus they are critical to achieving both food security and conservation goals. Building on insights from the Millennium Ecosystem Assessment and the recent International Assessment of Agricultural Knowledge, Science and Technology for Development, environmentalists have begun to "recognize farming communities, farm households, and farmers as producers *and* managers of ecosystems" (IAASTD 2009: p. 6). They are increasingly working with small farmers to reduce the conversion of natural ecosystems like forests and wetlands; minimize the loss of terrestrial and aquatic biodiversity; protect critical ecosystem services; and increase the resiliency of natural and human communities to the impacts of climate change.

For instance, smallholders are potential allies in sustainable land and water management and the conservation of healthy landscapes. The kinds of heterogeneous agricultural systems often favored by small producers — such as agroforestry or integrated silvopastoral systems — can play a critical role in protecting both biodiversity and ecosystem services within the broader landscape matrix (Norris 2008). But farmers need concrete incentives for the adoption or maintenance of such practices. These can include new market opportunities (such as for the production of certified products, though there are clear risks in terms of substituting one form of export dependency for another). It can also include policies that recognize land tenure or promote specific practices that reduce erosion or conserve water.



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There are also many emerging opportunities to compensate small farmers directly for the adoption or maintenance of agricultural practices that conserve biodiversity, protect ecosystem services, and reduce negative environmental impacts like groundwater pollution and soil erosion (FAO 2007). Some of the most promising examples relate to REDD (Reduced Emissions from Deforestation) and carbon storage. As the world deals with the alarming effects of climate change, the contributions of agriculture, forestry, and land use change to net carbon flows are justly receiving greater attention. Millions of small farmers can either store or release carbon depending on their specific agronomic practices; how can the right responses be encouraged through policy incentives and market opportunities (Bage 2008)?

Small farmers also need training and support for the adoption of more sustainable agronomic practices, including a shift away from excessive dependence on fossil fuel-based inputs (IAASTD 2009). Last year, even during a time of high prices for food crops, the soaring cost of petroleum-based agrochemicals and chemical fertilizers severely undercut profit margins for small producers (Vidal 2008). Fertilizer prices climbed 150 percent in Cambodia, for example (Oxfam International 2008c). There is no doubt that agricultural productivity needs to increase significantly in the coming years for the reasons given above. But increased productivity should not compromise the long-term sustainability of both agricultural and natural systems. A suite of agroecological and low-external-input approaches such as integrated pest management, minimum-tillage farming, small-scale water storage, and drip irrigation (McNeely and Scherr 2002; Uphoff 2002) will be critical to increasing productivity while reducing the need for expansion into natural areas, protecting soil and water, and minimizing small farmers' vulnerability to price shocks and market volatility.

## The WWF project

In 2007 and 2008, with funding from the Swedish International Development Agency (Sida), WWF's Macroeconomics Program Office (MPO) collaborated with our field offices and other partners to address specific issues stemming from the relationship between smallholder and large-scale commercial agriculture in two regions: Southern Africa and Southeast Asia. Building upon earlier MPO work on trade, poverty, and agriculture issues, including the development of methodological approaches such as 3xM and From Negotiations to Adjustment,<sup>4</sup> we sought to promote greater understanding of specific environmental and social challenges arising as a result of agricultural change; to influence relevant national and regional policies and institutions; and to build capacity and implement concrete, stakeholder-driven interventions that support smallholders and their specific needs.

In **Southern Africa**, WWF addressed issues affecting small-scale cotton and tobacco producers in eastern Zambia (Chipata Province) and central Malawi (Mchinji Province). The issues described in the first section are clear in these countries; in Zambia, for instance, agricultural livelihoods support more than 60 percent of the population, yet the national budget allocation to this sector had decreased from 26 percent in 1991 to less than 5 percent in 1999 (Concern Worldwide UK 2007), and expansion of the commercial agriculture sector had resulted in mixed impacts for rural smallholders (Pinder and Wood 2003). WWF undertook a broad-based process to identify, explore and promote specific options responding to the challenges associated with improving agricultural livelihoods, sustainable land use, and adaptation to climate change in these places.

The project included a policy component that sought to better incorporate the specific concerns of small farmers into agricultural development processes (both public-sector, via the donor-supported Comprehensive African Agricultural Development Programme (CAADP) framework; and private-sector, via the activities of tobacco and cotton companies in the region). Through a partnership with the Common Market for Eastern and Southern Africa (COMESA), a regional trade bloc, we supported national platforms for dialogue that link smallholder interests and environmental concerns with the national CAADP processes in each country. We also organized a series of consultative forums that brought together CAADP focal points, government agencies, cotton and tobacco companies, small-scale farmers, and civil society to discuss issues related to agricultural production, processing and marketing, as well as

specific threats and opportunities for smallholder agriculture in Zambia and Malawi in a daunting context of poverty, rising food prices, environmental degradation and climate change.

The project also had a livelihoods component at the site level which involved working closely with district associations of cotton and tobacco farmers, as well as local chambers of commerce, to promote alternative production systems and sustainable agriculture techniques. For instance, WWF organized an agro-forestry and conservation farming workshop for area farmers with the help of the Zambia National Farmers Union. Farmers received detailed training in methods such as the use of leguminous cover crops and green manure. The project also helped to support the adoption of cassava and sweet potato by farmers as a way to diversify crop production and increase household food security. We also produced a detailed technical report that compared the ecological and economic impacts of different agricultural practices in these areas (Bertram et al 2009). These were important contributions in a context where excessive dependence on tobacco and cotton has led to environmental problems such as soil erosion, as well as vulnerability to fluctuations in market demand and food and input prices.



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In **Southeast Asia**, WWF addressed environmental and social problems created by a recent surge of large-scale land concessions for plantation agriculture in Laos and Cambodia. Expanding production of rubber, sugarcane, palm oil, and other crops has accelerated deforestation, fragmented habitat, and heightened conflicts with farming communities who depend on access to land and natural resources for their livelihoods. Integrated and participatory planning is urgently needed at a landscape level in order to better manage these competing demands for land and natural resources. A holistic approach to planning must involve government, communities, and the



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private sector; yet the viability and effectiveness of existing planning processes has been jeopardized in both countries by a lack of technical capacity and resources; an unclear division of labor between overlapping agencies, and between provincial and national authorities; and inadequate involvement of affected communities.

In **Laos**, WWF worked closely with the local government to conduct a successful district-level integrated spatial planning process for Pathumphone District in the southern province of Champassak. (This is one of the areas of Laos most affected by a recent spate of concessions to foreign investors; and district and provincial officials are increasingly concerned about the difficulty of managing so many requests for land.) Before WWF became involved, this legally mandated process was not occurring due to a lack of capacity and resources within the responsible agencies. The plan (completed in December 2008) will guide future development priorities for the district as well as the spatial distribution of agriculture (and other economic activities) within the landscape. Local communities, other NGOs, and the private sector participated throughout the process. WWF also worked closely with relevant national ministries; we developed a formal MOU and strong working relationship with the recently created National Land Management Authority, housed directly under the Prime Minister's Office and charged with improving the overall allocation and management of land in Laos as well as tackling the thorny issue of land concessions.

In **Cambodia**, a major obstacle to good land use planning in Mondulhiri Province has been the lack of accurate information about the suitability of land for agriculture. As a result, the government has often granted concessions to grow export-oriented crops like rubber in areas that are unsuitable for agriculture, better suited to other kinds of crops (such as food crops for local consumption), or already used by rural communities for a variety of functions. Multi-stakeholder analysis of the situation initiated by WWF prompted the governor to issue a landmark executive order that suspended land transactions across the province until a better planning process could be designed. This allowed us to work closely with an inter-agency team to complete a detailed agricultural land suitability analysis for Pichreada District, which will provide a better baseline for future agricultural development and land use planning there. WWF has been asked to replicate the process in the other districts of Mondulhiri, as well as the neighbouring province of Kratie. In both countries, government agencies as well as key donors supporting land-related activities are incorporating our experiences into policies and new programs.



The project was designed to support smallholders by addressing specific issues stemming from a development model that had excessively prioritized export-oriented commercial agriculture. But to achieve this, we realized that it was also necessary to deal with a set of underlying conditions related to planning and governance, which were marginalizing communities and hindering their access to the land and natural resources, information, and decision-making processes that are necessary for more sustainable livelihoods.<sup>5</sup> This required an explicit focus on partnering with governments to build their capacity to manage land and improve its governance; even as we sought to broaden the participation of small-scale farmers and rural communities, as well as the inclusion of their concerns, in these processes.

### A more integrated approach

The recent confluence of food, climate, and land use issues represents an important wake-up call to national governments and the development community as they reshape the agricultural agenda for coming decades. There are numerous reasons, as well as great opportunities, to ensure that the world's millions of small farmers play an important role in food production, environmental protection, and climate adaptation; and to ensure that agriculture makes a major contribution to reducing poverty and achieving the Millennium Development Goals. But for this to happen, smallholders must again become an explicit component of development strategies and an important unit of development interventions.

Recently, there have been encouraging movements in this direction. Donors have begun to move back into the agriculture sector, with institutions like the World Bank, USAID, and the UK's Department for International Development committing to expand their support significantly.<sup>6</sup> The Bank even devoted its 2008 World Development Report to agriculture (The World Bank 2008). Considerable support has also come from private actors like the Gates Foundation and the Alliance for a Green Revolution in Africa (AGRA). Some of these responses followed the food price crisis and focused, understandably, on short-term measures to support farmers and consumers in the hardest-hit countries; but there have also been significant commitments to expand longer-term assistance for agricultural development. This is certainly promising, but not if it simply pours new money into failed approaches and unsustainable methods of production.

Even before the recent events described earlier in this brief, there were already good reasons to question the development paradigm of export-oriented

commercial agriculture being adopted by many countries. The resulting policies and programs often proved most useful to farmers who already had access to land, inputs, and markets. This created a trickle-down approach to agricultural development that did not necessarily help rural communities and small-scale farmers. And technical approaches that focused primarily on meeting physical needs like seeds, fertilizers, and irrigation infrastructure ignored the importance of **planning, policy, and governance**, particularly related to land and natural resources, in establishing the contexts and determining the outcomes for agricultural development. Uncertain land tenure and unequal access to natural resources, such as water, remain critical obstacles to achieving a more equitable distribution of benefits from agricultural development in many developing countries (Popular Coalition und.).

For instance, WWF's work in Laos and Cambodia demonstrates that the land concessions approach adopted by both governments and supported (in some cases) by donors under the guise of 'poverty reduction' has been a questionable way to reduce poverty. In fact, the overall benefits of concessions for economic development have been questionable – many agreements set artificially low rates for leases and royalties, leading to marginal benefits to governments. But even when these terms are relatively favorable, the concessions have created aggregate benefits for national or provincial treasuries at the expense of people in the affected areas (who bear the social and environmental costs). Indeed, at a local level, concessions further complicate an



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already murky landscape with regard to the governance of natural resources. Communities have sold off agricultural land to preempt its uncompensated seizure; become wage laborers on plantations; or moved further onto the agricultural frontier, encroaching into protected areas and clearing forest for new production in a vicious cycle for which they are too often seen as the only guilty parties (Chomitz 2007).

The critical need for better land-use planning cannot be overstated in many places where agricultural production (both small- and large-scale) must fit into the same landscape as infrastructure, industry, tourism, conservation, and other uses. Integrated, participatory planning approaches are needed which bring together all of the relevant stakeholders to understand and mediate tradeoffs; are based on good information (such as maps, scenarios, agronomic data, market information, and the perspectives of local communities); and are actually implemented and enforced by governments. More participatory planning and governance of large-scale, multi-functional landscapes can help to ensure more sustainable, equitable outcomes (GTZ 1999), including genuine rural development.

In short, simply focusing on increased agricultural productivity, as many donors are now doing, will be inadequate if it avoids critical institutional, governance, and capacity issues which exacerbate vulnerability and constrain outcomes on the ground. Government programs and donor projects alike should focus on expanding small producers' access to resources and opportunities, and their involvement in planning and policy processes. For instance, the CAADP framework could yet become an important vehicle for supporting African agriculture, which is expected to receive increased assistance from donors in the coming years. But CAADP has not yet succeeded in adequately engaging small farmers and civil society in the process of formulating its agenda and approaches (Concern Worldwide UK 2007). The needs and concerns of small producers must be more fully integrated into the process of setting priorities for funding and technical assistance among governments and development partners.

## Moving forward

Despite constant rumors of their demise, the world's small farmers are not going away. Average farm size actually declined across much of the developing world in the last half-century (Hazell et al. 2007). In many countries, small-scale agriculture remains a critical contributor to poverty reduction and rural development (through direct linkages to the non-farm economy). About 70 percent of the world's poor



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people still live in rural areas where they depend on small farming for the majority of their livelihoods (The World Bank 2008), often out of necessity given the absence of other jobs. And no modern society has made the structural transformation to what is considered to be a higher level of 'economic development' without building upon a strong agricultural foundation (DFID 2005).

Some are claiming that the future of food production must involve an accelerated transition towards large commercial farms (e.g. Collier 2008), yet the reality is that small farmers can, will and should remain an important contributor to food security (nationally, regionally and globally) in the decades ahead. Small-scale farming, mostly of staple food crops, constitutes about 80 percent of African agriculture (FAO 2008b). As the authors of the Millennium Ecosystem Assessment pointed out even before last year's increase in food prices, "local food production is critical to eliminating hunger and promoting rural development in areas where the poor do not have the capacity to purchase food from elsewhere" (2005: p. 211). And smallholders worldwide have been shown to achieve higher productivity per unit of area than large producers due to their use of intensification, intercropping, and higher labor inputs (Hazell et al. 2007).

Finally, small farmers are an important determinant of land use in places that are important for conserving biodiversity and coping with climate change. They remain a largely underutilized ally in achieving environmental objectives that must no longer be treated separately from other important goals like food security and economic development. In the future, our ability to feed ourselves and to reduce global poverty will depend more than ever on protection of the natural environment on which human society itself depends (Nellemann et al. 2009). Small farmers can contribute to protecting valuable ecosystem services, reducing land conversion, and both mitigating and adapting to climate change impacts.

For small farmers to play these critical roles, however, they must receive the full range of support from national governments, development institutions, donors, the private sector, and NGOs which has been largely deficient for too long. Certainly, this support must include:

- Increased availability of seeds, inputs, technology, credit, water storage, and other infrastructure that are appropriate for local conditions; and
- Targeted extension and training, as well as policy and market incentives, which help farmers to adopt or continue sustainable methods of agricultural production.

But in addition to these kinds of assistance, which are mostly ‘technical’, there are significant ‘procedural’ needs which may imply substantial changes in regulatory and policy frameworks, such as:

- Broader access to land, water, and natural resources, including clearer tenure and the formal recognition of communal or customary rights when appropriate; and
- Expanded direct participation in the various policy, planning and governance processes that affect small farmers.

It is also worth pointing out that while small farmers need additional support, they also need a modicum of “space”. The world’s smallholders already have many of the technical answers to their own needs at hand – if they are given the opportunity to put them into practice. Unfortunately, in recent decades this space has been constrained by everything from the liberalization of trade in staple food crops to domestic policies that favor larger actors or incentivize practices that are harmful to the environment.

Indeed, it is equally important to remember that these recommendations – and the farmers and rural communities whom they would support – are situated within a broader development context (globally, regionally, and nationally). Trade liberalization, agricultural policies, infrastructure projects, and investment decisions are just some of the phenomena which substantially affect outcomes on the ground, reaching the world’s millions of small farmers as a cascading set of causes and effects.

As governments, donors, and other relevant institutions consider how best to promote agricultural development, ensure food security, conserve biodiversity, and address climate change in the years ahead, they would do well to adopt a more synergistic approach that focuses on the potential role of smallholders in achieving this set of interlinked goals. We hope that the experiences described in this brief can make a modest contribution towards the reorientation of thinking around these issues.



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## Endnotes

<sup>1</sup> The exact definition of a ‘small’ farm differs widely depending on geographic context, labor structure, presence of irrigation, etc. Hazell et al 2007 provides a good discussion of this issue.

<sup>2</sup> It should, however, be noted that small farmers can produce bio-energy crops themselves. When appropriately supported and balanced with the production of other crops, it can make a useful contribution to energy security and rural development (see SNV and WWF 2009).

<sup>3</sup> The FAO claims that an estimated 80 percent of the increase in global food production must come from growth in crop yields – but even if this occurs, 100–200 million hectares of additional land may need to come into production, mostly in sub-Saharan Africa and Latin America (FAO 2008b).

<sup>4</sup> Described in further detail at [www.panda.org/mpo](http://www.panda.org/mpo) and in several publications from WWF MPO.

<sup>5</sup> This is consistent with the 3xM approach developed by WWF MPO, which emphasizes the importance of addressing micro, meso, and macro level factors that hinder the achievement of positive environmental and social outcomes at a site level (Reed 2006).

<sup>6</sup> See [www.donorplatform.org/content/view/185/172](http://www.donorplatform.org/content/view/185/172) for a summary of recent commitments.



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