



AGRICULTURAL SUBSIDIES, POVERTY AND THE ENVIRONMENT: SUPPORTING A DOMESTIC REFORM AGENDA IN DEVELOPING COUNTRIES



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What policies are needed so that reforms in agricultural subsidies in developed countries can translate into real benefits for poor farmers and for the environment in developing countries?

RECOMMENDATION

Developing countries and development agencies should support 'no-regrets' policies that make agriculture a vehicle for poverty alleviation while protecting the ecosystems on which low-income farmers depend.

Such policies include:

- Laws, policies, and programs that empower poor farmers, including rights-based land tenure policies, economic incentives for conservation activities, and marketing cooperatives to provide a supportive environment for community enterprises.
- Macroeconomic policies and measures that integrate poverty alleviation and environmental goals, including those that address taxation, credit and insurance, technology, and transport issues.
- Laws, rules, and regulations related to agriculture that protect ecosystems and their ability to provide for essential ecosystem services, including those that support soil conservation practices, crop diversification and other ecologically based agricultural practices, and flexibility and diversity in marketing standards.
- Reforms to promote better governance of the agricultural sector, such as decentralization with appropriate accountability, establishment of stakeholder processes in agriculture; and strengthened enforcement of environmental laws, rules, and regulations.

Agricultural subsidies are one of the factors determining whether and how agriculture helps the poor in developing countries to make a sustainable livelihood. Reforming the current agricultural subsidy systems in developed countries provides an opportunity to generate a number of positive impacts:

- for poor farmers in developing countries whose ability to compete is hampered by subsidy-driven overproduction in rich countries;
- for taxpayers and consumers in developed countries faced with rising deficits;
- for the environment in developed countries where subsidies contribute to ecosystem degradation; and, possibly,
- for the environment in developing countries where poverty is one driver of environmental degradation.

However, an agreement to reduce agricultural subsidies at the international level does not guarantee that the poor and the environment will benefit; the realization of benefits also requires the implementation of strategic domestic policies in developing nations.

Even in the absence of agricultural subsidy reductions in the World Trade Organization's (WTO) Doha Trade Round—a likely scenario with the recent collapse of the negotiations—all countries can take steps to make agriculture work for the poor

and for the environment. Without a WTO agreement, there will still be immense pressure on developed countries to reduce their agricultural subsidies. This comes from developing countries, which are expected to file more cases in the WTO challenging these subsidies, and from within developed countries because of domestic or regional (in the case of the European Union) competition for scarce budgetary resources. Moreover, even without a new WTO Agreement, trade-induced changes that affect agriculture are inevitable, whether they come in the context of global, regional, or bilateral trade agreements or through sheer market changes.

Trade can be an effective vehicle for poverty reduction but good governance, at both international and national levels, is necessary so that increased trade benefits the poor, and prevents or minimizes ecosystem degradation (see Box 1). This policy note¹ identifies what reforms developing countries need to implement in order to capitalize on reductions in developed country subsidies. It recommends that countries adopt and implement a domestic policy reform agenda that is based on a national assessment of the potential impacts of global trade decisions on ecosystem health and human well-being. The note highlights the necessity for cooperation and support from development agencies and other international organizations to help overcome the resource constraints that many developing countries will face in implementing such reforms.

WHY REFORM THE AGRICULTURAL SUBSIDY SYSTEM?

Encouraged by subsidies, overproduction of certain crops in developed countries has led to the dumping of excess agricultural commodities on the world market—that is, selling at prices below those that would prevail in undistorted markets and, in many cases, at prices below the cost of production (Diao et al. 2003). This has contributed to the general downward trend of world market prices for agricultural commodities over the past several decades.

Developed-country subsidies have a particularly strong poverty impact when they are provided for crops that are also grown in developing countries, since developing-country farmers must then compete directly with the subsidized developed-country farmers. Examples include cotton and sugar, which are heavily subsidized in the United States and in several other countries. As the studies summarized in Box 2 show, subsidies provided to cotton farmers in developed countries reduce world cotton prices, resulting in losses for lower-income cotton-producing countries and enhancing poverty.

BOX 1 Principles for Sustainable Trade Policy

1. Whenever trade and environmental policy issues intersect, both sets of policies should be adjusted so as to maximize the complementarity of trade reform and environmental sustainability.
2. Sustainable economic growth will require environmental damages (externalities) to be explicitly recognized and, where possible, reduced or eliminated (internalized) through the application of the polluter-pays principle or other environmental policy reforms that emphasize pollution prevention.
3. The uncertainty and rapid change of economic and environmental indicators demands a 'no-regrets', proactive set of trade and environmental policies that will prove beneficial regardless of what happens internationally.
4. Implementing both trade and environmental reforms will require much clearer definitions of property rights respecting goods and services as well as infringements of those rights by bads and disservices, including environmental pollution.

(Faeth and McGinnis 1997)

BOX 2 Impact of Cotton and Sugar Subsidies

Research indicates that cotton subsidies in developed countries cause the loss of up to US\$250 million every year in West and Central African countries, where an estimated 10 million people rely on cotton for their livelihood (Oxfam 2004). In 2003, this situation prompted trade ministers from several African countries in the WTO to present the 'Cotton Initiative,' urging Members to address cotton subsidies as a matter of priority (WTO 2003b). Brazil has also taken action to reduce U.S. cotton subsidies, filing a case with the WTO Dispute Settlement Body in 2003 claiming that some U.S. cotton programs were illegal. In March of 2005, the WTO ruled against the U.S. cotton support program, finding it in violation of international trade agreements. The U.S. response to the ruling included passage of legislation to dismantle the Step 2 cotton support program effective August 1, 2006.

Sugar is another protected or subsidized crop that is grown in both developed and developing countries. From 1999 to 2001, support to OECD countries' sugar producers averaged US\$6.35 billion dollars, just slightly less than the combined value of developing-country sugar exports, which total about US\$6.5 billion annually (Mitchell 2004). Due in part to this support, the share of developed countries' exports in the world sugar market has risen, while the share of sugar exports from developing countries declined from 71 percent during 1980-85 to 54 percent in 1995-2000 (Mitchell 2004).

In addition to their poverty impacts, developed-country subsidies may have indirect environmental effects in developing countries by affecting producer prices, which could influence farming practices and overall poverty in rural areas. Depending on which farm commodities experience decreased production and which ones see an increase, these changes in farmer choices could have negative, positive, or neutral environmental impacts. Poverty itself affects the environment by increasing people's direct reliance on the natural resource base. It can also prevent farmers from investing in more sustainable practices, either because they do not have funds for investment, or because the returns on the investment may not be sufficient to justify the expense.

WHY MUST A REFORM AGENDA ACCOMPANY SUBSIDY REFORM?

Developing countries stand to gain from developed-country subsidy reductions, but while reductions could be an important element in reducing rural poverty in developing countries, there is no guarantee that they would automatically benefit the poorest farmers. Domestic policies in developing countries will play a key role in translating subsidy reduction into actual poverty alleviation. Strategic policies may also be necessary to mitigate effects on poor consumers if food prices go up as a result of a decline in the availability of cheap, subsidized imports. The environmental effects of subsidy reduction for developing countries are also mixed and depend heavily on the policy context. The potential exists for environmental degradation to increase, requiring interventions at the domestic level to mediate the way in which farmers respond to new market opportunities. At the same time, subsidy reform could create enabling conditions for improved environmental protection, or the effects could be neutral.

For farmers' engagement with markets to be sustainable, attention must also be paid to the indirect effects of trade on the environment through changes in agricultural patterns and practices that accompany evolving market opportunities. In addition, just as certain groups within developing countries may be more likely than other groups to benefit from subsidy reduction, entire countries' agricultural sectors may be better positioned to capitalize on price increases, and the gains from agricultural subsidy reforms in developed countries may accrue disproportionately to farmers in these developing countries (Mayrand et al. 2005). See Box 3 for examples of how a reduction in U.S. cotton subsidies might affect poverty and environment in Brazil, and West and Central Africa.

Finally, the actual impact of subsidy reduction on ecosystems—at a global and country scale—is far from clear, and much more detailed research is necessary in order to predict and adjust to these changes. For developing countries, the challenge is to find a balanced approach that allows farmers to improve their livelihoods while minimizing agriculture's environmental impacts.

ELEMENTS OF A DOMESTIC POLICY REFORM AGENDA

To enhance the benefits of agricultural subsidy reductions for the poor and for the environment, and to eliminate or mitigate potential negative impacts, developing countries would be wise to implement a domestic policy reform agenda based on an integrated assessment of the potential impacts of global trade decisions on ecosystem health and human well-being. A framework for such an assessment can be developed using the experience of the Millennium Ecosystem Assessment (MA)² and should include the following elements:

- A central focus on human well-being;
- Recognition of the intrinsic value of biodiversity and ecosystems;
- Particular attention to the linkages between ecosystem services and human well-being;
- Acknowledgement of the dynamic interaction between people and ecosystems, wherein each directly and indirectly drives change in the other. (MA 2005)

While each country will need to develop its own package of policy reforms to address the above questions based on its unique physical, socio-economic, and political circumstances, this paper identifies four common areas to be addressed by policy-makers and supported by donors in order to ensure that subsidy reforms generate pro-poor and pro-environment impacts. These include policies intended to:

- Empower small-scale farmers to use natural resources sustainably and strengthen their ability to negotiate with other actors in the market with respect to the use of land and other inputs to agricultural production;
- Mainstream poverty alleviation and environmental considerations into sectoral plans focused on agriculture;
- Promote ecosystem health for human well-being, in particular, ecosystems' ability to provide essential services; and,
- Promote best practices in governance.

BOX 3 The Case of Cotton in Brazil, and West and Central Africa

Cotton production in Brazil, along with a number of other agricultural commodities such as soy and livestock, is primarily carried out by large-scale, mechanized farming operations (ICAC 2002). The success of agribusiness has contributed to overall economic growth in Brazil, but outcomes for the poor and for the environment have been mixed. Structural changes in the agricultural sector favoring large farms have increased production and export earnings, but they have placed smaller, poor farmers under increased competitive pressure (OECD 2005). Not only can this increase rural poverty, but the expansion of large farms can have the effect of pushing small-scale farmers off agricultural land and into ecologically vulnerable areas such as the Cerrado (savannahs) and Amazon (WWF 2003). Thus, if subsidy reductions in the United States create incentives for increasing cotton production in Brazil, special safeguards may be necessary to ensure that the reforms indeed allow small-scale farmers to benefit along with larger operations, and that the environment is protected.

Unlike in Brazil, most of the cotton produced in Africa is grown by small-scale family farmers, meaning that an improvement in the cotton market is more likely to have a direct impact on poverty by

raising the incomes of the rural poor (Pfeifer et al. 2004; Minot and Daniels 2002). However, if markets are difficult to access due to inefficient bureaucracies or inadequate infrastructure, farmers—particularly resource-poor ones—may be unable to take full advantage of increased world prices. If farmers in Africa are able to capitalize on higher prices and increase their production, adverse environmental impacts could also occur along with benefits to livelihoods.

While cotton is responsible for huge quantities of chemical and water use in many countries where it is produced (Clay 2004), its environmental impacts in Africa are generally less severe, as production in this region is currently carried out with minimal chemical inputs, irrigation, or machinery. However, anecdotal evidence points to cotton as a driver of deforestation in areas where it is widely grown (Brottem 2005). Furthermore, if cotton production becomes more profitable, it is possible that it will also become more intensive or result in unsustainable additional habitat conversion. In order to minimize impact on the environment on which many rural dwellers—including cotton farmers—depend, special domestic measures may be required.

Table 1 provides examples of how policies in the first three categories above could help countries capitalize on subsidy changes to benefit poor farmers and protect the environment. The fourth type of reform, following best practices in environmental governance, is an enabling step that is necessary for the effective development and implementation of the other three recommendations.

The domestic policies needed to make agriculture pro-poor and pro-environment are ‘no regrets’ policies, and countries that adopt them are not only likely to be more prepared for the changes that will come with a new trade agreement, but will be able to position their agricultural sector to be an effective agent for poverty alleviation and environmental sustainability. These policies are ‘no regrets’ because their adoption is good for poverty alleviation and environmental sustainability regardless of the final outcomes of the Doha Trade Round. Even without globally mandated trade liberalization, these policy reforms will benefit the poor and the environment.

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TABLE 1 Possible Effects of Subsidy Reduction and Policy Responses

Possible Effect of Subsidy Reduction	Policy Recommendation	Environmental Benefits of Policy Reforms	Poverty Benefits of Policy Reforms
Large-scale or higher-income farmers may be able to take advantage of new opportunities and higher prices, at the expense of small-scale and poor farmers	<p><i>Empower small-scale farmers</i></p> <p>Secure land tenure</p> <p>Support community enterprises and organizations</p>	<p>Farmers are more likely to conserve their land and practice sustainable techniques if they know the land will not be taken from them</p> <p>Community organizations can be effective means for teaching and promoting sustainable agriculture techniques</p>	<p>Greater security encourages farmers to invest in more productive crops and practices</p> <p>Organizing for beneficial marketing mechanisms allows small-scale farmers to compete with larger producers by streamlining transport and lowering costs</p>
Higher international prices may not mean that small farmers will receive higher prices	<p><i>Mainstream poverty and environment into planning in the agriculture sector</i></p> <p>Invest in infrastructure (e.g., roads) to ease market access; technology and tools necessary for sustainable practices; and information systems to help farmers get fair prices</p>	<p>Investment in new technology and tools can help farmers use resources more efficiently and protect their land</p>	<p>Decreasing isolation and empowering farmers with technology and information will help them increase production and receive prices for their products that are closer to actual world prices</p>
Land conversion (extensification) may result as a consequence of increased production	<p><i>Promote ecosystem health for human well-being</i></p> <p>Enforce land-use laws and protected areas within a national strategy to support small farmers</p>	<p>Land-use laws and enforcement should prevent or at least minimize <i>ad hoc</i> agricultural expansion into environmentally sensitive areas</p>	<p>Where possible, land-use strategies should provide opportunities for poor farmers to maintain production in certain areas—this will require planning carefully around sensitive ecosystems and engaging stakeholders in determining land-use laws</p>
Intensification/increased chemical use could occur with greater production	<p>Provide incentives for—and invest in—sustainable agriculture; pay farmers for provision of ecosystem services and soil conservation (seek donor support, e.g., under multilateral environmental agreements)</p>	<p>Economic incentives should result in more environmentally friendly practices even while increasing production</p>	<p>Payments for ecosystem services could increase farmer incomes</p>

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NOTES

1. This policy note is based on a white paper written by the authors and released by WRI in June 2006: *Reforming Agricultural Subsidies: "No Regrets" Policies for Livelihoods and the Environment* (2006), available online at <http://pubs.wri.org/reformingagricultural-subsidies-pub-4140.html>
2. The Millennium Ecosystem Assessment (MA) was carried out between 2001 and 2005 to assess the consequences of ecosystem change for human well-being, and to establish the scientific bases for actions needed to enhance the conservation and sustainable use of ecosystems. The MA focuses on 'ecosystem services', the benefits people obtain from ecosystems.

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