



for a living planet



Trade and Consequences



...to better understand and address the complex relationships between trade, rural poverty, and environmental change...



Trade matters for WWF because of its very real effects on the people and places where we work.

Poverty reduction achieved through rapid economic transformation in Asia embodies the brighter side of trade and globalization. Deforestation and the displacement of rural livelihoods across Latin America underscore the darker side. Working with a variety of partners from government, academia, business, and civil society, WWF's Macroeconomics Program Office (MPO) is trying to better understand and address the complex relationships between trade, rural poverty, and environmental change.



MPO Project Sites



What follow are insights emerging from our work in ten countries on three continents. Our underlying goal is *to protect, restore, and enhance the natural environment, its services and underlying processes, and the well-being of people who depend on it.*

Activities are ongoing, but we hope these initial findings will begin to reorient the thinking of decision makers at all levels—from the farms of Kenya and forests of Brazil to the conference rooms of Geneva and Washington.

1

Aggregate data fail to capture the underlying complexity of trade's effects on particular people and places.

Real People in Real Places

Trade looks very different at ground level. Trade liberalization is experienced by a farmer in Mexico or a fisherman in Indonesia not as faraway decisions to revise tariffs or quotas, but as the sudden introduction of new products, technologies, markets, competitors, threats, and opportunities.

Trade affects countries, communities, and ecosystems as part of a larger matrix of economic change. Trade liberalization is usually nested within a package of macroeconomic reforms, including the reduction of fiscal imbalances, deregulation of capital controls, and privatization of state-owned enterprises. This makes it harder to identify the direct cause-and-effect relationships between a specific trade event and environmental and social changes in farms and fishing communities.

Yet these intervening factors shape how real people and places respond and adjust to economic change, which is important for determining whether trade actually contributes to sustainable development. **As a driver of economic activity, trade can increase pressures on ecosystems and natural resources—or reduce them.** Clearly, its impacts are not uniform. The push for further trade liberalization is often justified by aggregate data that promise global benefits and generalize about impacts. But aggregates gloss over

the differential effects of trade, capturing neither the short-term economic dislocation nor long-term ecological disruption that can result from it.

We suggest an understanding of trade liberalization that situates it within a context of related macroeconomic reforms. An understanding that takes account of the cascading sets of causes and effects that transform trade as it moves from negotiators' texts through government policies down to the farm gate. An understanding that pays attention to the variations in trade's effects within and between countries and communities. An understanding that enables decision makers to consider the widest range of drivers and institutional and policy alternatives in decisions about the environment.



2

“The combination of ever-growing demands on increasingly degraded ecosystems seriously diminishes the prospects for sustainable development.”

—Millennium Ecosystem Assessment, 2003

Trade can intensify pressure on natural resources and ecosystem services.



Global trade—characterized by burgeoning consumer demand, massive international transfers of capital, and structural realignment of national economies—is accelerating and magnifying the pace, scope, and momentum of economic change.

This change can have significant consequences for the environment and the services it provides. Traditional economic analysis may not prove the linkage between a development policy initiative in Europe and deforestation in Madagascar. Yet our work shows that poor farmers responded directly to a new market opportunity to sell maize in Reunión by clearing a large area of the biodiversity-rich spiny forest of southwestern Madagascar.

Other consequences of trade liberalization can be seen in terms of the scale of economic response (such as the conversion of forests to coffee plantations in Vietnam), the claims of certain products on scarce resources (such as sugar’s demands on water in South Africa), or the structural response of rural economies to new international competition (such as the impact of abruptly increased corn imports on smallholders in Mexico).

Paradoxically, concern over the environmental effects of international trade is expressed largely through academic literature or street protests. Why such a notable absence of responses from the realm of policy?

First, economic analysis—which underpins much of development and trade policy—usually fails to adequately account for the value of the environment and the critical services it provides. Ecosystem services include everything from soil fertility and clean drinking water to flood control by forests and storm protection by coral reefs. Orthodox

Trade and Its Impacts

economic analysis has rarely accounted for the value of these services or treated their loss or degradation as an economic cost. Damage often occurs through cumulative impacts over a long time horizon, making it harder to recognize and address.

Second, trade tends to increase the distance between economic drivers and environmental impacts—such as the burgeoning demand for soy protein in Asia and conversion of forests in South America—so that effects are not geographically or institutionally linked to causes. Likewise, priorities differ between places, as when the conversion of tropical rainforest into cattle pasture leads to concern elsewhere about deforestation’s effect on global climate change. Another example has been the preoccupation of trade negotiators in developing countries with the stringent environmental standards that wealthy member states of the Organisation for Economic Co-operation and Development (OECD) increasingly apply to agricultural imports.

Third, the international trade regime fails to account for the fundamental linkage between poverty reduction and environmental protection.

Many of the world’s most threatened ecosystems are inhabited by people who are vulnerable because of poverty, dependence on natural resources, and lack of political control over those resources. When forests or fishing areas are oriented toward export production or degraded by overuse, the people who depend most directly on those resources are the first to bear the costs. As they lose access to productive resources, these people may be driven into ever-worsening cycles of poverty and environmental degradation. While much analysis of trade liberalization evaluates its potential to reduce poverty, it disregards a substantial body of evidence that directly links alleviating poverty among vulnerable people with protecting the environment and ecosystem services.

3

Trade further complicates the highly contested process of environmental decision-making.



Winners and Losers

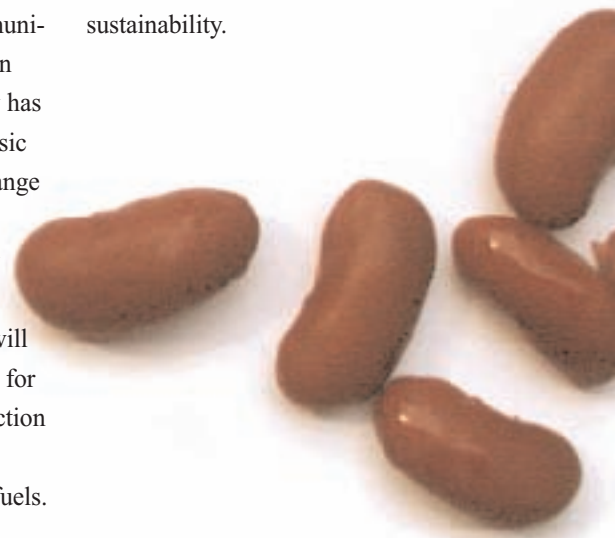
Economic change, accelerated by trade liberalization, leads to increased demand for access to natural resources and ecosystem services because they are limited, scarce, and fragile, and because their costs and benefits are not distributed equally. Inevitably, this forces difficult trade-offs across a variety of scales (local, national, or international); between different claimants (rural and urban residents, farmers and herders, smallholders and industrial farms); or between different interests (economic growth and environmental quality, or even between environmental services themselves). Improving the productivity of agricultural land, for instance, can degrade downstream drinking water.

Whether the resolution of these trade-offs promotes long-term sustainable development or further impoverishment and environmental degradation depends on the structures and processes of governance. The approach governments and the international development community most often advocate has been the application of technical tools, such as environmental impact assessments and cost-benefit analyses.

Yet resource governance is not a purely technical activity, but a deeply political process. Too often, trade-offs are made within the existing confines of political economy; through the raw exercise of power and privilege; or even through violent conflict. So it is important to build greater local capacity for decision-making and participation. Open, accountable, and transparent mechanisms for stakeholder dialogue and collaborative management will help to address inevitable trade-offs and mediate between competing interests, even if they rarely yield win/win solutions.

In South Africa's Inkomati River Basin, for instance, sugar farmers are uneasily sharing water with other agricultural producers, rural communities, and downstream claimants. An innovative new national water law has recognized access to water as a basic human right and brought a wide range of competing claimants into the process of deciding how to locally apportion a scarce resource. This approach to mediating trade-offs will be tested further as demand grows for South African sugar with the reduction of OECD sugar subsidies and the increase in global demand for biofuels.

The global trade regime is a blunt tool for achieving changes on the ground. Greening trade rules through the World Trade Organization is important, but cannot resolve thorny problems of adjustment to trade-related change for individual countries or communities. Nor can it manage the process of actually mediating resource trade-offs. Yet in the absence of formal mechanisms that bring different stakeholders to the same table, trade rules, national poverty reduction strategies, and the standards of the global value chain are resolving trade-offs, determining outcomes, and adjudicating the fate of vulnerable people and places at the point of environmental consequence, with insufficient attention paid to important issues of equity and sustainability.





An example: seeking to balance trade-offs

Kenya has become the largest producer and exporter of cut flowers in Africa. Much of the industry is located around Lake Naivasha, a fragile ecosystem that is internationally recognized by the Ramsar Convention on Wetlands. But significant tensions have arisen with the explosive growth of the industry. Conflicts over access to the lake pit Maasai pastoralists against large-scale, foreign-owned flower farms. Small-scale farmers along Lake Naivasha's river catchments have vocally protested issues of inequity; they see their development interests being constrained by efforts to maintain flows into the lake. And urban residents oppose the waiver of local taxes for the flower farms, even as the town populations grow in response to the employment opportunities generated by the flower industry.

When the national government suggested environmental impact assessments (a purely technical approach) as a vehicle for resolving these competing claims, local stakeholders concluded that the required conversion of benefits and costs into monetary values was not particularly useful—or even possible—for decision-making. Instead, they proposed to identify alternative outcomes and provide additional information about the specific relationships between stakeholders and the services provided



by the Lake Naivasha ecosystem. Decision makers can then apply their own institutional methods to assess and negotiate the trade-offs between competing claims. This locally defined process, centered on issues of real consequence to the area's stakeholders, demonstrates the importance of situating efforts to protect the environment squarely within the realm of national and subnational priorities and policies.

4

Addressing the environmental effects of trade requires actions at different levels.

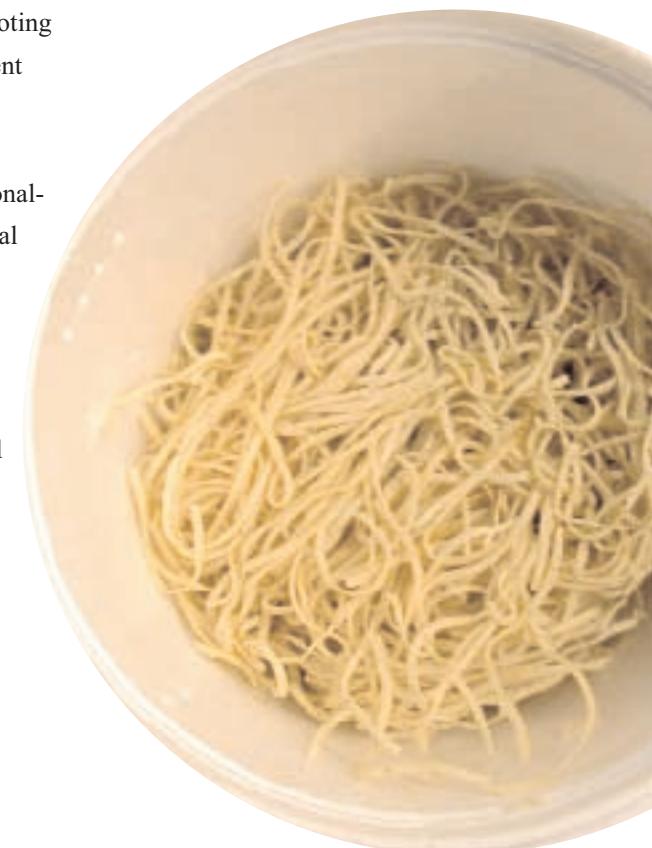


Responses and Interventions

There are different perspectives from which to consider response options and strategic interventions to make trade liberalization more sustainable and equitable. Interventions may respond directly to on-the-ground environmental changes such as land conversion, soil erosion, or water depletion. These impacts are typically addressed by prescriptive regulatory measures that are fundamentally dependent on institutional capacity and political will. Alternatively, there are opportunities to work directly with the private sector in promoting the adoption of best management practices (BMPs).

But these kinds of interventions do not reach to first principles that create the enabling conditions to better achieve core human development and sustainability goals. **Addressing the effects of trade on the environment, direct or indirect, requires treating not just symptoms, but the deeper drivers of change.** This means beginning at ground level and working back up the chain of causes and effects—touching on seemingly unrelated areas such as land tenure, rural credit, fiscal policy, or national development strategies.

These local, regional, and national-level responses to environmental change are clearly important in dealing with the specifics of particular cases and making local trade-offs that produce better environmental and social outcomes.



An innovative mix of strategic responses and interventions is clearly needed to respond to the growing array of trade-related environmental pressures. Considering the complexity of local conditions and the range of possible responses, it is impossible to derive general recommendations—but four areas are highlighted here.

Land Use Planning and Zoning

Governments and farmers share an interest in locating agricultural production where it has the best chance of economic success. Ideally, locations should overlap with areas where farming has minimal impacts on the surrounding ecosystem, and where it provides a healthy livelihood. This is not often the case in practice. However, biodiversity, habitat, and ecosystem services can be protected through careful land use planning that takes account of the larger landscape in which agricultural activities are embedded. Retiring marginal lands from production, rehabilitating degraded lands, and practicing “ecoagriculture” (farming with biodiversity) are other examples of on-the-ground interventions.

Payments for Ecosystem Services

The benefits that society obtains from ecosystems have traditionally not been quantified, nor have land users been compensated for the services their lands provide. As a result, these services are rarely taken into account when land use decisions are made. Ecologists now know a great deal about how ecosystems work, which services they supply, and in what quantity. Significant progress has also

Four responses to the environmental effects of increased trade

been made toward developing techniques for valuing environmental costs and benefits. There have been promising efforts to develop systems in which beneficiaries of ecosystem services (e.g., watershed conservation or carbon sequestration) pay back their providers. Compensating land users for the ecosystem services they protect provides additional incentives for conservation and contributes to rural development.

Better Management Practices

As competition increases in the global economy, the most efficient producers will survive owing to their ability to identify, adopt, or invent practices that reduce input use, waste, and pollution. International standards and support from industry, government, and donor organizations are driving this trend. But efficiency improvements typically require sophisticated technologies that come at considerable cost. In developing countries, the necessary capital and technology may be available only to larger-scale commercial agricultural operations or those with foreign ownership. In such cases, technology dissemination cannot be left solely to the market. National strategies for rural development and foreign investment need

to be fine-tuned to ensure genuine poverty reduction and equity.

Place- and Sector-based Approaches

Regulatory instruments may be appropriate for addressing localized environmental impacts, but some pressures escape traditional regulatory boundaries. Government regulation based on the “polluter pays” principle, and commodity certification schemes focused on individual units of production, cannot account for environmental effects at the landscape scale. And economic approaches to livelihoods generally focus at the household level and overlook broader effects on communities. Place- and sector-based approaches to regulation can open new avenues for addressing the broader effects of trade. There are innovative opportunities to move beyond farm boundaries (through cap-and-trade schemes), beyond governments (to producer associations, insurers, and purchasers), and beyond regulation (through certification and investment screens).

Our work in China and Mexico demonstrates that empowering communities close to and dependent on the natural resource base can mitigate environmental impacts at larger scales. This approach, which stems from WWF-MPO’s larger work around the root causes of environmental problems, is based on the conviction that enduring changes in resource management and rural livelihoods will take hold only if supporting institutions, policies, and practices are linked across levels. This has been captured by WWF-MPO as the 3xM Approach.

3xM approach: micro/meso/macro

Building effective intervention strategies requires rigorous economic, ecological, and institutional analyses that cut across the different levels of a society.

Changing the poverty-environment dynamic requires removing obstacles at the local (micro) level that prevent people from competing economically, improving management of their natural resources, and participating in political processes.

Changing institutional arrangements and policies at subnational (meso) and national (macro) levels establishes a coherent policy and institutional context in which local initiatives can thrive.

Building alliances between rural communities and a wide range of advocates, experts, and supporting institutions in urban areas helps to effect the institutional and policy changes required across the three levels.



5

Trade and Sustainability

Trade is a means to an end, not an end in itself.



Around the world, trade-led growth has moved to center stage. Though some economists admit that trade openness forms only part of a successful development strategy, international trade—particularly export agriculture—increasingly serves as the centerpiece of national development strategies. Institutions from the OECD to the World Bank have made trade a sine qua non for development, and trade policy has largely replaced development policy in many economic plans and poverty reduction strategies.

Trade liberalization can, and often does, make an important contribution toward economic growth and poverty reduction. But it is not the same thing as sustainable development. If the goal is to create healthy livelihoods while carefully managing natural resources and environmental services, then a one-size-fits-all trade-led strategy is not necessarily the answer for each and every developing country.

Export agriculture and trade liberalization can play a useful role but may not be the best means of reducing the economic and environmental risks facing the world's most vulnerable people and places.

Developing countries should consider alternative approaches to development and poverty reduction, such as sequencing and pacing trade liberalization; promoting the growth of domestic markets and regional trade; and better regulating to foreign direct investment.

Evaluating the actual contributions of trade to development should begin from an understanding of the essential linkage between poverty reduction and environmental protection. Trade liberalization is a potential means to an important end—sustainable development—and not as an end in itself. It should lead to tangible improvements in human well-being, and it should not compromise the capacity of ecosystems to support these improvements.

An example: choices in West Africa

Major international institutions argue that export agriculture on irrigated lands, supported by foreign direct investment, is the key to economic growth and poverty reduction in sub-Saharan Africa. In West Africa, this strategy has resulted in significant disinvestment in the production of dryland food crops by smallholders—which means disinvestment in the lands, livelihoods, and market opportunities available to most people. The result has been declining productivity in millets and sorghum, migration onto the fragile margins of the Sahel, and increasing vulnerability to the vagaries of climate. In many parts of Africa, improving the productivity of small-scale farming for local markets—as a way to generate income, achieve food security, and relieve demographic pressure to expand onto marginal lands—may be a more sustainable development strategy than converting scarce fertile lands into plantations of mangos or green beans for export.

Conclusions

It is time to re-center trade analysis and debate around real people and places.

While trade liberalization is moderated by intervening layers of policies and institutions and a variety of other factors, its impacts can be significant. Yet the international trade regime cannot calibrate its rules to the complexity of the environment and to the needs of different people in different places. It is time to re-center trade analysis and debate around real people and places, moving the locus of debate away from international rules and toward national policies and institutions, “from negotiations to adjustment.” Focusing on what happens on the ground, and understanding how people actually interact with their environments, should be central to evaluating trade and its contributions to sustainable development. Ultimately, this will mean developing interventions at the point of economic and environmental consequence; making tradeoffs over resources more explicit; and giving a wider range of stakeholders a greater role in the process of resolving those trade-offs.



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WWF's Macroeconomics for Sustainable Development Program Office (MPO) develops analysis and undertakes interventions to address the environmental implications of a changing global economy, from structural adjustment programs to trade liberalization. For nearly twenty years, MPO has focused on the root causes of biodiversity loss, the role of the environment in the lives of the poor, and the relationships between human and environmental vulnerability.

Through collaboration with a wide range of partners and stakeholders, MPO's Trade Program seeks to promote a better understanding of the relationships between trade, human development, and sustainability; and to ensure that trade liberalization does not harm critical ecosystems and the rural poor who depend upon them.

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